



PMI RESEARCH & DEVELOPMENT

Study ZRHM-PK-05-JP **Clinical Study Report Appendix 15.4** **Statistical Output**

Study Title:	A single-center, open-label, randomized, controlled, crossover study to investigate the nicotine pharmacokinetic profile and safety of Tobacco Heating System 2.2 Menthol (THS 2.2 Menthol) following single use in smoking, healthy subjects compared to menthol conventional cigarettes and nicotine gum
Short Title:	Nicotine pharmacokinetic profile and safety of Tobacco Heating System 2.2 Menthol (THS 2.2 Menthol)
Study Number:	ZRHM-PK-05-JP
Product Name:	Tobacco Heating System 2.2 Menthol (THS 2.2 Menthol)
Study Initiated (first subject screened):	01 August 2013
Study Completed (last subject last visit):	16 November 2013
Principal Investigator and Affiliation:	F. Nobuoka, MD Ageo Medical Clinic 3133 Haraichi, Ageo City Saitama 362-0021, Japan
Sponsor:	Philip Morris Products S.A. PMI Research & Development Quai Jeanrenaud 5 2000 Neuchâtel, Switzerland
Sponsor Signatories:	Christelle Haziza, PhD, Manager P1 Clinical Program, Clinical Scientist Andrea Donelli, Clinical Scientist Nicola Lama, PhD, Biostatistician Patrick Picavet, MD, Medical Safety Officer
Version:	1.0
Date:	12 May 2015

This study was conducted in accordance with Good Clinical Practice.

Confidentiality Statement

This document is confidential. Disclosure of any of its contents to third parties is not permitted except by the prior written consent of Philip Morris Products S.A.



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15.4 STATISTICAL OUTPUT



15.4.1 Disposition and Background Data

Not applicable.



15.4.2 Product Use

Not applicable.



15.4.3 Primary Endpoints

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	43	0002 0005 0010 0013 0024 0025 0027 0031 0039 0040 0043 0045 0049 0050 0052 0054 0066 0067 0070 0071 0073 0074 0075 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 86

Number of Observations Used 86

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	44	46.68116281	1.06093552	3.13	0.0002
Error	41	13.90300193	0.33909761		
Corrected Total	85	60.58416474			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.770518	23.96414	0.582321	2.429968

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.24855812	0.24855812	0.73	0.3969
SUBJID (TRTSEQA)	41	44.04680073	1.07431221	3.17	0.0002
APERIODC	1	2.06338510	2.06338510	6.08	0.0179
TREAT	1	0.32241886	0.32241886	0.95	0.3352

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.24855812	0.24855812	0.73	0.3969
SUBJID (TRTSEQA)	41	44.04680073	1.07431221	3.17	0.0002
APERIODC	1	2.02451689	2.02451689	5.97	0.0189
TREAT	1	0.32241886	0.32241886	0.95	0.3352

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.36997221	0.3352
mCC	2.49246442	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.369972	2.190582	2.549362
mCC	2.492464	2.313074	2.671854

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.122492	-0.376190	0.131206

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	43	0002 0005 0010 0013 0024 0025 0027 0031 0039 0040 0043 0045 0049 0050 0052 0054 0066 0067 0070 0071 0073 0074 0075 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 86

Number of Observations Used 86

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	44	47.00019183	1.06818618	5.24	<.0001
Error	41	8.35431087	0.20376368		
Corrected Total	85	55.35450269			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.849076	14.17276	0.451402	3.184997

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.64184155	0.64184155	3.15	0.0834
SUBJID (TRTSEQA)	41	43.68797027	1.06556025	5.23	<.0001
APERIODC	1	2.66273873	2.66273873	13.07	0.0008
TREAT	1	0.00764128	0.00764128	0.04	0.8474

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.64184155	0.64184155	3.15	0.0834
SUBJID (TRTSEQA)	41	43.68797027	1.06556025	5.23	<.0001
APERIODC	1	2.65467005	2.65467005	13.03	0.0008
TREAT	1	0.00764128	0.00764128	0.04	0.8474

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.17757777	0.8474
mCC	3.19643515	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.177578	3.038519	3.316637
mCC	3.196435	3.057376	3.335494

**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

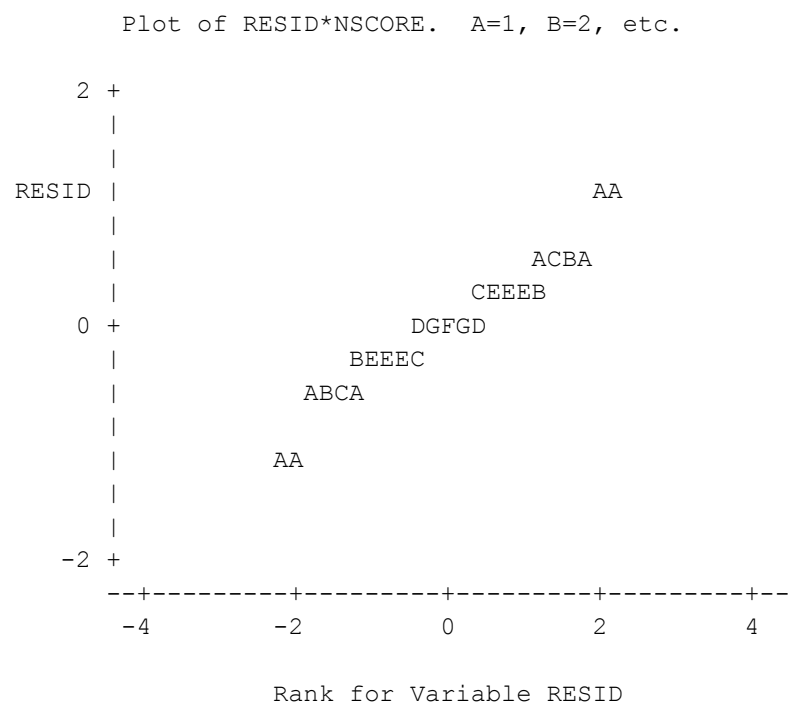
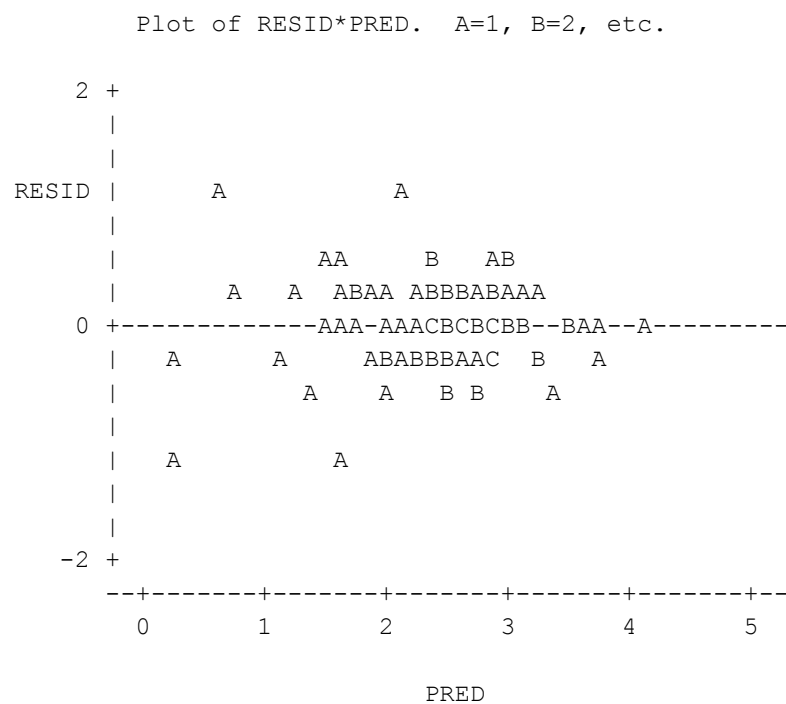
Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i)-LSMean(j)	
1	2	-0.018857	-0.215518	0.177803

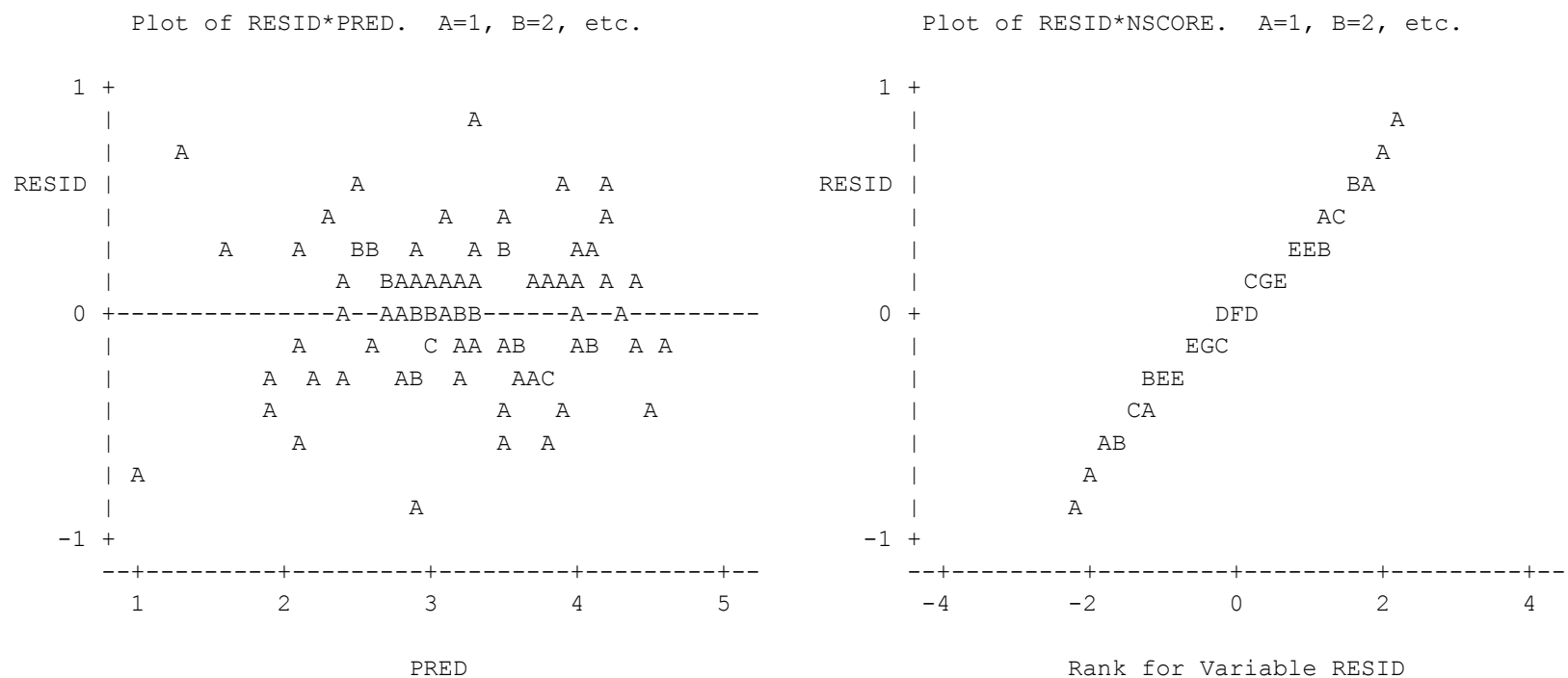
**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: C_{\max} (ng/mL)

Residual Plots



**Listing 15.4.3.1 Analysis of Primary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Residual Plots



**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	23	0002 0005 0010 0013 0024 0025 0027 0031 0039 0040 0043 0045 0049 0050 0052 0054 0128 0129 0134 0139 0140 0142 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 46

Number of Observations Used 46

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	24	25.96249114	1.08177046	3.94	0.0012
Error	21	5.76380337	0.27446683		
Corrected Total	45	31.72629451			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.818327	22.04013	0.523896	2.377009

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.46940219	1.46940219	5.35	0.0309
SUBJID (TRTSEQA)	21	23.46726004	1.11748857	4.07	0.0011
APERIODC	1	1.01658736	1.01658736	3.70	0.0679

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.00924155	0.00924155	0.03	0.8562

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.46940219	1.46940219	5.35	0.0309
SUBJID (TRTSEQA)	21	23.46726004	1.11748857	4.07	0.0011
APERIODC	1	1.00626265	1.00626265	3.67	0.0692
TREAT	1	0.00924155	0.00924155	0.03	0.8562

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.37059981	0.8562
mCC	2.39897471	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.370600	2.143208	2.597992
mCC	2.398975	2.171583	2.626366

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.028375	-0.349961	0.293211

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	20	0066 0067 0070 0071 0073 0074 0075 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113 0135 0136 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 40

Number of Observations Used 40

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	20.66682310	0.98413443	2.24	0.0446
Error	18	7.91367108	0.43964839		
Corrected Total	39	28.58049418			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.723109	26.61961	0.663060	2.490870

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.34177666	0.34177666	0.78	0.3896
SUBJID (TRTSEQA)	18	18.73954389	1.04108577	2.37	0.0378
APERIODC	1	1.05064434	1.05064434	2.39	0.1395

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.53485820	0.53485820	1.22	0.2846

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.34177666	0.34177666	0.78	0.3896
SUBJID (TRTSEQA)	18	18.73954389	1.04108577	2.37	0.0378
APERIODC	1	1.05064434	1.05064434	2.39	0.1395
TREAT	1	0.53485820	0.53485820	1.22	0.2846

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.37523509	0.2846
mCC	2.60650510	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.375235	2.063743	2.686728
mCC	2.606505	2.295013	2.917998

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i)-LSMean(j)	
1	2	-0.231270	-0.671795	0.209255

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: <= 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	25	0002 0010 0013 0024 0027 0031 0039 0040 0043 0049 0052 0054 0071 0073 0074 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 50

Number of Observations Used 50

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{max} (ng/mL) By Group: <= 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	26	13.02409630	0.50092678	3.75	0.0010
Error	23	3.07600861	0.13373950		
Corrected Total	49	16.10010491			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.808945	14.24424	0.365704	2.567383

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.25724222	0.25724222	1.92	0.1788
SUBJID (TRTSEQA)	23	12.27814830	0.53383253	3.99	0.0008
APERIODC	1	0.13615460	0.13615460	1.02	0.3235

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: <= 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.35255118	0.35255118	2.64	0.1181

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.25724222	0.25724222	1.92	0.1788
SUBJID (TRTSEQA)	23	12.27814830	0.53383253	3.99	0.0008
APERIODC	1	0.11898747	0.11898747	0.89	0.3554
TREAT	1	0.35255118	0.35255118	2.64	0.1181

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: <= 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.64854891	0.1181
mCC	2.48047365	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.648549	2.497124	2.799973
mCC	2.480474	2.329049	2.631898

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{max} (ng/mL) By Group: ≤ 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i)-LSMean(j)	
1	2	0.168075	-0.046075	0.382225

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0005 0025 0045 0050 0066 0067 0070 0075 0128 0129 0134 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	34.81255478	1.83223973	3.95	0.0039
Error	16	7.41605118	0.46350320		
Corrected Total	35	42.22860596			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.824383	30.40537	0.680811	2.239114

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00000000	0.00000000	0.00	0.9999
SUBJID (TRTSEQA)	16	29.50451445	1.84403215	3.98	0.0044
APERIODC	1	3.18736470	3.18736470	6.88	0.0185

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	2.12067563	2.12067563	4.58	0.0482

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00000000	0.00000000	0.00	0.9999
SUBJID (TRTSEQA)	16	29.50451445	1.84403215	3.98	0.0044
APERIODC	1	2.60002242	2.60002242	5.61	0.0308
TREAT	1	2.12067563	2.12067563	4.58	0.0482

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.99489370	0.0482
mCC	2.48333613	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	1.994894	1.652596	2.337191
mCC	2.483336	2.141038	2.825634

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i)-LSMean(j)	
1	2	-0.488442	-0.972533	-0.004351

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	23	0002 0005 0010 0013 0024 0025 0027 0031 0039 0040 0043 0045 0049 0050 0052 0054 0128 0129 0134 0139 0140 0142 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 46

Number of Observations Used 46

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	24	23.36004207	0.97333509	6.53	<.0001
Error	21	3.13216610	0.14915077		
Corrected Total	45	26.49220817			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.881770	11.69430	0.386200	3.302467

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	3.83888984	3.83888984	25.74	<.0001
SUBJID (TRTSEQA)	21	18.39807342	0.87609873	5.87	<.0001
APERIODC	1	1.02112030	1.02112030	6.85	0.0161

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.10195851	0.10195851	0.68	0.4176

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	3.83888984	3.83888984	25.74	<.0001
SUBJID (TRTSEQA)	21	18.39807342	0.87609873	5.87	<.0001
APERIODC	1	0.99135156	0.99135156	6.65	0.0175
TREAT	1	0.10195851	0.10195851	0.68	0.4176

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.26791444	0.4176
mCC	3.36216278	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.267914	3.100288	3.435541
mCC	3.362163	3.194536	3.529789

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.094248	-0.331312	0.142815

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: AUC_(0-last) (h*ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	20	0066 0067 0070 0071 0073 0074 0075 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113 0135 0136 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 40

Number of Observations Used 40

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	22.48387005	1.07066048	3.84	0.0028
Error	18	5.01369062	0.27853837		
Corrected Total	39	27.49756066			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.817668	17.30438	0.527767	3.049907

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78781822	0.78781822	2.83	0.1099
SUBJID (TRTSEQA)	18	19.94029646	1.10779425	3.98	0.0027
APERIODC	1	1.71355436	1.71355436	6.15	0.0232

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.04220100	0.04220100	0.15	0.7017

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78781822	0.78781822	2.83	0.1099
SUBJID (TRTSEQA)	18	19.94029646	1.10779425	3.98	0.0027
APERIODC	1	1.71355436	1.71355436	6.15	0.0232
TREAT	1	0.04220100	0.04220100	0.15	0.7017

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.08238784	0.7017
mCC	3.01742555	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.082388	2.834453	3.330323
mCC	3.017426	2.769491	3.265360

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Female

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)	
1	2	0.064962	-0.285677	0.415601

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	25	0002 0010 0013 0024 0027 0031 0039 0040 0043 0049 0052 0054 0071 0073 0074 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 50

Number of Observations Used 50

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	26	23.53138558	0.90505329	8.72	<.0001
Error	23	2.38821725	0.10383553		
Corrected Total	49	25.91960283			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.907861	10.06091	0.322235	3.202844

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.31649023	0.31649023	3.05	0.0942
SUBJID (TRTSEQA)	23	21.75692609	0.94595331	9.11	<.0001
APERIODC	1	0.64231464	0.64231464	6.19	0.0206

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	0.81565462	0.81565462	7.86	0.0101

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.31649023	0.31649023	3.05	0.0942
SUBJID (TRTSEQA)	23	21.75692609	0.94595331	9.11	<.0001
APERIODC	1	0.58473320	0.58473320	5.63	0.0264
TREAT	1	0.81565462	0.81565462	7.86	0.0101

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg
Proc GLM Procedure
The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means
Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.32748442	0.0101
mCC	3.07183439	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.327484	3.194059	3.460910
mCC	3.071834	2.938409	3.205260

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg
Proc GLM Procedure
The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means
Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference Between Means	Simultaneous 95% Confidence Limits for $LSMean(i) - LSMean(j)$	
1	2	0.255650	0.066955	0.444345

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0005 0025 0045 0050 0066 0067 0070 0075 0128 0129 0134 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	25.97657998	1.36718842	6.40	0.0002
Error	16	3.42027280	0.21376705		
Corrected Total	35	29.39685278			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.883652	14.63035	0.462349	3.160209

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.30960992	0.30960992	1.45	0.2463
SUBJID (TRTSEQA)	16	21.90873849	1.36929616	6.41	0.0003
APERIODC	1	2.48878174	2.48878174	11.64	0.0036

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TREAT	1	1.26944983	1.26944983	5.94	0.0269

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.30960992	0.30960992	1.45	0.2463
SUBJID (TRTSEQA)	16	21.90873849	1.36929616	6.41	0.0003
APERIODC	1	2.08118173	2.08118173	9.74	0.0066
TREAT	1	1.26944983	1.26944983	5.94	0.0269

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.98162391	0.0269
mCC	3.35953013	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.981624	2.749164	3.214084
mCC	3.359530	3.127070	3.591990

**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg

Proc GLM Procedure

The where clause used on the dataset adam.adpp: anl01fl='Y' and pprotfl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

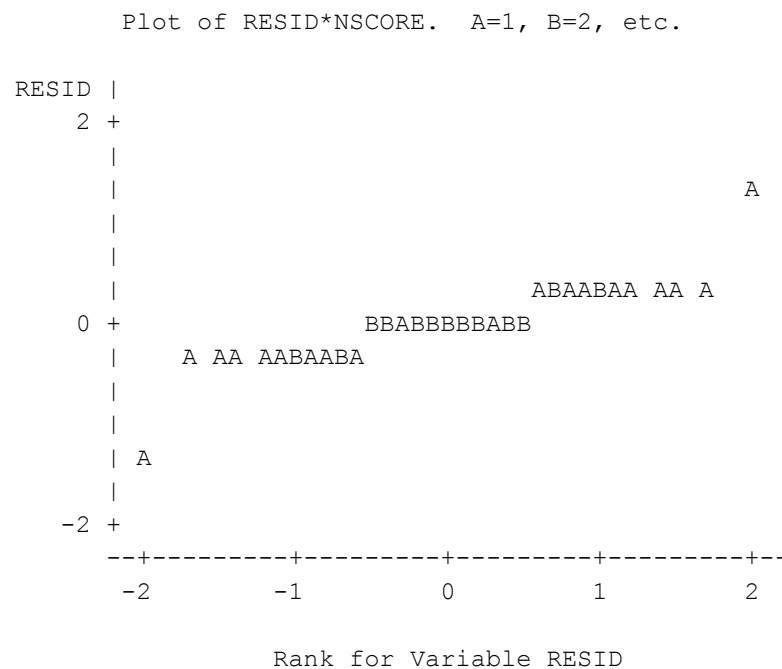
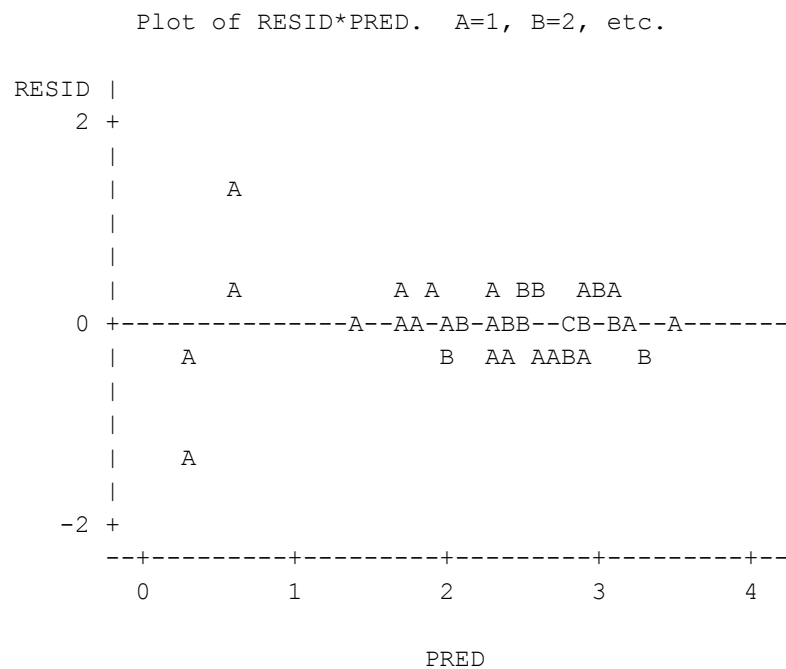
		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i)-LSMean(j)	
1	2	-0.377906	-0.706660	-0.049152

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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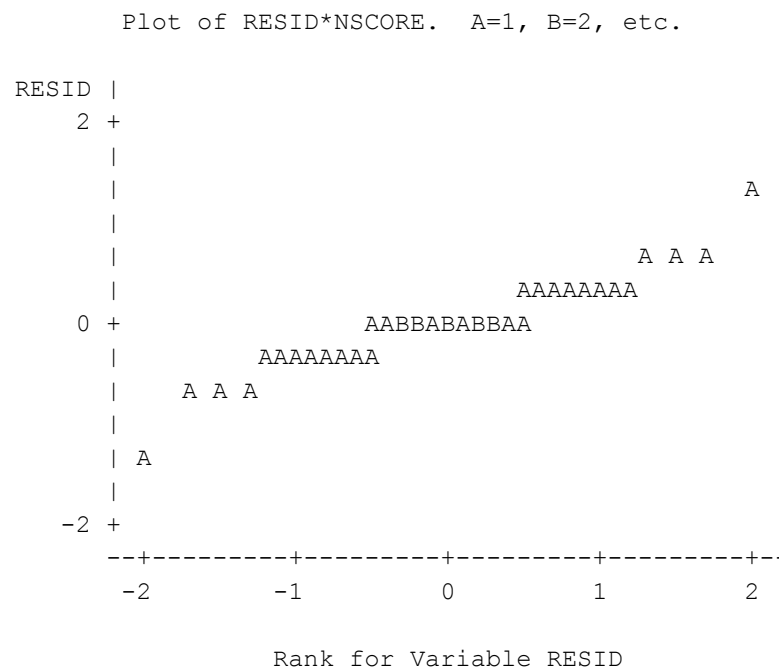
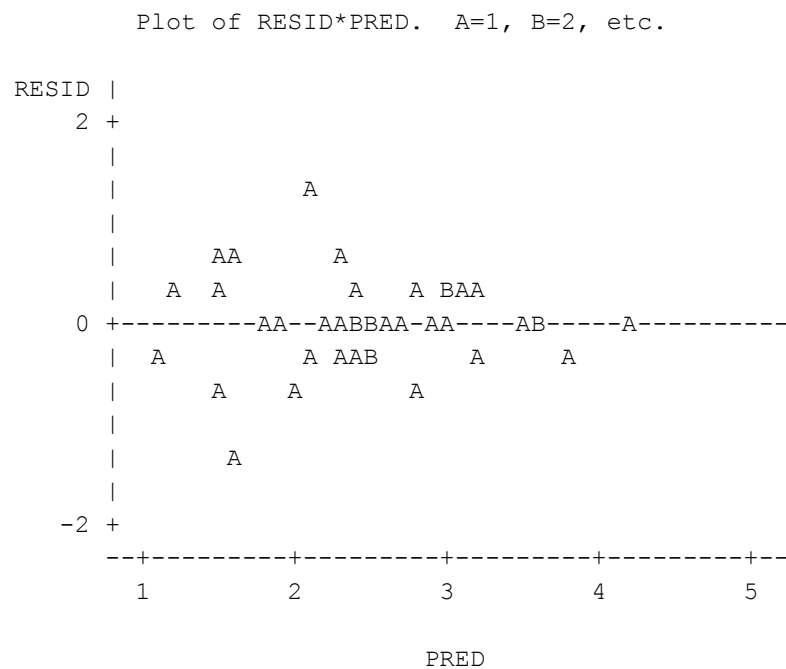
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: Male
Residual Plots



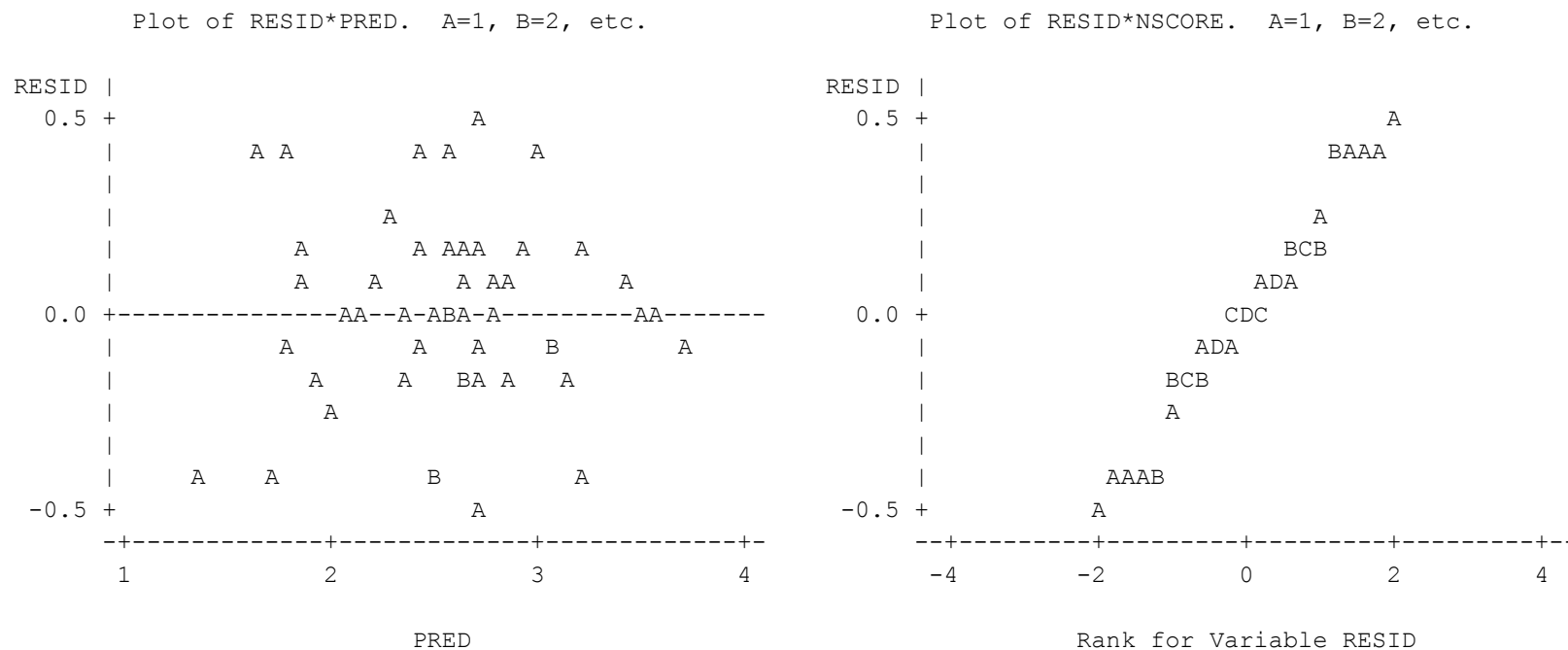
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: Female
Residual Plots



**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

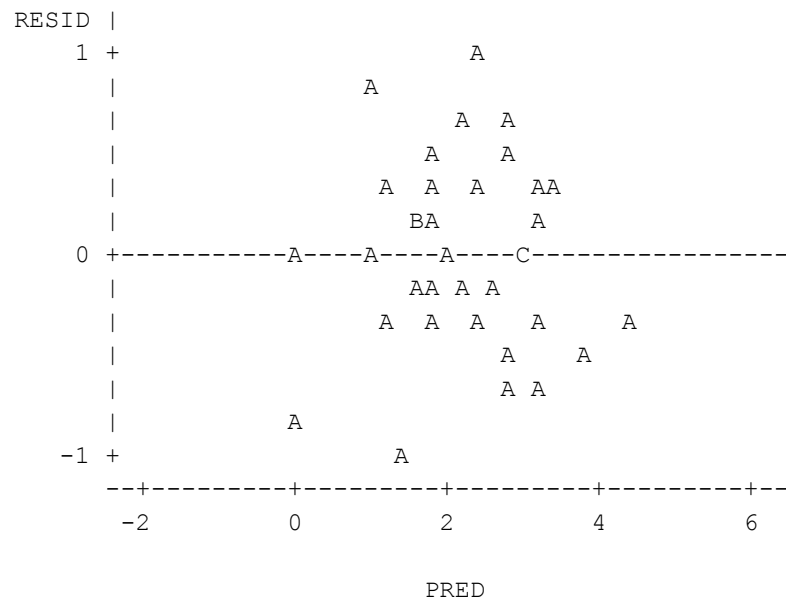
Parameter: C_{\max} (ng/mL) By Group: ≤ 0.6 mg
Residual Plots



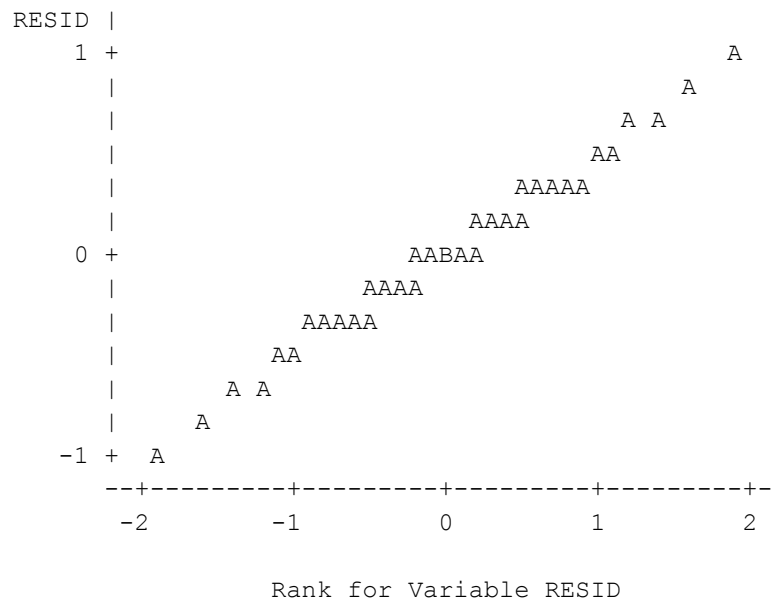
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: C_{\max} (ng/mL) By Group: > 0.6 - 1.0 mg
Residual Plots

Plot of RESID*PRED. A=1, B=2, etc.

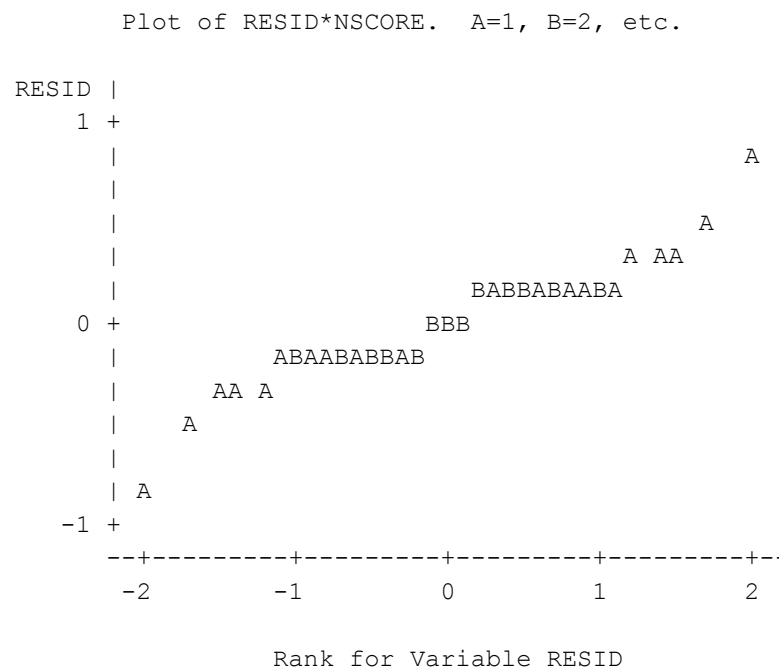
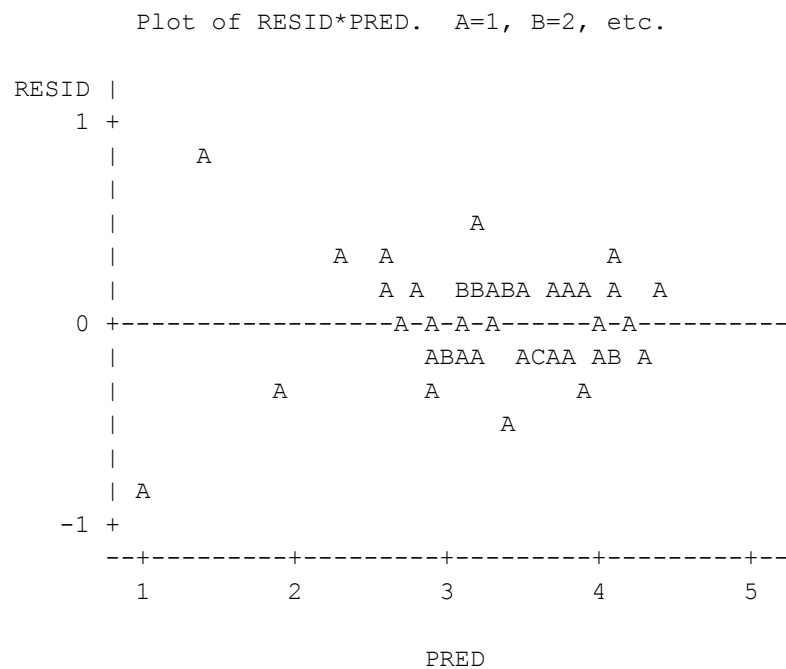


Plot of RESID*NSCORE. A=1, B=2, etc.



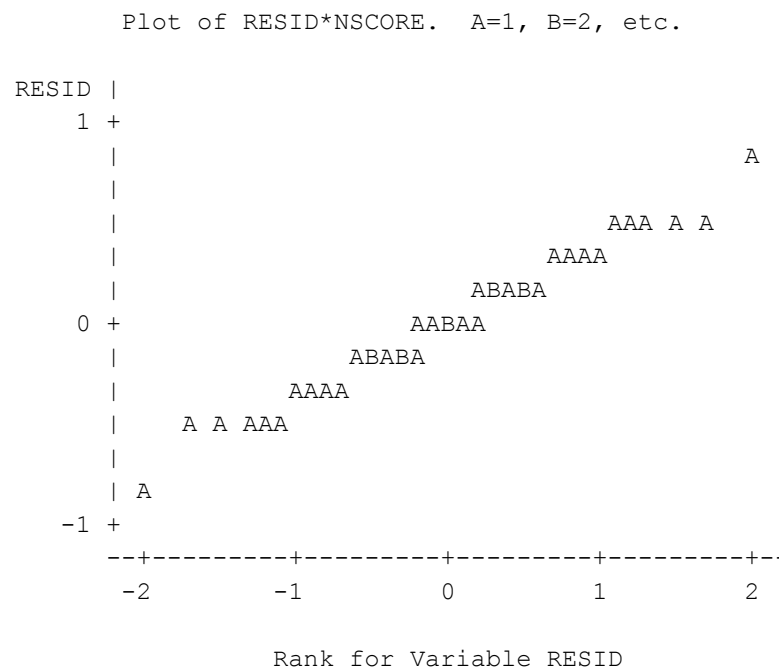
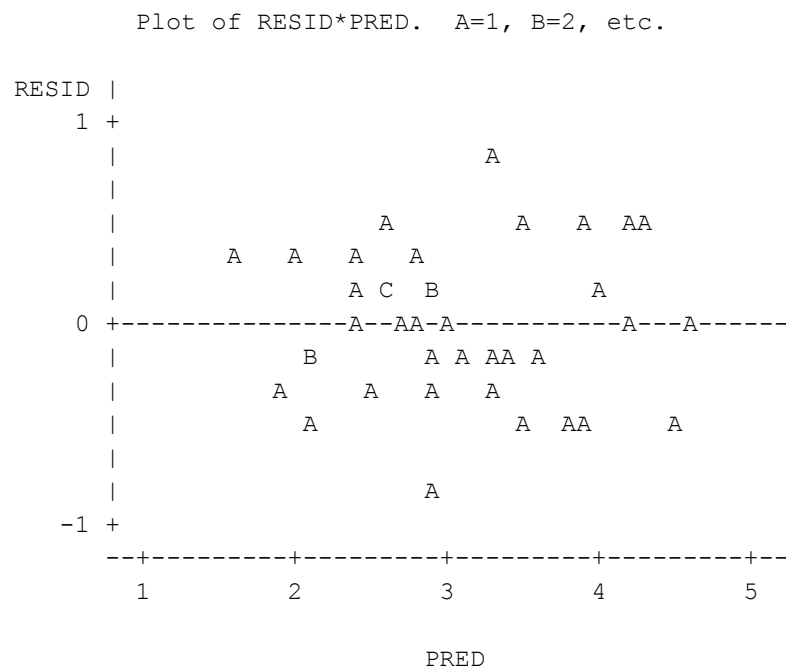
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Male
Residual Plots



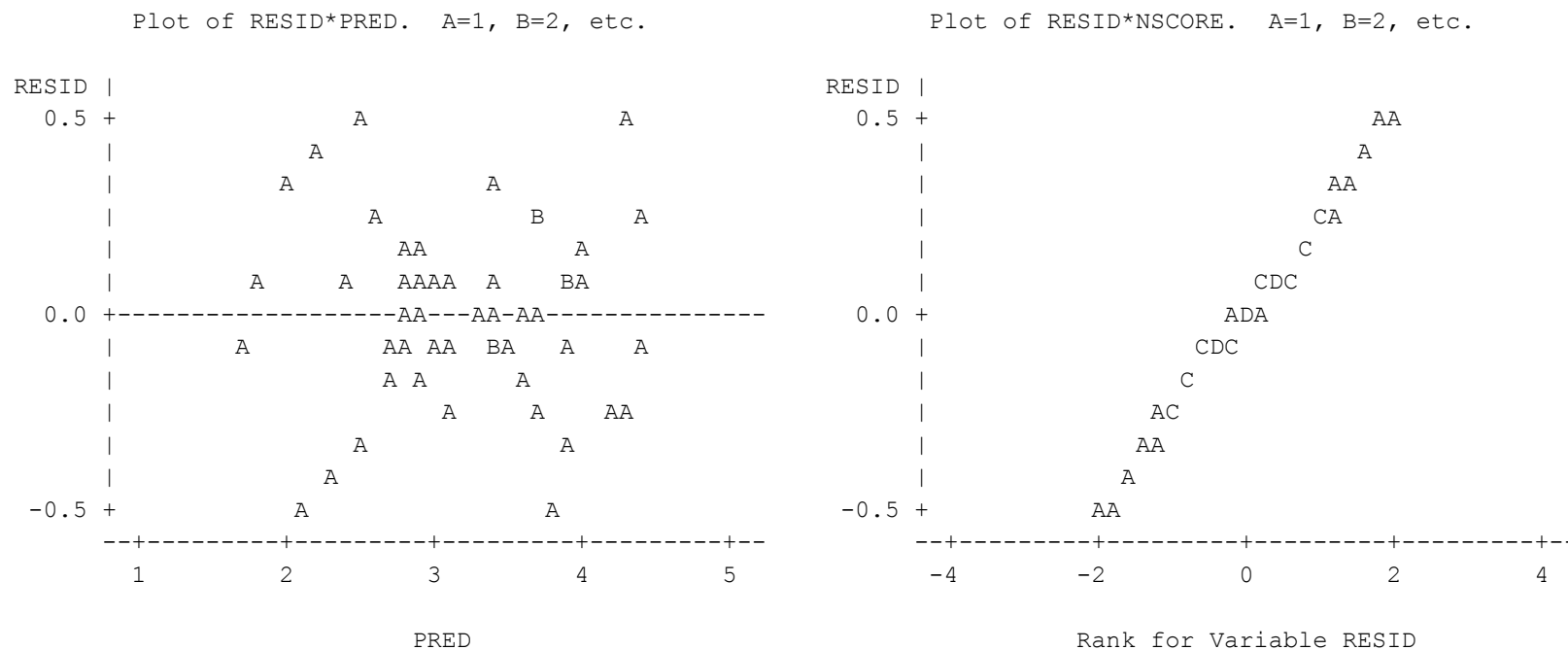
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: Female
Residual Plots



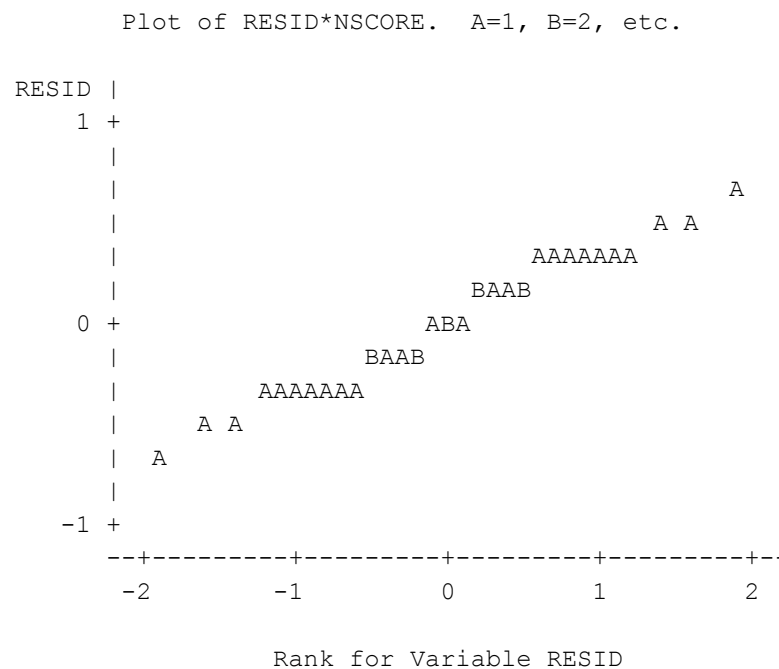
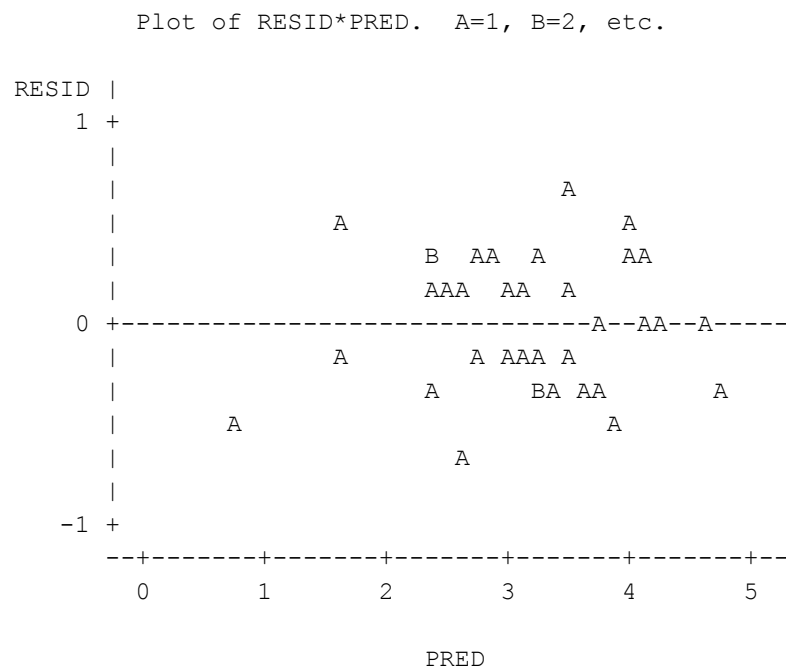
**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: ≤ 0.6 mg
Residual Plots



**Listing 15.4.3.2 Analysis of Primary Pharmacokinetic Parameters of Nicotine by Sex and Nicotine Level - Group-1 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL) By Group: > 0.6 - 1.0 mg
Residual Plots





15.4.4 Secondary Endpoints

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	34	0005 0013 0024 0025 0031 0039 0040 0043 0045 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0090 0093 0097 0102 0105 0128 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 68

Number of Observations Used 68

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	35	33.03818298	0.94394809	5.73	<.0001
Error	32	5.26798747	0.16462461		
Corrected Total	67	38.30617045			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.862477	12.30650	0.405740	3.296953

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00308032	0.00308032	0.02	0.8921
SUBJID(TRTSEQA)	32	31.28567187	0.97767725	5.94	<.0001
APERIODC	1	1.70425483	1.70425483	10.35	0.0030
TREAT	1	0.04517595	0.04517595	0.27	0.6040

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00308032	0.00308032	0.02	0.8921
SUBJID(TRTSEQA)	32	31.28567187	0.97767725	5.94	<.0001
APERIODC	1	1.66592670	1.66592670	10.12	0.0033
TREAT	1	0.04517595	0.04517595	0.27	0.6040

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.27073653	0.6040
mCC	3.32237602	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.270737	3.128753	3.412720
mCC	3.322376	3.180393	3.464359

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.051639	-0.252437	0.149158

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	43	0002 0005 0010 0013 0024 0025 0027 0031 0039 0040 0043 0045 0049 0050 0052 0054 0066 0067 0070 0071 0073 0074 0075 0076 0082 0084 0089 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read	86
Number of Observations Used	86

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	44	68.26365632	1.55144673	4.22	<.0001
Error	41	15.07548499	0.36769476		
Corrected Total	85	83.33914131			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.819107	-159.4636	0.606378	-0.380261

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	2.97683300	2.97683300	8.10	0.0069
SUBJID(TRTSEQA)	41	61.25475688	1.49401846	4.06	<.0001
APERIODC	1	2.16303336	2.16303336	5.88	0.0198
TREAT	1	1.86903308	1.86903308	5.08	0.0296

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	2.97683300	2.97683300	8.10	0.0069
SUBJID(TRTSEQA)	41	61.25475688	1.49401846	4.06	<.0001
APERIODC	1	2.06938026	2.06938026	5.63	0.0225
TREAT	1	1.86903308	1.86903308	5.08	0.0296

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	-0.52339417	0.0296
mCC	-0.22847247	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	-0.523394	-0.710195	-0.336593
mCC	-0.228472	-0.415274	-0.041671

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.294922	-0.559101	-0.030743

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	34	0005 0013 0024 0025 0031 0039 0040 0043 0045 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0090 0093 0097 0102 0105 0128 0135 0136 0139 0140 0142 0148 0152
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
TREAT	2	THS 2.2 Menthol mCC
APERIODC	2	Period 1 Period 2

Number of Observations Read 68

Number of Observations Used 68

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	35	21.26361122	0.60753175	4.52	<.0001
Error	32	4.30269106	0.13445910		
Corrected Total	67	25.56630227			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.831705	26.13927	0.366687	1.402819

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00274763	0.00274763	0.02	0.8872
SUBJID(TRTSEQA)	32	20.11136853	0.62848027	4.67	<.0001
APERIODC	1	1.14076523	1.14076523	8.48	0.0065
TREAT	1	0.00872984	0.00872984	0.06	0.8005

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00274763	0.00274763	0.02	0.8872
SUBJID(TRTSEQA)	32	20.11136853	0.62848027	4.67	<.0001
APERIODC	1	1.14856820	1.14856820	8.54	0.0063
TREAT	1	0.00872984	0.00872984	0.06	0.8005

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.41379450	0.8005
mCC	1.39109422	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	1.413795	1.285477	1.542112
mCC	1.391094	1.262777	1.519411

**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

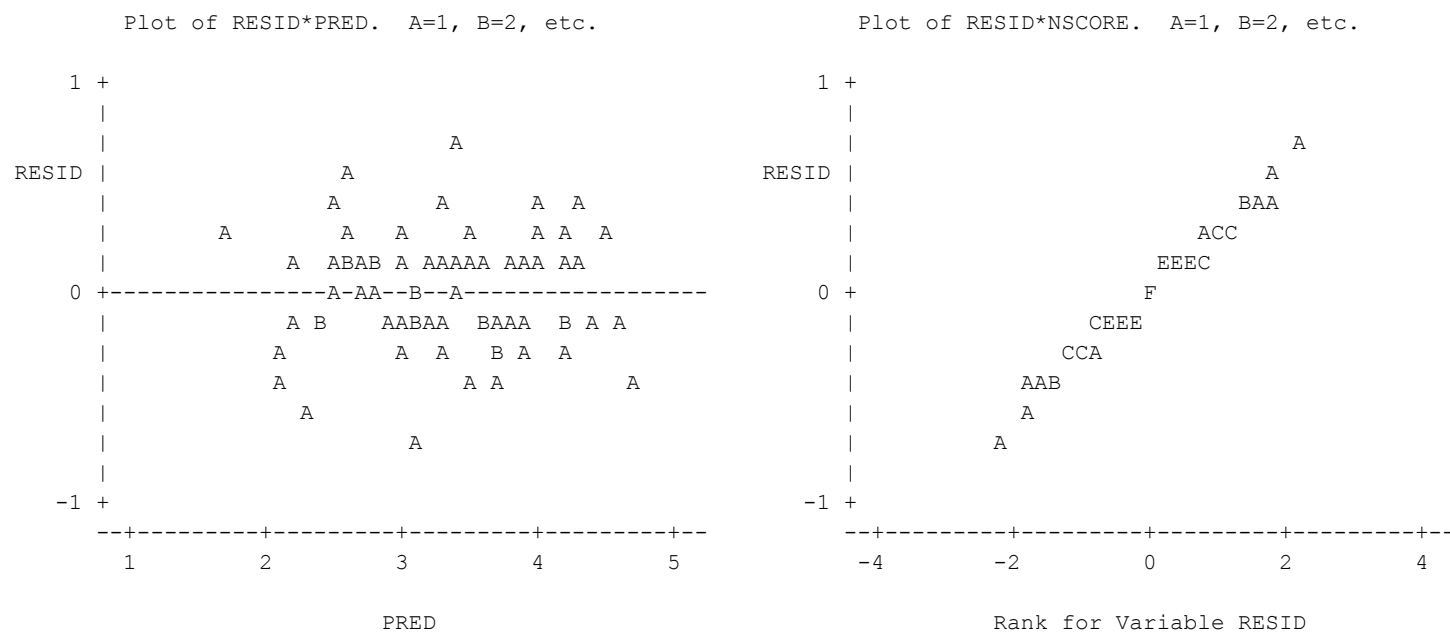
Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	0.022700	-0.158770	0.204170

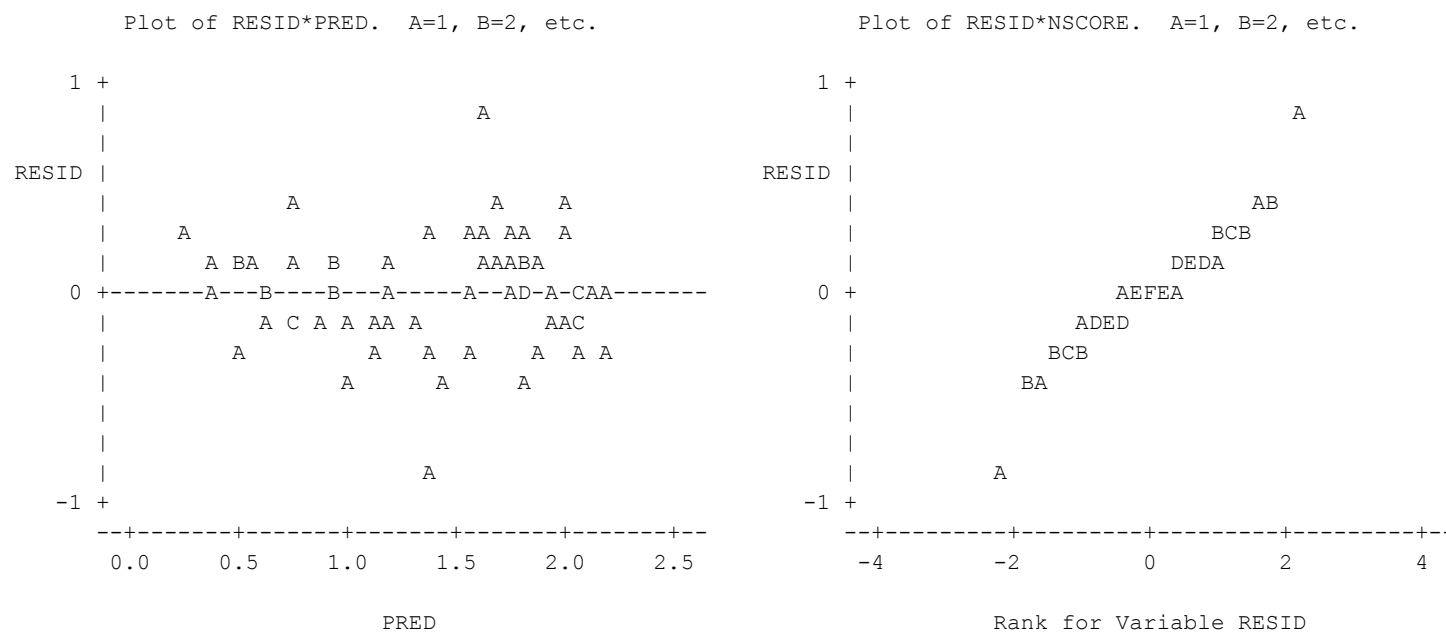
**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**

Parameter: $AUC_{(0-inf)}$ (h*ng/mL)
Residual Plots



**Listing 15.4.4.1 Analysis of Secondary Pharmacokinetic Parameters of Nicotine - Group-1 PK Population**

Parameter: $t_{1/2}$ (h)
Residual Plots



**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	10.04549800	0.52871042	1.10	0.4309
Error	16	7.71922334	0.48245146		
Corrected Total	35	17.76472134			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.565475	34.29665	0.694587	2.025233

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.68222270	0.68222270	1.41	0.2517
SUBJID(TRTSEQA)	16	4.92977080	0.30811067	0.64	0.8104
APERIODC	1	4.43114492	4.43114492	9.18	0.0080
TREAT	1	0.00235958	0.00235958	0.00	0.9451

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.68222270	0.68222270	1.41	0.2517
SUBJID(TRTSEQA)	16	4.92977080	0.30811067	0.64	0.8104
APERIODC	1	4.43114492	4.43114492	9.18	0.0080
TREAT	1	0.00235958	0.00235958	0.00	0.9451

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	2.01713735	0.9451
THS 2.2 Menthol	2.03332918	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
NRT gum	2.017137	1.670075	2.364199
THS 2.2 Menthol	2.033329	1.686267	2.380391

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 95%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
2	1	0.016192	-0.474637	0.507021

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	13.67392463	0.71968024	2.54	0.0323
Error	16	4.52643833	0.28290240		
Corrected Total	35	18.20036297			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.751300	17.50266	0.531886	3.038886

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.10412345	0.10412345	0.37	0.5526
SUBJID(TRTSEQA)	16	8.69232145	0.54327009	1.92	0.1014
APERIODC	1	1.82736919	1.82736919	6.46	0.0218
TREAT	1	3.05011055	3.05011055	10.78	0.0047

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.10412345	0.10412345	0.37	0.5526
SUBJID(TRTSEQA)	16	8.69232145	0.54327009	1.92	0.1014
APERIODC	1	1.82736919	1.82736919	6.46	0.0218
TREAT	1	3.05011055	3.05011055	10.78	0.0047

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	3.32996167	0.0047
THS 2.2 Menthol	2.74780948	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
NRT gum	3.329962	3.064196	3.595727
THS 2.2 Menthol	2.747809	2.482044	3.013575

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)	
2	1	-0.582152	-0.958008	-0.206296

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	15	0017 0022 0035 0036 0051 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 30

Number of Observations Used 30

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	16	12.50236259	0.78139766	3.37	0.0161
Error	13	3.01064301	0.23158792		
Corrected Total	29	15.51300560			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.805928	15.50921	0.481236	3.102903

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.19856753	0.19856753	0.86	0.3713
SUBJID(TRTSEQA)	13	7.22450227	0.55573094	2.40	0.0637
APERIODC	1	1.63828325	1.63828325	7.07	0.0196
TREAT	1	3.44100953	3.44100953	14.86	0.0020

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.19856753	0.19856753	0.86	0.3713
SUBJID(TRTSEQA)	13	7.22450227	0.55573094	2.40	0.0637
APERIODC	1	1.33042497	1.33042497	5.74	0.0323
TREAT	1	3.44100953	3.44100953	14.86	0.0020

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	3.43689655	0.0020
THS 2.2 Menthol	2.75803759	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
NRT gum	3.436897	3.167862	3.705931
THS 2.2 Menthol	2.758038	2.489003	3.027072

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference	Simultaneous 95%	
		Between Means	Confidence Limits for LSMean(i) - LSMean(j)	
2	1	-0.678859	-1.059338	-0.298380

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	7.58963289	0.39945436	1.56	0.1879
Error	16	4.10683466	0.25667717		
Corrected Total	35	11.69646755			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.648882	43.92762	0.506633	1.153336

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.21830551	0.21830551	0.85	0.3701
SUBJID(TRTSEQA)	16	5.72482187	0.35780137	1.39	0.2570
APERIODC	1	1.49951617	1.49951617	5.84	0.0280
TREAT	1	0.14698934	0.14698934	0.57	0.4602

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.21830551	0.21830551	0.85	0.3701
SUBJID(TRTSEQA)	16	5.72482187	0.35780137	1.39	0.2570
APERIODC	1	1.49951617	1.49951617	5.84	0.0280
TREAT	1	0.14698934	0.14698934	0.57	0.4602

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	1.08943767	0.4602
THS 2.2 Menthol	1.21723496	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
NRT gum	1.089438	0.836290	1.342585
THS 2.2 Menthol	1.217235	0.964087	1.470383

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference	Simultaneous 95%	
		Between Means	Confidence Limits for LSMean(i) - LSMean(j)	
2	1	0.127797	-0.230214	0.485809

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	15	0017 0022 0035 0036 0051 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 30

Number of Observations Used 30

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	16	8.29801282	0.51862580	6.44	0.0008
Error	13	1.04742083	0.08057083		
Corrected Total	29	9.34543365			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.887922	23.37228	0.283850	1.214473

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78706510	0.78706510	9.77	0.0080
SUBJID(TRTSEQA)	13	7.24457954	0.55727535	6.92	0.0007
APERIODC	1	0.21519863	0.21519863	2.67	0.1262
TREAT	1	0.05116955	0.05116955	0.64	0.4398

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78706510	0.78706510	9.77	0.0080
SUBJID(TRTSEQA)	13	7.24457954	0.55727535	6.92	0.0007
APERIODC	1	0.20050924	0.20050924	2.49	0.1387
TREAT	1	0.05116955	0.05116955	0.64	0.4398

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	1.24504203	0.4398
THS 2.2 Menthol	1.16225879	

TREAT	LOGAVAL LSMEAN	95% Confidence Limits	
NRT gum	1.245042	1.086356	1.403728
THS 2.2 Menthol	1.162259	1.003573	1.320945

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i) - LSMean(j)	
2	1	-0.082783	-0.307203	0.141637

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	10.04549800	0.52871042	1.10	0.4309
Error	16	7.71922334	0.48245146		
Corrected Total	35	17.76472134			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.565475	34.29665	0.694587	2.025233

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.68222270	0.68222270	1.41	0.2517
SUBJID(TRTSEQA)	16	4.92977080	0.30811067	0.64	0.8104
APERIODC	1	4.43114492	4.43114492	9.18	0.0080
TREAT	1	0.00235958	0.00235958	0.00	0.9451

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.68222270	0.68222270	1.41	0.2517
SUBJID(TRTSEQA)	16	4.92977080	0.30811067	0.64	0.8104
APERIODC	1	4.43114492	4.43114492	9.18	0.0080
TREAT	1	0.00235958	0.00235958	0.00	0.9451

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	2.01713735	0.4726
THS 2.2 Menthol	2.03332918	

TREAT	LOGAVAL LSMEAN	97.5% Confidence Limits	
NRT gum	2.017137	1.612288	2.421987
THS 2.2 Menthol	2.033329	1.628480	2.438178

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
2	1	0.016192	-0.474628	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	13.67392463	0.71968024	2.54	0.0323
Error	16	4.52643833	0.28290240		
Corrected Total	35	18.20036297			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.751300	17.50266	0.531886	3.038886

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.10412345	0.10412345	0.37	0.5526
SUBJID(TRTSEQA)	16	8.69232145	0.54327009	1.92	0.1014
APERIODC	1	1.82736919	1.82736919	6.46	0.0218
TREAT	1	3.05011055	3.05011055	10.78	0.0047

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.10412345	0.10412345	0.37	0.5526
SUBJID(TRTSEQA)	16	8.69232145	0.54327009	1.92	0.1014
APERIODC	1	1.82736919	1.82736919	6.46	0.0218
TREAT	1	3.05011055	3.05011055	10.78	0.0047

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	3.32996167	0.9977
THS 2.2 Menthol	2.74780948	

TREAT	LOGAVAL LSMEAN	97.5% Confidence Limits	
NRT gum	3.329962	3.019945	3.639978
THS 2.2 Menthol	2.747809	2.437793	3.057826

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference Between Means	Simultaneous 97.5% Confidence Limits for LSMean(i) - LSMean(j)	
2	1	-0.582152	-0.958001	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	15	0017 0022 0035 0036 0051 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 30

Number of Observations Used 30

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	16	12.50236259	0.78139766	3.37	0.0161
Error	13	3.01064301	0.23158792		
Corrected Total	29	15.51300560			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.805928	15.50921	0.481236	3.102903

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.19856753	0.19856753	0.86	0.3713
SUBJID(TRTSEQA)	13	7.22450227	0.55573094	2.40	0.0637
APERIODC	1	1.63828325	1.63828325	7.07	0.0196
TREAT	1	3.44100953	3.44100953	14.86	0.0020

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.19856753	0.19856753	0.86	0.3713
SUBJID(TRTSEQA)	13	7.22450227	0.55573094	2.40	0.0637
APERIODC	1	1.33042497	1.33042497	5.74	0.0323
TREAT	1	3.44100953	3.44100953	14.86	0.0020

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	3.43689655	0.9990
THS 2.2 Menthol	2.75803759	

TREAT	LOGAVAL LSMEAN	97.5% Confidence Limits	
NRT gum	3.436897	3.121503	3.752290
THS 2.2 Menthol	2.758038	2.442644	3.073431

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

i	j	Difference	Simultaneous 97.5%	
		Between Means	Confidence Limits for LSMean(i)-LSMean(j)	
2	1	-0.678859	-1.059317	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Class Level Information

Class	Levels	Values
SUBJID	18	0004 0017 0018 0022 0035 0036 0051 0060 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 36

Number of Observations Used 36

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	7.58963289	0.39945436	1.56	0.1879
Error	16	4.10683466	0.25667717		
Corrected Total	35	11.69646755			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.648882	43.92762	0.506633	1.153336

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.21830551	0.21830551	0.85	0.3701
SUBJID(TRTSEQA)	16	5.72482187	0.35780137	1.39	0.2570
APERIODC	1	1.49951617	1.49951617	5.84	0.0280
TREAT	1	0.14698934	0.14698934	0.57	0.4602

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.21830551	0.21830551	0.85	0.3701
SUBJID(TRTSEQA)	16	5.72482187	0.35780137	1.39	0.2570
APERIODC	1	1.49951617	1.49951617	5.84	0.0280
TREAT	1	0.14698934	0.14698934	0.57	0.4602

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	1.08943767	0.2301
THS 2.2 Menthol	1.21723496	

TREAT	LOGAVAL LSMEAN	97.5% Confidence Limits	
NRT gum	1.089438	0.794140	1.384735
THS 2.2 Menthol	1.217235	0.921937	1.512533

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
2	1	0.127797	-0.230207	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Class Level Information

Class	Levels	Values
SUBJID	15	0017 0022 0035 0036 0051 0061 0063 0072 0078 0083 0095 0119 0120 0123 0132
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
TREAT	2	NRT gum THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read 30

Number of Observations Used 30

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	16	8.29801282	0.51862580	6.44	0.0008
Error	13	1.04742083	0.08057083		
Corrected Total	29	9.34543365			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.887922	23.37228	0.283850	1.214473

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78706510	0.78706510	9.77	0.0080
SUBJID(TRTSEQA)	13	7.24457954	0.55727535	6.92	0.0007
APERIODC	1	0.21519863	0.21519863	2.67	0.1262
TREAT	1	0.05116955	0.05116955	0.64	0.4398

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.78706510	0.78706510	9.77	0.0080
SUBJID(TRTSEQA)	13	7.24457954	0.55727535	6.92	0.0007
APERIODC	1	0.20050924	0.20050924	2.49	0.1387
TREAT	1	0.05116955	0.05116955	0.64	0.4398

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TREAT	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
NRT gum	1.24504203	0.7801
THS 2.2 Menthol	1.16225879	

TREAT	LOGAVAL LSMEAN	97.5% Confidence Limits	
NRT gum	1.245042	1.059012	1.431072
THS 2.2 Menthol	1.162259	0.976229	1.348289

**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and crit3fl ne 'Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TREAT

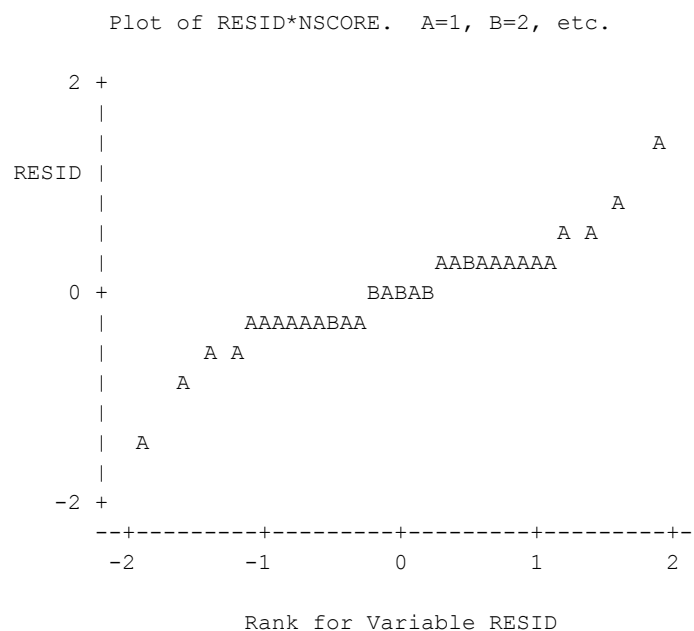
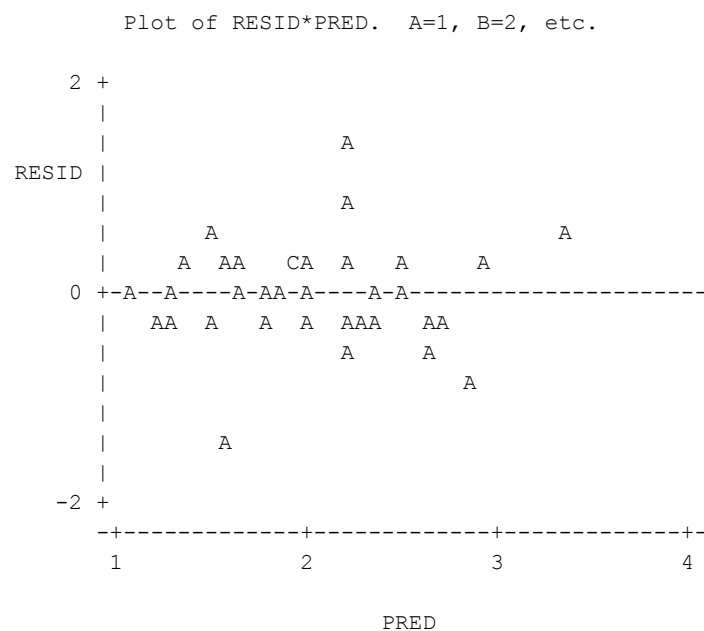
		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
2	1	-0.082783	-0.307191	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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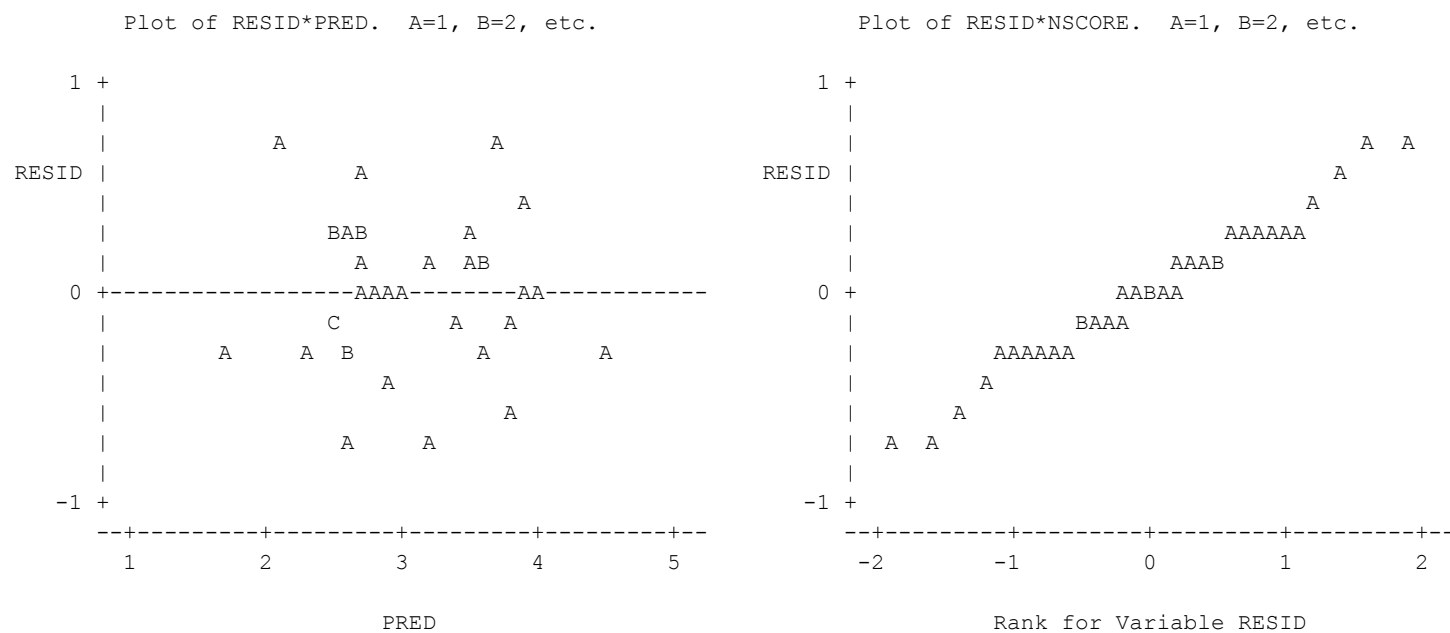
**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**

Parameter: C_{max} (ng/mL)
Residual Plots



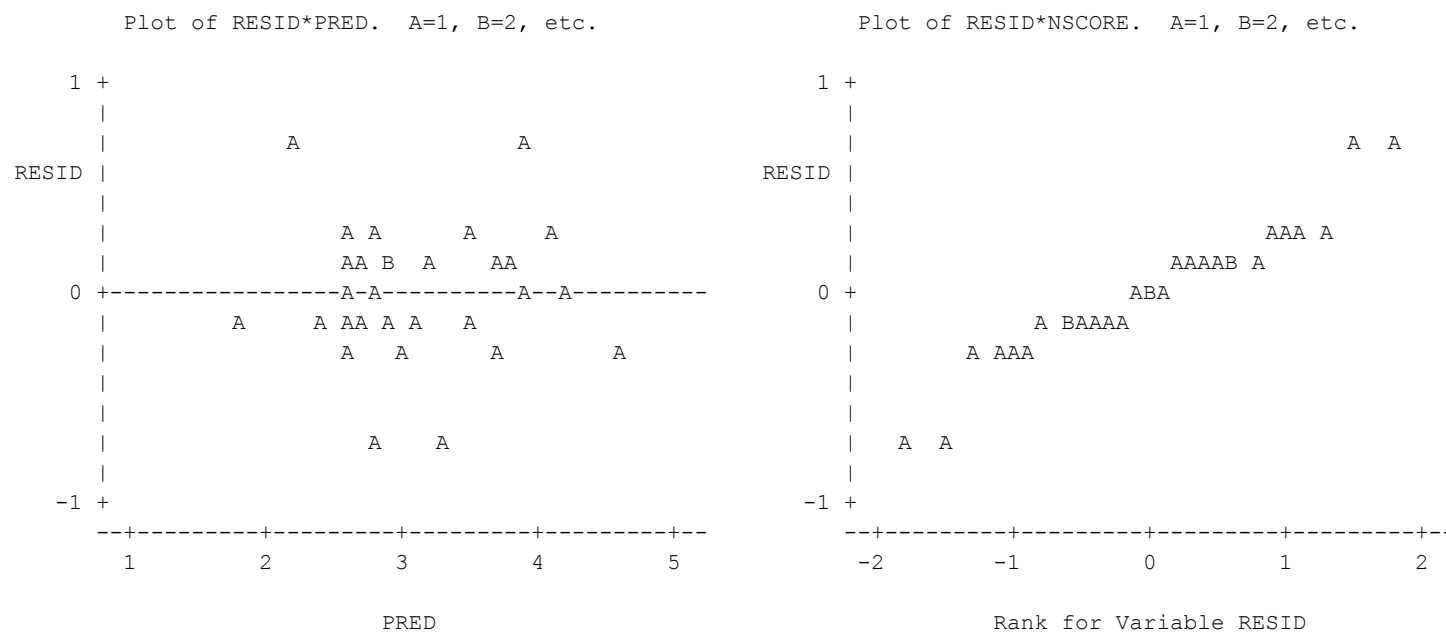
**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**

Parameter: $AUC_{(0-last)}$ (h*ng/mL)
Residual Plots



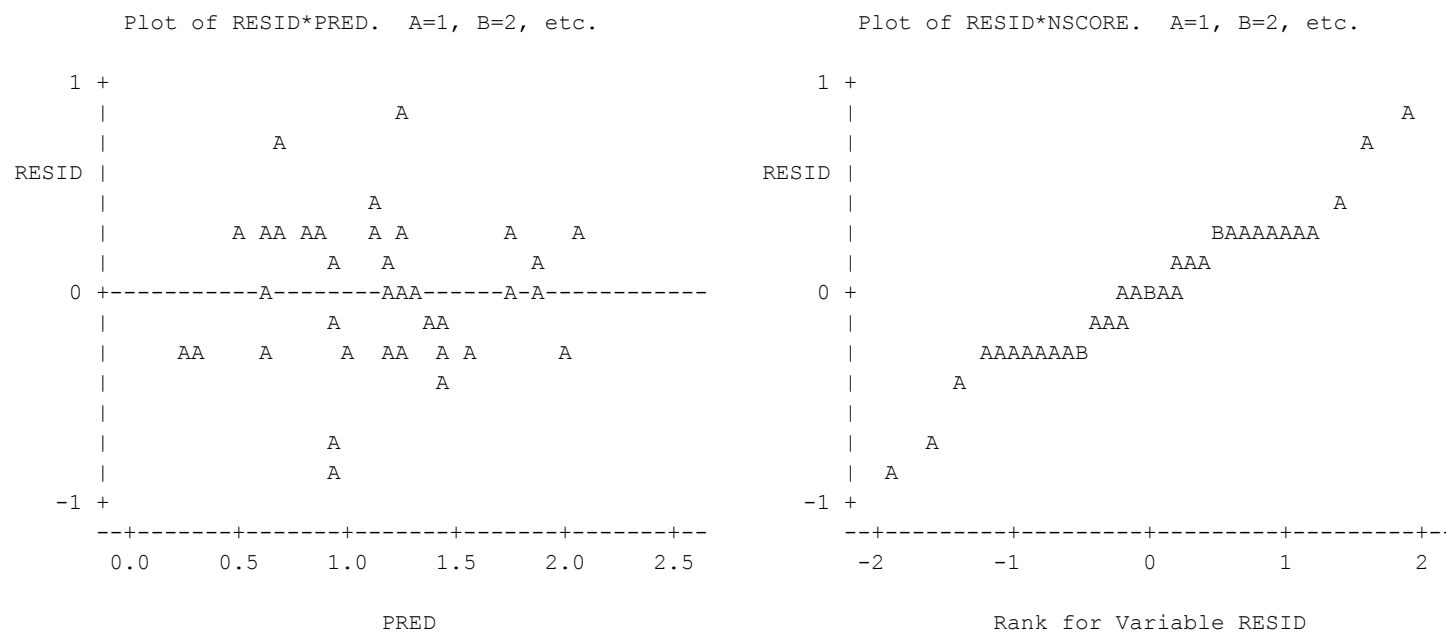
**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**

Parameter: $AUC_{(0-inf)}$ (h*ng/mL)
Residual Plots



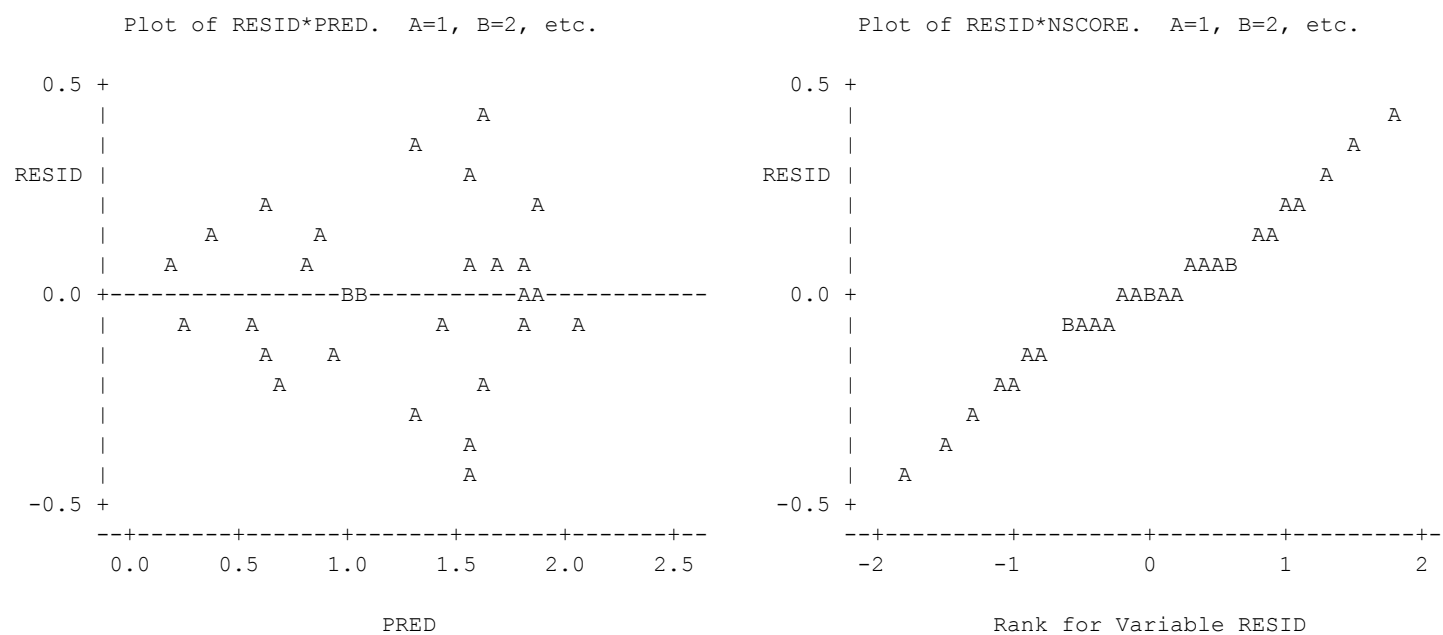
**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**

Parameter: $AUC_{(0-t)}$ (h*ng/mL)
Residual Plots



**Listing 15.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine - Group-2 PK Population**

Parameter: $t_{1/2}$ (h)
Residual Plots



**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1	7.66	7.43	103.07	7.20	48.46	14.85
	2	8.13	7.38	110.18	6.25	47.86	13.06
	3	10.89	7.03	154.98	8.79	48.59	18.09
	4	10.49	7.27	144.29	6.88	48.27	14.25
	5	8.07	6.36	126.87	8.42	46.64	18.06
	6	10.91	7.55	144.49	7.92	45.67	17.35
	7	14.78	7.73	191.16	7.75	49.65	15.60
	8	9.38	7.00	134.10	8.02	50.72	15.80
	9	8.55	7.85	108.87	7.20	43.46	16.56
	10	9.97	6.77	147.27	8.52	47.96	17.77
	11	11.58	6.87	168.62	8.33	39.31	21.19
	12	12.17	7.79	156.19	8.47	43.74	19.37
	13	9.51	7.26	130.91	7.70	48.44	15.90
	14	9.18	6.89	133.22	9.00	51.29	17.56
	15	12.82	7.71	166.39	7.57	47.72	15.87
	16	12.16	6.64	183.29	8.23	44.42	18.53
	17	9.95	6.89	144.37	8.91	51.02	17.47
	18	10.76	7.36	146.21	7.57	46.45	16.31
	19	13.55	7.17	188.99	6.42	43.84	14.65
	20	9.82	7.15	137.27	7.04	44.78	15.71

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	21	9.07	6.64	136.66	9.21	46.18	19.94
	22	9.68	6.95	139.16	8.71	45.15	19.30
	23	9.13	6.88	132.62	8.75	45.34	19.30
	24	8.80	6.39	137.81	7.66	47.27	16.21
	25	8.28	7.73	107.08	7.53	43.70	17.23
	26	10.99	7.08	155.11	8.86	44.49	19.92
	27	10.71	7.41	144.55	8.97	48.09	18.66
	28	12.86	7.38	174.40	6.80	42.10	16.15
	29	8.83	6.50	135.86	7.78	44.49	17.48
	30	8.51	9.19	92.51	10.55	48.31	21.84
	31	12.52	7.39	169.40	8.34	47.42	17.58
	32	9.46	7.43	127.21	7.60	45.98	16.53
	33	9.89	6.86	144.06	8.77	48.99	17.90
	34	7.03	7.12	98.63	7.82	47.07	16.61
	35	11.19	8.58	130.35	8.33	52.95	15.73
	36	8.81	8.36	105.39	7.62	47.96	15.89
	37	14.79	8.08	182.97	7.48	47.23	15.84
	38	7.92	6.85	115.54	7.31	47.86	15.28
	39	10.32	7.06	146.28	8.86	47.37	18.71
	40	8.62	6.54	131.77	8.29	51.94	15.96

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	41	7.26	7.74	93.79	8.43	36.04	23.40
	42	8.41	7.21	116.67	8.61	46.36	18.58
	43	11.47	7.32	156.76	8.56	43.58	19.63
	44	8.62	7.12	121.02	7.65	43.66	17.52
	45	7.04	7.61	92.59	9.42	43.95	21.43
	46	10.63	7.23	147.01	8.66	46.67	18.56
	47	9.97	7.38	135.14	7.08	44.60	15.87
	48	12.86	7.71	166.82	8.23	49.49	16.64
	49	10.72	7.65	140.21	8.75	46.71	18.74
	50	13.46	7.34	183.42	7.77	46.97	16.55
	51	7.96	7.75	102.74	8.97	45.75	19.60
	52	10.79	7.72	139.80	8.05	44.85	17.95
	53	13.14	7.63	172.12	7.16	44.19	16.19
	54	9.85	8.07	122.08	8.19	47.35	17.29
	55	8.54	6.64	128.60	8.48	47.06	18.01
	56	11.46	6.94	165.08	7.79	45.48	17.13
	57	9.10	8.07	112.79	8.80	45.12	19.51
	58	12.11	7.35	164.78	9.36	49.59	18.87
	59	10.90	6.75	161.58	9.91	45.21	21.92
	60	10.53	7.65	137.69	6.65	46.14	14.41

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	61	9.93	6.78	146.39	8.91	44.96	19.83
	62	7.96	6.98	113.94	6.65	43.70	15.22
	63	11.95	7.54	158.38	6.54	48.17	13.57
	64	10.24	7.62	134.38	7.88	46.79	16.83
	65	9.57	7.89	121.29	7.18	47.32	15.17
	66	11.96	7.88	151.79	8.58	45.17	18.99
	67	12.98	8.43	153.89	7.00	39.59	17.67
	68	10.80	7.19	150.17	8.63	46.71	18.47
	69	9.14	7.26	125.80	8.10	44.61	18.15
	70	6.05	5.67	106.72	7.20	41.38	17.39
	71	7.06	6.60	106.94	8.00	46.14	17.34
	72	8.17	7.97	102.48	8.91	41.55	21.45
	73	7.86	7.83	100.44	9.63	49.49	19.45
	74	11.89	6.78	175.39	7.08	47.91	14.77
	75	9.33	7.52	124.18	7.92	50.50	15.69
	76	10.05	7.38	136.16	8.66	42.10	20.58
	77	9.83	7.18	136.89	8.75	48.00	18.23
	78	10.47	7.39	141.77	7.48	44.73	16.72
	79	7.98	7.45	107.06	7.70	48.17	15.97
	80	11.40	7.15	159.48	8.61	47.20	18.24

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	81	9.48	6.87	137.92	8.28	52.08	15.90
	82	12.98	6.76	192.05	9.26	48.37	19.15
	83	7.64	6.44	118.69	7.70	47.10	16.34
	84	9.96	7.55	132.01	8.71	48.18	16.09
	85	8.20	7.06	116.18	7.53	45.17	16.67
	86	11.49	6.73	170.80	7.52	43.51	17.29
	87	9.86	7.07	139.35	8.47	48.05	17.63
	88	12.78	6.72	190.15	8.42	44.15	19.07
	89	8.84	7.67	115.22	7.70	39.33	19.57
	90	8.14	6.97	116.88	7.87	44.27	17.78
	91	10.43	7.46	139.74	8.97	43.13	20.80
	92	13.11	6.96	188.34	8.58	45.45	18.87
	93	9.63	7.43	129.52	7.75	47.55	16.29
	94	11.54	6.84	168.77	8.23	43.95	18.73
	95	12.62	7.21	175.05	7.15	48.99	14.60
	96	10.06	8.01	125.62	7.00	46.72	14.97
	97	11.90	8.66	137.44	8.75	43.82	19.97
	98	10.94	8.18	133.73	8.53	47.55	17.93
	99	12.00	6.14	195.33	7.77	47.27	16.45
	100	14.59	6.97	209.35	7.48	43.14	17.34

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	101	11.05	6.79	162.66	8.27	45.72	18.09
	102	9.13	7.04	129.85	7.65	49.08	15.59
	103	11.70	7.44	157.16	9.15	46.96	19.48
	104	13.81	7.61	181.45	9.12	50.02	18.23
	105	7.66	7.65	100.12	7.70	46.24	16.64
	106	12.38	8.51	145.56	8.52	47.24	18.04
	107	10.95	6.61	165.68	7.23	42.22	17.12
	108	12.20	7.50	162.67	7.27	46.05	15.78
	109	8.03	7.27	110.40	6.91	49.18	14.05
	110	8.00	6.83	117.14	8.51	48.13	17.68
	111	8.87	7.37	120.39	9.30	48.73	19.09
	112	8.28	7.51	110.23	8.90	45.28	19.65
	113	7.78	6.90	112.78	9.63	48.95	19.68
	114	8.47	6.35	133.40	7.00	45.17	15.49
	115	8.96	6.70	133.69	7.34	45.24	16.24
	116	7.57	6.70	113.11	9.10	49.59	18.34
	117	10.09	7.45	135.40	7.92	47.68	16.61
	118	8.31	7.20	115.51	7.20	54.38	13.24
	119	11.10	7.32	151.65	7.36	42.61	17.28
	120	9.80	7.66	128.04	8.37	45.84	18.25

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	121	9.26	6.79	136.38	8.52	45.45	18.75
	122	10.27	6.22	165.06	7.40	43.42	17.05
	123	10.64	7.10	149.85	7.48	44.78	16.70
	124	8.92	7.42	120.22	8.23	46.07	17.87
	125	11.77	8.05	146.18	7.49	40.41	18.52
	126	8.43	7.44	113.26	8.64	47.29	18.28
	127	10.84	7.17	151.25	6.88	47.51	14.48
	128	10.74	6.82	157.40	10.84	47.46	22.83
	129	12.51	7.41	168.81	7.75	43.70	17.73
	130	8.08	7.39	109.35	7.82	50.02	15.64
	131	9.62	7.01	137.22	7.77	41.92	18.55
	132	9.35	7.82	119.66	8.42	43.09	19.54
	133	12.20	7.61	160.22	6.61	45.15	14.63
	134	13.08	7.29	179.35	9.47	49.49	19.14
	135	9.02	6.93	130.15	8.50	45.68	18.61
	136	10.58	6.89	153.55	8.10	49.13	16.48
	137	8.55	7.68	111.34	7.49	42.74	17.51
	138	10.47	6.26	167.45	7.40	45.75	16.18
	139	8.58	6.59	130.24	9.32	49.41	18.86
	140	12.64	7.61	166.14	8.37	46.79	17.88

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	141	10.01	7.15	140.01	6.61	46.63	14.17
	142	8.78	7.27	120.80	6.54	41.82	15.64
	143	10.36	6.97	148.61	7.43	47.76	15.56
	144	11.55	7.45	155.08	8.02	41.77	19.19
	145	9.84	6.86	143.43	7.87	47.20	16.68
	146	9.86	7.63	129.14	9.12	45.21	20.16
	147	10.38	7.73	134.27	7.82	42.18	18.55
	148	11.03	7.52	146.72	7.90	47.29	16.71
	149	11.07	6.76	163.84	6.64	44.79	14.83
	150	9.37	7.20	130.16	7.97	43.58	18.29
	151	10.50	6.37	164.79	8.19	48.00	17.05
	152	9.80	6.38	153.66	7.79	44.02	17.70
	153	15.54	8.27	187.86	8.10	47.37	17.10
	154	10.51	6.70	156.70	7.65	52.71	14.51
	155	7.77	7.19	107.97	9.51	43.67	21.77
	156	7.96	6.74	117.99	8.27	48.37	17.10
	157	10.91	6.45	169.00	7.44	52.22	14.24
	158	11.75	7.25	162.00	6.36	44.43	14.30
	159	13.99	7.84	178.56	8.00	47.02	17.02
	160	9.23	7.79	118.52	9.38	48.76	19.23

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	161	8.92	6.19	144.02	7.75	44.11	17.56
	162	12.74	7.23	176.18	10.09	48.81	20.68
	163	9.85	7.86	125.36	8.39	49.31	17.00
	164	13.22	7.74	170.78	8.32	49.84	16.69
	165	10.13	6.83	148.29	6.73	46.63	14.43
	166	6.37	6.20	102.84	8.19	43.99	18.61
	167	12.57	7.97	157.81	8.77	46.14	19.01
	168	10.83	7.03	154.07	7.11	50.64	14.05
	169	10.47	6.80	153.95	8.66	44.54	19.45
	170	6.58	6.22	105.75	8.18	41.05	19.93
	171	14.44	7.92	182.27	8.80	53.80	16.36
	172	8.15	7.03	115.97	9.75	47.37	20.58
	173	8.91	8.03	110.96	6.76	51.39	13.15
	174	9.50	6.87	138.23	6.77	44.48	15.21
	175	19.10	7.03	271.73	8.20	44.89	18.26
	176	8.79	7.14	123.03	8.61	51.83	16.61
	177	7.98	7.69	103.73	9.49	44.75	21.20
	178	13.16	7.57	173.72	8.20	44.66	18.36
	179	8.72	6.97	125.06	6.69	46.92	14.25
	180	8.98	8.21	109.38	8.19	43.18	18.96

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	181	17.63	6.69	263.57	7.92	40.56	19.53
	182	14.17	7.05	200.99	8.61	43.59	19.75
	183	8.64	7.40	116.71	9.43	44.85	21.03
	184	9.80	7.61	128.76	7.48	44.47	16.82
	185	8.71	6.70	129.96	9.32	47.31	19.69
	186	9.32	7.34	126.94	8.28	44.11	18.76
	187	10.49	7.30	143.72	7.11	50.25	14.15
	188	10.03	6.68	150.10	8.90	45.28	19.65
	189	9.71	6.96	139.65	9.65	43.74	22.06
	190	11.06	7.04	156.97	7.36	44.96	16.38
	191	9.90	7.20	137.54	6.36	45.03	14.12
	192	14.92	8.35	178.77	8.56	48.78	17.54
	193	13.03	7.34	177.59	8.15	45.84	17.78
	194	8.95	7.22	123.99	9.85	47.74	20.62
	195	12.76	7.38	172.78	8.61	47.10	18.29
	196	7.75	7.38	105.01	7.60	43.10	17.63
	197	16.27	7.18	226.58	7.32	50.91	14.38
	198	8.46	7.72	109.60	8.19	45.12	18.14
	199	11.23	8.13	138.07	7.60	44.41	17.11
	200	13.45	7.51	179.15	8.23	45.17	18.23

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	201	7.89	6.78	116.45	8.05	45.67	17.63
	202	9.82	7.71	127.41	9.00	51.05	17.64
	203	9.32	7.72	120.76	9.12	48.67	18.73
	204	13.34	7.35	181.56	7.36	45.75	16.09
	205	11.68	6.91	169.13	8.05	45.67	17.63
	206	8.57	7.19	119.15	9.79	47.81	20.47
	207	12.83	7.32	175.42	7.53	46.42	16.22
	208	10.31	8.09	127.45	8.52	51.54	16.53
	209	7.78	6.70	116.23	8.42	49.24	17.09
	210	8.37	7.07	118.53	7.57	43.00	17.61
	211	9.05	8.00	113.14	8.28	45.71	18.12
	212	16.73	7.70	217.18	9.17	47.37	19.36
	213	12.31	6.37	193.18	7.65	45.75	16.72
	214	8.52	7.78	109.52	5.97	42.70	13.97
	215	9.90	6.64	149.06	6.99	42.49	16.46
	216	10.65	8.34	127.70	7.65	46.14	16.58
	217	16.42	6.87	238.94	7.73	42.48	18.19
	218	14.04	7.38	190.35	8.98	50.54	17.77
	219	8.04	7.35	109.34	8.47	51.49	16.45
	220	8.74	6.80	128.54	7.62	45.71	16.67

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	221	10.22	6.91	147.77	8.66	45.84	18.90
	222	10.49	7.61	137.88	7.18	42.30	16.98
	223	9.45	7.29	129.62	8.61	47.77	18.02
	224	10.32	7.30	141.36	8.91	42.39	21.03
	225	9.20	6.53	140.86	8.10	43.34	18.68
	226	7.85	6.98	112.46	7.77	42.76	18.18
	227	10.34	7.65	135.27	8.53	42.98	19.84
	228	12.14	6.94	174.81	9.17	47.24	19.41
	229	10.93	7.50	145.80	9.75	43.67	22.32
	230	11.03	7.04	156.73	7.52	43.33	17.37
	231	7.75	6.93	111.88	6.73	47.86	14.06
	232	7.41	6.68	110.93	8.00	45.54	17.57
	233	8.87	6.21	142.88	7.48	42.02	17.80
	234	8.96	7.52	119.12	9.12	51.40	17.74
	235	7.66	7.18	106.71	7.75	49.47	15.66
	236	9.43	6.58	143.18	8.84	51.49	17.17
	237	11.74	7.33	160.20	7.44	44.96	16.54
	238	15.58	7.56	206.23	7.87	43.99	17.89
	239	7.74	7.01	110.41	8.82	43.90	20.10
	240	9.22	7.50	123.03	7.92	46.89	16.90

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	241	9.84	7.19	136.74	7.00	49.08	14.25
	242	16.68	7.48	223.13	7.20	41.54	17.33
	243	10.07	6.90	145.92	7.08	48.09	14.72
	244	13.47	6.81	197.68	9.15	47.20	19.38
	245	14.39	7.82	183.91	7.75	41.44	18.69
	246	9.63	6.21	155.21	8.13	42.91	18.95
	247	7.72	6.51	118.66	7.92	42.08	18.83
	248	10.89	7.46	146.00	8.72	50.35	17.32
	249	7.65	7.96	96.19	9.81	48.73	20.13
	250	9.02	6.82	132.23	8.75	43.79	19.99
	251	8.36	6.93	120.70	7.82	47.72	16.40
	252	9.67	6.45	149.84	8.81	41.13	21.42
	253	10.44	7.48	139.59	10.09	46.40	21.75
	254	12.36	7.31	169.20	7.92	45.31	17.48
	255	8.60	7.45	115.40	7.65	48.13	15.90
	256	8.46	8.53	99.16	8.37	51.80	16.15
	257	8.77	6.50	134.87	7.70	48.69	15.82
	258	10.88	7.63	142.68	7.57	49.61	15.27
	259	6.92	7.06	97.94	7.53	44.27	17.01
	260	12.15	6.21	195.84	8.91	44.85	19.87

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	261	10.30	6.60	156.10	7.24	43.21	16.76
	262	12.81	6.94	184.64	10.20	47.72	21.37
	263	9.70	6.08	159.51	9.12	43.94	20.74
	264	10.62	7.63	139.27	7.75	46.89	16.52
	265	11.80	6.64	177.64	8.28	46.14	17.95
	266	11.62	7.66	151.56	10.13	51.02	19.85
	267	9.03	7.52	120.18	7.95	42.54	18.69
	268	15.06	8.18	184.18	8.86	45.33	19.55
	269	11.22	6.91	162.38	7.65	48.35	15.82
	270	10.91	7.21	151.40	8.15	46.57	17.50
	271	10.87	7.92	137.28	6.91	42.72	16.17
	272	8.05	6.72	119.74	7.08	47.56	14.88
	273	7.89	6.18	127.73	6.84	49.03	13.95
	274	9.87	6.36	155.17	8.82	46.92	18.80
	275	6.70	6.31	106.11	6.32	52.56	12.02
	276	9.23	7.06	130.77	6.73	45.19	14.89
	277	8.52	6.80	125.36	6.54	45.15	14.48
	278	7.16	8.15	87.81	7.62	45.58	16.71
	279	7.19	6.51	110.48	7.15	45.45	15.73
	280	8.21	7.00	117.33	7.88	39.02	20.20

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	281	7.80	6.12	127.29	8.47	46.56	18.19
	282	9.57	6.83	140.08	7.53	42.20	17.84
	283	9.95	7.73	128.71	7.92	44.28	17.88
	284	13.37	7.32	182.72	8.28	44.50	18.61
	285	7.65	6.52	117.32	9.06	46.52	19.47
	286	10.06	6.88	146.30	7.40	42.74	17.32
	287	11.14	7.55	147.59	7.82	43.89	17.83
	288	10.73	7.29	147.30	8.05	45.59	17.66
	289	10.62	6.64	159.97	7.08	40.05	17.67
	290	9.82	7.06	139.23	7.20	43.63	16.50
	291	8.65	7.52	115.06	8.77	43.57	20.13
	292	9.21	7.34	125.57	8.10	43.79	18.51
	293	9.25	7.61	121.49	8.20	42.25	19.41
	294	10.14	7.55	134.22	8.56	48.44	17.66
	295	9.84	6.68	147.28	8.13	44.42	18.31
	296	13.72	7.33	187.10	6.61	41.51	15.92
	297	9.22	8.44	109.25	10.15	44.56	22.78
	298	12.87	7.42	173.35	7.95	46.81	16.99
	299	10.51	6.98	150.70	9.97	49.69	20.06
	300	8.86	7.04	125.77	9.38	48.96	19.15

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	301	10.81	7.33	147.45	8.42	45.59	18.46
	302	9.92	6.81	145.59	9.00	44.82	20.09
	303	8.04	6.91	116.34	8.32	43.33	19.19
	304	11.33	6.69	169.49	8.05	44.37	18.14
	305	9.68	7.31	132.33	8.61	48.18	17.86
	306	9.77	6.34	154.28	7.07	40.30	17.54
	307	9.45	7.79	121.19	7.61	42.90	17.73
	308	7.81	6.90	113.21	8.58	44.07	19.46
	309	10.05	6.80	147.77	7.57	41.65	18.18
	310	7.07	7.09	99.71	7.90	46.42	17.03
	311	9.79	5.92	165.22	10.15	43.98	23.08
	312	7.80	6.89	113.13	7.65	42.13	18.16
	313	9.38	6.69	140.13	8.00	50.62	15.81
	314	9.58	7.42	129.19	8.95	46.66	19.19
	315	8.36	7.08	118.07	8.53	42.38	20.12
	316	8.14	7.52	108.32	8.01	42.81	18.71
	317	7.86	7.80	100.87	8.86	44.82	19.77
	318	11.44	6.81	168.08	10.07	51.69	19.48
	319	12.06	8.16	147.88	7.44	47.86	15.54
	320	7.51	7.15	105.02	8.23	43.79	18.80

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	321	9.87	6.59	149.87	7.53	46.64	16.14
	322	8.06	7.08	113.85	7.48	48.54	15.41
	323	10.41	7.26	143.45	7.53	49.13	15.33
	324	8.06	6.91	116.58	8.06	45.84	17.57
	325	12.98	6.50	199.72	8.15	47.72	17.08
	326	10.04	7.00	143.58	7.11	43.31	16.42
	327	10.04	6.93	144.75	7.84	44.27	17.70
	328	9.38	7.02	133.48	9.47	44.99	21.06
	329	10.57	6.80	155.47	8.71	44.73	19.48
	330	8.89	6.74	132.00	7.97	49.92	15.96
	331	13.99	7.93	176.33	7.65	45.12	16.96
	332	8.78	7.67	114.47	8.10	47.63	17.01
	333	8.21	6.35	129.18	9.12	45.97	19.83
	334	8.33	7.66	108.74	8.10	46.52	17.41
	335	8.77	7.30	120.16	7.16	44.91	15.93
	336	15.09	7.10	212.51	7.48	49.13	15.23
	337	10.25	7.32	139.93	7.31	50.87	14.38
	338	8.74	7.28	119.98	7.48	48.76	15.34
	339	11.85	7.25	163.52	7.87	45.84	17.17
	340	10.49	7.00	149.82	7.16	42.22	16.95

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	341	7.46	6.68	111.79	6.31	51.10	12.36
	342	8.03	8.11	99.06	9.87	48.13	20.50
	343	11.91	7.26	164.05	7.82	48.87	16.01
	344	9.51	8.43	112.76	7.04	49.13	14.32
	345	9.45	7.19	131.53	8.33	42.81	19.46
	346	7.93	6.74	117.67	9.22	45.04	20.46
	347	11.78	7.43	158.60	8.58	42.61	20.13
	348	8.25	6.11	134.89	7.32	40.89	17.90
	349	7.86	7.02	111.94	8.06	43.70	18.45
	350	12.34	7.94	155.45	9.32	51.49	18.11
	351	10.21	8.51	119.93	8.27	43.87	18.85
	352	9.57	6.94	137.93	6.58	50.14	13.12
	353	7.56	6.52	115.94	7.20	46.05	15.63
	354	10.03	7.30	137.41	8.68	50.25	17.27
	355	13.78	8.20	168.12	9.30	45.97	20.24
	356	10.56	8.40	125.67	7.48	42.17	17.74
	357	7.64	6.45	118.33	8.19	48.95	16.72
	358	9.83	7.22	136.21	7.96	45.28	17.57
	359	10.74	8.21	130.87	7.57	44.56	17.00
	360	10.44	7.39	141.34	9.53	43.67	21.82

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	361	7.46	6.61	112.87	7.40	43.87	16.88
	362	11.01	7.33	150.13	7.11	45.84	15.52
	363	7.08	7.32	96.71	7.53	43.70	17.23
	364	9.98	7.31	136.43	9.32	46.66	19.98
	365	7.21	6.30	114.44	9.44	50.45	18.71
	366	6.91	6.88	100.56	8.13	50.35	16.15
	367	8.74	7.44	117.40	7.36	43.46	16.94
	368	13.58	7.92	171.54	8.00	46.63	17.15
	369	9.89	7.23	136.84	8.95	49.23	18.18
	370	12.98	6.52	198.89	8.14	45.03	18.09
	371	12.93	8.06	160.34	7.44	42.31	17.57
	372	7.35	7.75	94.78	8.23	47.37	17.38
	373	11.70	6.42	182.21	7.32	44.87	16.31
	374	9.28	6.86	135.16	9.41	42.98	21.90
	375	10.92	7.07	154.47	9.15	47.14	19.41
	376	14.91	7.82	190.58	7.40	41.87	17.69
	377	7.46	7.37	101.31	8.47	44.66	18.97
	378	9.51	6.87	138.48	7.44	43.43	17.13
	379	8.50	7.85	108.30	8.47	49.64	17.06
	380	9.11	7.03	129.52	9.06	42.69	21.23

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	381	9.84	8.20	119.99	7.23	45.67	15.83
	382	9.48	6.83	138.79	8.95	47.96	18.66
	383	11.35	7.20	157.59	8.08	43.87	18.43
	384	8.38	6.57	127.70	7.62	46.45	16.40
	385	9.79	7.21	135.84	6.80	47.10	14.43
	386	13.01	7.67	169.59	8.42	40.78	20.65
	387	10.57	7.48	141.21	7.00	45.47	15.39
	388	9.79	7.35	133.13	8.66	48.54	17.85
	389	10.30	8.01	128.67	7.08	49.87	14.19
	390	8.08	6.75	119.74	9.06	46.20	19.60
	391	7.52	6.96	107.96	7.19	39.86	18.04
	392	9.40	6.80	138.27	7.57	47.20	16.05
	393	12.32	7.98	154.43	8.10	42.58	19.03
	394	8.13	7.27	111.90	7.36	47.20	15.60
	395	8.64	6.84	126.30	8.10	43.74	18.53
	396	10.48	7.24	144.76	8.05	46.79	17.20
	397	8.94	7.80	114.71	8.77	44.11	19.88
	398	11.71	7.66	152.93	7.24	43.95	16.47
	399	8.55	6.66	128.36	7.16	45.34	15.78
	400	10.93	7.25	150.68	8.13	45.43	17.90

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	401	9.26	7.06	131.12	10.03	51.10	19.62
	402	10.39	7.87	132.12	6.25	49.45	12.64
	403	9.68	7.39	130.91	7.27	43.57	16.69
	404	8.74	7.77	112.38	6.76	46.85	14.42
	405	10.97	7.27	150.94	8.18	48.44	16.88
	406	10.72	7.07	151.56	7.74	47.41	16.33
	407	10.99	6.77	162.23	8.52	50.97	16.71
	408	10.83	6.89	157.19	7.65	46.10	16.59
	409	17.52	7.75	226.17	9.59	42.46	22.59
	410	8.22	7.48	109.89	7.70	43.09	17.87
	411	9.37	6.48	144.47	10.06	48.99	20.54
	412	13.75	7.16	191.94	8.34	44.24	18.84
	413	10.64	6.99	152.11	7.08	44.40	15.94
	414	8.54	6.89	123.85	6.80	44.69	15.22
	415	9.05	7.27	124.48	7.75	44.08	17.57
	416	14.63	6.86	213.25	8.71	48.81	17.86
	417	8.09	7.23	111.92	6.76	43.63	15.49
	418	8.85	8.40	105.36	7.04	47.32	14.87
	419	9.96	6.60	150.94	7.75	47.73	16.23
	420	9.22	7.94	116.09	8.80	44.71	19.69

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	421	11.12	7.19	154.56	7.97	45.41	17.55
	422	13.38	8.29	161.53	8.15	48.31	16.87
	423	7.33	6.12	119.85	6.76	42.89	15.75
	424	12.77	7.10	179.98	8.58	50.72	16.91
	425	9.03	8.12	111.27	8.28	44.99	18.41
	426	11.32	6.46	175.19	7.20	46.89	15.35
	427	14.76	7.96	185.34	8.47	42.17	20.09
	428	11.61	7.41	156.79	7.70	46.28	16.63
	429	10.04	7.99	125.64	8.52	44.11	19.31
	430	10.54	7.29	144.55	8.28	44.29	18.70
	431	11.42	6.35	179.72	8.66	48.44	17.88
	432	9.02	6.76	133.49	7.75	47.32	16.37
	433	10.17	7.78	130.66	7.70	42.38	18.16
	434	12.07	7.30	165.38	10.36	48.10	21.54
	435	10.15	7.26	139.93	7.16	47.55	15.05
	436	13.11	7.09	184.92	8.47	49.75	17.03
	437	7.76	6.93	112.07	9.06	50.17	18.05
	438	13.62	7.17	189.83	8.10	46.32	17.48
	439	11.76	6.92	169.88	7.27	46.05	15.79
	440	8.04	6.41	125.43	6.72	42.38	15.85

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	441	9.13	8.68	105.18	9.06	47.06	19.26
	442	8.69	6.87	126.39	7.00	47.89	14.61
	443	9.13	7.84	116.44	9.59	45.12	21.26
	444	13.07	7.99	163.71	6.95	48.27	14.40
	445	9.88	7.85	125.82	6.91	43.05	16.05
	446	9.16	7.92	115.66	7.57	49.08	15.43
	447	12.27	7.60	161.43	9.06	44.82	20.20
	448	11.75	6.86	171.34	7.79	41.77	18.65
	449	12.08	9.06	133.32	8.37	44.28	18.89
	450	8.27	6.89	119.98	8.28	43.26	19.15
	451	12.18	7.65	159.31	7.24	45.12	16.05
	452	8.65	6.98	123.84	8.97	44.61	20.10
	453	9.00	7.26	123.95	8.20	45.36	18.07
	454	9.39	7.62	123.29	8.86	50.39	17.58
	455	12.80	6.94	184.43	7.75	47.38	16.35
	456	15.49	7.70	201.03	10.36	50.02	20.71
	457	9.04	7.35	123.04	8.66	47.46	18.25
	458	10.18	6.69	152.20	7.40	43.70	16.95
	459	9.64	6.96	138.52	8.61	44.82	19.20
	460	10.31	7.16	144.03	8.10	41.05	19.74

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	461	8.13	7.64	106.43	8.71	47.96	18.17
	462	11.26	8.31	135.61	9.20	49.13	18.73
	463	10.57	7.29	145.05	7.97	45.34	17.58
	464	7.75	6.60	117.46	8.10	43.65	18.55
	465	11.39	7.41	153.72	7.87	42.66	18.45
	466	8.63	8.37	103.14	7.48	45.41	16.47
	467	9.35	7.04	132.73	7.87	47.38	16.61
	468	7.12	6.76	105.21	6.21	48.63	12.78
	469	7.22	7.15	100.95	7.44	44.42	16.74
	470	8.45	7.11	118.81	8.80	49.08	17.93
	471	14.05	6.59	213.09	8.32	43.80	18.99
	472	10.02	8.20	122.24	8.71	47.31	18.42
	473	9.76	7.31	133.60	8.85	47.51	18.64
	474	12.17	7.28	167.24	8.10	44.74	18.10
	475	12.21	7.12	171.54	7.82	49.13	15.93
	476	11.40	7.38	154.46	6.65	46.94	14.16
	477	8.74	6.80	128.57	9.26	51.98	17.82
	478	12.75	7.54	169.09	8.97	42.60	21.06
	479	10.84	7.18	150.88	7.87	54.62	14.41
	480	10.63	7.51	141.59	8.53	44.66	19.09

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	481	11.15	7.21	154.65	8.23	45.75	18.00
	482	13.35	8.28	161.22	7.56	43.31	17.45
	483	8.62	7.35	117.25	9.72	48.04	20.24
	484	8.88	6.57	135.15	8.75	50.02	17.50
	485	12.12	7.10	170.65	10.13	46.54	21.76
	486	11.86	7.22	164.15	8.05	44.40	18.13
	487	10.98	7.56	145.38	8.66	43.34	19.99
	488	9.11	7.09	128.55	8.29	52.22	15.87
	489	7.60	7.31	104.00	8.42	49.13	17.14
	490	7.50	6.23	120.36	7.90	47.41	16.66
	491	6.50	7.22	89.99	7.27	42.46	17.13
	492	9.43	6.99	134.98	8.23	43.37	18.98
	493	9.66	6.48	149.01	7.53	40.66	18.52
	494	12.69	8.36	151.66	9.10	48.03	18.94
	495	6.74	6.21	108.48	8.23	45.97	17.91
	496	8.24	8.47	97.22	8.00	47.06	17.01
	497	10.76	8.14	132.18	8.53	49.15	17.35
	498	7.76	7.14	108.73	8.75	41.94	20.87
	499	11.96	6.53	183.26	8.18	47.06	17.38
	500	13.66	6.83	199.93	7.04	45.32	15.53

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	501	8.62	7.37	116.95	9.01	44.85	20.09
	502	10.90	7.44	146.57	10.01	48.64	20.58
	503	12.12	6.88	176.21	6.95	45.25	15.36
	504	12.37	7.11	173.97	8.23	47.27	17.41
	505	10.70	7.60	140.75	6.38	47.91	13.32
	506	10.91	7.74	140.86	7.95	41.62	19.10
	507	9.20	6.25	147.08	8.05	47.77	16.85
	508	10.73	7.12	150.64	6.88	45.32	15.18
	509	13.88	7.79	178.18	9.45	48.63	19.44
	510	11.87	6.99	169.78	6.69	40.20	16.63
	511	11.90	7.50	158.78	9.18	46.61	19.68
	512	7.45	6.32	117.88	6.96	42.77	16.26
	513	9.87	7.05	139.95	7.53	45.90	16.40
	514	10.97	8.67	126.61	7.04	43.09	16.33
	515	7.96	7.13	111.75	9.41	47.70	19.73
	516	9.19	7.41	124.06	8.66	45.58	19.01
	517	8.05	6.70	120.16	7.11	41.79	17.02
	518	8.54	6.52	131.06	8.47	44.32	19.11
	519	8.12	7.18	113.10	7.56	46.79	16.15
	520	7.15	7.12	100.46	8.39	44.44	18.87

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	521	10.03	6.94	144.47	8.10	39.32	20.61
	522	10.23	7.93	128.99	8.18	43.80	18.68
	523	8.59	7.39	116.20	8.71	46.71	18.66
	524	11.19	6.02	185.80	7.88	46.52	16.95
	525	9.18	6.74	136.18	7.65	43.26	17.69
	526	12.40	7.50	165.45	9.28	42.56	21.81
	527	8.84	7.82	112.94	6.88	43.70	15.75
	528	9.47	6.70	141.30	9.02	51.16	17.64
	529	8.16	6.57	124.04	8.56	43.67	19.60
	530	8.65	6.84	126.50	8.51	45.05	18.88
	531	11.00	7.64	143.91	7.48	46.10	16.22
	532	8.42	6.94	121.31	9.06	49.74	18.21
	533	10.86	7.15	151.96	10.23	49.24	20.78
	534	12.04	8.29	145.33	7.87	42.58	18.48
	535	21.05	8.46	248.80	8.66	48.49	17.87
	536	9.33	8.20	113.89	8.50	50.54	16.82
	537	11.24	7.20	156.05	9.81	45.37	21.62
	538	9.74	7.36	132.39	7.96	47.37	16.80
	539	10.19	7.53	135.35	7.70	42.58	18.09
	540	11.35	6.83	166.24	9.79	50.72	19.30

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	541	9.02	6.27	143.88	8.86	49.74	17.81
	542	9.65	7.56	127.67	8.19	43.87	18.66
	543	7.92	6.50	121.85	8.58	43.67	19.64
	544	8.23	7.46	110.25	8.39	46.52	18.02
	545	10.08	6.50	155.15	8.66	51.88	16.70
	546	11.93	7.93	150.46	7.32	42.28	17.31
	547	11.75	7.61	154.56	8.34	51.05	16.33
	548	10.51	6.31	166.59	7.61	48.18	15.79
	549	7.54	7.71	97.78	8.34	48.14	17.32
	550	11.41	7.07	161.25	8.39	48.03	17.46
	551	11.20	7.87	142.28	8.86	48.31	18.34
	552	10.91	6.49	168.15	8.45	52.26	16.17
	553	9.18	7.39	124.16	8.23	44.20	18.63
	554	10.49	6.75	155.53	8.69	50.62	17.18
	555	12.39	8.14	152.12	8.23	43.11	19.10
	556	8.80	6.73	130.82	7.97	42.85	18.60
	557	11.44	7.37	155.13	7.45	51.29	14.52
	558	12.82	6.49	197.54	8.97	45.12	19.88
	559	11.73	7.67	152.83	8.61	45.03	19.12
	560	10.00	7.53	132.82	6.46	38.77	16.66

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	561	11.55	8.48	136.15	8.37	51.05	16.39
	562	11.03	7.06	156.29	7.82	47.06	16.63
	563	8.07	6.50	124.05	7.36	50.78	14.50
	564	9.86	5.97	165.10	6.88	44.86	15.34
	565	8.25	6.36	129.66	7.48	43.98	17.01
	566	8.21	7.46	110.11	9.70	51.02	19.02
	567	7.06	6.60	107.04	8.34	46.71	17.85
	568	10.02	7.09	141.24	8.95	48.39	18.50
	569	13.96	6.83	204.37	7.44	46.94	15.84
	570	8.52	7.58	112.41	8.61	46.92	18.34
	571	10.49	6.53	160.51	7.07	48.40	14.60
	572	8.78	7.64	114.91	7.97	44.36	17.96
	573	10.80	7.42	145.49	7.20	45.12	15.95
	574	13.33	8.24	161.76	8.13	41.59	19.55
	575	10.21	8.61	118.49	8.72	47.10	18.51
	576	12.23	8.27	148.02	9.12	48.73	18.71
	577	11.32	6.51	173.97	9.63	41.50	23.20
	578	9.00	6.73	133.75	6.76	48.35	13.97
	579	10.59	8.15	129.92	7.87	44.07	17.86
	580	10.12	6.97	145.11	7.78	47.51	16.38

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	581	9.68	7.54	128.43	9.06	42.23	21.46
	582	12.66	8.58	147.50	7.75	47.37	16.35
	583	8.04	7.02	114.54	8.19	43.01	19.03
	584	11.37	6.25	181.97	6.84	44.07	15.52
	585	11.90	6.62	179.87	6.54	40.33	16.21
	586	14.51	6.94	209.00	8.05	47.96	16.79
	587	12.24	6.33	193.16	8.24	49.13	16.77
	588	7.41	6.96	106.35	9.71	42.36	22.93
	589	10.37	6.87	150.93	8.15	49.31	16.53
	590	10.24	8.48	120.74	7.07	46.14	15.32
	591	8.37	7.12	117.56	9.21	45.98	20.03
	592	9.21	6.84	134.75	6.88	46.52	14.79
	593	11.10	7.06	157.24	7.87	44.69	17.61
	594	10.88	7.22	150.63	10.36	48.49	21.37
	595	10.39	7.34	141.50	7.92	46.61	17.00
	596	8.16	7.32	111.52	8.26	50.39	16.40
	597	13.12	7.82	167.85	8.18	44.41	18.42
	598	8.72	8.01	108.85	7.65	47.20	16.21
	599	11.22	7.89	142.23	8.18	44.11	18.54
	600	8.79	7.09	123.93	8.10	45.88	17.66

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	601	10.72	7.00	153.20	9.47	46.98	20.16
	602	9.86	7.85	125.54	7.87	43.42	18.13
	603	12.48	7.62	163.65	7.20	47.68	15.10
	604	9.17	7.13	128.59	8.28	46.64	17.76
	605	10.14	8.26	122.63	8.81	46.29	19.03
	606	6.63	6.47	102.54	7.07	46.45	15.22
	607	11.67	8.24	141.69	7.16	45.08	15.87
	608	8.76	7.10	123.53	10.20	46.75	21.81
	609	8.59	6.92	124.11	8.42	50.25	16.75
	610	10.41	6.72	154.83	6.80	48.39	14.04
	611	9.00	7.64	117.84	7.44	47.20	15.76
	612	9.21	7.71	119.51	9.38	45.51	20.62
	613	11.78	7.39	159.57	8.13	49.65	16.38
	614	8.79	7.03	124.94	9.47	48.86	19.39
	615	9.03	7.41	121.86	7.16	41.47	17.25
	616	10.56	7.64	138.25	7.04	42.50	16.56
	617	9.29	6.59	141.06	8.66	46.45	18.65
	618	10.54	6.73	156.70	8.05	48.27	16.68
	619	11.24	7.55	148.81	7.32	41.40	17.68
	620	10.47	9.05	115.70	8.66	45.45	19.06

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	621	11.13	7.62	146.16	8.00	49.55	16.15
	622	8.41	7.05	119.26	7.24	47.28	15.31
	623	10.46	7.37	141.91	7.49	41.48	18.04
	624	9.20	7.18	128.19	6.76	42.57	15.87
	625	9.37	6.65	140.84	8.80	46.76	18.83
	626	9.35	7.51	124.42	8.28	46.27	17.90
	627	13.17	7.52	175.23	7.00	44.40	15.76
	628	9.73	8.79	110.68	6.42	43.54	14.75
	629	8.23	6.86	119.84	8.56	43.34	19.74
	630	10.51	7.45	141.04	8.61	44.86	19.18
	631	14.14	8.14	173.70	9.57	46.54	20.56
	632	9.27	7.63	121.52	7.75	41.35	18.73
	633	8.29	7.06	117.42	8.20	44.44	18.45
	634	12.03	7.19	167.22	8.42	43.50	19.36
	635	9.85	7.24	136.03	7.15	48.71	14.68
	636	13.53	6.91	195.82	8.00	41.13	19.46
	637	9.95	7.74	128.53	8.56	50.31	17.01
	638	10.74	7.26	147.82	7.57	51.73	14.64
	639	9.33	6.73	138.63	8.37	49.23	17.00
	640	10.57	8.33	126.81	7.34	42.46	17.29

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	641	9.43	7.61	123.95	8.91	49.55	17.99
	642	12.45	7.15	174.05	7.36	45.25	16.26
	643	15.23	7.30	208.59	6.96	42.18	16.49
	644	9.98	6.32	157.98	8.61	47.77	18.03
	645	10.20	7.19	141.94	8.28	44.69	18.53
	646	9.60	7.55	127.19	9.15	45.81	19.98
	647	8.18	8.13	100.62	7.53	46.89	16.06
	648	9.32	7.08	131.54	9.00	48.23	18.67
	649	8.78	7.51	117.00	7.31	41.58	17.59
	650	11.50	7.02	163.78	7.27	48.86	14.88
	651	9.42	7.14	131.92	7.11	44.32	16.05
	652	8.18	6.63	123.28	7.40	41.35	17.91
	653	8.39	7.83	107.17	7.61	41.95	18.13
	654	7.78	6.55	118.63	8.00	44.25	18.09
	655	14.35	7.45	192.71	7.97	49.74	16.02
	656	8.78	6.46	136.02	6.36	44.99	14.13
	657	8.93	6.40	139.66	8.75	48.44	18.07
	658	9.52	9.22	103.24	8.08	44.20	18.29
	659	7.78	8.15	95.49	7.18	49.05	14.64
	660	10.06	6.96	144.69	8.56	48.27	17.73

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	661	14.65	7.09	206.55	8.28	46.99	17.62
	662	9.09	7.08	128.47	7.48	46.63	16.04
	663	8.87	7.06	125.65	8.15	48.14	16.93
	664	10.86	5.85	185.82	7.45	41.05	18.15
	665	10.37	7.26	142.91	8.47	47.10	17.98
	666	9.15	8.05	113.71	8.61	47.73	18.03
	667	7.69	7.16	107.44	7.07	45.51	15.53
	668	10.91	7.07	154.27	8.37	49.55	16.90
	669	9.16	7.70	118.92	7.24	48.27	15.00
	670	14.72	7.61	193.39	8.75	48.73	17.96
	671	9.48	6.94	136.69	6.87	42.43	16.19
	672	7.40	7.40	100.10	7.19	46.10	15.59
	673	8.79	7.26	120.99	8.19	47.68	17.17
	674	10.64	7.10	149.86	9.87	49.59	19.90
	675	8.80	6.81	129.35	8.19	47.16	17.36
	676	12.06	7.31	165.00	7.00	45.20	15.48
	677	11.57	7.81	148.10	9.42	47.25	19.93
	678	11.67	7.23	161.49	8.05	42.74	18.83
	679	13.01	7.05	184.56	10.13	52.71	19.22
	680	8.78	8.91	98.52	8.77	41.47	21.15

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	681	8.31	6.71	123.83	7.44	45.29	16.42
	682	9.20	7.42	123.99	8.28	45.04	18.39
	683	9.20	6.67	137.88	8.20	42.38	19.35
	684	8.67	7.08	122.45	8.47	45.41	18.65
	685	8.10	6.84	118.32	8.58	44.66	19.20
	686	12.87	8.23	156.46	7.87	52.28	15.06
	687	10.22	7.57	135.05	8.00	44.92	17.82
	688	11.07	6.97	158.73	8.10	41.72	19.41
	689	8.24	7.00	117.73	9.42	47.46	19.84
	690	7.59	7.03	107.89	7.04	44.36	15.86
	691	9.80	6.62	148.02	7.36	50.62	14.54
	692	8.50	6.89	123.30	10.03	47.31	21.19
	693	8.84	7.33	120.55	9.00	45.93	19.59
	694	9.86	7.97	123.69	7.61	44.78	16.98
	695	14.01	7.20	194.66	8.10	45.10	17.96
	696	8.14	6.68	121.76	8.47	42.22	20.06
	697	10.50	7.42	141.47	8.28	52.67	15.72
	698	8.01	7.17	111.76	8.75	47.20	18.54
	699	8.07	6.62	121.80	8.71	47.73	18.26
	700	10.20	7.02	145.27	8.66	43.89	19.72

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	701	10.07	8.61	116.94	8.56	50.39	16.98
	702	9.19	7.77	118.31	8.02	38.51	20.81
	703	11.25	6.98	161.06	7.39	44.71	16.52
	704	10.33	7.30	141.55	7.23	46.71	15.48
	705	8.60	7.30	117.76	10.32	47.69	21.65
	706	12.56	7.68	163.56	8.47	46.14	18.36
	707	9.58	7.00	136.87	8.80	45.89	19.18
	708	8.46	7.44	113.68	8.58	49.55	17.31
	709	8.66	7.15	121.10	8.42	46.05	18.27
	710	10.62	7.33	144.94	8.13	43.46	18.71
	711	13.23	7.28	181.73	7.48	45.51	16.44
	712	15.45	6.91	223.70	9.91	44.49	22.27
	713	13.28	6.96	190.79	8.47	48.13	17.60
	714	8.34	7.91	105.44	9.24	49.41	18.70
	715	9.96	7.40	134.62	9.12	46.48	19.61
	716	12.61	7.53	167.56	8.42	42.72	19.70
	717	7.49	6.64	112.75	7.92	40.74	19.45
	718	8.37	7.38	113.50	7.77	43.65	17.81
	719	13.14	8.65	151.86	9.06	45.04	20.12
	720	12.24	8.27	148.01	9.42	47.96	19.64

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	721	8.87	7.45	119.02	7.00	44.40	15.76
	722	8.92	7.69	115.90	7.11	40.60	17.51
	723	8.38	7.27	115.29	7.75	43.36	17.86
	724	10.38	7.11	145.95	8.77	50.72	17.28
	725	6.77	7.09	95.45	8.81	46.54	18.93
	726	8.75	7.06	123.84	8.42	47.96	17.56
	727	10.30	6.33	162.69	6.36	50.25	12.65
	728	9.47	7.37	128.47	7.79	53.96	14.44
	729	9.10	6.41	142.02	6.84	45.29	15.10
	730	15.13	6.96	217.26	7.24	43.01	16.83
	731	8.38	6.71	124.96	7.32	42.13	17.37
	732	8.87	6.96	127.40	8.77	45.93	19.10
	733	10.46	6.44	162.25	7.87	48.99	16.07
	734	8.61	7.97	108.04	7.70	47.58	16.18
	735	8.86	6.71	132.10	6.42	42.78	15.01
	736	10.53	6.63	158.86	8.05	50.64	15.90
	737	12.63	8.27	152.61	7.31	48.27	15.15
	738	10.56	6.20	170.39	7.53	40.89	18.41
	739	11.45	7.54	151.90	8.86	49.49	17.90
	740	11.41	8.49	134.38	8.39	43.79	19.15

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	741	7.29	7.06	103.16	9.15	45.98	19.90
	742	9.58	7.11	134.72	7.75	44.78	17.30
	743	13.74	7.48	183.52	8.13	45.51	17.87
	744	10.92	7.13	153.26	7.36	49.13	14.99
	745	8.22	6.98	117.73	9.26	45.63	20.30
	746	12.71	6.61	192.40	7.75	49.18	15.75
	747	13.07	7.44	175.75	6.73	39.23	17.15
	748	10.18	7.12	142.94	8.23	47.64	17.28
	749	8.49	7.88	107.70	7.84	44.90	17.45
	750	9.61	6.81	141.15	8.00	43.33	18.46
	751	9.01	6.52	138.16	6.80	46.92	14.48
	752	10.63	7.75	137.12	7.97	44.56	17.88
	753	8.84	7.30	121.10	7.16	42.94	16.66
	754	11.12	8.09	137.48	9.02	48.59	18.57
	755	9.57	7.34	130.45	8.05	44.96	17.91
	756	13.60	7.31	186.10	7.52	49.13	15.32
	757	10.70	7.96	134.44	8.42	41.91	20.10
	758	9.07	7.04	128.73	9.43	49.78	18.95
	759	11.40	8.51	134.00	10.19	44.99	22.64
	760	13.23	7.55	175.34	8.75	46.49	18.83

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	761	12.08	7.28	165.87	11.49	54.83	20.96
	762	9.66	7.16	134.88	7.20	50.21	14.33
	763	8.40	6.34	132.58	8.82	48.39	18.23
	764	10.08	7.45	135.33	8.61	47.29	18.21
	765	7.45	6.98	106.70	8.66	40.21	21.54
	766	11.87	6.76	175.48	6.57	45.33	14.49
	767	10.89	7.64	142.62	8.47	43.72	19.38
	768	11.67	8.91	130.93	7.92	49.92	15.87
	769	8.29	7.06	117.45	9.10	48.81	18.64
	770	10.28	6.29	163.32	8.10	49.55	16.34
	771	9.52	7.11	133.94	7.36	46.71	15.76
	772	8.38	6.71	124.83	7.70	49.13	15.66
	773	7.50	6.77	110.86	8.28	42.34	19.56
	774	11.61	7.95	146.07	7.82	49.23	15.90
	775	9.92	7.49	132.40	8.19	44.61	18.35
	776	7.78	5.89	132.03	8.80	45.58	19.31
	777	9.96	7.06	141.06	7.11	44.16	16.11
	778	13.21	7.12	185.62	8.47	44.94	18.85
	779	9.39	7.41	126.69	9.36	49.27	19.01
	780	19.58	7.25	269.94	8.13	46.89	17.34

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	781	13.12	8.18	160.36	8.42	48.31	17.43
	782	12.10	7.26	166.61	9.37	49.45	18.95
	783	13.11	7.09	184.93	7.40	40.73	18.18
	784	8.19	7.47	109.63	7.16	47.46	15.08
	785	9.64	7.78	123.97	7.70	47.55	16.18
	786	13.41	7.55	177.48	7.82	40.20	19.45
	787	11.38	7.07	161.10	6.84	45.59	15.00
	788	9.92	7.05	140.83	6.88	39.67	17.34
	789	12.41	6.36	195.12	9.15	51.11	17.90
	790	9.47	6.55	144.70	7.20	41.13	17.50
	791	10.39	6.97	149.04	8.97	47.64	18.83
	792	11.28	7.78	144.97	7.20	41.83	17.21
	793	9.60	6.47	148.46	7.47	46.54	16.05
	794	8.86	6.78	130.61	9.97	46.01	21.67
	795	8.07	7.15	112.92	9.97	46.19	21.58
	796	8.57	7.81	109.69	9.63	46.40	20.76
	797	9.42	7.12	132.30	6.84	46.52	14.70
	798	8.57	6.90	124.16	8.05	49.45	16.28
	799	9.44	6.96	135.71	7.36	47.37	15.54
	800	10.71	7.35	145.67	8.58	44.49	19.28

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	801	8.58	7.47	114.80	8.14	47.90	17.00
	802	8.97	7.24	123.96	7.31	48.27	15.15
	803	11.11	7.17	154.81	9.67	46.94	20.59
	804	9.00	6.96	129.18	7.62	47.72	15.96
	805	8.80	6.78	129.85	7.15	45.03	15.88
	806	8.82	6.69	131.73	8.42	48.50	17.35
	807	7.73	7.21	107.21	9.59	49.28	19.46
	808	12.85	7.00	183.55	6.56	48.98	13.40
	809	9.91	7.06	140.38	7.87	50.57	15.56
	810	9.83	6.70	146.61	8.80	49.84	17.66
	811	11.08	7.96	139.30	6.98	44.83	15.56
	812	8.94	6.94	128.93	9.55	45.79	20.86
	813	12.06	8.18	147.36	7.16	52.26	13.69
	814	9.81	6.96	140.90	9.69	48.59	19.94
	815	7.16	6.58	108.80	7.44	46.02	16.16
	816	10.44	7.34	142.22	9.30	48.36	19.22
	817	9.77	6.65	146.76	7.66	45.90	16.68
	818	10.35	7.95	130.05	8.80	46.76	18.83
	819	11.14	7.24	153.79	9.51	48.05	19.80
	820	10.70	7.08	151.20	6.36	43.92	14.47

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	821	9.08	6.96	130.50	8.18	49.27	16.60
	822	9.97	6.67	149.54	7.65	47.99	15.94
	823	12.14	6.59	184.09	6.95	47.86	14.52
	824	9.20	6.80	135.35	5.87	44.19	13.29
	825	8.42	7.14	118.01	6.88	44.69	15.39
	826	10.01	6.76	147.98	8.05	46.89	17.17
	827	11.47	6.87	166.90	7.36	45.71	16.10
	828	9.29	6.85	135.59	7.57	44.40	17.06
	829	10.18	7.26	140.22	9.12	47.86	19.05
	830	9.26	8.20	113.01	8.26	43.58	18.96
	831	10.04	6.52	153.98	7.88	49.09	16.04
	832	8.97	7.46	120.25	8.37	46.81	17.88
	833	10.65	6.96	152.87	6.84	43.70	15.65
	834	12.08	6.94	174.09	8.42	47.45	17.75
	835	7.83	7.61	102.84	7.82	47.77	16.38
	836	13.44	9.48	141.86	8.18	47.38	17.27
	837	8.74	6.62	132.06	8.63	50.72	17.01
	838	15.14	8.60	175.94	7.40	42.77	17.31
	839	9.66	7.60	127.10	7.79	47.93	16.25
	840	8.59	7.38	116.28	6.36	44.65	14.23

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	841	12.75	7.37	172.98	9.06	47.96	18.90
	842	10.95	7.31	149.73	7.87	49.31	15.96
	843	7.21	7.87	91.58	8.66	49.74	17.42
	844	10.83	7.33	147.87	8.29	46.24	17.92
	845	9.31	7.03	132.37	6.99	46.88	14.91
	846	10.13	6.56	154.53	7.62	37.69	20.21
	847	9.93	7.10	139.79	9.85	43.10	22.86
	848	11.57	7.40	156.40	7.11	43.72	16.27
	849	8.64	7.39	116.94	7.24	42.34	17.10
	850	8.58	6.77	126.75	7.45	48.92	15.23
	851	9.71	7.07	137.40	8.10	41.37	19.59
	852	10.22	7.15	142.97	7.11	47.45	14.98
	853	17.22	7.10	242.51	7.16	45.71	15.65
	854	11.63	7.30	159.47	6.54	42.46	15.40
	855	14.55	7.94	183.28	7.97	45.32	17.58
	856	11.11	7.48	148.60	8.66	47.55	18.22
	857	14.15	7.42	190.59	7.81	47.86	16.31
	858	9.15	7.00	130.71	8.89	43.75	20.31
	859	8.87	6.99	126.76	6.69	42.29	15.81
	860	8.52	7.95	107.26	6.69	44.43	15.05

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	861	10.45	7.64	136.69	7.75	48.40	16.00
	862	11.04	7.09	155.69	9.63	49.05	19.64
	863	9.25	6.84	135.11	7.39	50.68	14.58
	864	10.86	7.50	144.77	7.36	42.77	17.20
	865	12.41	6.98	177.66	8.23	46.54	17.69
	866	8.82	7.11	123.96	7.62	42.91	17.75
	867	12.08	7.33	164.82	7.00	40.70	17.19
	868	12.51	6.89	181.54	7.48	49.05	15.25
	869	7.03	6.89	101.97	8.23	44.86	18.35
	870	11.53	7.14	161.43	8.13	50.21	16.20
	871	12.75	9.10	140.16	6.36	47.51	13.38
	872	14.14	8.52	165.93	9.27	51.16	18.12
	873	10.69	6.94	154.11	6.72	45.13	14.88
	874	11.97	7.56	158.44	7.75	51.43	15.06
	875	9.40	7.09	132.66	8.05	50.08	16.08
	876	12.82	7.28	176.07	7.82	50.29	15.56
	877	8.66	7.66	113.05	7.77	53.06	14.65
	878	7.66	6.86	111.75	7.44	46.85	15.87
	879	7.41	6.00	123.42	8.81	46.75	18.84
	880	11.52	7.40	155.64	7.87	50.72	15.52

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	881	7.58	6.00	126.31	7.27	46.71	15.57
	882	8.79	7.27	120.87	8.42	48.95	17.19
	883	11.50	7.17	160.32	7.36	42.66	17.26
	884	12.24	6.96	175.79	7.92	50.72	15.61
	885	8.72	6.69	130.37	8.77	48.27	18.17
	886	14.24	7.17	198.55	8.28	45.20	18.32
	887	7.36	6.25	117.93	7.97	44.71	17.82
	888	9.79	6.78	144.37	7.75	47.86	16.18
	889	10.42	7.49	139.13	8.57	50.72	16.90
	890	8.73	7.21	121.06	8.32	45.29	18.36
	891	8.66	7.37	117.42	9.87	46.66	21.15
	892	8.93	7.62	117.26	10.67	48.37	22.05
	893	10.51	7.87	133.58	7.27	44.96	16.17
	894	11.63	7.81	148.87	7.70	43.99	17.50
	895	6.96	6.29	110.75	8.89	46.58	19.09
	896	14.32	8.34	171.64	9.06	46.40	19.53
	897	11.04	8.35	132.21	9.51	47.46	20.05
	898	9.84	6.96	141.31	7.74	43.14	17.94
	899	9.81	6.56	149.64	9.06	50.11	18.09
	900	11.77	6.93	169.72	6.91	42.57	16.23

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	901	8.69	7.01	123.93	6.57	45.34	14.48
	902	12.56	8.10	155.07	7.92	44.49	17.81
	903	9.28	6.57	141.17	7.15	46.14	15.50
	904	9.94	7.76	128.12	7.65	49.49	15.46
	905	13.62	7.25	187.86	8.28	46.72	17.73
	906	8.53	7.42	115.03	9.47	50.44	18.78
	907	8.87	7.15	124.07	6.80	45.71	14.87
	908	10.22	7.24	141.22	7.92	47.68	16.62
	909	12.25	7.08	173.02	9.18	46.35	19.80
	910	10.06	7.21	139.50	7.70	49.78	15.46
	911	12.36	8.07	153.11	7.97	46.14	17.27
	912	7.89	6.86	115.01	8.15	52.22	15.61
	913	13.54	7.04	192.18	8.91	47.16	18.90
	914	7.83	6.61	118.40	8.63	48.36	17.84
	915	8.69	7.27	119.40	8.14	47.42	17.16
	916	11.08	7.43	149.03	8.91	45.05	19.79
	917	14.67	6.86	213.95	7.51	43.09	17.43
	918	10.53	7.29	144.43	7.61	42.07	18.08
	919	9.44	7.85	120.25	8.85	50.91	17.39
	920	10.00	7.73	129.29	7.92	46.27	17.12

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	921	9.26	7.71	120.06	9.81	47.06	20.85
	922	8.99	7.02	128.07	7.92	42.61	18.59
	923	11.86	7.97	148.82	6.43	47.73	13.47
	924	9.87	7.95	124.18	8.23	43.06	19.12
	925	11.48	7.31	156.98	7.73	47.37	16.32
	926	9.61	6.70	143.42	7.87	46.76	16.83
	927	10.83	7.55	143.40	7.32	39.12	18.71
	928	13.08	7.25	180.52	7.95	48.99	16.23
	929	13.40	7.23	185.29	8.00	45.15	17.73
	930	9.34	7.28	128.31	8.19	48.13	17.01
	931	11.55	7.60	152.07	8.23	43.72	18.83
	932	6.49	6.64	97.71	8.37	45.38	18.43
	933	9.22	6.58	140.14	8.05	45.75	17.60
	934	8.39	7.33	114.43	6.50	40.72	15.96
	935	11.82	7.83	151.04	7.48	45.12	16.58
	936	15.27	7.17	212.94	9.69	51.88	18.68
	937	13.02	7.73	168.44	8.47	46.36	18.27
	938	11.20	7.00	160.03	7.07	46.39	15.23
	939	9.25	7.93	116.65	7.40	46.79	15.82
	940	9.48	7.28	130.28	7.82	45.47	17.21

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	941	8.08	7.85	103.02	6.17	52.42	11.78
	942	12.02	7.17	167.66	6.80	47.86	14.20
	943	9.56	7.09	134.72	7.77	50.27	15.46
	944	10.60	7.14	148.43	7.65	49.28	15.52
	945	9.89	6.51	152.05	7.56	45.09	16.77
	946	11.26	6.84	164.75	8.00	43.23	18.51
	947	8.18	6.81	120.05	7.04	42.96	16.38
	948	10.57	7.83	134.92	8.23	46.81	17.59
	949	7.98	7.35	108.65	9.12	46.05	19.79
	950	9.77	7.01	139.37	7.82	44.35	17.63
	951	9.95	7.16	139.10	7.57	43.34	17.48
	952	12.01	8.00	150.22	8.75	45.12	19.40
	953	10.93	7.40	147.69	7.90	46.94	16.84
	954	10.08	6.61	152.39	8.10	45.38	17.84
	955	12.19	7.87	154.87	8.42	53.26	15.80
	956	8.32	6.33	131.37	7.65	41.37	18.49
	957	8.35	7.22	115.56	9.72	49.69	19.57
	958	7.33	6.77	108.16	7.92	42.52	18.62
	959	7.75	6.59	117.50	6.65	44.07	15.09
	960	10.54	7.79	135.20	8.10	46.61	17.37

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	961	8.88	7.53	117.81	8.37	46.79	17.88
	962	9.71	7.05	137.74	7.75	50.27	15.41
	963	10.55	6.48	162.81	7.92	45.80	17.28
	964	11.26	7.29	154.52	8.52	42.13	20.22
	965	8.16	6.48	125.92	7.52	47.14	15.96
	966	9.25	7.57	122.08	7.00	41.98	16.66
	967	15.05	8.50	177.14	8.18	46.27	17.68
	968	12.26	7.20	170.32	8.08	46.45	17.41
	969	13.19	7.26	181.62	7.39	45.84	16.13
	970	9.73	6.59	147.52	7.78	45.12	17.24
	971	12.22	6.71	181.99	6.88	48.50	14.19
	972	10.99	7.23	152.09	7.48	43.84	17.06
	973	11.31	6.95	162.76	8.23	49.51	16.63
	974	11.29	7.36	153.42	7.52	48.23	15.60
	975	9.16	7.61	120.40	9.54	43.05	22.15
	976	9.74	6.87	141.83	8.15	45.63	17.86
	977	8.88	6.63	134.08	7.92	52.92	14.96
	978	13.90	6.89	201.72	7.48	44.75	16.71
	979	7.80	6.18	126.16	7.82	46.76	16.73
	980	9.40	6.74	139.42	7.78	47.46	16.39

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	981	10.93	6.87	159.16	9.00	49.92	18.04
	982	13.50	7.73	174.60	9.21	50.27	18.32
	983	10.34	8.66	119.45	9.04	43.67	20.71
	984	10.24	7.34	139.61	7.31	44.90	16.29
	985	9.10	7.01	129.84	7.36	46.20	15.93
	986	6.94	7.17	96.84	8.10	45.51	17.79
	987	13.02	7.37	176.59	7.87	41.16	19.12
	988	10.47	8.02	130.59	9.44	48.13	19.61
	989	8.39	7.01	119.72	8.80	50.73	17.35
	990	12.57	8.13	154.65	10.09	49.59	20.35
	991	12.18	7.34	165.91	8.28	46.75	17.71
	992	12.48	6.67	187.13	8.32	46.36	17.94
	993	10.61	7.72	137.44	9.59	48.63	19.72
	994	11.39	7.51	151.60	9.30	44.09	21.10
	995	11.04	6.89	160.15	9.06	47.16	19.22
	996	10.20	7.00	145.65	8.75	50.35	17.38
	997	7.27	6.48	112.22	9.42	48.73	19.33
	998	10.13	7.76	130.57	7.90	45.75	17.28
	999	12.02	7.66	156.92	8.23	37.94	21.70
	1000	9.03	7.37	122.58	8.47	46.94	18.04

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1001	8.96	7.25	123.55	7.87	48.35	16.28
	1002	9.88	7.17	137.80	7.92	47.96	16.52
	1003	13.64	6.72	202.82	7.82	46.75	16.74
	1004	11.65	8.21	141.90	8.42	45.17	18.64
	1005	8.51	7.41	114.76	7.15	41.06	17.42
	1006	9.16	6.98	131.30	8.61	45.50	18.92
	1007	11.72	7.91	148.08	8.91	46.83	19.03
	1008	12.28	6.72	182.80	9.21	45.16	20.39
	1009	10.80	6.90	156.43	8.28	42.98	19.27
	1010	9.51	8.37	113.59	11.51	51.54	22.34
	1011	9.65	7.39	130.56	6.21	43.42	14.31
	1012	12.69	6.49	195.48	7.36	45.20	16.29
	1013	10.40	7.01	148.50	8.13	45.03	18.06
	1014	9.13	6.80	134.38	8.71	43.13	20.20
	1015	10.02	6.49	154.24	9.63	47.51	20.26
	1016	11.45	7.10	161.40	7.65	41.71	18.34
	1017	8.01	7.69	104.14	9.97	47.46	21.00
	1018	10.60	7.08	149.72	8.10	46.32	17.48
	1019	9.02	6.97	129.51	8.84	44.66	19.79
	1020	11.57	7.64	151.37	7.40	44.76	16.54

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1021	8.94	7.42	120.56	7.82	46.67	16.77
	1022	10.24	6.44	158.87	8.32	44.42	18.72
	1023	9.56	7.18	133.17	7.31	47.12	15.52
	1024	10.81	7.78	138.98	8.66	45.28	19.13
	1025	15.90	8.84	179.76	6.04	42.93	14.06
	1026	10.54	7.55	139.59	8.77	53.06	16.53
	1027	11.12	7.53	147.66	7.96	47.73	16.67
	1028	10.59	6.67	158.74	9.59	48.49	19.78
	1029	11.29	7.14	158.09	7.62	46.92	16.24
	1030	9.14	7.43	122.93	8.00	43.67	18.33
	1031	8.51	6.93	122.84	8.66	44.20	19.60
	1032	10.21	7.02	145.38	7.18	46.97	15.29
	1033	10.35	7.65	135.22	7.70	44.91	17.15
	1034	13.62	7.61	178.95	9.91	48.90	20.26
	1035	9.96	6.82	146.11	6.84	47.96	14.26
	1036	11.52	6.92	166.46	8.02	48.04	16.68
	1037	8.70	7.10	122.63	8.18	44.32	18.45
	1038	9.17	6.74	136.05	7.78	47.50	16.38
	1039	9.84	6.61	148.76	8.23	44.89	18.34
	1040	11.78	7.27	162.16	8.37	41.59	20.11

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1041	12.39	8.29	149.53	7.20	39.84	18.07
	1042	6.83	7.29	93.60	7.07	50.68	13.95
	1043	11.99	7.69	156.00	7.57	46.67	16.23
	1044	13.13	7.57	173.34	6.91	48.69	14.19
	1045	9.91	6.83	145.04	8.85	48.63	18.21
	1046	10.51	7.96	131.93	7.48	42.66	17.54
	1047	10.81	7.23	149.43	6.88	47.27	14.56
	1048	9.51	6.61	143.95	6.65	41.05	16.20
	1049	10.58	7.51	140.82	8.61	47.96	17.95
	1050	9.15	7.05	129.77	7.44	46.59	15.96
	1051	8.92	6.69	133.48	8.28	47.58	17.41
	1052	8.70	7.93	109.65	8.42	44.37	18.98
	1053	11.37	6.14	185.24	8.89	47.55	18.70
	1054	8.57	6.66	128.69	8.14	42.90	18.97
	1055	12.11	6.96	174.00	8.23	46.05	17.88
	1056	8.62	7.36	117.16	8.58	38.95	22.02
	1057	10.28	7.01	146.62	7.92	46.52	17.03
	1058	9.39	6.91	135.76	7.70	48.09	16.00
	1059	12.09	6.99	173.00	7.24	52.08	13.90
	1060	9.86	6.98	141.39	8.81	46.31	19.02

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1061	11.09	7.44	149.00	8.23	47.20	17.45
	1062	12.88	6.61	194.94	7.46	49.05	15.22
	1063	12.03	7.40	162.55	9.41	53.80	17.49
	1064	9.96	8.50	117.13	8.45	47.60	17.75
	1065	10.55	6.83	154.42	7.27	47.07	15.45
	1066	10.77	7.45	144.50	8.28	41.98	19.73
	1067	13.30	8.33	159.78	7.97	43.34	18.38
	1068	12.14	8.83	137.52	9.18	43.85	20.92
	1069	9.94	7.24	137.39	8.18	46.45	17.61
	1070	9.56	6.83	139.97	9.17	48.50	18.91
	1071	11.24	7.44	151.08	7.36	48.14	15.28
	1072	12.29	7.69	159.86	7.48	45.01	16.62
	1073	8.76	6.00	145.94	10.09	49.31	20.47
	1074	9.81	7.78	126.00	7.70	43.79	17.58
	1075	9.15	7.37	124.13	8.02	49.84	16.08
	1076	8.17	7.34	111.30	6.36	44.60	14.25
	1077	10.38	7.45	139.35	9.12	41.89	21.76
	1078	14.13	8.02	176.06	7.75	45.98	16.85
	1079	9.83	7.40	132.81	7.97	47.07	16.93
	1080	11.40	7.82	145.73	8.10	48.31	16.77

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1081	12.12	7.50	161.66	8.45	46.70	18.10
	1082	9.57	7.10	134.77	7.11	44.56	15.95
	1083	9.09	7.38	123.24	8.10	43.09	18.79
	1084	10.78	6.64	162.42	7.11	51.49	13.81
	1085	10.98	7.35	149.44	8.64	45.29	19.09
	1086	12.75	7.21	176.74	7.95	49.55	16.05
	1087	9.64	7.41	130.04	7.70	48.76	15.79
	1088	12.40	7.57	163.83	7.87	45.33	17.36
	1089	12.45	7.67	162.43	7.92	45.68	17.34
	1090	9.02	8.21	109.92	7.95	40.52	19.62
	1091	7.73	6.95	111.22	8.97	48.44	18.52
	1092	8.18	6.08	134.36	7.00	45.93	15.23
	1093	10.22	6.64	154.00	6.96	41.56	16.74
	1094	8.96	6.70	133.68	6.65	43.34	15.34
	1095	9.91	6.30	157.15	7.87	45.32	17.37
	1096	8.48	6.76	125.50	8.56	45.12	18.97
	1097	11.08	7.84	141.34	9.12	46.58	19.57
	1098	9.00	6.86	131.25	8.34	44.73	18.64
	1099	11.60	7.06	164.29	7.04	38.75	18.16
	1100	14.24	6.80	209.53	8.00	46.48	17.21

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1101	9.87	6.76	145.85	7.32	48.86	14.98
	1102	8.56	7.29	117.49	8.00	46.97	17.03
	1103	10.04	6.93	144.92	8.13	46.49	17.49
	1104	8.92	6.81	131.07	7.16	46.07	15.53
	1105	7.68	7.15	107.37	8.56	45.80	18.68
	1106	8.22	7.13	115.25	8.28	45.12	18.36
	1107	11.69	6.91	169.22	8.34	50.35	16.56
	1108	7.84	7.49	104.69	8.71	43.45	20.06
	1109	9.86	7.42	132.90	7.79	43.58	17.88
	1110	10.12	7.60	133.24	8.00	46.40	17.25
	1111	9.85	6.89	142.93	9.21	46.93	19.62
	1112	9.31	7.52	123.75	7.20	48.66	14.79
	1113	9.28	7.97	116.50	8.77	47.37	18.52
	1114	9.69	6.80	142.49	8.94	47.58	18.80
	1115	16.66	7.26	229.59	8.58	45.62	18.80
	1116	7.96	7.62	104.44	7.11	42.29	16.81
	1117	12.58	8.27	152.03	7.40	47.07	15.73
	1118	14.81	8.02	184.59	6.80	42.69	15.93
	1119	13.73	7.52	182.63	10.00	51.40	19.46
	1120	7.47	6.37	117.18	7.07	43.26	16.34

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1121	10.85	7.01	154.82	7.23	43.09	16.77
	1122	9.32	6.98	133.48	8.56	43.05	19.88
	1123	11.94	7.11	168.07	7.53	40.98	18.37
	1124	11.66	8.81	132.31	7.04	48.09	14.63
	1125	8.57	7.42	115.49	6.69	39.24	17.04
	1126	11.13	7.48	148.86	7.36	49.97	14.73
	1127	14.37	7.16	200.76	8.28	46.85	17.68
	1128	10.28	7.94	129.54	6.36	48.63	13.07
	1129	8.09	6.12	132.17	9.02	44.49	20.28
	1130	8.59	8.09	106.22	7.82	46.71	16.75
	1131	11.59	7.74	149.62	7.75	47.37	16.35
	1132	7.92	7.14	110.93	7.79	45.29	17.20
	1133	11.30	6.81	165.94	9.21	48.78	18.88
	1134	11.66	7.42	157.09	7.11	45.15	15.75
	1135	8.19	6.84	119.65	7.65	44.44	17.22
	1136	12.10	7.33	164.97	8.56	46.02	18.59
	1137	10.37	8.12	127.65	6.65	42.25	15.74
	1138	11.80	7.97	148.07	9.44	42.30	22.32
	1139	7.69	6.65	115.69	7.86	43.62	18.02
	1140	8.65	6.58	131.56	7.97	43.51	18.31

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1141	9.95	7.36	135.27	8.32	42.98	19.35
	1142	8.26	7.04	117.32	8.53	48.01	17.76
	1143	9.23	6.99	131.98	7.75	42.42	18.26
	1144	9.64	6.86	140.59	9.06	51.88	17.46
	1145	11.35	6.79	167.09	8.00	48.63	16.45
	1146	11.15	7.02	158.97	6.69	42.19	15.85
	1147	8.17	7.49	109.08	6.42	43.83	14.65
	1148	8.96	7.04	127.25	6.84	46.27	14.78
	1149	8.04	6.75	119.02	8.85	44.16	20.05
	1150	8.51	7.67	110.98	6.95	39.20	17.73
	1151	7.63	7.09	107.58	9.12	46.24	19.72
	1152	8.25	6.59	125.28	6.36	47.82	13.29
	1153	8.66	7.26	119.20	8.23	42.36	19.44
	1154	10.59	7.27	145.51	8.32	47.12	17.65
	1155	10.84	7.24	149.79	9.21	45.84	20.09
	1156	7.25	7.48	96.82	7.48	49.37	15.15
	1157	9.66	7.91	122.10	7.70	48.73	15.79
	1158	10.57	7.14	147.90	8.37	47.16	17.74
	1159	11.76	7.42	158.50	7.62	49.41	15.42
	1160	9.03	7.54	119.84	8.42	42.90	19.63

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1161	10.11	8.46	119.57	7.70	45.75	16.82
	1162	8.46	6.76	125.24	7.11	44.73	15.89
	1163	11.15	7.75	143.84	7.73	48.73	15.86
	1164	9.15	6.83	134.02	9.38	49.92	18.79
	1165	11.96	7.32	163.40	7.27	48.99	14.84
	1166	11.88	7.13	166.60	7.15	45.53	15.71
	1167	9.26	7.24	127.90	8.95	50.02	17.90
	1168	17.35	7.97	217.78	7.16	42.41	16.87
	1169	7.98	6.43	124.19	8.10	43.08	18.81
	1170	7.97	6.55	121.70	8.05	46.71	17.23
	1171	7.60	6.53	116.49	7.97	42.40	18.80
	1172	13.84	7.97	173.64	8.75	50.45	17.35
	1173	11.80	7.90	149.35	7.43	48.53	15.31
	1174	8.07	6.87	117.45	7.62	43.14	17.66
	1175	11.45	6.88	166.28	8.86	46.89	18.90
	1176	10.68	7.34	145.60	10.49	48.86	21.47
	1177	7.19	7.02	102.34	7.20	45.13	15.95
	1178	9.92	7.11	139.52	8.21	48.03	17.10
	1179	9.92	6.51	152.39	8.66	43.94	19.72
	1180	9.06	7.34	123.39	7.60	45.71	16.63

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1181	13.44	6.62	202.89	8.05	46.19	17.43
	1182	8.87	8.17	108.57	7.11	47.68	14.91
	1183	10.52	7.40	142.11	8.66	46.24	18.74
	1184	14.41	7.52	191.70	7.95	46.99	16.92
	1185	10.16	7.72	131.61	8.86	49.13	18.04
	1186	11.00	7.67	143.42	7.20	47.32	15.21
	1187	12.86	7.48	171.96	8.83	47.66	18.54
	1188	10.17	6.75	150.74	8.66	48.98	17.69
	1189	10.06	7.62	131.90	7.00	43.41	16.12
	1190	9.66	7.31	132.12	8.42	46.23	18.22
	1191	10.94	7.30	149.96	8.23	46.57	17.67
	1192	11.89	7.45	159.67	7.48	46.89	15.95
	1193	9.63	8.33	115.53	8.75	49.59	17.65
	1194	9.44	6.99	134.97	7.92	50.17	15.79
	1195	8.64	6.16	140.35	7.70	45.51	16.92
	1196	11.09	7.03	157.78	7.39	44.24	16.70
	1197	11.96	7.86	152.24	9.48	48.90	19.39
	1198	9.47	6.27	151.09	6.21	43.92	14.15
	1199	9.86	7.36	133.90	7.11	42.94	16.56
	1200	12.85	8.05	159.69	8.23	45.75	18.00

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1201	9.98	7.53	132.55	8.37	48.99	17.08
	1202	11.25	7.57	148.63	8.56	42.53	20.13
	1203	8.52	7.00	121.76	9.44	47.72	19.78
	1204	11.52	8.12	141.95	7.39	49.08	15.05
	1205	17.56	7.27	241.45	7.40	44.49	16.64
	1206	11.37	7.66	148.50	8.15	49.45	16.48
	1207	9.14	7.00	130.69	8.13	47.37	17.17
	1208	9.08	7.59	119.66	6.76	42.69	15.83
	1209	9.71	6.37	152.37	8.15	49.24	16.55
	1210	9.34	8.11	115.19	7.16	44.04	16.25
	1211	11.05	7.48	147.77	7.52	48.66	15.46
	1212	8.97	7.54	118.97	8.15	41.87	19.47
	1213	7.31	6.98	104.66	7.27	40.98	17.74
	1214	10.07	6.21	162.15	8.42	46.24	18.21
	1215	12.20	7.22	168.92	9.17	45.63	20.10
	1216	11.35	6.26	181.48	7.52	45.63	16.49
	1217	10.84	7.51	144.36	8.85	45.71	19.37
	1218	12.89	7.70	167.34	8.39	52.08	16.10
	1219	9.35	8.02	116.58	9.54	52.32	18.23
	1220	9.96	7.38	134.98	9.32	46.97	19.85

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1221	10.68	8.00	133.45	8.61	47.14	18.26
	1222	7.53	7.93	94.96	8.39	48.77	17.19
	1223	9.52	6.86	138.74	8.05	48.05	16.75
	1224	10.75	8.18	131.32	7.57	48.17	15.72
	1225	8.94	6.43	139.04	7.39	42.91	17.23
	1226	10.61	6.55	162.12	9.63	49.55	19.44
	1227	9.85	6.91	142.70	9.85	48.31	20.38
	1228	16.09	7.60	211.79	7.31	48.10	15.21
	1229	9.29	7.21	128.92	7.04	42.82	16.43
	1230	11.34	8.60	131.83	7.78	44.33	17.55
	1231	10.83	6.34	170.65	8.29	43.06	19.25
	1232	8.19	7.10	115.27	7.87	47.31	16.64
	1233	10.50	6.87	152.73	9.32	48.90	19.06
	1234	12.76	6.95	183.51	8.00	45.16	17.72
	1235	8.67	7.27	119.33	9.41	50.29	18.72
	1236	10.44	7.28	143.48	10.01	48.23	20.76
	1237	14.10	7.21	195.59	7.61	40.83	18.63
	1238	8.83	7.15	123.53	7.52	41.32	18.21
	1239	10.78	6.66	161.83	9.21	47.37	19.44
	1240	9.16	7.11	128.76	8.42	48.35	17.41

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1241	10.69	6.24	171.16	9.21	45.97	20.03
	1242	12.59	8.22	153.26	8.77	41.92	20.93
	1243	12.32	8.57	143.68	6.01	41.62	14.43
	1244	9.77	6.85	142.64	8.08	43.62	18.53
	1245	14.04	7.29	192.69	7.70	43.87	17.55
	1246	13.40	7.46	179.49	8.81	47.72	18.46
	1247	11.68	7.08	165.06	8.53	44.28	19.25
	1248	11.87	7.62	155.82	7.30	47.42	15.40
	1249	9.08	6.72	135.23	7.27	45.08	16.13
	1250	9.82	7.32	134.21	8.47	48.76	17.37
	1251	7.04	6.99	100.78	7.53	45.13	16.68
	1252	10.71	6.68	160.41	8.77	46.19	18.99
	1253	10.56	7.72	136.71	9.65	46.40	20.81
	1254	7.94	7.38	107.56	8.95	46.83	19.11
	1255	10.13	7.03	144.11	7.88	43.84	17.97
	1256	9.74	6.89	141.32	8.42	48.44	17.38
	1257	8.54	7.37	115.80	8.42	45.66	18.43
	1258	13.85	7.66	180.88	7.70	47.27	16.28
	1259	11.60	8.14	142.52	7.97	44.27	18.00
	1260	9.76	6.96	140.18	9.32	46.31	20.13

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1261	7.52	6.54	115.02	8.42	46.67	18.04
	1262	8.27	7.46	110.84	8.86	47.86	18.51
	1263	9.31	6.66	139.79	8.39	46.02	18.22
	1264	10.29	7.69	133.90	8.84	46.11	19.17
	1265	12.58	7.29	172.54	10.80	49.59	21.77
	1266	10.65	6.40	166.45	7.62	42.66	17.86
	1267	10.61	7.11	149.21	7.49	47.77	15.67
	1268	10.57	6.76	156.36	7.75	49.05	15.79
	1269	6.91	7.16	96.48	8.71	47.72	18.26
	1270	11.73	6.83	171.76	8.18	47.90	17.08
	1271	12.14	7.87	154.29	8.47	48.81	17.36
	1272	15.31	9.83	155.69	8.47	46.22	18.33
	1273	9.85	7.09	138.83	8.71	52.61	16.57
	1274	8.77	7.36	119.08	9.26	42.23	21.94
	1275	10.72	7.49	143.05	8.82	42.72	20.65
	1276	14.01	8.33	168.17	9.30	45.21	20.58
	1277	9.95	7.52	132.25	8.72	46.89	18.60
	1278	7.36	6.91	106.55	8.89	43.63	20.38
	1279	9.88	6.92	142.78	9.02	47.68	18.93
	1280	8.49	6.85	123.97	8.37	42.33	19.76

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1281	14.79	7.32	202.09	7.57	48.41	15.64
	1282	12.33	6.84	180.31	8.47	47.51	17.83
	1283	14.32	7.92	180.75	8.77	47.14	18.59
	1284	9.22	7.59	121.56	8.53	47.37	18.00
	1285	11.18	7.59	147.34	9.00	48.81	18.45
	1286	13.29	8.17	162.74	8.34	46.20	18.04
	1287	9.39	7.77	120.85	7.36	47.20	15.60
	1288	9.15	7.12	128.59	7.00	44.04	15.88
	1289	13.00	7.60	171.05	7.70	48.09	16.01
	1290	10.36	6.84	151.41	8.05	50.25	16.02
	1291	11.09	7.27	152.56	7.97	50.07	15.92
	1292	10.78	8.15	132.22	8.09	47.02	17.21
	1293	12.83	8.25	155.62	9.81	46.01	21.32
	1294	11.35	6.99	162.38	7.53	44.02	17.10
	1295	9.89	8.50	116.30	8.42	47.07	17.88
	1296	9.34	6.61	141.37	9.75	46.31	21.05
	1297	12.09	7.12	169.77	8.61	50.45	17.07
	1298	10.48	7.16	146.28	8.66	49.41	17.52
	1299	11.03	7.53	146.43	7.87	46.61	16.88
	1300	7.53	6.41	117.55	9.00	47.07	19.13

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1301	10.99	6.98	157.44	9.75	51.16	19.06
	1302	9.01	6.74	133.67	8.66	43.90	19.73
	1303	9.44	8.23	114.68	7.52	47.96	15.69
	1304	10.97	7.06	155.51	8.71	46.61	18.69
	1305	12.22	6.95	175.92	7.75	45.48	17.03
	1306	9.10	7.16	127.08	8.47	47.83	17.71
	1307	11.21	6.40	175.16	8.72	40.75	21.40
	1308	9.15	6.65	137.61	8.10	49.17	16.47
	1309	9.45	7.25	130.43	8.61	44.94	19.16
	1310	11.85	7.15	165.78	6.80	46.02	14.78
	1311	11.00	8.79	125.20	7.83	47.63	16.44
	1312	10.14	6.18	164.08	8.33	48.00	17.36
	1313	10.02	7.17	139.73	7.92	44.20	17.92
	1314	7.00	7.32	95.57	8.29	48.59	17.06
	1315	10.81	7.28	148.64	8.10	42.73	18.96
	1316	12.65	8.23	153.62	6.87	45.21	15.20
	1317	8.00	6.73	118.79	8.52	43.74	19.48
	1318	11.62	8.32	139.62	8.23	47.02	17.51
	1319	8.42	8.27	101.76	8.82	50.25	17.56
	1320	12.29	6.97	176.26	9.15	45.05	20.32

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1321	10.34	7.08	146.08	7.27	43.34	16.77
	1322	8.01	8.15	98.33	8.37	45.80	18.27
	1323	13.50	7.52	179.53	8.52	45.75	18.62
	1324	12.27	6.84	179.36	6.86	44.17	15.54
	1325	12.57	8.54	147.19	6.57	43.31	15.16
	1326	11.28	7.51	150.15	9.38	45.12	20.79
	1327	7.82	6.40	122.21	8.28	44.40	18.65
	1328	9.14	7.34	124.42	5.49	44.53	12.32
	1329	10.09	7.77	129.83	7.78	46.81	16.62
	1330	14.12	8.15	173.32	5.91	47.27	12.49
	1331	12.23	7.88	155.08	7.36	48.54	15.17
	1332	10.21	7.00	145.92	9.42	47.55	19.81
	1333	15.42	7.18	214.76	8.23	46.35	17.76
	1334	10.71	8.42	127.22	7.60	42.41	17.92
	1335	11.17	7.25	154.07	6.69	42.75	15.64
	1336	12.91	6.66	193.93	8.28	42.38	19.54
	1337	6.86	6.42	106.85	6.99	49.87	14.02
	1338	10.83	6.61	163.95	7.20	44.26	16.26
	1339	10.05	7.13	140.95	7.82	44.33	17.65
	1340	8.28	6.70	123.65	8.89	39.81	22.34

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1341	10.32	6.71	153.80	8.42	50.35	16.73
	1342	9.10	7.74	117.65	7.53	41.93	17.96
	1343	10.99	7.54	145.67	7.95	41.20	19.30
	1344	10.11	6.31	160.23	8.66	49.09	17.65
	1345	7.62	7.10	107.33	8.94	48.90	18.29
	1346	9.97	8.01	124.47	7.31	44.40	16.47
	1347	9.61	7.23	132.94	7.61	43.30	17.57
	1348	9.55	7.16	133.35	8.26	50.10	16.49
	1349	9.11	6.72	135.52	8.91	46.09	19.34
	1350	8.16	7.18	113.72	10.03	43.45	23.09
	1351	11.13	7.70	144.62	6.25	41.07	15.22
	1352	8.23	7.11	115.84	8.56	49.05	17.45
	1353	10.10	7.65	132.01	10.01	50.82	19.70
	1354	9.50	7.15	132.95	8.00	45.38	17.63
	1355	9.77	7.21	135.35	8.89	48.76	18.24
	1356	10.89	7.00	155.46	9.32	47.96	19.44
	1357	9.85	7.39	133.22	10.20	48.31	21.10
	1358	9.87	7.75	127.37	10.30	51.25	20.10
	1359	8.36	7.35	113.69	7.75	40.37	19.19
	1360	13.78	8.22	167.57	7.36	40.25	18.29

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1361	8.99	6.77	132.77	8.81	44.98	19.58
	1362	8.74	7.36	118.67	8.42	45.33	18.58
	1363	13.91	8.57	162.27	7.16	40.70	17.58
	1364	12.55	7.35	170.76	7.53	45.17	16.67
	1365	9.67	7.02	137.75	9.00	45.75	19.68
	1366	11.40	7.22	157.78	8.00	44.73	17.88
	1367	11.50	8.28	138.86	8.32	51.05	16.29
	1368	11.48	7.39	155.33	8.00	44.89	17.83
	1369	10.17	7.57	134.33	8.95	46.31	19.33
	1370	11.23	6.42	175.01	7.70	45.25	17.01
	1371	9.52	6.43	148.03	8.23	48.90	16.84
	1372	13.73	7.98	172.06	7.66	50.07	15.31
	1373	19.05	8.85	215.26	7.96	43.41	18.33
	1374	8.85	7.00	126.43	6.54	39.85	16.41
	1375	8.39	7.07	118.68	7.65	47.38	16.15
	1376	9.45	6.75	140.04	8.10	44.60	18.17
	1377	15.64	7.24	216.11	7.75	49.87	15.53
	1378	10.84	6.91	156.81	7.97	45.75	17.42
	1379	9.59	7.31	131.09	7.65	51.77	14.78
	1380	9.83	6.79	144.79	8.10	42.81	18.93

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1381	13.05	8.25	158.22	7.08	41.56	17.03
	1382	8.90	7.13	124.72	7.97	43.82	18.19
	1383	8.43	7.24	116.40	7.20	49.09	14.66
	1384	8.64	7.51	115.11	7.70	44.91	17.15
	1385	8.62	7.04	122.39	6.36	47.15	13.48
	1386	8.16	7.41	110.20	6.50	42.58	15.27
	1387	11.72	7.42	158.12	8.66	45.25	19.15
	1388	9.56	7.12	134.23	9.15	45.67	20.03
	1389	12.65	7.32	172.83	9.17	44.23	20.73
	1390	10.55	7.03	150.18	8.05	50.95	15.80
	1391	9.93	7.40	134.19	7.24	50.44	14.35
	1392	9.62	7.47	128.83	8.32	51.39	16.18
	1393	8.84	7.85	112.63	8.08	44.16	18.31
	1394	12.39	7.56	163.87	8.91	47.06	18.94
	1395	8.17	7.28	112.27	9.91	43.13	22.98
	1396	12.32	7.30	168.74	8.77	42.45	20.67
	1397	10.00	6.74	148.44	7.00	45.80	15.27
	1398	8.29	7.61	108.89	8.37	47.37	17.66
	1399	10.08	7.93	127.07	7.36	46.71	15.76
	1400	8.91	6.39	139.44	6.04	44.10	13.70

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1401	7.78	7.38	105.43	7.57	44.69	16.95
	1402	9.00	8.26	108.92	6.95	45.42	15.30
	1403	13.05	7.20	181.27	6.54	43.33	15.09
	1404	10.08	7.40	136.15	9.00	45.43	19.82
	1405	8.54	6.86	124.51	8.66	44.49	19.47
	1406	12.92	8.05	160.56	9.00	49.47	18.20
	1407	13.70	7.83	174.83	7.53	46.83	16.08
	1408	10.20	6.80	150.07	7.23	44.07	16.40
	1409	11.57	7.94	145.74	7.92	45.12	17.56
	1410	11.25	7.22	155.74	6.57	45.15	14.55
	1411	9.33	7.97	117.04	8.61	43.43	19.83
	1412	9.85	6.51	151.39	8.42	45.51	18.51
	1413	10.33	6.46	160.04	8.10	50.14	16.15
	1414	8.85	7.81	113.31	6.39	39.61	16.14
	1415	10.34	6.83	151.27	9.12	48.63	18.75
	1416	7.83	7.07	110.74	8.29	46.76	17.72
	1417	12.58	7.06	178.09	9.54	42.53	22.42
	1418	9.92	7.06	140.48	8.77	45.03	19.48
	1419	9.95	7.56	131.56	7.49	41.55	18.02
	1420	9.52	7.98	119.32	8.20	42.23	19.41

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1421	9.72	6.27	155.05	7.11	45.29	15.71
	1422	12.39	6.80	182.14	8.47	46.14	18.36
	1423	12.57	7.30	172.24	8.47	50.60	16.74
	1424	11.89	8.76	135.79	8.42	43.01	19.58
	1425	12.42	7.40	167.75	7.27	47.30	15.37
	1426	11.56	7.29	158.50	8.80	45.92	19.17
	1427	8.54	7.18	118.98	8.05	48.39	16.64
	1428	11.64	7.58	153.48	8.23	48.39	17.02
	1429	12.55	7.76	161.78	9.02	48.03	18.79
	1430	8.89	6.61	134.51	9.58	47.81	20.03
	1431	8.31	7.02	118.36	8.53	44.63	19.10
	1432	10.92	7.09	154.17	9.36	47.64	19.64
	1433	8.55	6.96	122.79	9.06	47.55	19.05
	1434	12.30	7.48	164.49	9.17	42.45	21.60
	1435	9.30	6.61	140.86	10.42	50.62	20.59
	1436	9.71	7.10	136.75	9.11	40.32	22.59
	1437	10.78	6.59	163.46	10.01	52.71	18.99
	1438	9.30	7.78	119.58	7.65	45.54	16.80
	1439	8.39	7.26	115.59	8.00	46.16	17.34
	1440	9.74	7.19	135.50	9.08	45.05	20.15

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1441	10.84	7.45	145.54	6.69	45.25	14.78
	1442	12.00	6.83	175.62	7.57	43.21	17.53
	1443	11.52	7.42	155.28	8.23	49.59	16.60
	1444	8.75	6.29	139.09	7.11	46.08	15.43
	1445	9.28	7.42	125.07	7.20	46.05	15.63
	1446	11.02	7.21	152.74	6.80	43.37	15.68
	1447	11.03	7.05	156.39	8.05	43.06	18.69
	1448	10.04	7.85	127.83	7.36	46.97	15.67
	1449	10.14	7.41	136.74	9.97	43.87	22.72
	1450	12.28	7.21	170.24	9.12	48.67	18.73
	1451	14.10	7.10	198.65	7.95	41.56	19.13
	1452	10.90	7.43	146.63	8.43	44.33	19.03
	1453	15.56	7.41	209.89	7.78	51.02	15.25
	1454	9.49	7.10	133.60	8.56	48.14	17.77
	1455	11.86	7.52	157.55	8.39	43.28	19.37
	1456	11.17	7.13	156.80	7.44	42.06	17.68
	1457	10.87	7.02	154.70	9.91	49.59	19.98
	1458	7.35	6.70	109.63	8.23	45.66	18.02
	1459	9.08	7.65	118.77	7.00	39.51	17.71
	1460	12.75	6.98	182.71	7.43	48.59	15.29

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1461	9.93	7.84	126.73	7.65	49.74	15.38
	1462	10.47	7.28	143.77	9.50	51.16	18.56
	1463	8.31	7.09	117.21	6.61	43.12	15.33
	1464	10.51	7.65	137.37	9.21	50.68	18.17
	1465	9.78	7.44	131.51	6.31	44.24	14.27
	1466	7.60	6.70	113.46	9.57	49.92	19.17
	1467	10.29	7.21	142.74	8.61	47.46	18.15
	1468	11.19	8.63	129.57	7.48	43.66	17.13
	1469	9.54	6.79	140.53	9.14	48.22	18.96
	1470	13.40	6.97	192.18	8.77	42.17	20.80
	1471	9.38	8.03	116.89	9.45	45.17	20.93
	1472	9.56	7.60	125.69	8.03	42.02	19.12
	1473	10.24	8.08	126.69	8.06	47.32	17.02
	1474	10.80	6.62	163.07	8.37	46.19	18.11
	1475	9.33	7.37	126.53	8.59	44.19	19.43
	1476	11.35	7.65	148.30	8.23	41.86	19.67
	1477	8.69	7.01	123.94	10.20	46.24	22.05
	1478	11.02	6.88	160.04	7.70	47.73	16.13
	1479	9.07	7.18	126.24	9.32	50.84	18.34
	1480	8.78	7.31	120.16	8.48	46.98	18.04

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1481	8.73	7.19	121.31	8.18	45.59	17.94
	1482	7.45	6.74	110.55	8.45	48.03	17.60
	1483	11.46	7.23	158.50	7.77	51.02	15.24
	1484	11.18	7.28	153.42	7.36	41.97	17.54
	1485	8.09	6.63	122.02	7.11	46.36	15.34
	1486	13.46	7.07	190.46	8.45	47.55	17.77
	1487	7.53	6.91	108.93	9.43	48.03	19.64
	1488	9.89	7.37	134.18	7.70	48.78	15.79
	1489	8.85	6.81	129.91	7.11	44.86	15.85
	1490	7.55	6.24	121.02	8.58	43.14	19.88
	1491	9.17	6.54	140.25	8.15	44.82	18.18
	1492	10.69	7.15	149.54	10.73	50.31	21.32
	1493	8.57	6.93	123.62	8.66	43.41	19.96
	1494	10.58	8.40	125.87	7.79	45.54	17.11
	1495	14.30	7.38	193.80	8.61	45.67	18.86
	1496	9.33	7.26	128.55	10.56	46.93	22.50
	1497	10.37	7.63	136.05	10.49	48.36	21.69
	1498	8.06	7.22	111.59	9.51	45.82	20.76
	1499	7.86	7.30	107.73	7.49	45.51	16.45
	1500	9.98	7.23	137.95	6.61	42.56	15.53

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1501	15.68	6.45	243.19	9.00	51.16	17.60
	1502	10.14	6.67	151.94	7.73	44.33	17.43
	1503	11.03	7.49	147.35	7.60	47.86	15.88
	1504	10.97	6.96	157.53	9.15	48.03	19.06
	1505	11.32	7.20	157.36	7.65	47.63	16.06
	1506	14.02	9.16	153.15	7.20	47.96	15.01
	1507	7.64	7.26	105.27	7.04	45.36	15.51
	1508	7.45	6.42	116.19	8.19	45.90	17.83
	1509	10.30	7.05	146.05	7.78	43.72	17.79
	1510	9.51	6.75	140.91	7.36	44.85	16.41
	1511	12.38	7.88	157.24	7.78	48.63	16.00
	1512	12.47	8.01	155.71	8.82	50.07	17.62
	1513	9.79	6.24	156.85	10.24	47.69	21.47
	1514	11.40	7.86	144.99	6.76	47.27	14.29
	1515	10.37	7.82	132.70	7.62	45.08	16.90
	1516	11.91	8.13	146.50	8.71	46.72	18.65
	1517	12.43	7.74	160.50	8.34	50.72	16.44
	1518	8.47	6.82	124.21	8.42	51.25	16.42
	1519	9.32	8.27	112.70	8.00	45.89	17.44
	1520	13.56	6.94	195.44	7.20	49.27	14.61

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1521	14.46	7.50	192.94	7.53	44.62	16.87
	1522	11.07	7.76	142.65	8.75	45.84	19.08
	1523	10.50	7.28	144.21	9.26	44.89	20.63
	1524	10.54	6.92	152.23	7.65	42.74	17.90
	1525	11.80	7.24	163.04	7.18	42.98	16.71
	1526	11.55	7.94	145.53	8.28	48.86	16.95
	1527	11.45	7.27	157.47	7.70	47.02	16.37
	1528	11.61	7.16	162.19	7.65	48.69	15.71
	1529	10.56	7.63	138.40	9.85	51.88	18.98
	1530	8.95	6.44	138.98	6.84	44.90	15.23
	1531	8.43	7.10	118.83	8.80	44.89	19.61
	1532	9.84	7.11	138.32	7.95	43.60	18.24
	1533	8.69	6.88	126.19	7.36	45.24	16.27
	1534	9.72	6.79	143.26	7.36	45.93	16.03
	1535	11.00	7.60	144.73	8.80	43.80	20.10
	1536	10.14	7.75	130.85	8.10	49.49	16.37
	1537	11.26	8.43	133.60	7.95	45.59	17.44
	1538	13.58	6.99	194.16	9.06	43.79	20.70
	1539	13.34	8.04	165.91	8.77	48.49	18.09
	1540	10.84	6.88	157.60	8.56	44.40	19.27

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1541	10.52	7.37	142.69	9.00	51.49	17.48
	1542	10.91	6.74	161.74	8.20	46.10	17.78
	1543	9.68	6.98	138.73	6.80	45.15	15.06
	1544	7.91	6.77	116.78	8.71	45.68	19.08
	1545	7.77	7.69	101.06	6.96	38.66	17.99
	1546	8.79	7.43	118.31	8.10	47.20	17.17
	1547	7.80	6.39	122.11	9.32	53.56	17.41
	1548	10.47	6.46	162.02	7.53	48.82	15.42
	1549	7.90	6.53	120.89	7.75	40.74	19.01
	1550	11.91	8.64	137.87	8.70	42.45	20.49
	1551	10.32	7.35	140.43	7.92	49.64	15.95
	1552	11.08	7.29	151.85	8.56	49.18	17.41
	1553	7.98	6.45	123.65	8.37	43.95	19.03
	1554	10.80	7.58	142.43	8.00	48.23	16.59
	1555	7.45	6.26	119.07	7.70	45.68	16.85
	1556	10.22	8.09	126.28	7.44	49.97	14.88
	1557	10.20	6.32	161.42	7.36	50.11	14.69
	1558	7.65	7.61	100.49	8.56	50.64	16.90
	1559	10.53	7.26	145.00	8.20	43.51	18.84
	1560	11.04	9.14	120.73	6.84	48.44	14.12

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1561	11.26	6.89	163.57	9.21	50.84	18.11
	1562	10.39	7.29	142.51	7.82	41.16	19.01
	1563	13.31	7.86	169.34	7.11	43.09	16.50
	1564	9.80	6.63	147.79	7.92	48.81	16.23
	1565	10.60	7.24	146.44	8.71	44.18	19.72
	1566	10.94	7.37	148.53	8.89	45.14	19.70
	1567	12.35	7.30	169.20	7.08	45.71	15.49
	1568	7.95	7.20	110.38	8.52	45.71	18.64
	1569	10.42	7.40	140.70	9.22	48.31	19.09
	1570	11.33	7.88	143.89	7.65	46.54	16.44
	1571	15.53	7.49	207.27	8.10	45.80	17.68
	1572	11.93	8.09	147.43	6.64	50.57	13.14
	1573	8.70	7.87	110.60	8.71	45.84	19.01
	1574	8.22	7.30	112.69	8.00	47.73	16.76
	1575	13.36	8.28	161.33	8.80	46.22	19.05
	1576	11.58	7.67	150.91	7.88	50.97	15.45
	1577	10.98	6.19	177.33	9.71	44.78	21.69
	1578	7.25	7.35	98.51	7.73	51.16	15.11
	1579	12.02	7.72	155.72	9.19	46.06	19.95
	1580	8.60	6.77	127.01	7.77	47.60	16.33

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1581	10.70	7.77	137.70	8.56	50.68	16.88
	1582	12.71	7.00	181.57	7.82	45.03	17.38
	1583	11.56	6.42	180.16	7.20	46.70	15.41
	1584	14.04	8.25	170.08	9.38	48.44	19.36
	1585	7.84	7.77	100.87	9.54	48.41	19.70
	1586	12.24	7.95	153.96	6.18	48.71	12.68
	1587	10.65	6.56	162.27	7.62	47.96	15.89
	1588	11.75	7.98	147.23	8.63	46.49	18.56
	1589	13.60	7.53	180.61	7.45	47.27	15.76
	1590	9.63	6.85	140.51	8.15	43.57	18.71
	1591	11.34	7.43	152.48	9.85	44.41	22.17
	1592	8.88	7.50	118.33	7.82	45.80	17.08
	1593	9.08	6.65	136.52	9.41	53.96	17.44
	1594	12.95	8.23	157.39	7.53	47.20	15.95
	1595	10.30	8.83	116.60	9.21	48.00	19.19
	1596	8.20	7.05	116.26	8.18	45.52	17.97
	1597	10.04	7.85	127.82	8.82	44.85	19.67
	1598	9.30	6.58	141.27	8.89	48.37	18.38
	1599	7.41	7.60	97.47	10.20	46.66	21.85
	1600	11.99	7.99	150.05	7.75	44.05	17.58

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1601	8.90	6.89	129.20	9.32	40.67	22.91
	1602	8.09	7.18	112.73	6.61	43.63	15.15
	1603	11.82	7.18	164.70	7.65	42.08	18.18
	1604	11.30	7.34	153.88	6.32	48.66	12.98
	1605	13.16	8.18	160.74	7.70	48.71	15.81
	1606	8.79	7.49	117.34	9.36	44.37	21.09
	1607	8.40	7.23	116.19	7.02	44.53	15.77
	1608	8.59	6.56	130.84	8.50	45.68	18.61
	1609	9.88	7.04	140.33	7.07	45.08	15.68
	1610	13.75	6.26	219.46	8.05	44.91	17.93
	1611	10.93	6.90	158.46	8.15	48.53	16.79
	1612	7.45	6.19	120.37	8.91	48.76	18.28
	1613	6.63	6.56	101.15	7.00	45.41	15.41
	1614	9.08	7.74	117.23	9.02	48.18	18.73
	1615	9.18	6.13	149.91	6.96	38.55	18.04
	1616	8.97	6.89	130.13	6.87	47.32	14.52
	1617	11.33	7.69	147.44	9.02	47.68	18.93
	1618	8.95	6.38	140.18	7.57	47.10	16.08
	1619	9.19	7.01	131.18	7.07	43.49	16.25
	1620	11.18	7.08	157.99	7.70	43.41	17.73

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1621	9.14	7.62	120.03	7.22	49.55	14.58
	1622	10.91	8.08	134.89	8.47	48.44	17.48
	1623	12.44	7.18	173.13	9.12	47.24	19.30
	1624	11.45	7.04	162.79	9.72	45.77	21.25
	1625	11.60	8.28	140.08	7.11	43.83	16.22
	1626	9.88	7.75	127.61	6.99	44.64	15.66
	1627	8.54	7.83	109.03	7.16	41.25	17.35
	1628	9.91	6.99	141.67	6.76	43.14	15.66
	1629	14.09	7.37	191.01	9.21	47.11	19.55
	1630	9.69	6.70	144.70	6.65	48.17	13.80
	1631	10.33	6.79	152.12	8.91	49.59	17.97
	1632	9.26	6.99	132.44	9.47	49.13	19.28
	1633	10.80	7.79	138.66	8.42	40.92	20.58
	1634	11.18	7.05	158.71	7.61	45.67	16.65
	1635	9.32	7.61	122.47	8.23	47.51	17.33
	1636	9.52	7.32	130.03	8.66	48.55	17.84
	1637	9.87	6.70	147.43	7.32	45.84	15.96
	1638	10.43	8.40	124.15	6.72	47.60	14.11
	1639	9.59	7.75	123.74	7.75	46.87	16.53
	1640	9.84	7.42	132.59	8.37	47.41	17.66

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1641	12.98	6.43	201.82	8.89	46.38	19.18
	1642	7.95	6.61	120.28	6.08	42.62	14.26
	1643	8.96	6.58	136.14	8.26	53.06	15.57
	1644	9.54	6.47	147.41	7.45	40.40	18.44
	1645	9.53	6.92	137.76	8.32	49.18	16.91
	1646	8.43	6.47	130.31	8.06	37.83	21.29
	1647	10.73	8.08	132.75	8.80	42.54	20.69
	1648	15.05	7.46	201.75	7.75	48.27	16.05
	1649	10.02	6.33	158.34	7.75	38.63	20.05
	1650	10.70	6.82	156.80	7.18	41.77	17.19
	1651	7.98	6.90	115.78	9.90	50.29	19.69
	1652	9.27	7.39	125.49	7.20	43.79	16.44
	1653	10.30	7.20	142.95	6.54	42.57	15.36
	1654	9.19	7.49	122.72	7.70	50.54	15.23
	1655	12.86	7.85	163.81	9.26	42.13	21.99
	1656	7.92	7.16	110.73	8.28	47.20	17.55
	1657	11.32	7.08	159.95	7.51	50.20	14.96
	1658	12.51	9.00	139.02	8.23	45.45	18.10
	1659	13.17	7.60	173.21	7.31	49.82	14.68
	1660	11.70	6.48	180.64	7.56	46.94	16.11

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1661	8.05	7.88	102.18	7.11	47.55	14.95
	1662	14.33	7.08	202.31	9.15	46.75	19.57
	1663	9.77	7.68	127.13	8.85	51.60	17.16
	1664	10.98	7.06	155.59	6.99	44.73	15.63
	1665	8.42	8.47	99.38	9.38	47.68	19.67
	1666	10.25	7.44	137.67	9.47	46.54	20.36
	1667	10.76	7.10	151.42	7.77	52.42	14.83
	1668	9.44	7.51	125.61	7.32	51.01	14.35
	1669	10.28	7.46	137.69	7.90	44.11	17.92
	1670	9.75	6.87	141.99	8.47	55.14	15.36
	1671	11.05	7.20	153.54	9.00	43.18	20.85
	1672	8.25	6.74	122.29	6.72	45.03	14.92
	1673	10.80	7.09	152.42	7.70	44.40	17.33
	1674	9.38	7.23	129.76	7.34	49.55	14.82
	1675	9.50	7.41	128.19	9.27	43.13	21.49
	1676	10.34	6.14	168.48	9.00	48.05	18.74
	1677	8.91	7.39	120.43	8.52	52.61	16.20
	1678	9.54	7.79	122.55	8.13	45.14	18.02
	1679	10.09	7.66	131.75	8.58	49.41	17.36
	1680	8.61	6.97	123.58	7.95	48.86	16.27

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1681	11.40	6.13	186.03	8.61	48.73	17.68
	1682	11.47	7.16	160.31	7.56	45.88	16.47
	1683	10.60	7.33	144.68	8.75	47.06	18.60
	1684	10.52	7.56	139.23	8.42	41.92	20.09
	1685	8.33	7.03	118.43	8.97	42.76	20.97
	1686	9.36	7.26	128.90	8.66	50.02	17.32
	1687	9.80	6.81	143.95	8.82	46.70	18.89
	1688	10.85	8.10	134.01	7.56	46.27	16.33
	1689	10.53	7.42	141.82	6.95	43.19	16.09
	1690	7.75	7.66	101.19	8.34	43.87	19.00
	1691	9.88	7.50	131.83	6.53	43.34	15.06
	1692	14.29	7.49	190.70	8.10	42.94	18.86
	1693	8.87	7.34	120.90	8.82	47.37	18.63
	1694	10.59	7.89	134.18	10.82	49.32	21.93
	1695	12.04	7.88	152.76	9.20	48.27	19.06
	1696	7.20	7.13	100.92	7.14	46.14	15.47
	1697	9.64	7.13	135.24	7.82	46.72	16.74
	1698	8.74	6.80	128.60	8.80	52.08	16.90
	1699	11.47	8.09	141.71	8.10	47.68	16.98
	1700	12.53	8.80	142.45	8.52	51.16	16.65

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1701	10.74	6.63	161.85	7.82	46.98	16.65
	1702	10.44	6.88	151.62	8.91	48.37	18.43
	1703	9.14	7.70	118.65	8.34	48.73	17.11
	1704	8.74	7.19	121.63	8.05	47.82	16.83
	1705	13.16	7.56	174.12	7.92	43.46	18.23
	1706	9.20	6.63	138.65	7.44	46.32	16.05
	1707	8.25	7.25	113.77	8.72	46.66	18.69
	1708	6.84	6.14	111.42	7.70	47.96	16.05
	1709	10.51	7.60	138.33	7.92	45.03	17.58
	1710	10.78	7.05	153.01	7.92	45.41	17.43
	1711	7.66	7.02	109.10	9.63	47.37	20.34
	1712	8.58	6.81	126.07	9.06	42.81	21.15
	1713	16.73	7.80	214.45	8.42	43.33	19.43
	1714	11.57	6.82	169.66	9.81	45.45	21.58
	1715	9.09	7.67	118.63	7.62	37.33	20.41
	1716	11.54	7.81	147.83	7.11	43.29	16.42
	1717	11.58	6.85	168.96	8.19	43.87	18.66
	1718	9.52	7.18	132.46	7.52	44.90	16.76
	1719	11.24	7.53	149.27	7.45	47.27	15.76
	1720	9.45	6.98	135.39	10.36	50.68	20.44

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1721	9.21	7.22	127.58	9.75	45.51	21.42
	1722	12.28	6.97	176.06	7.31	42.81	17.08
	1723	9.46	7.32	129.26	7.52	41.35	18.20
	1724	9.35	6.76	138.32	8.61	52.71	16.34
	1725	11.13	7.07	157.47	8.52	41.43	20.57
	1726	9.00	7.72	116.64	8.13	46.96	17.32
	1727	9.05	7.11	127.36	7.92	43.09	18.38
	1728	10.81	7.14	151.47	7.27	46.08	15.78
	1729	9.72	6.32	153.87	7.78	46.85	16.61
	1730	9.33	6.96	134.08	8.37	43.82	19.10
	1731	8.39	6.86	122.37	6.95	43.13	16.12
	1732	9.53	6.99	136.33	9.36	48.55	19.27
	1733	10.02	6.78	147.80	8.00	48.01	16.67
	1734	11.02	7.53	146.45	7.82	48.37	16.18
	1735	9.98	8.75	114.06	8.00	48.96	16.35
	1736	8.61	8.02	107.39	7.70	42.59	18.08
	1737	11.83	6.72	175.88	7.70	44.28	17.38
	1738	12.33	7.04	175.10	7.97	42.72	18.65
	1739	11.60	7.31	158.77	6.69	44.24	15.12
	1740	9.77	6.79	143.88	7.92	45.72	17.33

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1741	9.62	7.30	131.82	7.04	40.61	17.33
	1742	8.44	6.74	125.14	8.66	44.61	19.42
	1743	7.32	6.65	110.14	7.00	42.23	16.57
	1744	12.29	6.86	178.97	7.82	47.63	16.43
	1745	8.37	8.17	102.38	9.32	52.92	17.61
	1746	12.82	6.96	184.09	9.69	47.90	20.23
	1747	11.70	7.54	155.21	8.15	42.74	19.07
	1748	10.83	7.19	150.59	7.40	45.90	16.13
	1749	8.57	7.98	107.39	8.58	43.79	19.59
	1750	11.78	7.59	155.14	9.02	52.67	17.13
	1751	8.64	6.25	138.29	7.82	47.96	16.32
	1752	6.32	6.33	99.74	8.61	48.63	17.70
	1753	13.07	7.39	177.00	6.69	41.11	16.27
	1754	11.46	6.68	171.68	6.61	46.14	14.31
	1755	12.11	7.22	167.73	8.56	51.49	16.62
	1756	9.91	7.15	138.65	8.42	42.53	19.79
	1757	11.53	8.08	142.71	7.04	46.75	15.05
	1758	9.45	9.03	104.60	6.54	41.17	15.88
	1759	8.71	6.95	125.34	8.05	44.66	18.02
	1760	12.51	7.56	165.56	7.82	46.89	16.69

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1761	13.69	6.91	198.26	9.42	50.21	18.76
	1762	9.73	8.66	112.45	8.61	45.78	18.80
	1763	9.74	6.38	152.61	9.50	45.92	20.68
	1764	10.06	7.07	142.30	8.58	48.40	17.72
	1765	10.32	7.14	144.61	9.97	49.47	20.15
	1766	14.29	8.22	173.81	6.87	40.48	16.97
	1767	12.06	6.27	192.14	8.95	45.03	19.88
	1768	7.77	6.38	121.86	6.04	44.24	13.65
	1769	10.79	7.76	139.02	9.00	46.11	19.52
	1770	7.91	7.43	106.49	6.65	40.90	16.26
	1771	11.96	7.27	164.38	7.82	43.72	17.90
	1772	11.63	7.23	160.90	7.65	38.76	19.74
	1773	10.06	6.89	145.97	8.71	44.61	19.53
	1774	12.06	6.88	175.32	7.78	45.38	17.14
	1775	7.31	6.57	111.17	7.03	42.81	16.41
	1776	10.87	6.65	163.43	10.20	45.42	22.46
	1777	15.31	7.58	202.01	7.92	51.10	15.49
	1778	9.23	7.06	130.70	8.81	43.84	20.10
	1779	10.00	7.48	133.75	8.15	41.82	19.49
	1780	10.30	8.32	123.77	7.53	42.36	17.77

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1781	9.44	7.45	126.71	8.10	43.38	18.68
	1782	8.61	7.29	118.13	6.50	39.99	16.26
	1783	11.93	6.86	173.93	8.06	43.25	18.63
	1784	8.61	7.13	120.80	8.15	46.45	17.55
	1785	9.34	7.72	120.94	8.86	45.77	19.36
	1786	11.66	7.69	151.61	8.51	47.02	18.09
	1787	10.89	6.91	157.63	8.61	46.54	18.51
	1788	8.43	7.31	115.39	8.10	47.41	17.08
	1789	9.95	6.64	149.83	7.48	49.13	15.23
	1790	9.63	6.48	148.69	8.23	44.99	18.30
	1791	7.23	7.28	99.30	7.32	41.93	17.45
	1792	11.25	7.99	140.76	7.48	47.37	15.79
	1793	9.15	7.17	127.61	9.10	47.96	18.97
	1794	12.90	7.13	180.96	9.21	46.81	19.67
	1795	8.49	5.92	143.44	7.32	45.38	16.13
	1796	10.40	8.04	129.26	9.12	45.67	19.96
	1797	10.37	7.24	143.29	8.19	41.95	19.51
	1798	8.92	8.00	111.47	8.91	45.58	19.56
	1799	8.42	6.90	121.94	7.87	47.96	16.41
	1800	10.39	7.28	142.83	8.42	48.18	17.48

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1801	10.08	7.70	130.82	10.07	46.02	21.88
	1802	8.57	7.14	119.97	9.21	49.13	18.75
	1803	9.33	7.78	119.91	8.37	45.67	18.33
	1804	9.83	7.75	126.85	9.21	45.62	20.19
	1805	9.11	7.60	119.95	7.27	47.32	15.36
	1806	10.00	7.53	132.75	6.80	42.81	15.88
	1807	9.74	6.95	140.30	7.48	47.51	15.75
	1808	10.19	7.42	137.37	7.82	47.12	16.61
	1809	9.78	8.23	118.83	8.42	48.44	17.38
	1810	12.36	6.62	186.70	9.32	48.09	19.39
	1811	11.07	7.55	146.74	7.65	46.18	16.57
	1812	8.41	7.06	119.22	7.48	48.31	15.48
	1813	8.29	6.48	127.96	7.87	44.44	17.71
	1814	8.05	7.03	114.62	7.24	47.07	15.38
	1815	10.41	6.82	152.73	8.45	50.54	16.72
	1816	10.25	6.96	147.36	7.70	44.96	17.12
	1817	10.32	7.62	135.43	7.92	40.48	19.56
	1818	12.37	9.23	134.01	8.80	50.35	17.48
	1819	8.91	7.09	125.70	8.91	45.75	19.48
	1820	7.85	6.01	130.63	7.82	48.42	16.16

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1821	9.04	7.12	127.07	8.48	44.16	19.19
	1822	9.38	7.19	130.57	7.00	44.50	15.72
	1823	9.92	7.44	133.41	7.95	40.98	19.40
	1824	8.20	6.24	131.45	7.75	42.13	18.38
	1825	7.23	6.15	117.66	9.47	51.16	18.52
	1826	12.12	7.37	164.43	6.65	44.94	14.79
	1827	11.28	6.85	164.63	7.90	45.12	17.52
	1828	9.39	7.05	133.07	8.52	46.53	18.31
	1829	10.46	6.53	160.34	6.76	45.59	14.82
	1830	10.40	7.83	132.92	10.09	44.93	22.47
	1831	8.37	7.61	110.06	7.00	42.39	16.50
	1832	9.51	7.62	124.85	8.10	43.41	18.66
	1833	14.62	7.53	194.27	8.92	46.10	19.35
	1834	11.80	7.29	162.01	8.97	52.67	17.03
	1835	8.18	6.68	122.37	8.48	46.18	18.36
	1836	10.91	8.18	133.36	7.82	45.90	17.05
	1837	9.74	7.26	134.26	8.58	43.85	19.56
	1838	9.12	6.46	141.25	7.31	39.19	18.66
	1839	9.69	6.75	143.63	7.39	44.49	16.62
	1840	8.78	7.26	121.07	10.36	48.31	21.44

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1841	11.50	7.78	147.83	8.28	47.20	17.55
	1842	13.80	6.97	197.93	8.19	47.41	17.27
	1843	12.73	7.76	164.04	9.12	41.66	21.88
	1844	13.39	7.11	188.16	7.36	49.55	14.86
	1845	11.80	8.01	147.42	8.71	45.95	18.97
	1846	9.70	7.23	134.26	9.00	48.37	18.61
	1847	11.04	7.32	150.89	7.79	47.96	16.25
	1848	8.99	8.76	102.62	10.95	50.11	21.85
	1849	9.35	6.80	137.39	7.36	49.82	14.77
	1850	7.86	6.88	114.29	7.15	51.29	13.94
	1851	9.44	7.72	122.30	7.04	44.27	15.89
	1852	7.24	6.48	111.86	7.00	43.63	16.04
	1853	8.95	7.42	120.63	8.14	52.22	15.60
	1854	12.84	7.53	170.61	8.81	47.15	18.68
	1855	10.31	7.65	134.69	7.52	41.14	18.29
	1856	15.08	7.59	198.61	9.26	47.37	19.56
	1857	10.27	8.23	124.78	7.11	42.42	16.76
	1858	11.98	7.44	161.08	7.07	48.86	14.46
	1859	12.02	8.08	148.75	8.19	48.31	16.94
	1860	11.55	7.11	162.57	6.84	47.55	14.39

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1861	10.10	7.83	128.89	7.79	43.70	17.83
	1862	11.70	7.28	160.71	8.05	44.33	18.16
	1863	16.34	7.35	222.33	8.23	46.92	17.55
	1864	8.88	6.78	130.95	7.00	47.32	14.78
	1865	9.28	7.21	128.63	9.00	45.62	19.74
	1866	9.11	6.88	132.30	8.97	46.93	19.10
	1867	14.20	8.50	167.04	8.95	49.28	18.16
	1868	12.62	8.55	147.53	7.92	45.84	17.28
	1869	10.21	7.82	130.55	6.96	47.27	14.71
	1870	10.19	7.17	142.07	7.82	44.23	17.69
	1871	7.02	7.18	97.86	7.57	47.07	16.09
	1872	9.16	7.09	129.13	8.28	43.77	18.92
	1873	9.33	7.24	128.82	7.62	45.75	16.65
	1874	9.54	7.15	133.44	7.48	43.54	17.18
	1875	9.73	8.61	112.94	8.05	46.31	17.38
	1876	6.75	7.57	89.14	8.05	47.96	16.79
	1877	8.47	6.43	131.57	8.23	47.72	17.25
	1878	10.45	6.51	160.54	7.34	46.72	15.72
	1879	10.46	7.27	143.91	6.76	43.37	15.58
	1880	8.12	7.17	113.36	7.75	42.89	18.06

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1881	10.15	8.00	126.93	8.23	48.37	17.02
	1882	8.91	6.84	130.38	8.06	45.21	17.82
	1883	13.86	6.75	205.52	8.10	46.54	17.41
	1884	9.06	6.95	130.27	7.53	41.91	17.97
	1885	13.04	7.21	180.84	8.42	43.41	19.40
	1886	10.16	7.59	133.84	9.15	47.27	19.35
	1887	10.63	8.06	131.84	8.86	48.73	18.18
	1888	9.12	6.26	145.65	6.46	47.82	13.51
	1889	10.79	7.51	143.74	7.07	43.67	16.18
	1890	11.13	7.70	144.45	7.95	42.07	18.90
	1891	8.95	6.86	130.43	8.42	43.46	19.38
	1892	10.43	7.32	142.52	7.56	45.01	16.80
	1893	9.38	7.74	121.32	7.48	47.32	15.81
	1894	12.24	7.02	174.23	7.31	37.01	19.76
	1895	11.01	6.68	164.76	9.12	44.11	20.67
	1896	9.73	7.21	134.91	7.82	50.68	15.44
	1897	13.30	7.33	181.47	8.71	45.58	19.12
	1898	10.15	6.47	157.00	9.06	48.53	18.67
	1899	13.26	7.77	170.77	6.54	42.06	15.55
	1900	9.44	7.03	134.18	8.29	42.22	19.63

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1901	10.33	7.06	146.45	9.71	42.76	22.71
	1902	9.78	7.40	132.24	9.63	48.73	19.77
	1903	10.65	7.69	138.43	8.32	49.65	16.75
	1904	9.70	6.63	146.25	8.47	45.75	18.51
	1905	11.49	7.25	158.42	7.27	51.29	14.18
	1906	8.14	6.05	134.55	6.76	47.37	14.26
	1907	13.09	7.13	183.51	7.70	43.87	17.54
	1908	9.77	6.62	147.64	9.00	42.29	21.29
	1909	10.35	7.38	140.21	8.39	47.07	17.81
	1910	8.40	7.12	117.98	8.39	45.17	18.56
	1911	7.77	7.51	103.44	7.15	44.73	15.99
	1912	8.32	6.83	121.81	7.24	50.44	14.35
	1913	12.56	7.64	164.38	7.61	44.11	17.24
	1914	10.22	7.33	139.43	7.31	44.33	16.50
	1915	11.32	6.64	170.37	7.70	42.02	18.33
	1916	8.60	6.86	125.28	7.34	49.14	14.94
	1917	8.04	7.42	108.37	8.15	42.48	19.19
	1918	8.53	6.72	126.93	9.44	49.96	18.89
	1919	14.27	8.05	177.40	8.86	46.71	18.97
	1920	9.05	8.20	110.32	9.32	50.25	18.56

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1921	9.14	7.25	126.03	7.40	51.11	14.49
	1922	9.38	7.29	128.65	8.66	48.81	17.75
	1923	9.53	7.07	134.73	6.73	45.79	14.69
	1924	8.74	7.19	121.58	8.19	39.38	20.79
	1925	11.15	6.60	168.96	11.89	45.05	26.40
	1926	9.04	6.30	143.56	6.54	42.50	15.38
	1927	9.34	7.94	117.71	6.32	43.95	14.38
	1928	9.52	6.88	138.36	7.36	42.94	17.14
	1929	13.28	7.00	189.63	9.06	45.89	19.74
	1930	9.27	7.53	123.11	8.52	49.92	17.07
	1931	10.11	6.99	144.55	7.87	45.84	17.17
	1932	8.95	7.22	123.91	8.34	40.48	20.59
	1933	7.69	6.37	120.68	9.15	41.82	21.88
	1934	7.79	6.74	115.67	8.91	46.72	19.08
	1935	13.23	7.75	170.67	6.80	48.82	13.92
	1936	8.50	7.28	116.73	9.42	50.97	18.48
	1937	11.69	7.59	153.92	8.37	45.33	18.46
	1938	8.77	6.82	128.51	7.07	52.61	13.43
	1939	10.94	6.93	157.87	7.65	48.73	15.70
	1940	10.83	8.24	131.43	6.69	48.03	13.92

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1941	9.85	7.79	126.54	8.02	43.37	18.48
	1942	8.41	7.09	118.68	8.34	45.16	18.46
	1943	11.71	7.74	151.21	6.84	40.94	16.71
	1944	8.40	7.35	114.27	8.71	44.71	19.49
	1945	8.55	6.56	130.49	7.95	45.08	17.64
	1946	10.16	7.68	132.26	7.88	44.70	17.62
	1947	8.41	8.34	100.80	10.47	43.45	24.09
	1948	12.75	7.82	163.01	6.58	47.45	13.86
	1949	10.12	7.31	138.38	8.28	46.38	17.86
	1950	9.57	7.49	127.76	8.33	46.31	17.99
	1951	11.60	8.56	135.62	8.53	43.53	19.59
	1952	10.90	7.08	154.07	9.06	49.41	18.34
	1953	12.81	7.07	181.16	7.57	50.08	15.12
	1954	10.91	7.32	149.04	6.54	43.63	14.99
	1955	13.45	7.60	177.01	8.71	45.68	19.08
	1956	10.00	7.75	128.99	8.46	43.55	19.42
	1957	12.13	7.55	160.68	7.87	49.55	15.89
	1958	12.13	7.14	170.01	8.71	52.61	16.57
	1959	11.76	6.84	171.91	8.75	50.73	17.24
	1960	9.52	7.84	121.37	8.34	43.79	19.04

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1961	13.60	7.01	193.85	7.36	44.82	16.42
	1962	10.07	7.08	142.31	7.00	47.51	14.73
	1963	9.53	7.06	134.93	7.22	48.68	14.84
	1964	9.71	6.98	139.20	7.36	49.13	14.99
	1965	10.46	7.14	146.43	8.26	46.42	17.80
	1966	9.32	6.90	135.06	9.42	50.12	18.79
	1967	8.45	7.13	118.43	8.52	46.87	18.18
	1968	9.31	7.08	131.49	8.51	44.78	19.00
	1969	7.03	6.62	106.14	9.12	48.76	18.69
	1970	13.13	7.81	168.00	8.43	45.67	18.47
	1971	10.01	7.58	131.98	6.88	44.69	15.39
	1972	13.34	8.78	151.98	10.03	48.90	20.52
	1973	15.19	8.24	184.31	9.06	45.12	20.07
	1974	8.87	6.60	134.44	8.66	45.12	19.20
	1975	9.27	8.35	111.03	7.27	50.97	14.26
	1976	14.21	7.55	188.20	7.88	47.83	16.47
	1977	12.13	7.53	161.07	7.36	49.59	14.84
	1978	11.37	8.68	131.01	7.92	44.36	17.86
	1979	9.85	6.39	154.16	7.36	46.35	15.87
	1980	13.29	9.00	147.66	8.23	51.49	15.99

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1981	13.40	7.23	185.31	7.65	47.96	15.95
	1982	12.70	7.09	179.18	7.20	53.17	13.54
	1983	13.36	7.16	186.53	7.27	41.44	17.55
	1984	10.48	7.10	147.55	8.56	46.14	18.54
	1985	8.15	6.47	126.03	7.45	42.72	17.43
	1986	8.71	7.15	121.83	7.84	43.70	17.93
	1987	10.58	7.33	144.43	10.30	49.13	20.97
	1988	9.08	6.52	139.30	9.15	50.21	18.22
	1989	12.41	7.09	175.05	8.47	43.67	19.40
	1990	9.82	7.07	138.94	9.38	46.89	20.00
	1991	9.10	7.23	125.91	9.17	46.89	19.56
	1992	12.05	7.57	159.14	7.92	48.81	16.23
	1993	11.54	7.20	160.39	7.53	50.21	15.00
	1994	14.43	8.48	170.03	8.10	48.86	16.58
	1995	7.71	7.74	99.56	8.37	45.45	18.41
	1996	11.36	6.96	163.17	7.40	42.38	17.47

**Listing 15.4.4.3.1 Analysis of Pharmacokinetic Parameters of Nicotine by Bootstrapping Techniques - PK Population**

Variable	Replicate	Group-1 PK			Group-2 PK		
		THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol:mCC Ratio (%)	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol:NRT gum Ratio (%)
		Geometric LS Mean	Geometric LS Mean	Estimate	Geometric LS Mean	Geometric LS Mean	Estimate
t _{max} (min)	1997	9.16	6.50	140.82	8.15	48.90	16.67
	1998	11.09	6.82	162.55	7.87	45.12	17.45
	1999	8.77	6.97	125.74	9.91	45.32	21.87
	2000	9.64	8.16	118.15	8.19	40.79	20.07

Note: mCC = menthol conventional cigarettes; NRT gum = Nicotine Replacement Therapy gum; THS = Tobacco Heating System.

462853 is the seed used to generate samples from the SAS procedure proc survey select

Note: Estimates are the adjusted geometric least squares means based on an ANOVA model.

Path: /cvn/projects/prj/development/000000106326/dev/tables/tl_anlpk431.sas

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol mCC
SUBJID	36	0002 0005 0010 0013 0024 0025 0027 0031 0039 0043 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0084 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read	72
Number of Observations Used	72

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	37	36.07762161	0.97507085	2.70	0.0022
Error	34	12.28737225	0.36139330		
Corrected Total	71	48.36499386			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.745945	23.87296	0.601160	2.518163

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.06506186	0.06506186	0.18	0.6740
SUBJID (TRTSEQA)	34	33.30026709	0.97941962	2.71	0.0023
APERIODC	1	2.35740685	2.35740685	6.52	0.0153
TRTAN	1	0.35488581	0.35488581	0.98	0.3287

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**Group 1, Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.06506186	0.06506186	0.18	0.6740
SUBJID (TRTSEQA)	34	33.30026709	0.97941962	2.71	0.0023
APERIODC	1	2.45269860	2.45269860	6.79	0.0135
TRTAN	1	0.35488581	0.35488581	0.98	0.3287

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.44952010	0.3287
mCC	2.59015053	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.449520	2.245588	2.653452
mCC	2.590151	2.386218	2.794083

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**Group 1, Parameter: C_{\max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.140630	-0.429034	0.147773

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol mCC
SUBJID	36	0002 0005 0010 0013 0024 0025 0027 0031 0039 0043 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0084 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read	72
Number of Observations Used	72

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	37	38.01248828	1.02736455	4.95	<.0001
Error	34	7.04991601	0.20735047		
Corrected Total	71	45.06240429			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.843552	14.55303	0.455358	3.128952

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.57173496	0.57173496	2.76	0.1060
SUBJID (TRTSEQA)	34	34.69902157	1.02055946	4.92	<.0001
APERIODC	1	2.74063312	2.74063312	13.22	0.0009
TRTAN	1	0.00109862	0.00109862	0.01	0.9424

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.57173496	0.57173496	2.76	0.1060
SUBJID (TRTSEQA)	34	34.69902157	1.02055946	4.92	<.0001
APERIODC	1	2.73826523	2.73826523	13.21	0.0009
TRTAN	1	0.00109862	0.00109862	0.01	0.9424

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.12008184	0.9424
mCC	3.12790640	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.120082	2.965610	3.274553
mCC	3.127906	2.973435	3.282378

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 1, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.007825	-0.226280	0.210631

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: $AUC_{(0-inf)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol mCC
SUBJID	29	0005 0013 0024 0025 0031 0039 0043 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0090 0093 0097 0102 0105 0128 0135 0136 0139 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read	58
Number of Observations Used	58

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	30	24.94994502	0.83166483	4.81	<.0001
Error	27	4.66777250	0.17288046		
Corrected Total	57	29.61771753			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.842399	12.89275	0.415789	3.224983

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.04429982	0.04429982	0.26	0.6168
SUBJID (TRTSEQA)	27	23.55912940	0.87256035	5.05	<.0001
APERIODC	1	1.34582546	1.34582546	7.78	0.0095
TRTAN	1	0.00069034	0.00069034	0.00	0.9501

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.04429982	0.04429982	0.26	0.6168
SUBJID (TRTSEQA)	27	23.55912940	0.87256035	5.05	<.0001
APERIODC	1	1.34632688	1.34632688	7.79	0.0095
TRTAN	1	0.00069034	0.00069034	0.00	0.9501

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	3.22748177	0.9501
mCC	3.22057768	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	3.227482	3.068966	3.385998
mCC	3.220578	3.062061	3.379094

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**Group 1, Parameter: $AUC_{(0-\infty)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	0.006904	-0.217272	0.231080

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol mCC
SUBJID	36	0002 0005 0010 0013 0024 0025 0027 0031 0039 0043 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0084 0090 0093 0097 0102 0105 0113 0128 0129 0134 0135 0136 0139 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read	72
Number of Observations Used	72

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	37	54.27738774	1.46695643	3.61	0.0001
Error	34	13.82070268	0.40649126		
Corrected Total	71	68.09809042			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.797047	-250.0742	0.637567	-0.254951

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.89602403	1.89602403	4.66	0.0379
SUBJID (TRTSEQA)	34	48.87261849	1.43742996	3.54	0.0002
APERIODC	1	2.09653139	2.09653139	5.16	0.0296
TRTAN	1	1.41221383	1.41221383	3.47	0.0710

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.89602403	1.89602403	4.66	0.0379
SUBJID (TRTSEQA)	34	48.87261849	1.43742996	3.54	0.0002
APERIODC	1	2.28531105	2.28531105	5.62	0.0235
TRTAN	1	1.41221383	1.41221383	3.47	0.0710

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	-0.40424717	0.0710
mCC	-0.12371335	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	-0.404247	-0.620530	-0.187965
mCC	-0.123713	-0.339996	0.092569

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 1, Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.280534	-0.586404	0.025336

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol mCC
SUBJID	29	0005 0013 0024 0025 0031 0039 0043 0049 0050 0052 0054 0066 0067 0070 0071 0074 0075 0076 0082 0090 0093 0097 0102 0105 0128 0135 0136 0139 0148
TRTSEQA	2	THS 2.2 Menthol - mCC mCC - THS 2.2 Menthol
APERIODC	2	Period 1 Period 2

Number of Observations Read	58
Number of Observations Used	58

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	30	17.26027209	0.57534240	3.97	0.0003
Error	27	3.91067908	0.14483997		
Corrected Total	57	21.17095117			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.815281	29.14025	0.380578	1.306023

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00630776	0.00630776	0.04	0.8363
SUBJID (TRTSEQA)	27	16.37979011	0.60665889	4.19	0.0002
APERIODC	1	0.84397756	0.84397756	5.83	0.0228
TRTAN	1	0.03019665	0.03019665	0.21	0.6516

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.00630776	0.00630776	0.04	0.8363
SUBJID (TRTSEQA)	27	16.37979011	0.60665889	4.19	0.0002
APERIODC	1	0.85401311	0.85401311	5.90	0.0221
TRTAN	1	0.03019665	0.03019665	0.21	0.6516

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.32921401	0.6516
mCC	1.28355214	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	1.329214	1.184121	1.474307
mCC	1.283552	1.138460	1.428645

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 1, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	0.045662	-0.159530	0.250854

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	6.98876730	0.49919766	0.80	0.6610
Error	11	6.89226161	0.62656924		
Corrected Total	25	13.88102891			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.503476	37.39097	0.791561	2.116985

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.73925932	0.73925932	1.18	0.3006
SUBJID (TRTSEQA)	11	3.10711233	0.28246476	0.45	0.8989
APERIODC	1	3.14186880	3.14186880	5.01	0.0468
TRTAN	1	0.00052685	0.00052685	0.00	0.9774

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.73925932	0.73925932	1.18	0.3006
SUBJID (TRTSEQA)	11	3.10711233	0.28246476	0.45	0.8989
APERIODC	1	2.99284932	2.99284932	4.78	0.0514
TRTAN	1	0.00052685	0.00052685	0.00	0.9774

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.07236691	0.9774
NRT gum	2.08161962	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.072367	1.575759	2.568974
NRT gum	2.081620	1.585012	2.578227

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.009253	-0.711562	0.693056

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	8.85032075	0.63216577	1.88	0.1491
Error	11	3.70101232	0.33645567		
Corrected Total	25	12.55133306			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.705130	19.53714	0.580048	2.968951

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.22027358	0.22027358	0.65	0.4356
SUBJID (TRTSEQA)	11	5.84350015	0.53122729	1.58	0.2305
APERIODC	1	0.44093977	0.44093977	1.31	0.2766
TRTAN	1	2.34560725	2.34560725	6.97	0.0230

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.22027358	0.22027358	0.65	0.4356
SUBJID (TRTSEQA)	11	5.84350015	0.53122729	1.58	0.2305
APERIODC	1	0.99908313	0.99908313	2.97	0.1128
TRTAN	1	2.34560725	2.34560725	6.97	0.0230

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.63842922	0.0230
NRT gum	3.25581175	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.638429	2.274520	3.002338
NRT gum	3.255812	2.891903	3.619721

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $AUC_{(0-last)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
i	j	Between	95% Confidence Limits for	
		Means	LSMean(i) - LSMean(j)	
1	2	-0.617383	-1.132027	-0.102738

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**Group 2, Parameter: $AUC_{(0-\infty)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	11	0017 0035 0036 0051 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 22

Number of Observations Used 22

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	7.78089459	0.64840788	2.34	0.1047
Error	9	2.49866582	0.27762954		
Corrected Total	21	10.27956041			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.756929	17.79659	0.526906	2.960711

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.11738882	0.11738882	0.42	0.5318
SUBJID (TRTSEQA)	9	4.59516170	0.51057352	1.84	0.1888
APERIODC	1	0.40023862	0.40023862	1.44	0.2605
TRTAN	1	2.66810545	2.66810545	9.61	0.0127

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.11738882	0.11738882	0.42	0.5318
SUBJID (TRTSEQA)	9	4.59516170	0.51057352	1.84	0.1888
APERIODC	1	1.11121828	1.11121828	4.00	0.0765
TRTAN	1	2.66810545	2.66810545	9.61	0.0127

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.57803274	0.0127
NRT gum	3.30197482	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	2.578033	2.204488	2.951578
NRT gum	3.301975	2.928430	3.675520

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.723942	-1.252215	-0.195670

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	5.30356527	0.37882609	1.24	0.3658
Error	11	3.36476071	0.30588734		
Corrected Total	25	8.66832598			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.611833	48.36824	0.553071	1.143459

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.23971831	1.23971831	4.05	0.0692
SUBJID (TRTSEQA)	11	2.86910172	0.26082743	0.85	0.6019
APERIODC	1	1.16006031	1.16006031	3.79	0.0775
TRTAN	1	0.03468493	0.03468493	0.11	0.7427

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.23971831	1.23971831	4.05	0.0692
SUBJID (TRTSEQA)	11	2.86910172	0.26082743	0.85	0.6019
APERIODC	1	1.01004766	1.01004766	3.30	0.0965
TRTAN	1	0.03468493	0.03468493	0.11	0.7427

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.12920735	0.7427
NRT gum	1.05413205	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	1.129207	0.782223	1.476191
NRT gum	1.054132	0.707148	1.401116

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $AUC_{(0-t)}$ (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	0.075075	-0.415634	0.565785

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	11	0017 0035 0036 0051 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 22

Number of Observations Used 22

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	6.36958190	0.53079849	7.71	0.0023
Error	9	0.61986708	0.06887412		
Corrected Total	21	6.98944898			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.911314	24.31142	0.262439	1.079488

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.05609959	0.05609959	0.81	0.3903
SUBJID (TRTSEQA)	9	6.12622415	0.68069157	9.88	0.0011
APERIODC	1	0.13352030	0.13352030	1.94	0.1973
TRTAN	1	0.05373786	0.05373786	0.78	0.4000

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.05609959	0.05609959	0.81	0.3903
SUBJID (TRTSEQA)	9	6.12622415	0.68069157	9.88	0.0011
APERIODC	1	0.17203780	0.17203780	2.50	0.1485
TRTAN	1	0.05373786	0.05373786	0.78	0.4000

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.04243219	0.4000
NRT gum	1.14517289	

TRTAN	LOGAVAL LSMEAN	95% Confidence Limits	
THS 2.2 Menthol	1.042432	0.856379	1.228486
NRT gum	1.145173	0.959119	1.331227

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**Group 2, Parameter: $t_{1/2}$ (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Least Squares Means for Effect TRTAN

		Difference		
		Between	95% Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.102741	-0.365860	0.160379

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	6.98876730	0.49919766	0.80	0.6610
Error	11	6.89226161	0.62656924		
Corrected Total	25	13.88102891			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.503476	37.39097	0.791561	2.116985

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.73925932	0.73925932	1.18	0.3006
SUBJID (TRTSEQA)	11	3.10711233	0.28246476	0.45	0.8989
APERIODC	1	3.14186880	3.14186880	5.01	0.0468
TRTAN	1	0.00052685	0.00052685	0.00	0.9774

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.73925932	0.73925932	1.18	0.3006
SUBJID (TRTSEQA)	11	3.10711233	0.28246476	0.45	0.8989
APERIODC	1	2.99284932	2.99284932	4.78	0.0514
TRTAN	1	0.00052685	0.00052685	0.00	0.9774

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.07236691	0.5113
NRT gum	2.08161962	

TRTAN	LOGAVAL LSMEAN	97.5% Confidence Limits	
THS 2.2 Menthol	2.072367	1.487288	2.657446
NRT gum	2.081620	1.496541	2.666698

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: C_{max} (ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TRTAN

		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.009253	-0.711558	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	8.85032075	0.63216577	1.88	0.1491
Error	11	3.70101232	0.33645567		
Corrected Total	25	12.55133306			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.705130	19.53714	0.580048	2.968951

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.22027358	0.22027358	0.65	0.4356
SUBJID (TRTSEQA)	11	5.84350015	0.53122729	1.58	0.2305
APERIODC	1	0.44093977	0.44093977	1.31	0.2766
TRTAN	1	2.34560725	2.34560725	6.97	0.0230

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.22027358	0.22027358	0.65	0.4356
SUBJID (TRTSEQA)	11	5.84350015	0.53122729	1.58	0.2305
APERIODC	1	0.99908313	0.99908313	2.97	0.1128
TRTAN	1	2.34560725	2.34560725	6.97	0.0230

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.63842922	0.9885
NRT gum	3.25581175	

TRTAN	LOGAVAL LSMEAN	97.5% Confidence Limits	
THS 2.2 Menthol	2.638429	2.209690	3.067169
NRT gum	3.255812	2.827072	3.684551

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 2, Parameter: AUC_(0-last) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TRTAN

i	j	Difference Between Means	Simultaneous 97.5% Confidence Limits for LSMean(i)-LSMean(j)	
1	2	-0.617383	-1.132025	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	11	0017 0035 0036 0051 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 22

Number of Observations Used 22

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	7.78089459	0.64840788	2.34	0.1047
Error	9	2.49866582	0.27762954		
Corrected Total	21	10.27956041			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.756929	17.79659	0.526906	2.960711

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.11738882	0.11738882	0.42	0.5318
SUBJID (TRTSEQA)	9	4.59516170	0.51057352	1.84	0.1888
APERIODC	1	0.40023862	0.40023862	1.44	0.2605
TRTAN	1	2.66810545	2.66810545	9.61	0.0127

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.11738882	0.11738882	0.42	0.5318
SUBJID (TRTSEQA)	9	4.59516170	0.51057352	1.84	0.1888
APERIODC	1	1.11121828	1.11121828	4.00	0.0765
TRTAN	1	2.66810545	2.66810545	9.61	0.0127

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	2.57803274	0.9936
NRT gum	3.30197482	

TRTAN	LOGAVAL LSMEAN	97.5% Confidence Limits	
THS 2.2 Menthol	2.578033	2.134663	3.021403
NRT gum	3.301975	2.858605	3.745345

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-inf) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TRTAN

		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.723942	-1.252211	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	13	0017 0018 0035 0036 0051 0060 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 26

Number of Observations Used 26

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	5.30356527	0.37882609	1.24	0.3658
Error	11	3.36476071	0.30588734		
Corrected Total	25	8.66832598			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.611833	48.36824	0.553071	1.143459

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.23971831	1.23971831	4.05	0.0692
SUBJID (TRTSEQA)	11	2.86910172	0.26082743	0.85	0.6019
APERIODC	1	1.16006031	1.16006031	3.79	0.0775
TRTAN	1	0.03468493	0.03468493	0.11	0.7427

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	1.23971831	1.23971831	4.05	0.0692
SUBJID (TRTSEQA)	11	2.86910172	0.26082743	0.85	0.6019
APERIODC	1	1.01004766	1.01004766	3.30	0.0965
TRTAN	1	0.03468493	0.03468493	0.11	0.7427

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.12920735	0.3713
NRT gum	1.05413205	

TRTAN	LOGAVAL LSMEAN	97.5% Confidence Limits	
THS 2.2 Menthol	1.129207	0.720408	1.538007
NRT gum	1.054132	0.645332	1.462932

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 2, Parameter: AUC_(0-t_l) (h*ng/mL)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', anl01fl='Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TRTAN

		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	0.075075	-0.415632	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 Menthol NRT gum
SUBJID	11	0017 0035 0036 0051 0061 0072 0078 0083 0095 0119 0123
TRTSEQA	2	NRT gum - THS 2.2 Menthol THS 2.2 Menthol - NRT gum
APERIODC	2	Period 1 Period 2

Number of Observations Read 22

Number of Observations Used 22

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	6.36958190	0.53079849	7.71	0.0023
Error	9	0.61986708	0.06887412		
Corrected Total	21	6.98944898			

R-Square	Coeff Var	Root MSE	LOGAVAL Mean
0.911314	24.31142	0.262439	1.079488

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.05609959	0.05609959	0.81	0.3903
SUBJID (TRTSEQA)	9	6.12622415	0.68069157	9.88	0.0011
APERIODC	1	0.13352030	0.13352030	1.94	0.1973
TRTAN	1	0.05373786	0.05373786	0.78	0.4000

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Dependent Variable: LOGAVAL

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTSEQA	1	0.05609959	0.05609959	0.81	0.3903
SUBJID (TRTSEQA)	9	6.12622415	0.68069157	9.88	0.0011
APERIODC	1	0.17203780	0.17203780	2.50	0.1485
TRTAN	1	0.05373786	0.05373786	0.78	0.4000

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

TRTAN	LOGAVAL LSMEAN	H0:LSMean1= LSMean2 Pr > t
THS 2.2 Menthol	1.04243219	0.8000
NRT gum	1.14517289	

TRTAN	LOGAVAL LSMEAN	97.5% Confidence Limits	
THS 2.2 Menthol	1.042432	0.821600	1.263264
NRT gum	1.145173	0.924341	1.366005

**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**Group 2, Parameter: t_{1/2} (h)

Proc GLM Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y', crit3fl ne 'Y' and crit4fl='Y'

Least Squares Means

Adjustment for Multiple Comparisons: Dunnett

Least Squares Means for Effect TRTAN

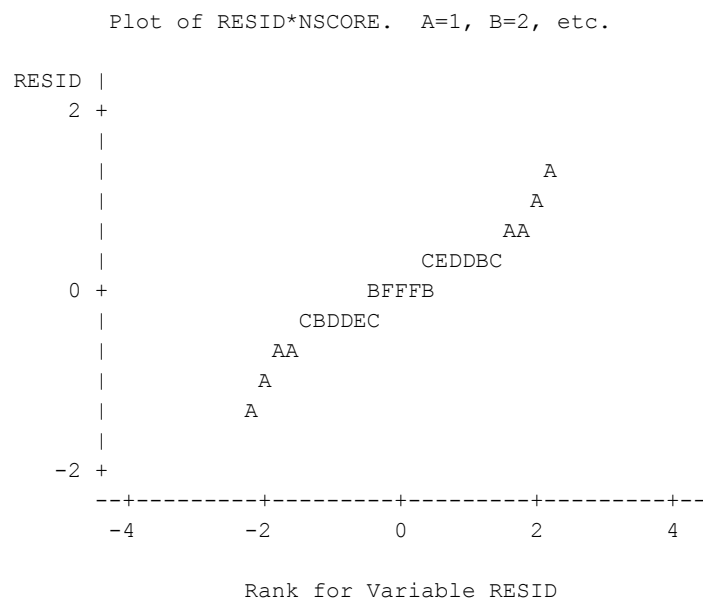
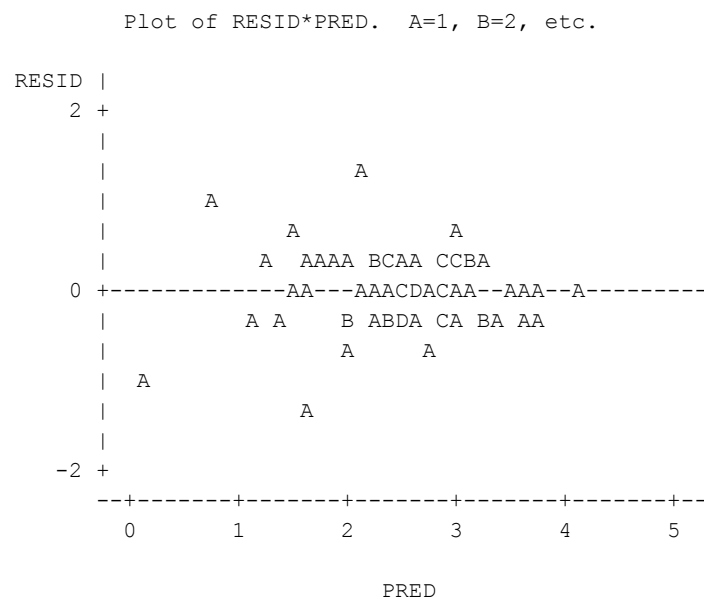
		Difference	Simultaneous 97.5%	
		Between	Confidence Limits for	
i	j	Means	LSMean(i) - LSMean(j)	
1	2	-0.102741	-0.365858	Infinity

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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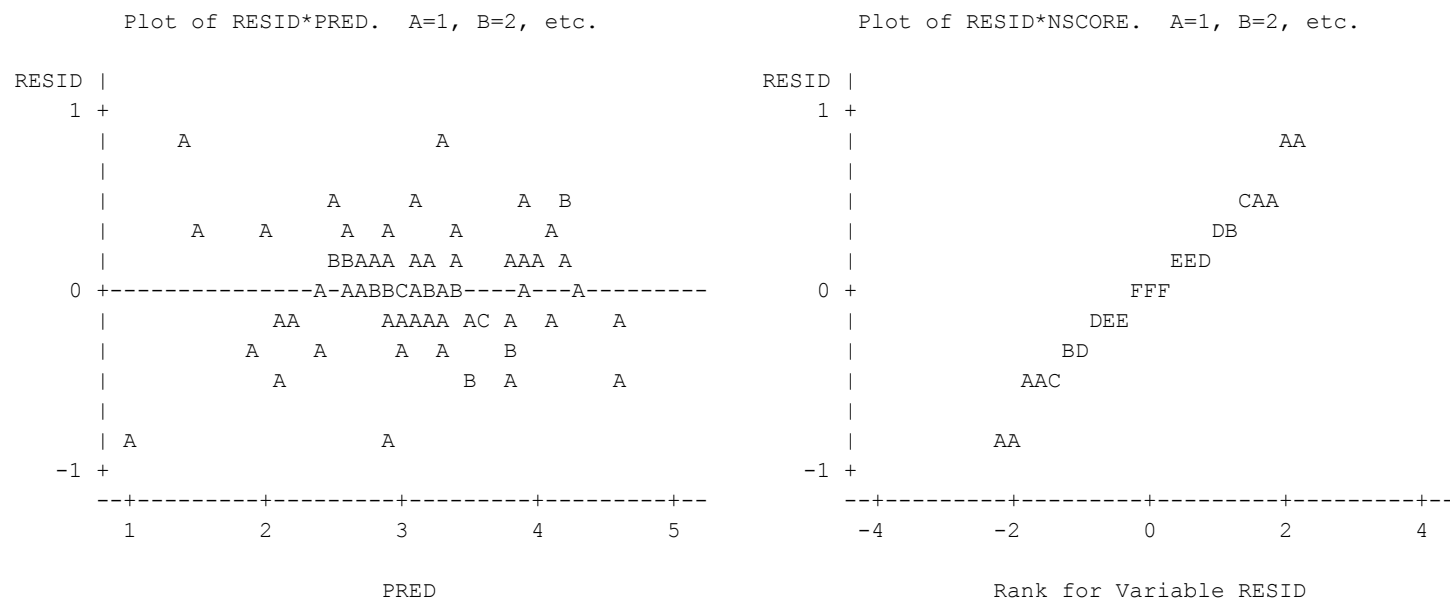
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 1, Parameter: C_{max} (ng/mL)
Residual Plots



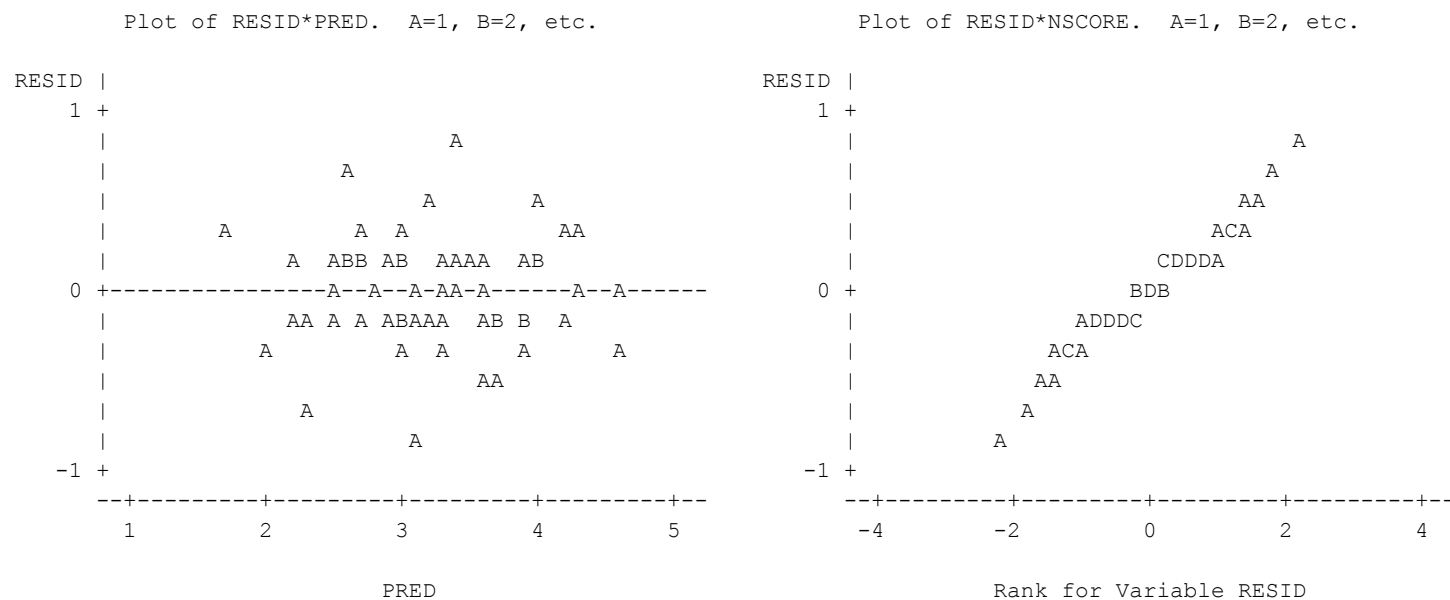
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 1, Parameter: AUC_(0-last) (h*ng/mL)
Residual Plots



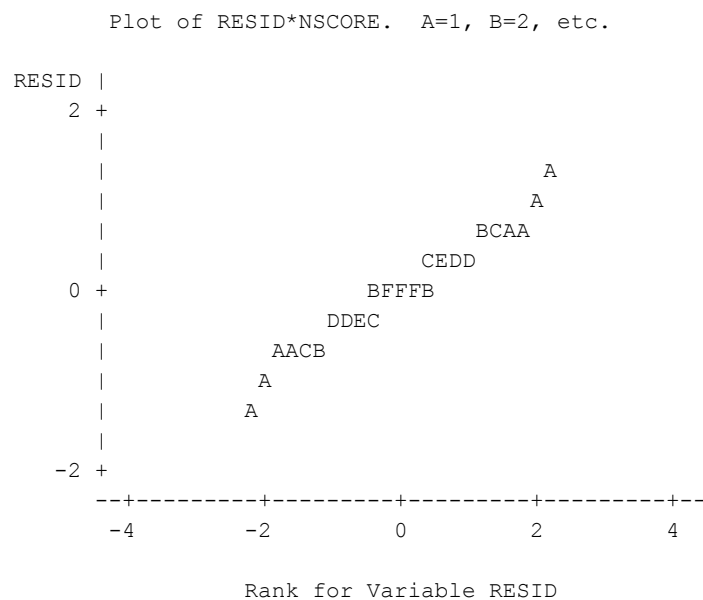
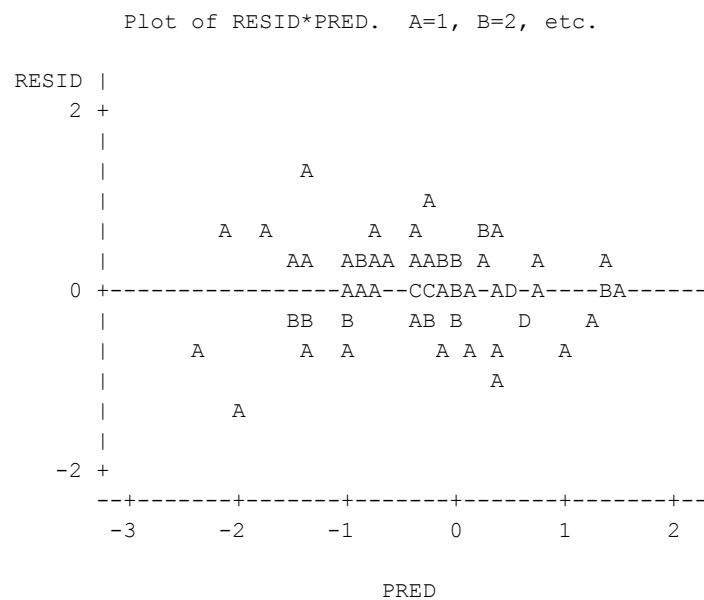
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T₀ Value >5% of Their C_{max} Value - PK Population**

Group 1, Parameter: AUC_(0-inf) (h*ng/mL)
Residual Plots



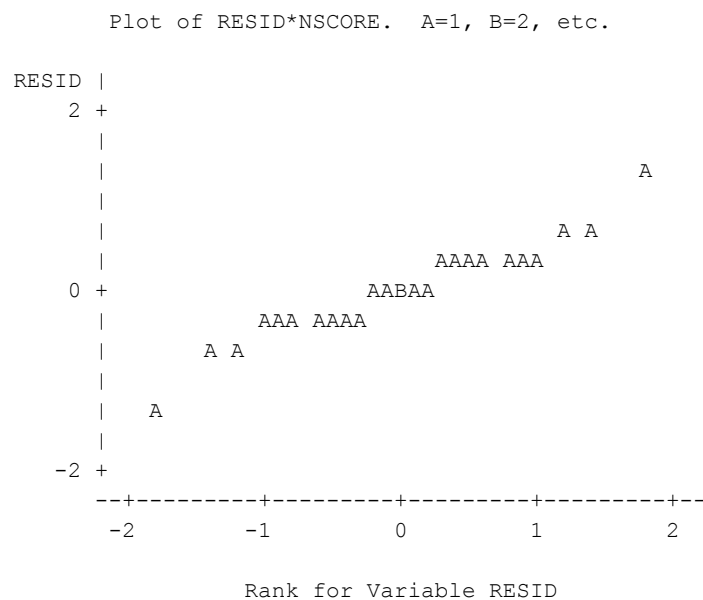
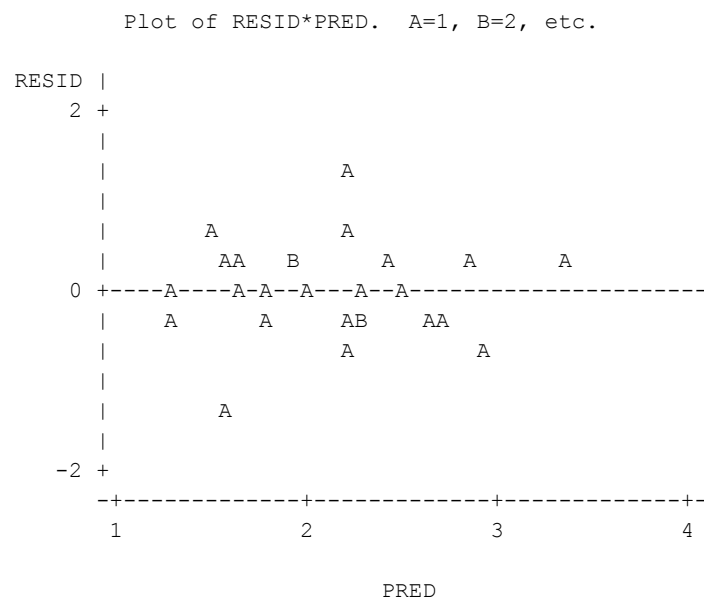
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 1, Parameter: $AUC_{(0-t)}$ (h*ng/mL)
Residual Plots



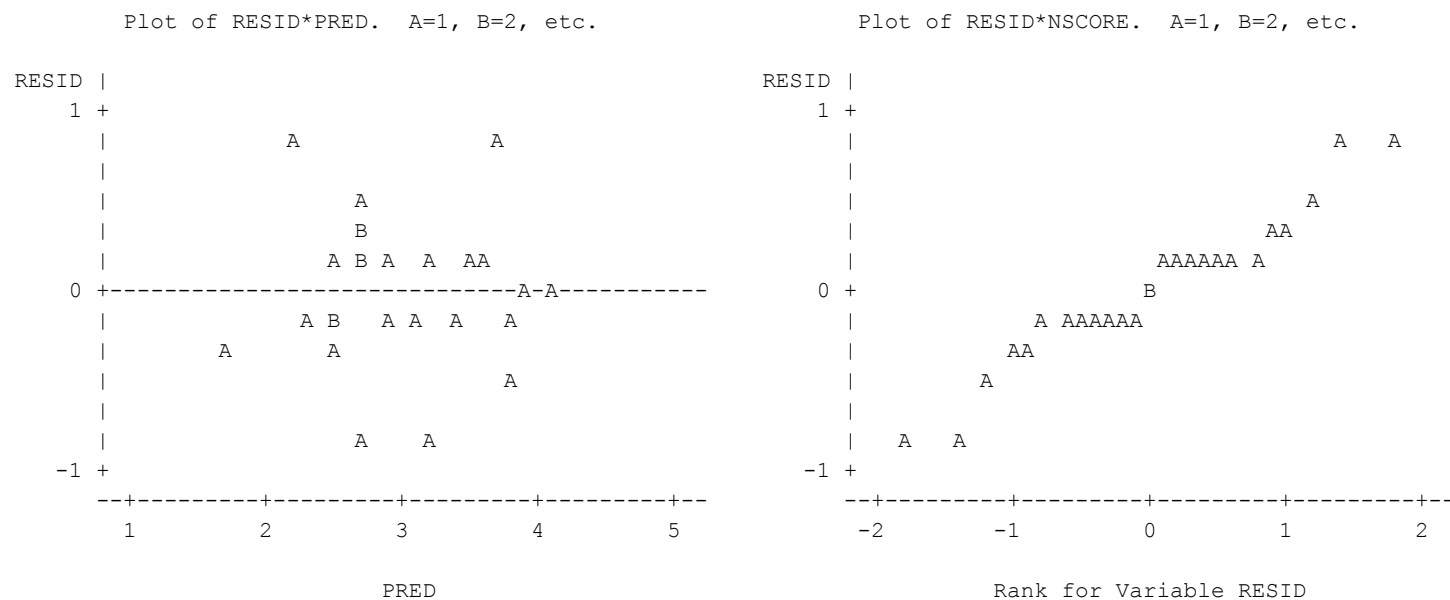
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: C_{\max} (ng/mL)
Residual Plots



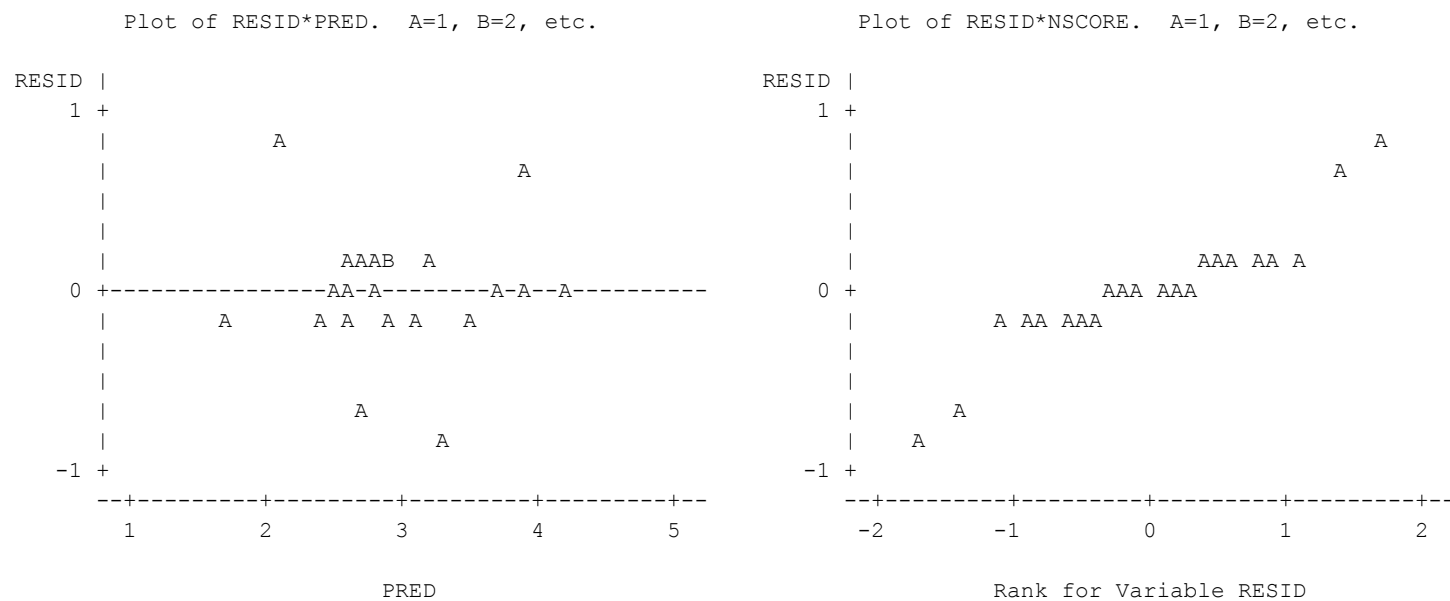
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $AUC_{(0-last)}$ (h*ng/mL)
Residual Plots



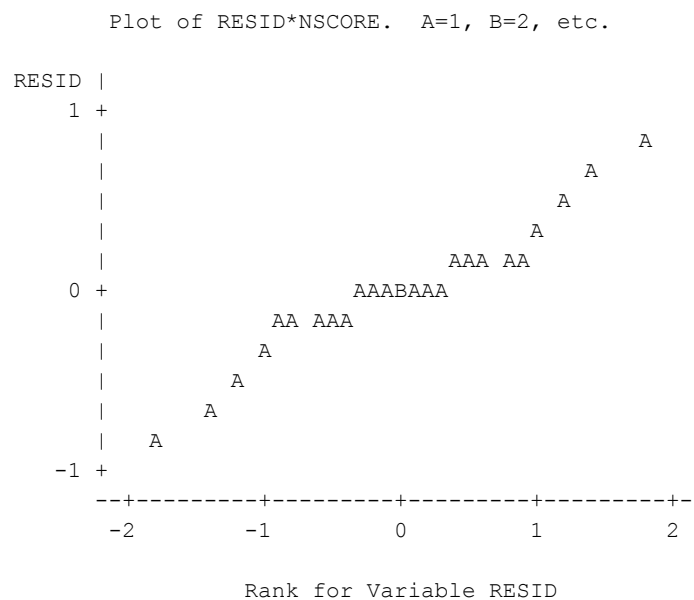
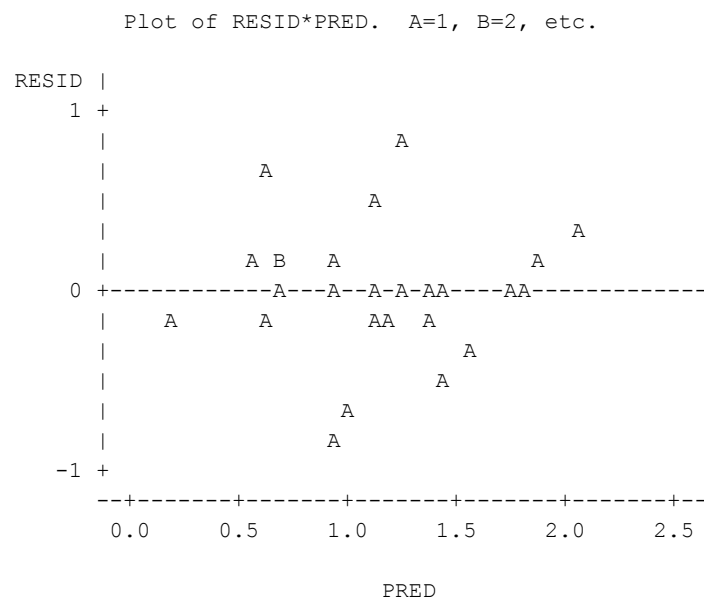
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $AUC_{(0-\infty)}$ (h*ng/mL)
Residual Plots



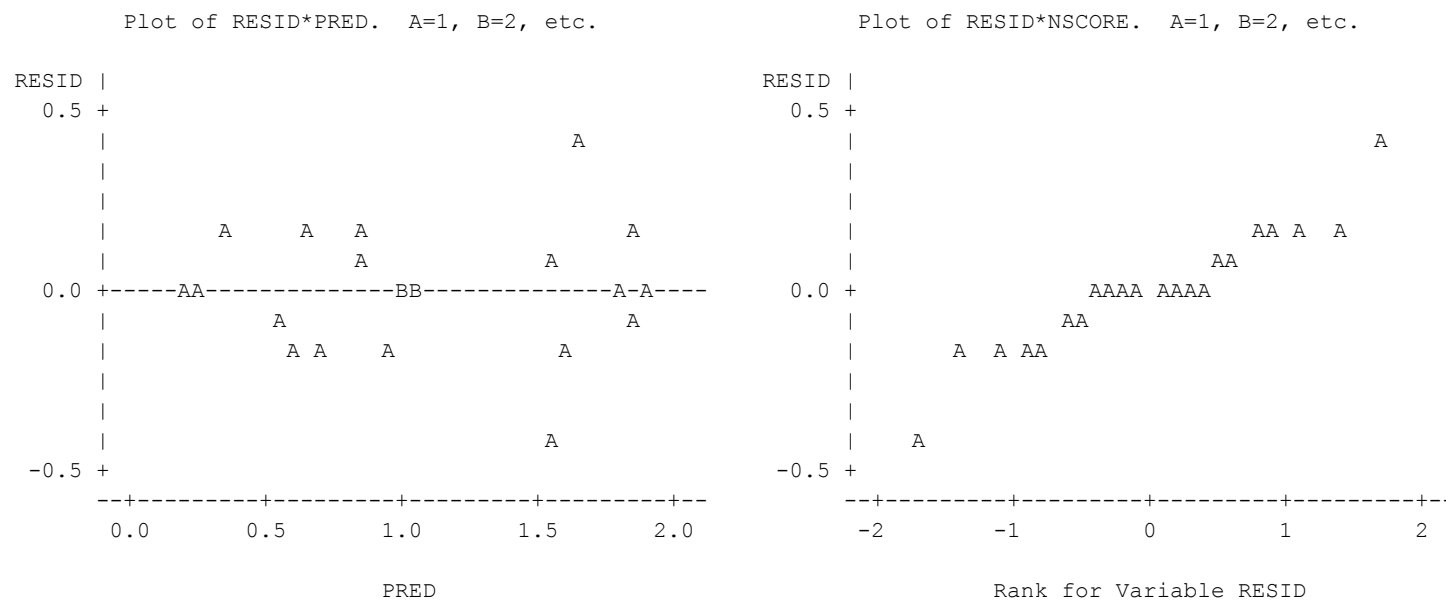
**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $AUC_{(0-t)}$ (h*ng/mL)
Residual Plots



**Listing 15.4.4.3.2 Supportive Analysis of Pharmacokinetic Parameters of Nicotine Excluding Subject with T_0 Value >5% of Their C_{\max} Value - PK Population**

Group 2, Parameter: $t_{1/2}$ (h)
Residual Plots



**Listing 15.4.4.4.1 Analysis of Pharmacokinetic Parameters of Nicotine by Zero Second Imputation - PK Population**

Variable	Statistic	Group-1 PK		Group-2 PK	
		THS 2.2 Menthol (N=43)	THS 2.2 Menthol (N=18)	mCC (N=43)	NRT gum (N=18)
t _{max} (min)	n	43	43	18	18
	n (values imputed at T ₀)	0	0	0	0
	Median (imputation by 30 sec)	6.00	6.00	45.00	8.00
	Median (imputation by 0 sec)	6.00	6.00	45.00	8.00
	% difference in medians (30 sec - 0 sec)	0.00	0.00	0.00	0.00

Note: mCC = menthol conventional cigarettes; NRT gum = Nicotine Replacement Therapy gum; THS = Tobacco Heating System.

&seed. is the seed used to generate samples from the SAS procedure proc survey select

Note: Estimates are the adjusted geometric least squares means based on an ANOVA model.

Path: /cvn/projects/prj/development/000000106326/dev/tables/tl_anlpk441.sas

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine Where >20% Missing Observations**

Analysis group: Group-1

Table of PARAM by MISSING

PARAM	MISSING	Frequency	Row Percent
AUC (0-inf) (h*ng/mL)	No	77	89.53
	Yes	9	10.47
	Total	86	100.00
AUC (0-last) (h*ng/mL)	No	86	100.00
	Yes	0	0.00
	Total	86	100.00
AUC (0-t') (h*ng/mL)	No	86	100.00
	Yes	0	0.00
	Total	86	100.00
Cmax (ng/mL)	No	86	100.00
	Yes	0	0.00
	Total	86	100.00

**Listing 15.4.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine Where >20% Missing Observations**

Analysis group: Group-1

Table of PARAM by MISSING

PARAM	MISSING	Frequency	Row Percent
Tmax (min)	No	86	100.00
	Yes	0	0.00
	Total	86	100.00
t1/2 (h)	No	77	89.53
	Yes	9	10.47
	Total	86	100.00
Total	No	498	
	Yes	18	
	Total	516	

**Listing 15.4.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine Where >20% Missing Observations**

Analysis group: Group-2

Table of PARAM by MISSING

PARAM	MISSING	Frequency	Row Percent
AUC(0-inf) (h*ng/mL)	No	33	91.67
	Yes	3	8.33
	Total	36	100.00
AUC(0-last) (h*ng/mL)	No	36	100.00
	Yes	0	0.00
	Total	36	100.00
AUC(0-t') (h*ng/mL)	No	36	100.00
	Yes	0	0.00
	Total	36	100.00
Cmax (ng/mL)	No	36	100.00
	Yes	0	0.00
	Total	36	100.00

**Listing 15.4.4.4.2 Analysis of Pharmacokinetic Parameters of Nicotine Where >20% Missing Observations**

Analysis group: Group-2

Table of PARAM by MISSING

PARAM	MISSING	Frequency	Row Percent
Tmax (min)	No	36	100.00
	Yes	0	0.00
	Total	36	100.00
t1/2 (h)	No	33	91.67
	Yes	3	8.33
	Total	36	100.00
Total	No	210	
	Yes	6	
	Total	216	

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC
APERIOD	2	1 2
ATPTN	4	T0 + 15 min T0 + 60 min T0 + 4 h T0 + 12 h

Dimensions

Covariance Parameters	6
Columns in X	19
Columns in Z	43
Subjects	1
Max Obs Per Subject	344

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Number of Observations

Number of Observations Read	344
Number of Observations Used	344
Number of Observations Not Used	0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	-509.95812765	
1	2	-641.68910249	0.00003596
2	1	-641.71230451	0.00000007
3	1	-641.71235090	0.00000000

Convergence criteria met.

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		0.002267
Var (1)	SUBJIDN*TRTAN	0.009383
Var (2)	SUBJIDN*TRTAN	0.008980
Var (3)	SUBJIDN*TRTAN	0.008379
Var (4)	SUBJIDN*TRTAN	0.009838
CSH	SUBJIDN*TRTAN	0.4621

Fit Statistics

-2 Res Log Likelihood	-641.7
AIC (smaller is better)	-629.7
AICC (smaller is better)	-629.5
BIC (smaller is better)	-619.1

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.46	0.5028
APERIOD	1	293	1.35	0.2459
TRTAN	1	293	165.48	<.0001
ATPTN	3	293	105.03	<.0001
TRTAN*ATPTN	3	293	47.96	<.0001

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		0.9325	0.01340	293	69.58	<.0001	0.05
TRTAN	mCC		1.1374	0.01340	293	84.87	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	0.9352	0.01646	293	56.80	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	0.9582	0.01618	293	59.24	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	0.9513	0.01574	293	60.45	<.0001	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	0.8853	0.01678	293	52.76	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	1.2609	0.01646	293	76.59	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	1.2001	0.01618	293	74.19	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	1.1325	0.01574	293	71.96	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 12 h	0.9561	0.01678	293	56.98	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		0.9061	0.9589
TRTAN	mCC		1.1110	1.1638
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	0.9028	0.9676
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	0.9264	0.9901
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	0.9203	0.9823

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	0.8523	0.9183
TRTAN*ATPTN	mCC	T0 + 15 min	1.2285	1.2933
TRTAN*ATPTN	mCC	T0 + 60 min	1.1683	1.2320
TRTAN*ATPTN	mCC	T0 + 4 h	1.1015	1.1635
TRTAN*ATPTN	mCC	T0 + 12 h	0.9231	0.9892

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN	THS 2.2 Menthol		mCC		-0.2049	0.01593	293	-12.86
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.02306	0.01516	293	-1.52
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.01613	0.01492	293	-1.08
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	0.04988	0.01551	293	3.22

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.3257	0.02089	293	-15.59
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.2649	0.02067	293	-12.82
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-0.1973	0.02033	293	-9.71
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-0.02095	0.02115	293	-0.99
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	0.006934	0.01474	293	0.47
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	0.07294	0.01535	293	4.75
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.3026	0.02067	293	-14.64
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.2419	0.02044	293	-11.83
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-0.1743	0.02010	293	-8.67
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	0.002106	0.02092	293	0.10
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	0.06601	0.01512	293	4.37
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	-0.3096	0.02033	293	-15.23
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.2488	0.02010	293	-12.38
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.1812	0.01974	293	-9.18
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-0.00483	0.02059	293	-0.23
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	-0.3756	0.02115	293	-17.76
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	-0.3148	0.02092	293	-15.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	-0.2472	0.02059	293	-12.01
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.07084	0.02139	293	-3.31
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	0.06073	0.01516	293	4.01
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	0.1284	0.01492	293	8.61
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	0.3047	0.01551	293	19.65
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	0.06764	0.01474	293	4.59
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	0.2440	0.01535	293	15.90
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	0.1764	0.01512	293	11.67

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		mCC		<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	0.1293	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	0.2806	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	0.0014	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	0.3225	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	0.6384	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	0.9199	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	0.8147	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	0.0010	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	<.0001	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		mCC		-0.2362	-0.1735
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.05289	0.006773
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.04548	0.01323
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	0.01936	0.08040
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.3668	-0.2846
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.3056	-0.2243
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-0.2373	-0.1573
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-0.06257	0.02066
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.02208	0.03594
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	0.04273	0.1032
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.3433	-0.2619
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.2821	-0.2017
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-0.2138	-0.1347
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-0.03907	0.04328
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	0.03626	0.09576
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	-0.3496	-0.2695
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.2884	-0.2093

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.2200	-0.1423
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-0.04534	0.03569
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	-0.4172	-0.3339
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	-0.3560	-0.2737
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	-0.2877	-0.2067
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.1129	-0.02873
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	0.03090	0.09057
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	0.09901	0.1577
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	0.2742	0.3352
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	0.03863	0.09665
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	0.2138	0.2742
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	0.1466	0.2061

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	18	4 17 18 22 35 36 51 60 61 63 72 78 83 95 119 120 123 132
TRTSEQAN	2	3 4
TRTAN	2	THS 2.2 Menthol NRT gum
APERIOD	2	1 2

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Class Level Information

Class	Levels	Values
ATPTN	4	T0 + 15 min T0 + 60 min T0 + 4 h T0 + 12 h

Dimensions

Covariance Parameters	6
Columns in X	19
Columns in Z	18
Subjects	1
Max Obs Per Subject	144

Number of Observations

Number of Observations Read	144
Number of Observations Used	144
Number of Observations Not Used	0

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	-193.85464837	
1	2	-236.59255959	0.00795565
2	1	-238.90778652	0.00144798
3	1	-239.30680735	0.00008880
4	1	-239.32933131	0.00000045
5	1	-239.32944060	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		0.004010
Var (1)	SUBJIDN*TRTAN	0.003984
Var (2)	SUBJIDN*TRTAN	0.01286
Var (3)	SUBJIDN*TRTAN	0.005471

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
Var (4)	SUBJIDN*TRTAN	0.008434
CSH	SUBJIDN*TRTAN	0.2043

Fit Statistics

-2 Res Log Likelihood	-239.3
AIC (smaller is better)	-227.3
AICC (smaller is better)	-226.7
BIC (smaller is better)	-222.0

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	16	0.53	0.4770
APERIOD	1	118	11.26	0.0011

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	118	0.04	0.8392
ATPTN	3	118	1.94	0.1267
TRTAN*ATPTN	3	118	1.01	0.3915

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		0.8946	0.01977	118	45.25	<.0001	0.05
TRTAN	NRT gum		0.8983	0.01977	118	45.44	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	0.8820	0.02107	118	41.86	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	0.8933	0.03061	118	29.18	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	0.9142	0.02295	118	39.84	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	0.8889	0.02629	118	33.81	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 15 min	0.9092	0.02107	118	43.15	<.0001	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 60 min	0.9077	0.03061	118	29.65	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	0.9175	0.02295	118	39.98	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 12 h	0.8589	0.02629	118	32.67	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		0.8555	0.9337
TRTAN	NRT gum		0.8592	0.9375
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	0.8403	0.9237
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	0.8327	0.9539
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	0.8688	0.9597
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	0.8368	0.9409
TRTAN*ATPTN	NRT gum	T0 + 15 min	0.8675	0.9509

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 60 min	0.8471	0.9684
TRTAN*ATPTN	NRT gum	T0 + 4 h	0.8720	0.9629
TRTAN*ATPTN	NRT gum	T0 + 12 h	0.8068	0.9110

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN	THS 2.2 Menthol		NRT gum		-0.00373	0.01833	118	-0.20
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.01127	0.02781	118	-0.41
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.03222	0.02048	118	-1.57
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-0.00685	0.02363	118	-0.29
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 15 min	-0.02720	0.02104	118	-1.29
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 60 min	-0.02572	0.03059	118	-0.84

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 4 h	-0.03544	0.02292	118	-1.55
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 12 h	0.02310	0.02627	118	0.88
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.02095	0.02877	118	-0.73
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	0.004421	0.03077	118	0.14
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15 min	-0.01592	0.03059	118	-0.52
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.01445	0.03780	118	-0.38
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-0.02417	0.03191	118	-0.76
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	0.03437	0.03439	118	1.00
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	0.02537	0.02487	118	1.02
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15 min	0.005024	0.02292	118	0.22
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	0.006494	0.03191	118	0.20
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.00322	0.02466	118	-0.13
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	0.05532	0.02779	118	1.99
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15 min	-0.02035	0.02627	118	-0.77
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.01888	0.03439	118	-0.55
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.02859	0.02779	118	-1.03
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	0.02995	0.03061	118	0.98

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 60 min	0.001471	0.02781	118	0.05
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 4 h	-0.00824	0.02048	118	-0.40
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 12 h	0.05030	0.02363	118	2.13
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.00972	0.02877	118	-0.34
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	0.04883	0.03077	118	1.59
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	0.05854	0.02487	118	2.35

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		NRT gum		0.8392	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	0.6860	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	0.1183	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	0.7724	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 15 min	0.1987	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 60 min	0.4021	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 4 h	0.1247	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 12 h	0.3809	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	0.4680	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	0.8860	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15 min	0.6036	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	0.7029	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	0.4503	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	0.3196	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	0.3097	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15 min	0.8269	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	0.8391	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	0.8963	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	0.0489	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15 min	0.4401	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	0.5842	0.05

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	0.3057	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	0.3299	0.05
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 60 min	0.9579	0.05
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 4 h	0.6879	0.05
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 12 h	0.0354	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	0.7362	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	0.1152	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	0.0202	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		NRT gum		-0.04004	0.03258
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.06634	0.04379

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.07277	0.008332
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-0.05364	0.03994
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 15 min	-0.06886	0.01447
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 60 min	-0.08630	0.03485
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 4 h	-0.08083	0.009946
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	NRT gum	T0 + 12 h	-0.02891	0.07512
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.07793	0.03603
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.05650	0.06535
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15 min	-0.07650	0.04465
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.08930	0.06040
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-0.08736	0.03902
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-0.03373	0.1025
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.02387	0.07461
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15 min	-0.04036	0.05041
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.05670	0.06969
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.05205	0.04560
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	0.000282	0.1104

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**

PK Group-2

Proc Mixed Procedure

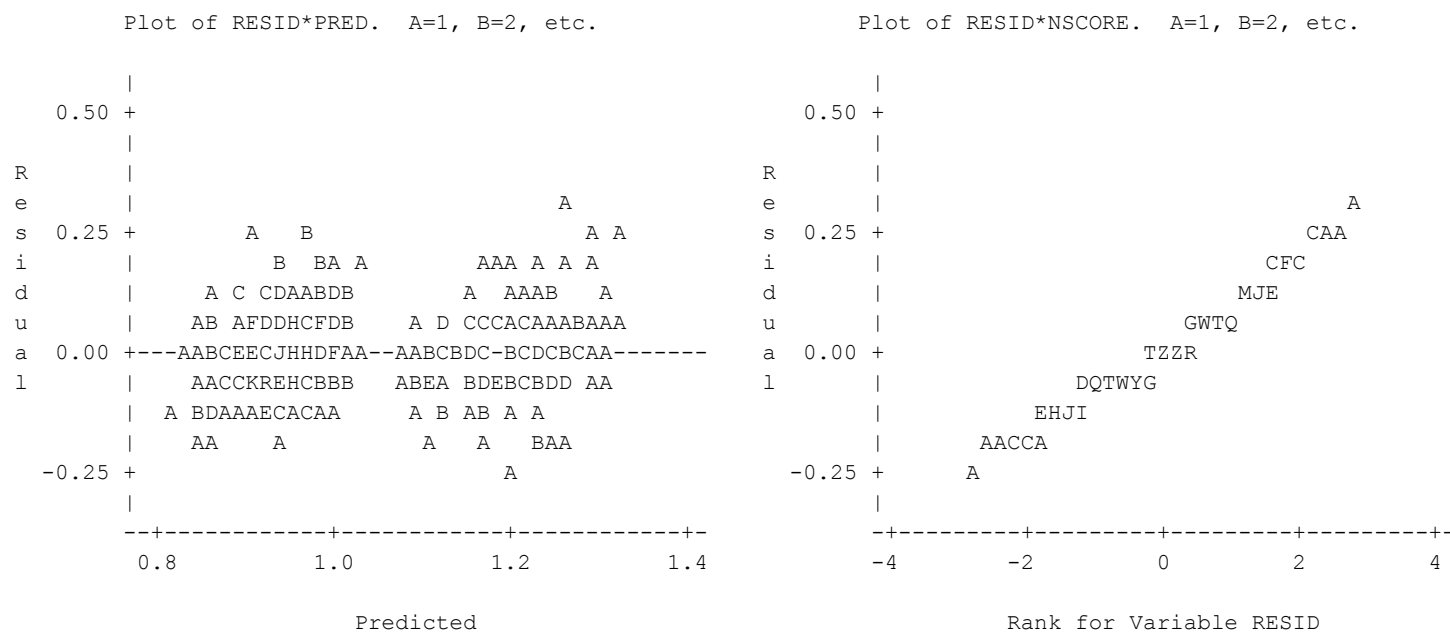
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

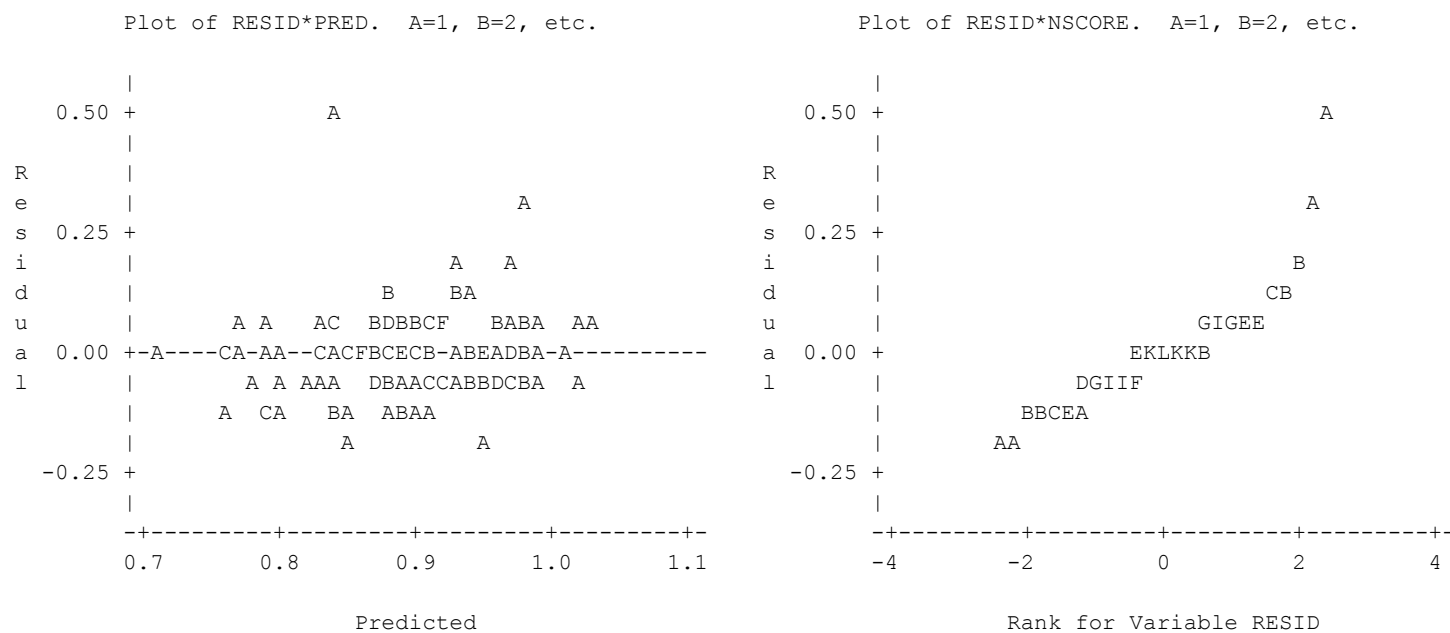
Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15 min	-0.07236	0.03167
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.08698	0.04923
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.08363	0.02645
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.03067	0.09057
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 60 min	-0.05359	0.05654
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 4 h	-0.04880	0.03231
TRTAN*ATPTN	NRT gum	T0 + 15 min	NRT gum	T0 + 12 h	0.003508	0.09709
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.06670	0.04726
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.01210	0.1098
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	0.009302	0.1078

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**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**PK Group-1
Residual Plots

NOTE: 3 obs hidden.

**Listing 15.4.4.7 Analysis of Blood COHb (%) - PK Population**PK Group-2
Residual Plots

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Model Information

Data Set	WORK.ADBX
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC
APERIOD	2	1 2
ATPTN	3	12:00-01:30 PM 04:00-05:30 PM 08:00-09:30 PM

Dimensions

Covariance Parameters	5
Columns in X	16
Columns in Z	43
Subjects	1
Max Obs Per Subject	258

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Number of Observations

Number of Observations Read	258
Number of Observations Used	258
Number of Observations Not Used	0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	927.24290826	
1	3	882.26050070	0.05640610
2	1	866.98019347	0.02506687
3	1	860.50684222	0.00936031
4	1	858.23740198	0.00169303
5	1	857.86247333	0.00006231
6	1	857.84974890	0.00000010
7	1	857.84972988	0.00000000

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

```
PK Group-1
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Convergence criteria met.
```

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		0.8379
Var (1)	SUBJIDN*TRTAN	1.2381
Var (2)	SUBJIDN*TRTAN	1.3895
Var (3)	SUBJIDN*TRTAN	1.1803
CSH	SUBJIDN*TRTAN	0.08773

Fit Statistics

-2 Res Log Likelihood	857.8
AIC (smaller is better)	867.8
AICC (smaller is better)	868.1
BIC (smaller is better)	876.7

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.15	0.6989
APERIOD	1	209	6.75	0.0100
TRTAN	1	209	113.24	<.0001
ATPTN	2	209	8.68	0.0002
TRTAN*ATPTN	2	209	15.07	<.0001

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		3.4295	0.1763	209	19.46	<.0001	0.05
TRTAN	mCC		5.0482	0.1763	209	28.64	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	3.1892	0.2198	209	14.51	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	3.6776	0.2276	209	16.16	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	3.4217	0.2167	209	15.79	<.0001	0.05
TRTAN*ATPTN	mCC	12:00-01:30 PM	5.7847	0.2198	209	26.32	<.0001	0.05

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	04:00-05:30 PM	5.0637	0.2276	209	22.25	<.0001	0.05
TRTAN*ATPTN	mCC	08:00-09:30 PM	4.2963	0.2167	209	19.83	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		3.0820	3.7770
TRTAN	mCC		4.7008	5.3957
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	2.7560	3.6224
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	3.2288	4.1263
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	2.9946	3.8489
TRTAN*ATPTN	mCC	12:00-01:30 PM	5.3514	6.2179
TRTAN*ATPTN	mCC	04:00-05:30 PM	4.6150	5.5125
TRTAN*ATPTN	mCC	08:00-09:30 PM	3.8691	4.7235

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		mCC		-1.6187	0.1521	209
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	-0.4884	0.2361	209
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-0.2326	0.2265	209
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	12:00-01:30 PM	-2.5955	0.2400	209
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	04:00-05:30 PM	-1.8746	0.2472	209
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	08:00-09:30 PM	-1.1071	0.2372	209
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	0.2558	0.2335	209
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	12:00-01:30 PM	-2.1071	0.2472	209
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	04:00-05:30 PM	-1.3862	0.2542	209
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	08:00-09:30 PM	-0.6187	0.2445	209
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	12:00-01:30 PM	-2.3629	0.2372	209
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	04:00-05:30 PM	-1.6420	0.2445	209
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	08:00-09:30 PM	-0.8746	0.2343	209
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	04:00-05:30 PM	0.7209	0.2361	209
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	08:00-09:30 PM	1.4884	0.2265	209
TRTAN*ATPTN	mCC	04:00-05:30 PM	mCC	08:00-09:30 PM	0.7674	0.2335	209

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		mCC		-10.64	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	-2.07	0.0398	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-1.03	0.3058	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	12:00-01:30 PM	-10.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	04:00-05:30 PM	-7.58	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	08:00-09:30 PM	-4.67	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	1.10	0.2746	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	12:00-01:30 PM	-8.52	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	04:00-05:30 PM	-5.45	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	08:00-09:30 PM	-2.53	0.0121	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	12:00-01:30 PM	-9.96	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	04:00-05:30 PM	-6.72	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	08:00-09:30 PM	-3.73	0.0002	0.05
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	04:00-05:30 PM	3.05	0.0026	0.05
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	08:00-09:30 PM	6.57	<.0001	0.05
TRTAN*ATPTN	mCC	04:00-05:30 PM	mCC	08:00-09:30 PM	3.29	0.0012	0.05

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-1

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		mCC		-1.9186	-1.3189
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	-0.9539	-0.02288
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-0.6791	0.2140
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	12:00-01:30 PM	-3.0686	-2.1224
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	04:00-05:30 PM	-2.3619	-1.3872
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	mCC	08:00-09:30 PM	-1.5747	-0.6395
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-0.2046	0.7162
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	12:00-01:30 PM	-2.5945	-1.6197
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	04:00-05:30 PM	-1.8874	-0.8850
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	mCC	08:00-09:30 PM	-1.1007	-0.1368
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	12:00-01:30 PM	-2.8305	-1.8954
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	04:00-05:30 PM	-2.1240	-1.1600
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	mCC	08:00-09:30 PM	-1.3365	-0.4126
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	04:00-05:30 PM	0.2554	1.1864
TRTAN*ATPTN	mCC	12:00-01:30 PM	mCC	08:00-09:30 PM	1.0418	1.9349
TRTAN*ATPTN	mCC	04:00-05:30 PM	mCC	08:00-09:30 PM	0.3071	1.2278

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Model Information

Data Set	WORK.ADBX
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	18	4 17 18 22 35 36 51 60 61 63 72 78 83 95 119 120 123 132
TRTSEQAN	2	3 4
TRTAN	2	THS 2.2 Menthol NRT gum
APERIOD	2	1 2

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2
Proc Mixed Procedure
The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Class Level Information

Class	Levels	Values
ATPTN	3	12:00-01:30 PM 04:00-05:30 PM 08:00-09:30 PM

Dimensions

Covariance Parameters	5
Columns in X	16
Columns in Z	18
Subjects	1
Max Obs Per Subject	108

Number of Observations

Number of Observations Read	108
Number of Observations Used	108
Number of Observations Not Used	0

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	312.60062734	
1	2	293.05636400	0.00260027
2	1	292.90043690	0.00007834
3	1	292.89606400	0.00000010
4	1	292.89605850	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		0.3075
Var (1)	SUBJIDN*TRTAN	0.4293
Var (2)	SUBJIDN*TRTAN	0.5194
Var (3)	SUBJIDN*TRTAN	1.4797
CSH	SUBJIDN*TRTAN	0.01590

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Fit Statistics

-2 Res Log Likelihood	292.9
AIC (smaller is better)	302.9
AICC (smaller is better)	303.5
BIC (smaller is better)	307.3

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	16	1.26	0.2775
APERIOD	1	84	0.44	0.5071
TRTAN	1	84	2.18	0.1435
ATPTN	2	84	3.83	0.0257
TRTAN*ATPTN	2	84	0.23	0.7978

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		3.2037	0.1803	84	17.77	<.0001	0.05
TRTAN	NRT gum		2.9444	0.1803	84	16.33	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	3.0000	0.2023	84	14.83	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	2.9444	0.2143	84	13.74	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	3.6667	0.3151	84	11.64	<.0001	0.05
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	2.7222	0.2023	84	13.46	<.0001	0.05
TRTAN*ATPTN	NRT gum	04:00-05:30 PM	2.8333	0.2143	84	13.22	<.0001	0.05
TRTAN*ATPTN	NRT gum	08:00-09:30 PM	3.2778	0.3151	84	10.40	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		2.8452	3.5622
TRTAN	NRT gum		2.5860	3.3029
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	2.5977	3.4023
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	2.5182	3.3707

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	3.0401	4.2933
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	2.3199	3.1245
TRTAN*ATPTN	NRT gum	04:00-05:30 PM	2.4071	3.2595
TRTAN*ATPTN	NRT gum	08:00-09:30 PM	2.6512	3.9044

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		NRT gum		0.2593	0.1756	84
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	0.05556	0.2278	84
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-0.6667	0.3235	84
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	12:00-01:30 PM	0.2778	0.2184	84
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	04:00-05:30 PM	0.1667	0.2296	84
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-0.2778	0.3257	84
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-0.7222	0.3309	84

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	12:00-01:30 PM	0.2222	0.2296	84
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	04:00-05:30 PM	0.1111	0.2402	84
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-0.3333	0.3333	84
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	12:00-01:30 PM	0.9444	0.3257	84
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	04:00-05:30 PM	0.8333	0.3333	84
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	08:00-09:30 PM	0.3889	0.4055	84
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	04:00-05:30 PM	-0.1111	0.2278	84
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-0.5556	0.3235	84
TRTAN*ATPTN	NRT gum	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-0.4444	0.3309	84

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		NRT gum		1.48	0.1435	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	0.24	0.8079	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-2.06	0.0424	0.05

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

PK Group-2

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	12:00-01:30 PM	1.27	0.2069	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	04:00-05:30 PM	0.73	0.4699	0.05
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-0.85	0.3961	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-2.18	0.0319	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	12:00-01:30 PM	0.97	0.3358	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	04:00-05:30 PM	0.46	0.6449	0.05
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-1.00	0.3201	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	12:00-01:30 PM	2.90	0.0048	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	04:00-05:30 PM	2.50	0.0143	0.05
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	08:00-09:30 PM	0.96	0.3403	0.05
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	04:00-05:30 PM	-0.49	0.6269	0.05
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-1.72	0.0896	0.05
TRTAN*ATPTN	NRT gum	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-1.34	0.1829	0.05

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**

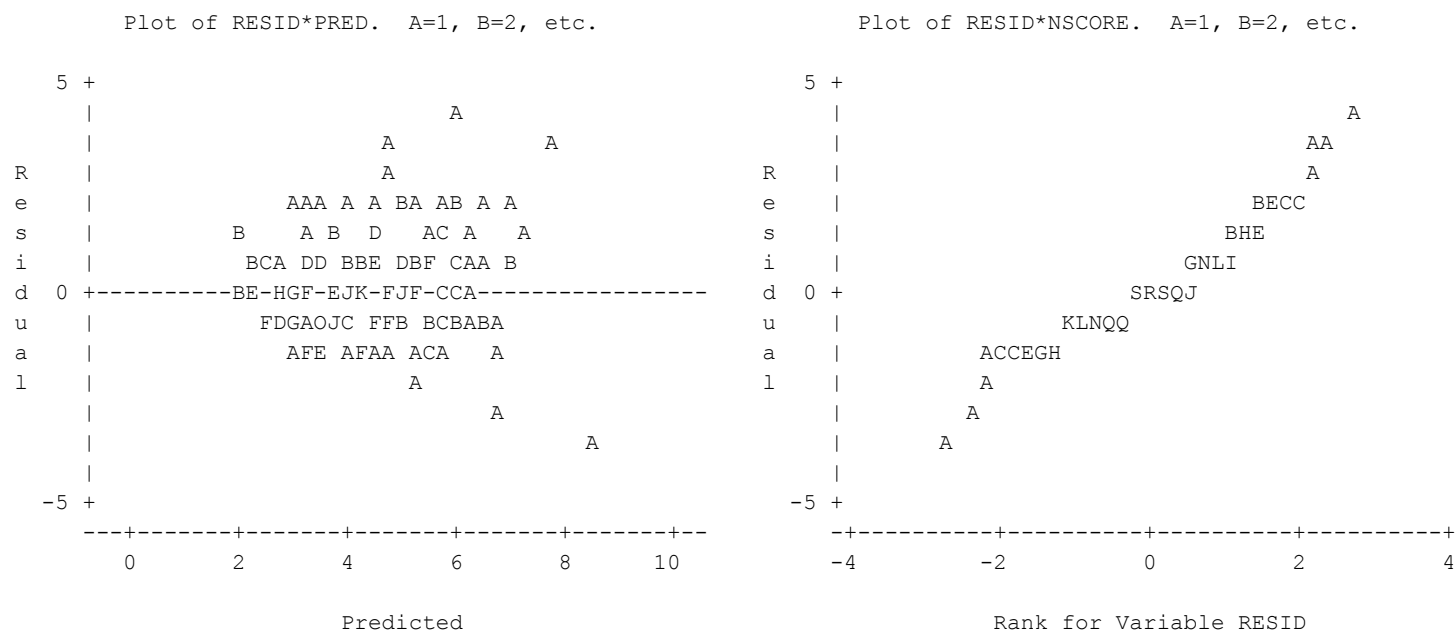
PK Group-2

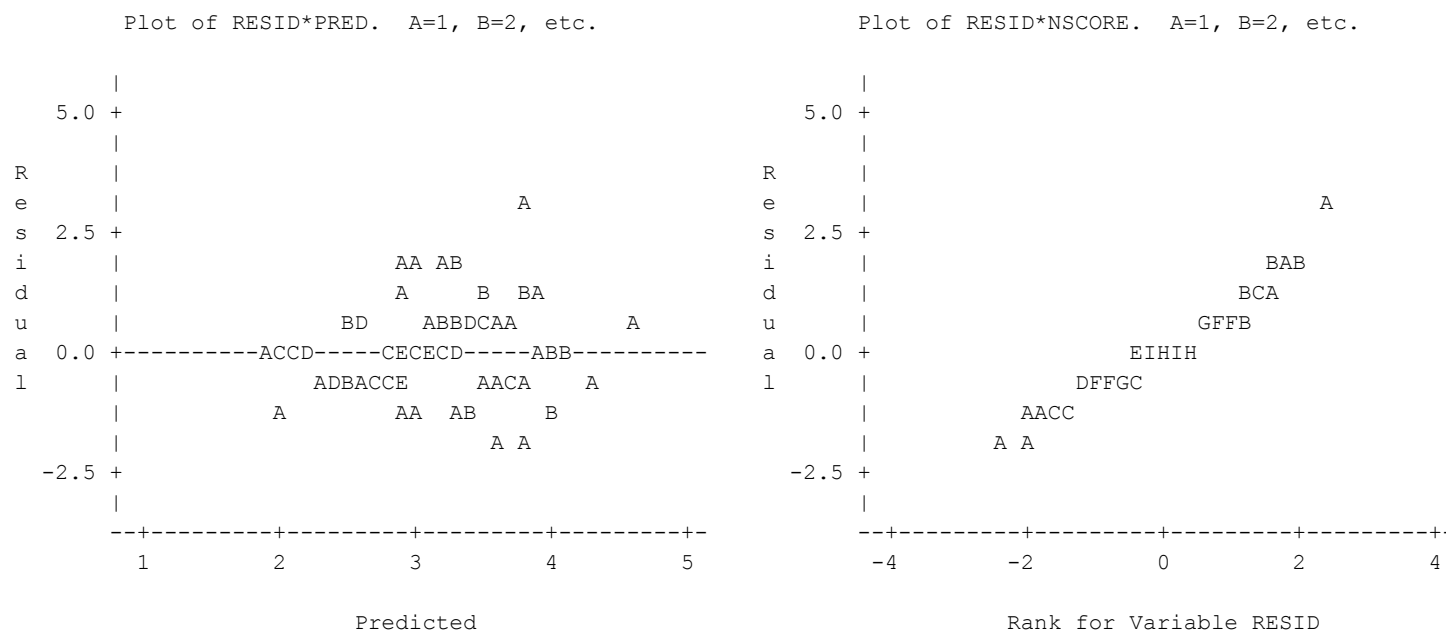
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: anl02fl='Y' and pprotfl ='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		NRT gum		-0.08987	0.6084
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	04:00-05:30 PM	-0.3974	0.5085
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-1.3100	-0.02337
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	12:00-01:30 PM	-0.1565	0.7121
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	04:00-05:30 PM	-0.2899	0.6232
TRTAN*ATPTN	THS 2.2 Menthol	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-0.9254	0.3698
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	THS 2.2 Menthol	08:00-09:30 PM	-1.3803	-0.06415
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	12:00-01:30 PM	-0.2343	0.6788
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	04:00-05:30 PM	-0.3666	0.5888
TRTAN*ATPTN	THS 2.2 Menthol	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-0.9960	0.3294
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	12:00-01:30 PM	0.2968	1.5921
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	04:00-05:30 PM	0.1706	1.4960
TRTAN*ATPTN	THS 2.2 Menthol	08:00-09:30 PM	NRT gum	08:00-09:30 PM	-0.4174	1.1952
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	04:00-05:30 PM	-0.5640	0.3418
TRTAN*ATPTN	NRT gum	12:00-01:30 PM	NRT gum	08:00-09:30 PM	-1.1988	0.08774
TRTAN*ATPTN	NRT gum	04:00-05:30 PM	NRT gum	08:00-09:30 PM	-1.1025	0.2136

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**PK Group-1
Residual Plots

**Listing 15.4.4.9 Analysis of Exhaled CO (ppm) During Single Use Day - PK Population**PK Group-2
Residual Plots

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC
APERIOD	2	1 2
ATPTN	9	T0 + 15 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	43

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Dimensions

Subjects	1
Max Obs Per Subject	774

Number of Observations

Number of Observations Read	774
Number of Observations Used	774
Number of Observations Not Used	0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2657.42921994	
1	2	1641.98638327	83.76268546
2	1	1614.56946280	92.33844365
3	1	1583.13703169	0.56135894
4	1	1574.30875834	0.54630129

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
5	1	1511.37448451	0.23853702
6	1	1491.88493794	0.16028867
7	1	1481.49288744	0.09474984
8	1	1475.65018857	0.04765740
9	1	1473.08113875	0.01830707
10	1	1472.10592812	0.00421270
11	1	1471.89943909	0.00037386
12	1	1471.88235091	0.00000404
13	1	1471.88217585	0.00000000

Convergence criteria met.

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		2.8111
Var (1)	SUBJIDN*TRTAN	2.9128
Var (2)	SUBJIDN*TRTAN	2.7795
Var (3)	SUBJIDN*TRTAN	2.3683
Var (4)	SUBJIDN*TRTAN	2.2757
Var (5)	SUBJIDN*TRTAN	1.9162
Var (6)	SUBJIDN*TRTAN	1.1254
Var (7)	SUBJIDN*TRTAN	0.6771
Var (8)	SUBJIDN*TRTAN	0.7185
Var (9)	SUBJIDN*TRTAN	0.6037
CSH	SUBJIDN*TRTAN	0.8641

Fit Statistics

-2 Res Log Likelihood	1471.9
AIC (smaller is better)	1493.9
AICC (smaller is better)	1494.2
BIC (smaller is better)	1513.3

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.73	0.3974
APERIOD	1	713	1.56	0.2122
TRTAN	1	713	1.24	0.2652
ATPTN	8	713	13.73	<.0001
TRTAN*ATPTN	8	713	0.53	0.8346

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		3.3553	0.3127	713	10.73	<.0001	0.05
TRTAN	mCC		3.6390	0.3127	713	11.64	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	2.8483	0.3649	713	7.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.8460	0.3606	713	7.89	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.9576	0.3471	713	8.52	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	3.0693	0.3440	713	8.92	<.0001	0.05

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	3.3553	0.3316	713	10.12	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	3.4809	0.3026	713	11.50	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	3.8041	0.2849	713	13.35	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	3.8995	0.2866	713	13.61	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	3.9367	0.2819	713	13.97	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	3.2620	0.3649	713	8.94	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	3.1736	0.3606	713	8.80	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	3.3341	0.3471	713	9.61	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	3.4504	0.3440	713	10.03	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	3.5690	0.3316	713	10.76	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	3.7085	0.3026	713	12.25	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	4.0853	0.2849	713	14.34	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	4.0457	0.2866	713	14.12	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 12 h	4.1225	0.2819	713	14.63	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		2.7414	3.9692
TRTAN	mCC		3.0251	4.2529
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	2.1319	3.5647
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.1380	3.5540
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.2762	3.6391
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	2.3939	3.7446
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	2.7042	4.0064
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	2.8867	4.0750
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	3.2448	4.3635
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	3.3369	4.4621
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	3.3833	4.4901
TRTAN*ATPTN	mCC	T0 + 15 min	2.5456	3.9784
TRTAN*ATPTN	mCC	T0 + 30 min	2.4656	3.8816
TRTAN*ATPTN	mCC	T0 + 45 min	2.6526	4.0156
TRTAN*ATPTN	mCC	T0 + 60 min	2.7750	4.1257
TRTAN*ATPTN	mCC	T0 + 2 h	2.9179	4.2200
TRTAN*ATPTN	mCC	T0 + 4 h	3.1144	4.3027
TRTAN*ATPTN	mCC	T0 + 6 h	3.5259	4.6446

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 9 h	3.4831	4.6083
TRTAN*ATPTN	mCC	T0 + 12 h	3.5691	4.6759

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		mCC		-0.2837	0.2544	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	0.002326	0.1342	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.1093	0.1313	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.2209	0.1311	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-0.5070	0.1317	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.6326	0.1454	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-0.9558	0.1644	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-1.0512	0.1622	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-1.0884	0.1688	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.4137	0.3681	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.3253	0.3638	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-0.4858	0.3505	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.6020	0.3474	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-0.7206	0.3351	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-0.8602	0.3065	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-1.2369	0.2889	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-1.1974	0.2906	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-1.2741	0.2860	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.1116	0.1288	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.2233	0.1284	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.5093	0.1282	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.6349	0.1404	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-0.9581	0.1589	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.0535	0.1567	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.0907	0.1631	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-0.4160	0.3638	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.3276	0.3596	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-0.4881	0.3460	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-0.6044	0.3429	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-0.7230	0.3305	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-0.8625	0.3014	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-1.2392	0.2835	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-1.1997	0.2852	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-1.2765	0.2805	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.1116	0.1212	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.3977	0.1184	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.5233	0.1250	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.8465	0.1412	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.9419	0.1391	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-0.9791	0.1451	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.3044	0.3505	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.2160	0.3460	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-0.3765	0.3319	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-0.4927	0.3286	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-0.6113	0.3157	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-0.7509	0.2850	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-1.1276	0.2661	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-1.0881	0.2679	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-1.1648	0.2629	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.2860	0.1164	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.4116	0.1215	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.7349	0.1370	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.8302	0.1350	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.8674	0.1409	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.1927	0.3474	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.1044	0.3429	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.2648	0.3286	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.3811	0.3253	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-0.4997	0.3122	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-0.6392	0.2812	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-1.0160	0.2621	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-0.9765	0.2639	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-1.0532	0.2588	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.1256	0.1082	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.4488	0.1205	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.5442	0.1188	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.5814	0.1240	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	0.09331	0.3351	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.1817	0.3305	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	0.02122	0.3157	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.09506	0.3122	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.2137	0.2985	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.3532	0.2660	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-0.7299	0.2456	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-0.6904	0.2475	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-0.7672	0.2421	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.3233	0.08267	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.4186	0.08210	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.4558	0.08416	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	0.2189	0.3065	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	0.3073	0.3014	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.1468	0.2850	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	0.03052	0.2812	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.08808	0.2660	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.2276	0.2288	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-0.6044	0.2048	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-0.5648	0.2071	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-0.6416	0.2005	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.09535	0.06650	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.1326	0.06395	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	0.5422	0.2889	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	0.6305	0.2835	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	0.4701	0.2661	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	0.3538	0.2621	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.2352	0.2456	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.09564	0.2048	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.2811	0.1775	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.2416	0.1802	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.3183	0.1726	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.03721	0.06541	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	0.6375	0.2906	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	0.7259	0.2852	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	0.5654	0.2679	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	0.4491	0.2639	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	0.3305	0.2475	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	0.1910	0.2071	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.1858	0.1802	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.1462	0.1828	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.2230	0.1754	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	0.6747	0.2860	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	0.7631	0.2805	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	0.6026	0.2629	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	0.4863	0.2588	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	0.3677	0.2421	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	0.2282	0.2005	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.1485	0.1726	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.1090	0.1754	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.1858	0.1676	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	0.08837	0.1342	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.07209	0.1313	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.1884	0.1311	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.3070	0.1317	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-0.4465	0.1454	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-0.8233	0.1644	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-0.7837	0.1622	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-0.8605	0.1688	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.1605	0.1288	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.2767	0.1284	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.3953	0.1282	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-0.5349	0.1404	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-0.9116	0.1589	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-0.8721	0.1567	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-0.9488	0.1631	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.1163	0.1212	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.2349	0.1184	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.3744	0.1250	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-0.7512	0.1412	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-0.7116	0.1391	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-0.7884	0.1451	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-0.1186	0.1164	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.2581	0.1215	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-0.6349	0.1370	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-0.5953	0.1350	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-0.6721	0.1409	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.1395	0.1082	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.5163	0.1205	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.4767	0.1188	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.5535	0.1240	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.3767	0.08267	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.3372	0.08210	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.4140	0.08416	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	0.03953	0.06650	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.03721	0.06395	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.07674	0.06541	713

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		mCC		-1.12	0.2652	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	0.02	0.9862	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.83	0.4056	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-1.69	0.0923	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-3.85	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-4.35	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-5.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-6.48	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-6.45	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-1.12	0.2615	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.89	0.3716	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-1.39	0.1662	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-1.73	0.0835	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-2.15	0.0319	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-2.81	0.0051	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-4.28	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-4.12	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-4.46	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.87	0.3865	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-1.74	0.0824	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-3.97	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-4.52	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-6.03	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-6.72	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-6.69	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-1.14	0.2533	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.91	0.3625	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-1.41	0.1588	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-1.76	0.0784	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-2.19	0.0290	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-2.86	0.0043	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-4.37	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-4.21	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-4.55	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.92	0.3574	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-3.36	0.0008	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-4.19	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-6.00	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-6.77	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-6.75	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.87	0.3854	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.62	0.5327	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-1.13	0.2571	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-1.50	0.1342	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-1.94	0.0532	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-2.63	0.0086	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-4.24	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-4.06	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-4.43	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-2.46	0.0142	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-3.39	0.0007	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-5.36	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-6.15	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-6.16	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.55	0.5792	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.30	0.7609	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.81	0.4206	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-1.17	0.2418	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-1.60	0.1099	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-2.27	0.0233	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-3.88	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-3.70	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-4.07	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-1.16	0.2463	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-3.72	0.0002	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-4.58	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-4.69	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	0.28	0.7807	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.55	0.5826	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	0.07	0.9464	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.30	0.7609	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.72	0.4744	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-1.33	0.1846	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-2.97	0.0031	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-2.79	0.0054	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-3.17	0.0016	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-3.91	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-5.10	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-5.42	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	0.71	0.4753	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	1.02	0.3083	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.52	0.6067	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	0.11	0.9136	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.33	0.7406	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.99	0.3202	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-2.95	0.0033	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-2.73	0.0065	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-3.20	0.0014	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-1.43	0.1520	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-2.07	0.0385	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	1.88	0.0610	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	2.22	0.0265	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	1.77	0.0778	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	1.35	0.1774	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.96	0.3386	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.47	0.6406	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-1.58	0.1137	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-1.34	0.1804	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-1.84	0.0656	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.57	0.5696	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	2.19	0.0286	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	2.54	0.0111	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	2.11	0.0352	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	1.70	0.0892	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	1.34	0.1822	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	0.92	0.3567	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-1.03	0.3029	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.80	0.4241	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-1.27	0.2040	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	2.36	0.0186	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	2.72	0.0067	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	2.29	0.0222	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	1.88	0.0606	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	1.52	0.1292	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	1.14	0.2555	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.86	0.3897	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.62	0.5344	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-1.11	0.2680	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	0.66	0.5105	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.55	0.5833	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-1.44	0.1511	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-2.33	0.0200	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-3.07	0.0022	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-5.01	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-4.83	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-5.10	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-1.25	0.2133	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-2.16	0.0314	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-3.08	0.0021	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-3.81	0.0002	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-5.74	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-5.57	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-5.82	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.96	0.3377	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-1.98	0.0477	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-2.99	0.0028	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-5.32	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-5.12	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-5.43	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-1.02	0.3087	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-2.12	0.0340	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-4.63	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-4.41	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-4.77	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-1.29	0.1977	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-4.28	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-4.01	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-4.46	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-4.56	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-4.11	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-4.92	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	0.59	0.5523	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.58	0.5608	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-1.17	0.2411	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		mCC		-0.7832	0.2158
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	-0.2612	0.2658
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.3672	0.1486
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.4783	0.03642
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-0.7656	-0.2484
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.9180	-0.3471
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-1.2787	-0.6330
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-1.3696	-0.7328
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-1.4197	-0.7570
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-1.1363	0.3090
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-1.0396	0.3890
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-1.1738	0.2023
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-1.2840	0.07995
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-1.3786	-0.06270
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-1.4618	-0.2585
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-1.8042	-0.6696
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-1.7679	-0.6268
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-1.8356	-0.7127

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.3645	0.1413
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.4753	0.02876
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.7611	-0.2575
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.9106	-0.3591
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.2701	-0.6462
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.3611	-0.7459
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.4110	-0.7704
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-1.1303	0.2983
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-1.0335	0.3783
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-1.1674	0.1912
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-1.2775	0.06881
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-1.3718	-0.07417
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-1.4542	-0.2708
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-1.7959	-0.6826
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-1.7597	-0.6397
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-1.8272	-0.7257
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.3496	0.1263
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.6301	-0.1652

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.7687	-0.2778
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.1236	-0.5694
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-1.2150	-0.6687
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.2640	-0.6942
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.9924	0.3837
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.8953	0.4633
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-1.0281	0.2752
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-1.1379	0.1525
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-1.2311	0.008400
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-1.3105	-0.1912
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-1.6501	-0.6051
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-1.6141	-0.5620
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-1.6810	-0.6487
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.5146	-0.05747
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.6503	-0.1730
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.0039	-0.4659
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.0954	-0.5651
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.1441	-0.5908

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.8747	0.4893
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.7775	0.5688
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.9100	0.3804
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-1.0199	0.2576
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-1.1127	0.1133
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-1.1914	-0.08707
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-1.5305	-0.5015
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-1.4945	-0.4584
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-1.5613	-0.5451
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.3380	0.08689
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.6855	-0.2122
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.7774	-0.3110
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.8248	-0.3380
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	-0.5646	0.7513
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	-0.4671	0.8305
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	-0.5985	0.6410
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.7081	0.5179
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.7998	0.3725

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.8754	0.1690
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-1.2121	-0.2478
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-1.1764	-0.2044
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-1.2424	-0.2919
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.4856	-0.1610
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.5798	-0.2574
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.6210	-0.2906
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	-0.3828	0.8206
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	-0.2844	0.8989
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	-0.4128	0.7064
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.5216	0.5827
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.6103	0.4341
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.6768	0.2216
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-1.0064	-0.2024
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-0.9714	-0.1582
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-1.0353	-0.2478
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.2259	0.03521
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.2581	-0.00701

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	-0.02513	1.1094
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	0.07387	1.1872
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	-0.05244	0.9926
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	-0.1607	0.8683
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	-0.2470	0.7173
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	-0.3064	0.4976
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.6295	0.06733
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.5953	0.1122
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.6572	0.02055
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.1656	0.09120
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	0.06695	1.2081
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	0.1659	1.2859
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	0.03937	1.0914
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	-0.06896	0.9672
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	-0.1555	0.8165
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	-0.2156	0.5976
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.5395	0.1680
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.5052	0.2127

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.5673	0.1213
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	0.1133	1.2362
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	0.2124	1.3138
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	0.08645	1.1188
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	-0.02172	0.9944
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	-0.1076	0.8430
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	-0.1655	0.6219
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.4874	0.1903
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.4533	0.2353
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.5148	0.1433
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	-0.1751	0.3519
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.3300	0.1858
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.4457	0.06898
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.5656	-0.04840
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-0.7320	-0.1611
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-1.1461	-0.5004
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-1.1021	-0.4653
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-1.1918	-0.5291

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.4134	0.09245
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.5288	-0.02472
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.6471	-0.1436
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-0.8106	-0.2591
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-1.2236	-0.5997
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-1.1797	-0.5645
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-1.2691	-0.6285
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.3542	0.1217
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.4673	-0.00244
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.6199	-0.1290
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-1.0283	-0.4740
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-0.9848	-0.4385
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-1.0733	-0.5035
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-0.3472	0.1100
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.4968	-0.01951
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-0.9039	-0.3659
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-0.8605	-0.3302
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-0.9487	-0.3955

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.3520	0.07293
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.7529	-0.2796
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.7100	-0.2435
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.7969	-0.3101
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.5390	-0.2144
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.4984	-0.1760
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.5792	-0.2487
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	-0.09102	0.1701
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.1628	0.08833
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.2052	0.05167

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC
APERIOD	2	1 2
ATPTN	9	T0 + 15 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	43

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Dimensions

Subjects	1
Max Obs Per Subject	774

Number of Observations

Number of Observations Read	774
Number of Observations Used	774
Number of Observations Not Used	0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2946.90239576	
1	2	1842.26696035	0.21819537
2	1	1823.54902900	0.16299556
3	1	1780.42131995	0.04706757
4	1	1768.44499043	0.02379921

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
5	1	1762.89190705	0.01047834
6	1	1760.40831464	0.00355854
7	1	1759.62091149	0.00072003
8	1	1759.46792832	0.00004680
9	1	1759.45878442	0.00000028
10	1	1759.45873264	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		3.1290
Var (1)	SUBJIDN*TRTAN	3.8967
Var (2)	SUBJIDN*TRTAN	3.7125
Var (3)	SUBJIDN*TRTAN	2.9924

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
Var (4)	SUBJIDN*TRTAN	2.9845
Var (5)	SUBJIDN*TRTAN	2.5215
Var (6)	SUBJIDN*TRTAN	1.5159
Var (7)	SUBJIDN*TRTAN	0.9370
Var (8)	SUBJIDN*TRTAN	1.0790
Var (9)	SUBJIDN*TRTAN	0.7970
CSH	SUBJIDN*TRTAN	0.8470

Fit Statistics

-2 Res Log Likelihood	1759.5
AIC (smaller is better)	1781.5
AICC (smaller is better)	1781.8
BIC (smaller is better)	1800.8

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.46	0.5028
APERIOD	1	713	4.03	0.0451
TRTAN	1	713	1.20	0.2730
ATPTN	8	713	18.01	<.0001
TRTAN*ATPTN	8	713	0.70	0.6923

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		4.1408	0.3395	713	12.20	<.0001	0.05
TRTAN	mCC		4.4606	0.3395	713	13.14	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	3.4581	0.4043	713	8.55	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	3.4861	0.3989	713	8.74	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	3.6768	0.3774	713	9.74	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	3.7744	0.3771	713	10.01	<.0001	0.05

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	4.1558	0.3626	713	11.46	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	4.3047	0.3287	713	13.09	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	4.6861	0.3076	713	15.24	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	4.8256	0.3129	713	15.42	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	4.9000	0.3022	713	16.21	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	3.8947	0.4043	713	9.63	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	3.8668	0.3989	713	9.69	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	4.0621	0.3774	713	10.76	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	4.2017	0.3771	713	11.14	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	4.4389	0.3626	713	12.24	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	4.5598	0.3287	713	13.87	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	5.0621	0.3076	713	16.46	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	4.9738	0.3129	713	15.90	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 12 h	5.0854	0.3022	713	16.83	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		3.4742	4.8075
TRTAN	mCC		3.7940	5.1272
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	2.6645	4.2518
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.7028	4.2693
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.9359	4.4176
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	3.0340	4.5148
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	3.4440	4.8676
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	3.6593	4.9501
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	4.0822	5.2899
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	4.2113	5.4399
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	4.3066	5.4934
TRTAN*ATPTN	mCC	T0 + 15 min	3.1010	4.6884
TRTAN*ATPTN	mCC	T0 + 30 min	3.0836	4.6500
TRTAN*ATPTN	mCC	T0 + 45 min	3.3213	4.8030
TRTAN*ATPTN	mCC	T0 + 60 min	3.4613	4.9421
TRTAN*ATPTN	mCC	T0 + 2 h	3.7271	5.1507
TRTAN*ATPTN	mCC	T0 + 4 h	3.9144	5.2052
TRTAN*ATPTN	mCC	T0 + 6 h	4.4583	5.6660

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 9 h	4.3595	5.5881
TRTAN*ATPTN	mCC	T0 + 12 h	4.4920	5.6788

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		mCC		-0.3198	0.2915	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	-0.02791	0.1647	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.2186	0.1603	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.3163	0.1603	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-0.6977	0.1606	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.8465	0.1736	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-1.2279	0.1927	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-1.3674	0.1869	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-1.4419	0.1993	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.4366	0.4257	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.4086	0.4207	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-0.6040	0.4003	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.7435	0.4000	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-0.9807	0.3864	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-1.1017	0.3548	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-1.6040	0.3353	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-1.5156	0.3402	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-1.6273	0.3304	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.1907	0.1569	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.2884	0.1569	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.6698	0.1564	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.8186	0.1677	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.2000	0.1862	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.3395	0.1805	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.4140	0.1926	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-0.4086	0.4207	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.3807	0.4156	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-0.5761	0.3949	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-0.7156	0.3947	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-0.9528	0.3808	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-1.0738	0.3487	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-1.5761	0.3288	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-1.4877	0.3338	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-1.5993	0.3239	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.09767	0.1459	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.4791	0.1415	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.6279	0.1447	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.0093	0.1594	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-1.1488	0.1546	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.2233	0.1652	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.2180	0.4003	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.1900	0.3949	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-0.3854	0.3731	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-0.5249	0.3728	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-0.7621	0.3581	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-0.8831	0.3238	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-1.3854	0.3023	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-1.2970	0.3077	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-1.4086	0.2969	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.3814	0.1414	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.5302	0.1445	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.9116	0.1591	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.0512	0.1543	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.1256	0.1649	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.1203	0.4000	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.09237	0.3947	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.2877	0.3728	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.4273	0.3726	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-0.6645	0.3578	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-0.7854	0.3235	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-1.2877	0.3020	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-1.1993	0.3074	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-1.3110	0.2966	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.1488	0.1299	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.5302	0.1410	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.6698	0.1369	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.7442	0.1460	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	0.2611	0.3864	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.2890	0.3808	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	0.09368	0.3581	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.04586	0.3578	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.2831	0.3425	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.4040	0.3064	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-0.9063	0.2836	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-0.8180	0.2894	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-0.9296	0.2778	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.3814	0.1005	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.5209	0.09983	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.5953	0.1024	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	0.4100	0.3548	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	0.4379	0.3487	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.2425	0.3238	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	0.1030	0.3235	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.1342	0.3064	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.2552	0.2655	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-0.7575	0.2389	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-0.6691	0.2457	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-0.7807	0.2319	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.1395	0.08529	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.2140	0.07927	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	0.7914	0.3353	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	0.8193	0.3288	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	0.6239	0.3023	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	0.4844	0.3020	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.2472	0.2836	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.1262	0.2389	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.3761	0.2088	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.2877	0.2165	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.3993	0.2008	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.07442	0.08424	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	0.9309	0.3402	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	0.9588	0.3338	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	0.7634	0.3077	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	0.6239	0.3074	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	0.3867	0.2894	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	0.2658	0.2457	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.2366	0.2165	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.1482	0.2240	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.2598	0.2089	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	1.0053	0.3304	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	1.0332	0.3239	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	0.8379	0.2969	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	0.6983	0.2966	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	0.4611	0.2778	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	0.3402	0.2319	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.1621	0.2008	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.07377	0.2089	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.1854	0.1926	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	0.02791	0.1647	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.1674	0.1603	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.3070	0.1603	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.5442	0.1606	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-0.6651	0.1736	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-1.1674	0.1927	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-1.0791	0.1869	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-1.1907	0.1993	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.1953	0.1569	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.3349	0.1569	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.5721	0.1564	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-0.6930	0.1677	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-1.1953	0.1862	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-1.1070	0.1805	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-1.2186	0.1926	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.1395	0.1459	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.3767	0.1415	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.4977	0.1447	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-1.0000	0.1594	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-0.9116	0.1546	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-1.0233	0.1652	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-0.2372	0.1414	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.3581	0.1445	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-0.8605	0.1591	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-0.7721	0.1543	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-0.8837	0.1649	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.1209	0.1299	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.6233	0.1410	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.5349	0.1369	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.6465	0.1460	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.5023	0.1005	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.4140	0.09983	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.5256	0.1024	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	0.08837	0.08529	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.02326	0.07927	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.1116	0.08424	713

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		mCC		-1.10	0.2730	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	-0.17	0.8655	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-1.36	0.1731	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-1.97	0.0488	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-4.35	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-4.88	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-6.37	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-7.32	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-7.23	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-1.03	0.3055	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.97	0.3317	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-1.51	0.1318	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-1.86	0.0635	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-2.54	0.0113	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-3.11	0.0020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-4.78	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-4.46	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-4.93	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-1.22	0.2247	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-1.84	0.0665	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-4.28	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-4.88	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-6.45	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-7.42	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-7.34	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-0.97	0.3317	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.92	0.3599	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-1.46	0.1450	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-1.81	0.0702	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-2.50	0.0126	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-3.08	0.0022	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-4.79	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-4.46	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-4.94	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.67	0.5033	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-3.39	0.0007	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-4.34	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-6.33	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-7.43	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-7.40	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.54	0.5863	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.48	0.6305	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-1.03	0.3020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-1.41	0.1596	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-2.13	0.0337	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-2.73	0.0065	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-4.58	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-4.21	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-4.74	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-2.70	0.0071	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-3.67	0.0003	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-5.73	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-6.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-6.83	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.30	0.7638	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.23	0.8150	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.77	0.4405	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-1.15	0.2519	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-1.86	0.0637	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-2.43	0.0154	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-4.26	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-3.90	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-4.42	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-1.15	0.2523	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-3.76	0.0002	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-4.89	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-5.10	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	0.68	0.4993	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.76	0.4481	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	0.26	0.7937	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.13	0.8981	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.83	0.4088	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-1.32	0.1878	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-3.20	0.0015	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-2.83	0.0048	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-3.35	0.0009	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-3.80	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-5.22	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-5.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	1.16	0.2483	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	1.26	0.2096	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.75	0.4541	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	0.32	0.7503	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.44	0.6615	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.96	0.3369	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-3.17	0.0016	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-2.72	0.0066	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-3.37	0.0008	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-1.64	0.1023	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-2.70	0.0071	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	2.36	0.0185	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	2.49	0.0130	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	2.06	0.0394	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	1.60	0.1092	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.87	0.3838	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.53	0.5973	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-1.80	0.0721	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-1.33	0.1844	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-1.99	0.0471	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.88	0.3773	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	2.74	0.0064	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	2.87	0.0042	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	2.48	0.0133	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	2.03	0.0428	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	1.34	0.1819	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	1.08	0.2797	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-1.09	0.2750	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.66	0.5085	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-1.24	0.2140	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	3.04	0.0024	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	3.19	0.0015	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	2.82	0.0049	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	2.35	0.0188	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	1.66	0.0974	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	1.47	0.1429	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.81	0.4197	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.35	0.7241	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.96	0.3360	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	0.17	0.8655	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-1.04	0.2966	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-1.92	0.0559	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-3.39	0.0007	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-3.83	0.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-6.06	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-5.77	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-5.97	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-1.24	0.2136	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-2.13	0.0332	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-3.66	0.0003	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-4.13	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-6.42	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-6.13	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-6.33	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.96	0.3391	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-2.66	0.0079	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-3.44	0.0006	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-6.27	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-5.90	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-6.19	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-1.68	0.0938	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-2.48	0.0134	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-5.41	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-5.00	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-5.36	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.93	0.3522	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-4.42	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-3.91	0.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-4.43	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-5.00	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-4.15	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-5.13	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	1.04	0.3005	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.29	0.7693	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-1.33	0.1856	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		mCC		-0.8920	0.2525
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	-0.3513	0.2955
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.5333	0.09610
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.6309	-0.00161
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-1.0129	-0.3824
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-1.1873	-0.5057
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-1.6063	-0.8496
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-1.7344	-1.0005
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-1.8332	-1.0505
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-1.2724	0.3993
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-1.2346	0.4173
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-1.3899	0.1819
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-1.5289	0.04187
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-1.7393	-0.2222
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-1.7982	-0.4051
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-2.2623	-0.9457
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-2.1835	-0.8478
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-2.2759	-0.9786

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.4988	0.1174
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.5964	0.01967
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.9768	-0.3628
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-1.1479	-0.4893
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.5655	-0.8345
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.6939	-0.9851
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.7922	-1.0357
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-1.2346	0.4173
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-1.1966	0.4351
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-1.3514	0.1992
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-1.4904	0.05920
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-1.7004	-0.2053
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-1.7584	-0.3891
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-2.2217	-0.9305
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-2.1431	-0.8323
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-2.2352	-0.9635
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.3840	0.1887
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.7569	-0.2013

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.9120	-0.3438
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.3223	-0.6963
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-1.4524	-0.8453
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.5476	-0.8989
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-1.0038	0.5679
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.9653	0.5852
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-1.1179	0.3471
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-1.2569	0.2071
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-1.4652	-0.05908
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-1.5188	-0.2473
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-1.9789	-0.7919
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-1.9012	-0.6929
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-1.9915	-0.8258
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.6589	-0.1039
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.8139	-0.2466
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.2240	-0.5992
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.3541	-0.7482
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.4493	-0.8019

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.9057	0.6651
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.8672	0.6825
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-1.0197	0.4443
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-1.1588	0.3042
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-1.3670	0.03809
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-1.4206	-0.1502
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-1.8806	-0.6948
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-1.8029	-0.5958
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-1.8932	-0.7287
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.4039	0.1062
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.8070	-0.2534
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.9386	-0.4009
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-1.0309	-0.4575
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	-0.4974	1.0196
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	-0.4585	1.0366
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	-0.6094	0.7967
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.7484	0.6567
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.9554	0.3893

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-1.0056	0.1976
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-1.4631	-0.3495
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-1.3861	-0.2498
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-1.4750	-0.3841
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.5787	-0.1841
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.7169	-0.3249
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.7964	-0.3943
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	-0.2866	1.1065
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	-0.2468	1.1225
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	-0.3932	0.8782
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.5322	0.7381
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.7358	0.4674
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.7765	0.2662
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-1.2264	-0.2885
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-1.1514	-0.1868
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-1.2361	-0.3254
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.3070	0.02791
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.3696	-0.05833

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	0.1331	1.4496
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	0.1736	1.4649
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	0.03039	1.2174
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	-0.1085	1.0773
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	-0.3097	0.8040
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	-0.3427	0.5952
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.7860	0.03381
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.7129	0.1374
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.7936	-0.00505
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.2398	0.09097
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	0.2630	1.5988
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	0.3034	1.6142
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	0.1593	1.3676
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	0.02036	1.2275
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	-0.1814	0.9548
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	-0.2165	0.7481
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.6617	0.1886
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.5880	0.2917

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.6699	0.1503
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	0.3566	1.6540
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	0.3974	1.6690
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	0.2550	1.4207
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	0.1161	1.2806
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	-0.08431	1.0065
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	-0.1152	0.7955
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.5564	0.2322
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.4839	0.3363
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.5634	0.1926
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	-0.2955	0.3513
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.4821	0.1473
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.6216	0.007689
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.8594	-0.2290
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-1.0059	-0.3243
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-1.5458	-0.7891
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-1.4460	-0.7121
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-1.5820	-0.7993

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.5035	0.1128
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.6429	-0.02684
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.8791	-0.2651
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-1.0224	-0.3637
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-1.5608	-0.8299
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-1.4614	-0.7526
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-1.5968	-0.8404
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.4259	0.1468
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.6545	-0.09894
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.7818	-0.2135
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-1.3130	-0.6870
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-1.2151	-0.6081
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-1.3476	-0.6989
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-0.5147	0.04031
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.6418	-0.07451
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-1.1729	-0.5481
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-1.0750	-0.4692
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-1.2074	-0.5600

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.3760	0.1341
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.9001	-0.3464
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.8038	-0.2660
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.9332	-0.3598
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.6996	-0.3051
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.6099	-0.2180
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.7266	-0.3245
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	-0.07907	0.2558
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.1789	0.1324
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.2770	0.05376

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC
APERIOD	2	1 2
ATPTN	9	T0 + 15 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	43

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Dimensions

Subjects	1
Max Obs Per Subject	774

Number of Observations

Number of Observations Read	774
Number of Observations Used	774
Number of Observations Not Used	0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2568.01361123	
1	2	1719.00061423	0.26839377
2	1	1661.06386949	0.16104393
3	1	1632.08812353	0.17257150
4	3	1625.65980583	0.10400353

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
5	1	1609.29967480	0.06751067
6	1	1600.64651118	0.04535348
7	1	1594.41081103	0.02703909
8	1	1591.66234802	0.01796871
9	1	1589.46678431	0.00621797
10	1	1588.83144259	0.00229718
11	1	1588.57328168	0.00021866
12	1	1588.54989760	0.00000588
13	1	1588.54929456	0.00000000

Convergence criteria met.

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		1.5246
Var (1)	SUBJIDN*TRTAN	1.1200
Var (2)	SUBJIDN*TRTAN	0.9547
Var (3)	SUBJIDN*TRTAN	1.2120
Var (4)	SUBJIDN*TRTAN	1.5978
Var (5)	SUBJIDN*TRTAN	2.0284
Var (6)	SUBJIDN*TRTAN	2.0591
Var (7)	SUBJIDN*TRTAN	2.8166
Var (8)	SUBJIDN*TRTAN	2.9379
Var (9)	SUBJIDN*TRTAN	3.0206
CSH	SUBJIDN*TRTAN	0.8633

Fit Statistics

-2 Res Log Likelihood	1588.5
AIC (smaller is better)	1610.5
AICC (smaller is better)	1610.9
BIC (smaller is better)	1629.9

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	4.26	0.0454
APERIOD	1	713	1.38	0.2408
TRTAN	1	713	0.77	0.3817
ATPTN	8	713	8.43	<.0001
TRTAN*ATPTN	8	713	0.51	0.8481

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		2.5561	0.2724	713	9.38	<.0001	0.05
TRTAN	mCC		2.7998	0.2724	713	10.28	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	2.2248	0.2480	713	8.97	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.1923	0.2402	713	9.13	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.2248	0.2523	713	8.82	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	2.3504	0.2695	713	8.72	<.0001	0.05

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	2.5411	0.2875	713	8.84	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	2.6434	0.2887	713	9.16	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	2.9086	0.3178	713	9.15	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	2.9597	0.3222	713	9.19	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	2.9597	0.3252	713	9.10	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	2.6117	0.2480	713	10.53	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	2.4628	0.2402	713	10.25	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	2.5884	0.2523	713	10.26	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	2.6814	0.2695	713	9.95	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	2.6814	0.2875	713	9.33	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	2.8396	0.2887	713	9.83	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	3.0907	0.3178	713	9.73	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	3.1000	0.3222	713	9.62	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 12 h	3.1419	0.3252	713	9.66	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		2.0212	3.0910
TRTAN	mCC		2.2649	3.3347
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	1.7378	2.7118
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	1.7207	2.6638
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	1.7295	2.7202
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	1.8213	2.8796
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	1.9767	3.1056
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	2.0766	3.2103
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	2.2847	3.5324
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	2.3272	3.5923
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	2.3213	3.5981
TRTAN*ATPTN	mCC	T0 + 15 min	2.1247	3.0986
TRTAN*ATPTN	mCC	T0 + 30 min	1.9913	2.9343
TRTAN*ATPTN	mCC	T0 + 45 min	2.0930	3.0838
TRTAN*ATPTN	mCC	T0 + 60 min	2.1523	3.2106
TRTAN*ATPTN	mCC	T0 + 2 h	2.1170	3.2459
TRTAN*ATPTN	mCC	T0 + 4 h	2.2727	3.4064
TRTAN*ATPTN	mCC	T0 + 6 h	2.4668	3.7146

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 9 h	2.4675	3.7326
TRTAN*ATPTN	mCC	T0 + 12 h	2.5035	3.7803

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		mCC		-0.2437	0.2784	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	0.03256	0.08201	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	1.36E-15	0.08630	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.1256	0.09740	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-0.3163	0.1127	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.4186	0.1138	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-0.6837	0.1422	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-0.7349	0.1467	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-0.7349	0.1498	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.3868	0.2283	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.2380	0.2197	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-0.3636	0.2329	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.4566	0.2514	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-0.4566	0.2706	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-0.6147	0.2719	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-0.8659	0.3026	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-0.8752	0.3072	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-0.9171	0.3103	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.03256	0.08482	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.1581	0.09882	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.3488	0.1162	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.4512	0.1174	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-0.7163	0.1478	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-0.7674	0.1526	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-0.7674	0.1558	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-0.4194	0.2197	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.2705	0.2107	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-0.3961	0.2245	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-0.4891	0.2437	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-0.4891	0.2634	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-0.6473	0.2648	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-0.8984	0.2962	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-0.9078	0.3009	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-0.9496	0.3041	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.1256	0.09728	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.3163	0.1113	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.4186	0.1124	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.6837	0.1396	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.7349	0.1440	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-0.7349	0.1470	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.3868	0.2329	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.2380	0.2245	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-0.3636	0.2374	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-0.4566	0.2556	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-0.4566	0.2745	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-0.6147	0.2758	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-0.8659	0.3061	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-0.8752	0.3107	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-0.9171	0.3138	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.1907	0.1097	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.2930	0.1105	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.5581	0.1322	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.6093	0.1359	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.6093	0.1385	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.2612	0.2514	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.1124	0.2437	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.2380	0.2556	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.3310	0.2726	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-0.3310	0.2904	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-0.4891	0.2916	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-0.7403	0.3204	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-0.7496	0.3248	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-0.7915	0.3277	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.1023	0.1140	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.3674	0.1292	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.4186	0.1322	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.4186	0.1342	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	-0.07054	0.2706	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.07830	0.2634	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	-0.04729	0.2745	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.1403	0.2904	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.1403	0.3072	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.2984	0.3083	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-0.5496	0.3357	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-0.5589	0.3399	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-0.6008	0.3427	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.2651	0.1292	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.3163	0.1321	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.3163	0.1341	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	0.03178	0.2719	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	0.1806	0.2648	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.05504	0.2758	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.03798	0.2916	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.03798	0.3083	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.1961	0.3095	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-0.4473	0.3367	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-0.4566	0.3409	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-0.4984	0.3437	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.05116	0.1353	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.05116	0.1365	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	0.2969	0.3026	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	0.4457	0.2962	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	0.3202	0.3061	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	0.2271	0.3204	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.2271	0.3357	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.06899	0.3367	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.1822	0.3620	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.1915	0.3658	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.2333	0.3685	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	6.99E-15	0.1377	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	0.3481	0.3072	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	0.4969	0.3009	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	0.3713	0.3107	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	0.2783	0.3248	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	0.2783	0.3399	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	0.1202	0.3409	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.1310	0.3658	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.1403	0.3697	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.1822	0.3723	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	0.3481	0.3103	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	0.4969	0.3041	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	0.3713	0.3138	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	0.2783	0.3277	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	0.2783	0.3427	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	0.1202	0.3437	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.1310	0.3685	713
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.1403	0.3723	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.1822	0.3748	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	0.1488	0.08201	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	0.02326	0.08630	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.06977	0.09740	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.06977	0.1127	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-0.2279	0.1138	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-0.4791	0.1422	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-0.4884	0.1467	713
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-0.5302	0.1498	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.1256	0.08482	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.2186	0.09882	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.2186	0.1162	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-0.3767	0.1174	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-0.6279	0.1478	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-0.6372	0.1526	713
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-0.6791	0.1558	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.09302	0.09728	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.09302	0.1113	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.2512	0.1124	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-0.5023	0.1396	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-0.5116	0.1440	713
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-0.5535	0.1470	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	3.25E-14	0.1097	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.1581	0.1105	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-0.4093	0.1322	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-0.4186	0.1359	713
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-0.4605	0.1385	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.1581	0.1140	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.4093	0.1292	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.4186	0.1322	713
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.4605	0.1342	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.2512	0.1292	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.2605	0.1321	713
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.3023	0.1341	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	-0.00930	0.1353	713
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.05116	0.1365	713

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.04186	0.1377	713

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		mCC		-0.88	0.3817	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	0.40	0.6915	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	0.00	1.0000	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-1.29	0.1977	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-2.81	0.0051	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-3.68	0.0003	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-4.81	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-5.01	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-4.91	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-1.69	0.0906	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-1.08	0.2790	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-1.56	0.1190	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-1.82	0.0698	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-1.69	0.0920	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-2.26	0.0241	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-2.86	0.0043	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-2.85	0.0045	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-2.96	0.0032	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.38	0.7012	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-1.60	0.1100	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-3.00	0.0028	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-3.84	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-4.84	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-5.03	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-4.93	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-1.91	0.0567	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-1.28	0.1997	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-1.76	0.0781	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-2.01	0.0451	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-1.86	0.0637	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-2.44	0.0147	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-3.03	0.0025	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-3.02	0.0026	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-3.12	0.0019	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-1.29	0.1972	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-2.84	0.0046	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-3.72	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-4.90	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-5.10	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-5.00	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-1.66	0.0972	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-1.06	0.2895	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-1.53	0.1262	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-1.79	0.0745	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-1.66	0.0967	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-2.23	0.0261	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-2.83	0.0048	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-2.82	0.0050	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-2.92	0.0036	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-1.74	0.0827	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-2.65	0.0082	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-4.22	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-4.48	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-4.40	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-1.04	0.2991	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.46	0.6447	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.93	0.3522	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-1.21	0.2251	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-1.14	0.2548	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-1.68	0.0939	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-2.31	0.0211	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-2.31	0.0213	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-2.41	0.0160	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.90	0.3697	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-2.84	0.0046	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-3.17	0.0016	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-3.12	0.0019	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	-0.26	0.7944	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	0.30	0.7664	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	-0.17	0.8633	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.48	0.6292	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.46	0.6480	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.97	0.3334	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-1.64	0.1020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-1.64	0.1005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-1.75	0.0800	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-2.05	0.0405	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-2.39	0.0169	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-2.36	0.0186	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	0.12	0.9070	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	0.68	0.4953	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	0.20	0.8419	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.13	0.8964	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.12	0.9020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.63	0.5265	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-1.33	0.1845	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-1.34	0.1809	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-1.45	0.1475	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.38	0.7055	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.37	0.7078	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	0.98	0.3268	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	1.51	0.1328	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	1.05	0.2960	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	0.71	0.4786	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	0.68	0.4989	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	0.20	0.8377	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.50	0.6149	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.52	0.6009	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.63	0.5268	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	0.00	1.0000	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	1.13	0.2576	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	1.65	0.0991	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	1.20	0.2324	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	0.86	0.3918	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	0.82	0.4131	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	0.35	0.7246	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.36	0.7204	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.38	0.7044	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.49	0.6247	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	1.12	0.2624	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	1.63	0.1027	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	1.18	0.2370	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	0.85	0.3961	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	0.81	0.4170	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	0.35	0.7268	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.36	0.7223	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.38	0.7064	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.49	0.6271	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	1.81	0.0700	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	0.27	0.7876	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.72	0.4741	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.62	0.5360	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-2.00	0.0456	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-3.37	0.0008	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-3.33	0.0009	0.05
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-3.54	0.0004	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-1.48	0.1391	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-2.21	0.0273	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-1.88	0.0603	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-3.21	0.0014	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-4.25	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-4.18	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-4.36	<.0001	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.96	0.3393	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.84	0.4037	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-2.23	0.0258	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-3.60	0.0003	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-3.55	0.0004	0.05
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-3.77	0.0002	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	0.00	1.0000	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-1.43	0.1528	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-3.10	0.0020	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-3.08	0.0022	0.05
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-3.32	0.0009	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-1.39	0.1658	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-3.17	0.0016	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-3.17	0.0016	0.05
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-3.43	0.0006	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-1.94	0.0522	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-1.97	0.0490	0.05
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-2.25	0.0245	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	-0.07	0.9452	0.05
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.37	0.7078	0.05
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.30	0.7611	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		mCC		-0.7902	0.3029
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 30 min	-0.1285	0.1936
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 45 min	-0.1694	0.1694
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 60 min	-0.3168	0.06565
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 2 h	-0.5375	-0.09507
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 4 h	-0.6420	-0.1952
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 6 h	-0.9630	-0.4045
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 9 h	-1.0230	-0.4468
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	THS 2.2 Menthol	T0 + 12 h	-1.0290	-0.4408
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 15 min	-0.8350	0.06132
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 30 min	-0.6693	0.1933
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 45 min	-0.8208	0.09368
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 60 min	-0.9502	0.03703
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 2 h	-0.9879	0.07470
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 4 h	-1.1486	-0.08086
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 6 h	-1.4600	-0.2718
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 9 h	-1.4783	-0.2720
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15 min	mCC	T0 + 12 h	-1.5263	-0.3078

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.1991	0.1340
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.3522	0.03587
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.5769	-0.1208
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.6817	-0.2206
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.0065	-0.4260
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.0670	-0.4679
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.0732	-0.4617
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 15 min	-0.8507	0.01191
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 30 min	-0.6843	0.1432
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 45 min	-0.8369	0.04463
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 60 min	-0.9675	-0.01077
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 2 h	-1.0063	0.02801
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 4 h	-1.1671	-0.1275
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 6 h	-1.4799	-0.3170
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 9 h	-1.4985	-0.3170
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	mCC	T0 + 12 h	-1.5466	-0.3526
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.3166	0.06542
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.5349	-0.09768

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.6393	-0.1979
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.9579	-0.4096
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-1.0176	-0.4522
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.0234	-0.4463
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 15 min	-0.8441	0.07043
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 30 min	-0.6787	0.2028
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 45 min	-0.8297	0.1026
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 60 min	-0.9585	0.04532
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 2 h	-0.9956	0.08240
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 4 h	-1.1563	-0.07319
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 6 h	-1.4669	-0.2649
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 9 h	-1.4851	-0.2652
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	mCC	T0 + 12 h	-1.5330	-0.3011
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.4061	0.02473
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.5100	-0.07609
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.8177	-0.2986
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.8762	-0.3424
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.8813	-0.3373

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 15 min	-0.7549	0.2324
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 30 min	-0.5908	0.3660
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 45 min	-0.7399	0.2639
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 60 min	-0.8663	0.2042
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 2 h	-0.9012	0.2392
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 4 h	-1.0617	0.08344
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 6 h	-1.3694	-0.1112
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 9 h	-1.3873	-0.1119
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	mCC	T0 + 12 h	-1.4349	-0.1480
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.3261	0.1215
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.6211	-0.1138
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.6781	-0.1591
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.6822	-0.1550
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 15 min	-0.6018	0.4607
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 30 min	-0.4389	0.5954
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 45 min	-0.5863	0.4917
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 60 min	-0.7105	0.4299
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 2 h	-0.7434	0.4628

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 4 h	-0.9038	0.3069
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 6 h	-1.2087	0.1094
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 9 h	-1.2262	0.1083
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	mCC	T0 + 12 h	-1.2736	0.07201
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.5187	-0.01152
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.5756	-0.05697
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.5796	-0.05297
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 15 min	-0.5021	0.5657
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 30 min	-0.3392	0.7004
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 45 min	-0.4865	0.5966
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 60 min	-0.6106	0.5346
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 2 h	-0.6433	0.5674
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 4 h	-0.8037	0.4115
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 6 h	-1.1084	0.2138
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 9 h	-1.1259	0.2127
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	mCC	T0 + 12 h	-1.1733	0.1764
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.3169	0.2145
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.3191	0.2168

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 15 min	-0.2972	0.8910
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 30 min	-0.1357	1.0272
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 45 min	-0.2808	0.9211
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 60 min	-0.4020	0.8562
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 2 h	-0.4319	0.8862
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 4 h	-0.5921	0.7301
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 6 h	-0.8928	0.5285
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 9 h	-0.9097	0.5268
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	mCC	T0 + 12 h	-0.9567	0.4901
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.2703	0.2703
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 15 min	-0.2551	0.9512
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 30 min	-0.09384	1.0876
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 45 min	-0.2386	0.9813
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 60 min	-0.3594	0.9160
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 2 h	-0.3890	0.9455
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 4 h	-0.5492	0.7895
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 6 h	-0.8492	0.5872
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 9 h	-0.8661	0.5855

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	mCC	T0 + 12 h	-0.9130	0.5487
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 15 min	-0.2612	0.9573
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 30 min	-0.1001	1.0939
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 45 min	-0.2447	0.9873
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 60 min	-0.3652	0.9218
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 2 h	-0.3945	0.9511
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 4 h	-0.5547	0.7950
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 6 h	-0.8544	0.5924
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 9 h	-0.8712	0.5906
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	mCC	T0 + 12 h	-0.9181	0.5537
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 30 min	-0.01218	0.3099
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 45 min	-0.1462	0.1927
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 60 min	-0.2610	0.1215
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 2 h	-0.2910	0.1514
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 4 h	-0.4513	-0.00447
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 6 h	-0.7583	-0.1998
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 9 h	-0.7764	-0.2003
TRTAN*ATPTN	mCC	T0 + 15 min	mCC	T0 + 12 h	-0.8243	-0.2362

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 45 min	-0.2921	0.04094
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 60 min	-0.4126	-0.02459
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 2 h	-0.4467	0.009468
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 4 h	-0.6073	-0.1462
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 6 h	-0.9182	-0.3377
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 9 h	-0.9367	-0.3377
TRTAN*ATPTN	mCC	T0 + 30 min	mCC	T0 + 12 h	-0.9849	-0.3733
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 60 min	-0.2840	0.09798
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 2 h	-0.3116	0.1256
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 4 h	-0.4719	-0.03046
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 6 h	-0.7765	-0.2282
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 9 h	-0.7943	-0.2289
TRTAN*ATPTN	mCC	T0 + 45 min	mCC	T0 + 12 h	-0.8420	-0.2649
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 2 h	-0.2154	0.2154
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 4 h	-0.3751	0.05879
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 6 h	-0.6688	-0.1498
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 9 h	-0.6855	-0.1517
TRTAN*ATPTN	mCC	T0 + 60 min	mCC	T0 + 12 h	-0.7324	-0.1885

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 4 h	-0.3819	0.06565
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 6 h	-0.6630	-0.1556
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 9 h	-0.6781	-0.1591
TRTAN*ATPTN	mCC	T0 + 2 h	mCC	T0 + 12 h	-0.7240	-0.1969
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 6 h	-0.5048	0.002430
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 9 h	-0.5198	-0.00116
TRTAN*ATPTN	mCC	T0 + 4 h	mCC	T0 + 12 h	-0.5656	-0.03901
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 9 h	-0.2750	0.2564
TRTAN*ATPTN	mCC	T0 + 6 h	mCC	T0 + 12 h	-0.3191	0.2168
TRTAN*ATPTN	mCC	T0 + 9 h	mCC	T0 + 12 h	-0.3121	0.2284

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	18	4 17 18 22 35 36 51 60 61 63 72 78 83 95 119 120 123 132
TRTSEQAN	2	3 4
TRTAN	2	THS 2.2 Menthol NRT gum
APERIOD	2	1 2

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
ATPTN	9	T0 + 15/20 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	18
Subjects	1
Max Obs Per Subject	324

Number of Observations

Number of Observations Read	324
Number of Observations Used	324

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Number of Observations

Number of Observations Not Used 0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1312.86959414	
1	2	636.87237315	11.28865190
2	1	627.82031102	1.06612995
3	1	600.46561634	0.91797543
4	1	575.72621328	1.16200358
5	1	562.67260717	3.28665948
6	1	554.57826915	1.87296327
7	1	549.52586526	0.44544450
8	1	547.04827710	0.16036218
9	1	545.87110680	0.05346508
10	1	545.46917793	0.01319150
11	1	545.36807504	0.00131757
12	1	545.35868992	0.00002088

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
13	1	545.35854900	0.00000001

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		3.7629
Var (1)	SUBJIDN*TRTAN	1.8004
Var (2)	SUBJIDN*TRTAN	1.5693
Var (3)	SUBJIDN*TRTAN	0.9017
Var (4)	SUBJIDN*TRTAN	1.0250
Var (5)	SUBJIDN*TRTAN	0.6817
Var (6)	SUBJIDN*TRTAN	0.5198
Var (7)	SUBJIDN*TRTAN	0.4494
Var (8)	SUBJIDN*TRTAN	0.4515

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
Var (9)	SUBJIDN*TRTAN	0.3202
CSH	SUBJIDN*TRTAN	0.7792

Fit Statistics

-2 Res Log Likelihood	545.4
AIC (smaller is better)	567.4
AICC (smaller is better)	568.3
BIC (smaller is better)	577.2

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	16	1.64	0.2192
APERIOD	1	288	1.55	0.2144

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	288	1.60	0.2076
ATPTN	8	288	7.98	<.0001
TRTAN*ATPTN	8	288	1.56	0.1351

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		3.3272	0.4945	288	6.73	<.0001	0.05
TRTAN	NRT gum		3.6636	0.4945	288	7.41	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	2.9444	0.5559	288	5.30	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.8778	0.5443	288	5.29	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	3.0167	0.5091	288	5.93	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	2.9000	0.5157	288	5.62	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	3.3667	0.4969	288	6.78	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	3.4944	0.4878	288	7.16	<.0001	0.05

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	3.8500	0.4838	288	7.96	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	3.7056	0.4839	288	7.66	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	3.7889	0.4763	288	7.96	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	3.7056	0.5559	288	6.67	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	3.6000	0.5443	288	6.61	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	3.3333	0.5091	288	6.55	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	3.5000	0.5157	288	6.79	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	3.6667	0.4969	288	7.38	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	3.7222	0.4878	288	7.63	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	3.8167	0.4838	288	7.89	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 9 h	3.7722	0.4839	288	7.80	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 12 h	3.8556	0.4763	288	8.10	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		2.3539	4.3004
TRTAN	NRT gum		2.6903	4.6368
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	1.8502	4.0387
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	1.8065	3.9490
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.0147	4.0186
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	1.8849	3.9151
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	2.3886	4.3447
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	2.5344	4.4545
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	2.8979	4.8021
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	2.7532	4.6579
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	2.8515	4.7263
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	2.6113	4.7998
TRTAN*ATPTN	NRT gum	T0 + 30 min	2.5287	4.6713
TRTAN*ATPTN	NRT gum	T0 + 45 min	2.3314	4.3353
TRTAN*ATPTN	NRT gum	T0 + 60 min	2.4849	4.5151
TRTAN*ATPTN	NRT gum	T0 + 2 h	2.6886	4.6447
TRTAN*ATPTN	NRT gum	T0 + 4 h	2.7622	4.6823
TRTAN*ATPTN	NRT gum	T0 + 6 h	2.8645	4.7688

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 9 h	2.8198	4.7246
TRTAN*ATPTN	NRT gum	T0 + 12 h	2.9181	4.7930

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		NRT gum		-0.3364	0.2663	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.06667	0.2041	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.07222	0.1995	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	0.04444	0.1984	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.4222	0.2049	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-0.5500	0.2125	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-0.9056	0.2170	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-0.7611	0.2169	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-0.8444	0.2282	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-0.7611	0.4473	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.6556	0.4327	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.3889	0.3874	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.5556	0.3962	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.7222	0.3713	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.7778	0.3590	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.8722	0.3535	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.8278	0.3537	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.9111	0.3432	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.1389	0.1852	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.02222	0.1853	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.4889	0.1884	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.6167	0.1946	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-0.9722	0.1986	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-0.8278	0.1985	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-0.9111	0.2088	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-0.8278	0.4327	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-0.7222	0.4176	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-0.4556	0.3705	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-0.6222	0.3796	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-0.7889	0.3536	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-0.8444	0.3407	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-0.9389	0.3349	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-0.8944	0.3351	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-0.9778	0.3240	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	0.1167	0.1543	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.3500	0.1417	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.4778	0.1404	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.8333	0.1412	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.6889	0.1412	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-0.7722	0.1462	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-0.6889	0.3874	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-0.5833	0.3705	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.3167	0.3165	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-0.4833	0.3272	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-0.6500	0.2966	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-0.7056	0.2810	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-0.8000	0.2740	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-0.7556	0.2742	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-0.8389	0.2605	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.4667	0.1498	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.5944	0.1504	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.9500	0.1521	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.8056	0.1521	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.8889	0.1585	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-0.8056	0.3962	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-0.7000	0.3796	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-0.4333	0.3272	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.6000	0.3375	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-0.7667	0.3079	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-0.8222	0.2930	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-0.9167	0.2862	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-0.8722	0.2864	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-0.9556	0.2734	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.1278	0.1233	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.4833	0.1221	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.3389	0.1222	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.4222	0.1233	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.3389	0.3713	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.2333	0.3536	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	0.03333	0.2966	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.1333	0.3079	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.3000	0.2752	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-0.3556	0.2584	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-0.4500	0.2507	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-0.4056	0.2509	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-0.4889	0.2359	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.3556	0.1095	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.2111	0.1096	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.2944	0.1065	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.2111	0.3590	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.1056	0.3407	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	0.1611	0.2810	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.00556	0.2930	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.1722	0.2584	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.2278	0.2403	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.3222	0.2321	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.2778	0.2323	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.3611	0.2160	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	0.1444	0.1051	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	0.06111	0.09957	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	0.1444	0.3535	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	0.2500	0.3349	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	0.5167	0.2740	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	0.3500	0.2862	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	0.1833	0.2507	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	0.1278	0.2321	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	0.03333	0.2235	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	0.07778	0.2237	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.00556	0.2068	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.08333	0.09976	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-235E-17	0.3537	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	0.1056	0.3351	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	0.3722	0.2742	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	0.2056	0.2864	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	0.03889	0.2509	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.01667	0.2323	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.1111	0.2237	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.06667	0.2240	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.1500	0.2071	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	0.08333	0.3432	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	0.1889	0.3240	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	0.4556	0.2605	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	0.2889	0.2734	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	0.1222	0.2359	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	0.06667	0.2160	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.02778	0.2068	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	0.01667	0.2071	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.06667	0.1886	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.1056	0.2041	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	0.3722	0.1995	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	0.2056	0.1984	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.03889	0.2049	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.01667	0.2125	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.1111	0.2170	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.06667	0.2169	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.1500	0.2282	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	0.2667	0.1852	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	0.1000	0.1853	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.06667	0.1884	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.1222	0.1946	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.2167	0.1986	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.1722	0.1985	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.2556	0.2088	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.1667	0.1543	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.3333	0.1417	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.3889	0.1404	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-0.4833	0.1412	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-0.4389	0.1412	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-0.5222	0.1462	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.1667	0.1498	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.2222	0.1504	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.3167	0.1521	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-0.2722	0.1521	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.3556	0.1585	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.05556	0.1233	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.1500	0.1221	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.1056	0.1222	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.1889	0.1233	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.09444	0.1095	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.05000	0.1096	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.1333	0.1065	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.04444	0.1051	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.03889	0.09957	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.08333	0.09976	288

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		NRT gum		-1.26	0.2076	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.33	0.7442	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.36	0.7176	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	0.22	0.8229	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-2.06	0.0402	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-2.59	0.0101	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-4.17	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-3.51	0.0005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-3.70	0.0003	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-1.70	0.0899	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-1.52	0.1308	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-1.00	0.3164	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-1.40	0.1619	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-1.94	0.0528	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-2.17	0.0311	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-2.47	0.0142	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-2.34	0.0199	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-2.65	0.0084	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.75	0.4538	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.12	0.9046	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-2.59	0.0100	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-3.17	0.0017	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-4.90	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-4.17	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-4.36	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-1.91	0.0567	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-1.73	0.0848	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-1.23	0.2199	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-1.64	0.1023	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-2.23	0.0265	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-2.48	0.0138	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-2.80	0.0054	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-2.67	0.0080	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-3.02	0.0028	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	0.76	0.4502	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-2.47	0.0141	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-3.40	0.0008	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-5.90	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-4.88	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-5.28	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-1.78	0.0765	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-1.57	0.1165	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-1.00	0.3179	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-1.48	0.1407	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-2.19	0.0292	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-2.51	0.0126	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-2.92	0.0038	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-2.76	0.0062	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-3.22	0.0014	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-3.11	0.0020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-3.95	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-6.24	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-5.30	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-5.61	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-2.03	0.0429	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-1.84	0.0662	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-1.32	0.1864	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-1.78	0.0765	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-2.49	0.0133	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-2.81	0.0053	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-3.20	0.0015	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-3.05	0.0025	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-3.50	0.0005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-1.04	0.3011	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-3.96	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-2.77	0.0059	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-3.42	0.0007	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.91	0.3622	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.66	0.5099	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	0.11	0.9106	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.43	0.6653	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-1.09	0.2766	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-1.38	0.1698	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-1.80	0.0737	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-1.62	0.1071	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-2.07	0.0391	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-3.25	0.0013	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-1.93	0.0551	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-2.76	0.0061	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.59	0.5570	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.31	0.7569	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	0.57	0.5669	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.02	0.9849	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.67	0.5056	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.95	0.3440	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-1.39	0.1660	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-1.20	0.2328	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-1.67	0.0957	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	1.37	0.1705	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	0.61	0.5399	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	0.41	0.6832	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	0.75	0.4560	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	1.89	0.0603	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	1.22	0.2224	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	0.73	0.4652	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	0.55	0.5823	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	0.15	0.8815	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	0.35	0.7284	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.03	0.9786	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.84	0.4042	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.00	1.0000	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	0.32	0.7530	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	1.36	0.1757	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	0.72	0.4735	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	0.15	0.8769	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.07	0.9429	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.50	0.6198	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.30	0.7662	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.72	0.4694	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	0.24	0.8083	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	0.58	0.5603	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	1.75	0.0815	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	1.06	0.2915	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	0.52	0.6048	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	0.31	0.7579	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.13	0.8932	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	0.08	0.9359	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.35	0.7240	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.52	0.6055	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	1.87	0.0631	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	1.04	0.3010	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.19	0.8496	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.08	0.9375	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.51	0.6091	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.31	0.7588	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.66	0.5115	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	1.44	0.1509	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	0.54	0.5898	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.35	0.7237	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.63	0.5304	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-1.09	0.2762	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.87	0.3862	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-1.22	0.2220	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-1.08	0.2809	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-2.35	0.0193	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-2.77	0.0060	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-3.42	0.0007	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-3.11	0.0021	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-3.57	0.0004	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-1.11	0.2669	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-1.48	0.1407	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-2.08	0.0383	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-1.79	0.0745	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-2.24	0.0257	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.45	0.6527	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-1.23	0.2204	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.86	0.3882	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-1.53	0.1267	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.86	0.3893	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.46	0.6487	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-1.25	0.2117	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.42	0.6728	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.39	0.6964	0.05
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.84	0.4042	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		NRT gum		-0.8607	0.1878
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	-0.3351	0.4685
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.4649	0.3205
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	-0.3460	0.4349
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.8255	-0.01896
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-0.9682	-0.1318
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-1.3328	-0.4784
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-1.1880	-0.3342
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-1.2936	-0.3953
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-1.6414	0.1192
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-1.5071	0.1960
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-1.1515	0.3737
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-1.3353	0.2242
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-1.4531	0.008656
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-1.4844	-0.07113
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-1.5681	-0.1764
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-1.5239	-0.1316
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-1.5867	-0.2355

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.5033	0.2256
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.3869	0.3424
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.8598	-0.1180
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.9997	-0.2337
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.3631	-0.5813
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.2184	-0.4372
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.3221	-0.5002
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-1.6794	0.02382
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-1.5441	0.09965
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-1.1848	0.2737
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-1.3694	0.1250
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-1.4849	-0.09287
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-1.5150	-0.1739
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-1.5980	-0.2798
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-1.5539	-0.2350
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-1.6155	-0.3401
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.1870	0.4203
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.6290	-0.07105

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.7540	-0.2015
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.1113	-0.5554
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.9668	-0.4110
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.0599	-0.4846
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-1.4515	0.07370
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-1.3126	0.1459
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.9397	0.3063
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-1.1273	0.1606
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-1.2338	-0.06625
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-1.2587	-0.1524
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-1.3393	-0.2607
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-1.2952	-0.2159
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-1.3517	-0.3261
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.7615	-0.1718
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.8905	-0.2984
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.2495	-0.6505
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.1049	-0.5062
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.2009	-0.5769

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-1.5853	-0.02577
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-1.4472	0.04721
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-1.0773	0.2106
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-1.2642	0.06422
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-1.3727	-0.1606
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-1.3988	-0.2456
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-1.4800	-0.3534
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-1.4359	-0.3085
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-1.4936	-0.4175
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.3705	0.1150
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.7237	-0.2429
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.5793	-0.09846
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.6650	-0.1795
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-1.0698	0.3920
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.9293	0.4627
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	-0.5504	0.6171
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.7394	0.4727
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.8417	0.2417

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-0.8641	0.1530
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-0.9434	0.04339
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-0.8994	0.08828
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-0.9532	-0.02453
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.5712	-0.1399
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.4269	0.004665
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.5041	-0.08479
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.9178	0.4955
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.7761	0.5650
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	-0.3920	0.7142
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.5822	0.5711
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.6807	0.3363
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.7008	0.2453
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.7790	0.1345
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.7350	0.1794
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.7863	0.06410
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.06246	0.3514
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.1349	0.2571

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	-0.5514	0.8403
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	-0.4091	0.9091
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	-0.02259	1.0559
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	-0.2133	0.9133
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	-0.3101	0.6767
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	-0.3290	0.5845
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	-0.4065	0.4732
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	-0.3626	0.5181
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.4126	0.4014
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.2797	0.1130
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.6962	0.6962
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	-0.5539	0.7650
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	-0.1674	0.9119
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	-0.3582	0.7693
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	-0.4549	0.5327
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.4739	0.4406
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.5515	0.3292
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.5075	0.3742

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.5575	0.2575
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	-0.5922	0.7589
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	-0.4488	0.8266
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	-0.05727	0.9684
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.2492	0.8270
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	-0.3421	0.5866
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.3585	0.4919
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.4348	0.3792
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	-0.3909	0.4242
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.4379	0.3046
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.2963	0.5074
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.02045	0.7649
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.1849	0.5960
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.3644	0.4422
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.4349	0.4015
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.5383	0.3161
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.4936	0.3602
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.5991	0.2991

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	-0.09778	0.6311
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	-0.2646	0.4646
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.4375	0.3042
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.5052	0.2608
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.6075	0.1742
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.5628	0.2184
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.6665	0.1554
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.4703	0.1370
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.6123	-0.05438
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.6651	-0.1126
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-0.7613	-0.2054
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-0.7168	-0.1610
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-0.8099	-0.2346
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.4615	0.1282
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.5183	0.07383
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.6161	-0.01721
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-0.5716	0.02711
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.6676	-0.04353

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.2983	0.1872
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.3904	0.09039
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.3460	0.1349
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.4316	0.05385
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.3101	0.1212
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.2658	0.1658
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.3430	0.07632
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	-0.1625	0.2514
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.2349	0.1571
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.2797	0.1130

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	18	4 17 18 22 35 36 51 60 61 63 72 78 83 95 119 120 123 132
TRTSEQAN	2	3 4
TRTAN	2	THS 2.2 Menthol NRT gum
APERIOD	2	1 2

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
ATPTN	9	T0 + 15/20 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	18
Subjects	1
Max Obs Per Subject	324

Number of Observations

Number of Observations Read	324
Number of Observations Used	324

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Number of Observations

Number of Observations Not Used 0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1404.82950807	
1	2	767.92889471	0.37448111
2	1	721.90734444	0.21535858
3	1	699.39093571	0.12777185
4	1	688.27858971	0.07424113
5	1	682.08997423	0.03792783
6	1	679.26417068	0.01788405
7	1	677.89295363	0.00763016
8	1	677.35185278	0.00261447
9	1	677.16443816	0.00052261
10	1	677.12967004	0.00003588
11	1	677.12744390	0.00000023
12	1	677.12743033	0.00000000

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward
Proc Mixed Procedure
The where clause used on the dataset adam.adqspa: pprotfl='Y'

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		4.5692
Var (1)	SUBJIDN*TRTAN	2.8956
Var (2)	SUBJIDN*TRTAN	2.7639
Var (3)	SUBJIDN*TRTAN	1.6658
Var (4)	SUBJIDN*TRTAN	1.7185
Var (5)	SUBJIDN*TRTAN	1.4214
Var (6)	SUBJIDN*TRTAN	0.9775
Var (7)	SUBJIDN*TRTAN	0.9220
Var (8)	SUBJIDN*TRTAN	0.8171
Var (9)	SUBJIDN*TRTAN	0.5196
CSH	SUBJIDN*TRTAN	0.8133

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Fit Statistics

-2 Res Log Likelihood	677.1
AIC (smaller is better)	699.1
AICC (smaller is better)	700.0
BIC (smaller is better)	708.9

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	16	2.12	0.1650
APERIOD	1	288	4.84	0.0286
TRTAN	1	288	0.63	0.4272
ATPTN	8	288	9.44	<.0001
TRTAN*ATPTN	8	288	1.41	0.1936

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		4.0914	0.5655	288	7.23	<.0001	0.05
TRTAN	NRT gum		4.3802	0.5655	288	7.75	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	3.6111	0.6440	288	5.61	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	3.5556	0.6383	288	5.57	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	3.6111	0.5885	288	6.14	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	3.6556	0.5910	288	6.19	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	4.0444	0.5769	288	7.01	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	4.3667	0.5551	288	7.87	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	4.8000	0.5523	288	8.69	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	4.5222	0.5470	288	8.27	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	4.6556	0.5317	288	8.76	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	4.4333	0.6440	288	6.88	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	4.2778	0.6383	288	6.70	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	3.9333	0.5885	288	6.68	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	4.0556	0.5910	288	6.86	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	4.3778	0.5769	288	7.59	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	4.4556	0.5551	288	8.03	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	4.6111	0.5523	288	8.35	<.0001	0.05

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		2.9782	5.2045
TRTAN	NRT gum		3.2671	5.4934
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	2.3436	4.8786
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.2993	4.8118
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.4527	4.7695
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	2.4923	4.8188
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	2.9090	5.1799
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	3.2741	5.4593
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	3.7129	5.8871
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	3.4456	5.5989
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	3.6090	5.7021
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	3.1658	5.7008
TRTAN*ATPTN	NRT gum	T0 + 30 min	3.0215	5.5340
TRTAN*ATPTN	NRT gum	T0 + 45 min	2.7749	5.0917
TRTAN*ATPTN	NRT gum	T0 + 60 min	2.8923	5.2188
TRTAN*ATPTN	NRT gum	T0 + 2 h	3.2423	5.5132
TRTAN*ATPTN	NRT gum	T0 + 4 h	3.3630	5.5481
TRTAN*ATPTN	NRT gum	T0 + 6 h	3.5240	5.6982

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 9 h	4.6000	0.5470	288	8.41	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 12 h	4.6778	0.5317	288	8.80	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 9 h	3.5233	5.6767
TRTAN*ATPTN	NRT gum	T0 + 12 h	3.6313	5.7243

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		NRT gum		-0.2889	0.3633	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.05556	0.2425	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	4.44E-16	0.2344	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	-0.04444	0.2340	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.4333	0.2377	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-0.7556	0.2513	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-1.1889	0.2539	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-0.9111	0.2594	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-1.0444	0.2809	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-0.8222	0.5672	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.6667	0.5607	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.3222	0.5034	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.4444	0.5063	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.7667	0.4897	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.8444	0.4639	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-1.0000	0.4605	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.9889	0.4542	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-1.0667	0.4356	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		NRT gum		-0.80	0.4272	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.23	0.8189	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	0.00	1.0000	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	-0.19	0.8495	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-1.82	0.0694	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-3.01	0.0029	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-4.68	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-3.51	0.0005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-3.72	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-1.45	0.1483	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-1.19	0.2354	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.64	0.5226	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.88	0.3808	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-1.57	0.1186	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-1.82	0.0697	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-2.17	0.0307	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-2.18	0.0303	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-2.45	0.0149	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		NRT gum		-1.0039	0.4262
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	-0.4216	0.5328
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.4614	0.4614
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	-0.5051	0.4162
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.9012	0.03456
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-1.2502	-0.2610
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-1.6885	-0.6892
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-1.4216	-0.4006
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-1.5973	-0.4916
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-1.9386	0.2942
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-1.7703	0.4370
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-1.3130	0.6686
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-1.4410	0.5521
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-1.7306	0.1972
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-1.7574	0.06855
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-1.9064	-0.09357
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-1.8828	-0.09500
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-1.9240	-0.2093

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.05556	0.2285	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.1000	0.2282	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.4889	0.2311	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.8111	0.2436	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.2444	0.2460	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-0.9667	0.2513	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.1000	0.2723	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-0.8778	0.5607	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-0.7222	0.5542	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-0.3778	0.4961	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-0.5000	0.4990	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-0.8222	0.4822	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-0.9000	0.4559	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-1.0556	0.4525	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-1.0444	0.4460	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-1.1222	0.4271	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.04444	0.1874	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.4333	0.1802	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.24	0.8081	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.44	0.6616	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-2.12	0.0353	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-3.33	0.0010	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-5.06	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-3.85	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-4.04	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-1.57	0.1186	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-1.30	0.1935	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-0.76	0.4470	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-1.00	0.3172	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-1.71	0.0892	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-1.97	0.0493	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-2.33	0.0204	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-2.34	0.0199	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-2.63	0.0091	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.24	0.8127	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-2.40	0.0168	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.5053	0.3941
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.5492	0.3492
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.9438	-0.03401
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-1.2905	-0.3317
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.7287	-0.7602
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.4613	-0.4721
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.6359	-0.5641
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-1.9814	0.2259
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-1.8129	0.3685
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-1.3542	0.5986
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-1.4822	0.4822
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-1.7713	0.1269
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-1.7973	-0.00266
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-1.9462	-0.1649
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-1.9223	-0.1666
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-1.9629	-0.2816
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.4133	0.3245
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.7880	-0.07870

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.7556	0.1776	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.1889	0.1783	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.9111	0.1803	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.0444	0.1932	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-0.8222	0.5034	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-0.6667	0.4961	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.3222	0.4302	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-0.4444	0.4336	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-0.7667	0.4141	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-0.8444	0.3832	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-1.0000	0.3792	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-0.9889	0.3714	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-1.0667	0.3484	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.3889	0.1822	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.7111	0.1807	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.1444	0.1815	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.8667	0.1838	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.0000	0.1974	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-4.25	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-6.67	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-5.05	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-5.40	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-1.63	0.1035	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-1.34	0.1800	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.75	0.4545	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-1.02	0.3062	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-1.85	0.0652	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-2.20	0.0283	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-2.64	0.0088	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-2.66	0.0082	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-3.06	0.0024	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-2.13	0.0337	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-3.93	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-6.30	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-4.71	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-5.07	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-1.1051	-0.4060
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-1.5398	-0.8380
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-1.2660	-0.5562
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-1.4248	-0.6641
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-1.8130	0.1686
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-1.6431	0.3097
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-1.1690	0.5245
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-1.2979	0.4090
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-1.5818	0.04845
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-1.5987	-0.09020
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-1.7463	-0.2537
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-1.7199	-0.2579
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-1.7525	-0.3809
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.7476	-0.03020
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-1.0668	-0.3554
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.5017	-0.7872
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.2285	-0.5049
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.3885	-0.6115

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-0.7778	0.5063	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-0.6222	0.4990	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-0.2778	0.4336	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.4000	0.4370	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-0.7222	0.4177	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-0.8000	0.3870	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-0.9556	0.3830	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-0.9444	0.3753	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-1.0222	0.3526	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.3222	0.1636	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.7556	0.1635	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.4778	0.1642	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.6111	0.1737	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.3889	0.4897	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.2333	0.4822	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	0.1111	0.4141	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.0111	0.4177	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.3333	0.3974	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-1.54	0.1256	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-1.25	0.2135	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-0.64	0.5223	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.92	0.3608	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-1.73	0.0848	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-2.07	0.0396	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-2.49	0.0132	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-2.52	0.0124	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-2.90	0.0040	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-1.97	0.0498	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-4.62	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-2.91	0.0039	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-3.52	0.0005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.79	0.4278	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.48	0.6288	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	0.27	0.7887	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.03	0.9788	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.84	0.4023	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-1.7743	0.2187
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-1.6044	0.3600
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-1.1312	0.5757
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-1.2601	0.4601
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-1.5443	0.09983
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-1.5617	-0.03827
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-1.7094	-0.2017
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-1.6832	-0.2057
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-1.7163	-0.3282
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.6442	-0.00026
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-1.0774	-0.4337
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.8011	-0.1545
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.9530	-0.2692
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-1.3528	0.5750
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-1.1824	0.7157
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	-0.7040	0.9262
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.8332	0.8109
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-1.1155	0.4489

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-0.4111	0.3651	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-0.5667	0.3608	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-0.5556	0.3526	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-0.6333	0.3284	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.4333	0.1405	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.1556	0.1376	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.2889	0.1370	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.06667	0.4639	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	0.08889	0.4559	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	0.4333	0.3832	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	0.3111	0.3870	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.01111	0.3651	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.08889	0.3296	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.2444	0.3248	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.2333	0.3157	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.3111	0.2884	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	0.2778	0.1349	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	0.1444	0.1325	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-1.13	0.2610	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-1.57	0.1174	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-1.58	0.1163	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-1.93	0.0548	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-3.08	0.0022	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-1.13	0.2593	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-2.11	0.0359	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.14	0.8858	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	0.19	0.8456	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	1.13	0.2591	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	0.80	0.4221	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.03	0.9757	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.27	0.7876	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.75	0.4524	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.74	0.4605	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-1.08	0.2816	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	2.06	0.0403	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	1.09	0.2764	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-1.1296	0.3074
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-1.2768	0.1435
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-1.2496	0.1385
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-1.2797	0.01299
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.7099	-0.1568
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.4264	0.1153
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.5586	-0.01921
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.9797	0.8463
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.8084	0.9862
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	-0.3209	1.1876
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.4506	1.0728
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.7296	0.7074
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.7375	0.5598
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.8838	0.3949
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.8548	0.3881
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.8787	0.2565
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	0.01236	0.5432
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.1163	0.4051

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	0.3667	0.4605	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	0.5222	0.4525	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	0.8667	0.3792	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	0.7444	0.3830	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	0.4222	0.3608	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	0.3444	0.3248	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	0.1889	0.3201	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	0.2000	0.3108	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	0.1222	0.2830	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.1333	0.1240	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	0.08889	0.4542	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	0.2444	0.4460	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	0.5889	0.3714	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	0.4667	0.3753	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	0.1444	0.3526	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	0.06667	0.3157	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.08889	0.3108	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.07778	0.3013	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	0.80	0.4266	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	1.15	0.2494	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	2.29	0.0230	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	1.94	0.0529	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	1.17	0.2429	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	1.06	0.2899	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	0.59	0.5555	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	0.64	0.5204	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	0.43	0.6661	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-1.08	0.2832	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	0.20	0.8450	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	0.55	0.5841	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	1.59	0.1139	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	1.24	0.2147	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	0.41	0.6824	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	0.21	0.8329	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.29	0.7751	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.26	0.7965	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	-0.5398	1.2731
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	-0.3684	1.4129
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	0.1204	1.6129
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	-0.00941	1.4983
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	-0.2879	1.1324
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	-0.2949	0.9838
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	-0.4411	0.8189
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	-0.4118	0.8118
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.4348	0.6792
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.3774	0.1108
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.8050	0.9828
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	-0.6334	1.1223
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	-0.1421	1.3199
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	-0.2721	1.2054
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	-0.5496	0.8385
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.5548	0.6881
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.7007	0.5229
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.6708	0.5153

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.1556	0.2725	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	0.2222	0.4356	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	0.3778	0.4271	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	0.7222	0.3484	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	0.6000	0.3526	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	0.2778	0.3284	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	0.2000	0.2884	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	0.04444	0.2830	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	0.05556	0.2725	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.02222	0.2403	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.1556	0.2425	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	0.5000	0.2344	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	0.3778	0.2340	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.05556	0.2377	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.02222	0.2513	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.1778	0.2539	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.1667	0.2594	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.2444	0.2809	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.57	0.5686	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	0.51	0.6103	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	0.88	0.3772	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	2.07	0.0391	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	1.70	0.0899	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	0.85	0.3983	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	0.69	0.4886	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	0.16	0.8753	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	0.20	0.8386	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.09	0.9264	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.64	0.5216	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	2.13	0.0338	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	1.61	0.1076	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.23	0.8154	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.09	0.9296	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.70	0.4843	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.64	0.5210	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.87	0.3849	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.6919	0.3808
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	-0.6351	1.0796
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	-0.4629	1.2184
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	0.03641	1.4080
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.09404	1.2940
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	-0.3685	0.9241
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.3676	0.7676
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.5126	0.6015
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	-0.4808	0.5919
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.4951	0.4507
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.3216	0.6328
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	0.03860	0.9614
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.08283	0.8384
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.4123	0.5234
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.5168	0.4724
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.6774	0.3219
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.6772	0.3438
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.7973	0.3084

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	0.3444	0.2285	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	0.2222	0.2282	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.1000	0.2311	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.1778	0.2436	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.3333	0.2460	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.3222	0.2513	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.4000	0.2723	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.1222	0.1874	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.4444	0.1802	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.5222	0.1776	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-0.6778	0.1783	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-0.6667	0.1803	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-0.7444	0.1932	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.3222	0.1822	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.4000	0.1807	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.5556	0.1815	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-0.5444	0.1838	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.6222	0.1974	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	1.51	0.1328	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	0.97	0.3310	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.43	0.6656	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.73	0.4661	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-1.35	0.1765	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-1.28	0.2008	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-1.47	0.1429	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.65	0.5149	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-2.47	0.0142	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-2.94	0.0035	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-3.80	0.0002	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-3.70	0.0003	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-3.85	0.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-1.77	0.0781	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-2.21	0.0277	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-3.06	0.0024	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-2.96	0.0033	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-3.15	0.0018	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	-0.1053	0.7941
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	-0.2270	0.6714
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.5549	0.3549
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.6572	0.3016
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.8175	0.1509
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.8168	0.1724
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.9359	0.1359
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.4911	0.2467
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.7991	-0.08981
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.8718	-0.1727
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-1.0287	-0.3269
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-1.0216	-0.3118
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-1.1248	-0.3641
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.6809	0.03647
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.7557	-0.04429
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.9128	-0.1983
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-0.9062	-0.1826
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-1.0107	-0.2338

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.07778	0.1636	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.2333	0.1635	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.2222	0.1642	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.3000	0.1737	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.1556	0.1405	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.1444	0.1376	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.2222	0.1370	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.01111	0.1349	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.06667	0.1325	288
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.07778	0.1240	288

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.48	0.6348	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-1.43	0.1547	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-1.35	0.1771	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-1.73	0.0852	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-1.11	0.2692	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-1.05	0.2948	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-1.62	0.1059	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.08	0.9344	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.50	0.6151	0.05
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.63	0.5311	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.3997	0.2442
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.5552	0.08854
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.5455	0.1011
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.6419	0.04191

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.4321	0.1210
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.4153	0.1264
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.4919	0.04745
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	-0.2543	0.2765
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.3274	0.1940
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.3219	0.1663

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Model Information

Data Set	WORK.ADQSSU
Dependent Variable	AVAL
Covariance Structures	Variance Components, Heterogeneous Compound Symmetry
Subject Effect	SUBJIDN*TRTAN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	18	4 17 18 22 35 36 51 60 61 63 72 78 83 95 119 120 123 132
TRTSEQAN	2	3 4
TRTAN	2	THS 2.2 Menthol NRT gum
APERIOD	2	1 2

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Class Level Information

Class	Levels	Values
ATPTN	9	T0 + 15/20 min T0 + 30 min T0 + 45 min T0 + 60 min T0 + 2 h T0 + 4 h T0 + 6 h T0 + 9 h T0 + 12 h

Dimensions

Covariance Parameters	11
Columns in X	34
Columns in Z	18
Subjects	1
Max Obs Per Subject	324

Number of Observations

Number of Observations Read	324
Number of Observations Used	324

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Number of Observations

Number of Observations Not Used 0

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1277.87590914	
1	2	607.89808678	3.65449615
2	1	587.94733361	1.60147267
3	1	558.83832768	166.56551249
4	1	545.65016003	0.66005221
5	1	540.22052254	0.15577260
6	1	538.46746273	0.02972337
7	1	538.12113520	0.00239930
8	1	538.09482723	0.00002812
9	1	538.09453472	0.00000001

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)		3.5002
Var (1)	SUBJIDN*TRTAN	1.0943
Var (2)	SUBJIDN*TRTAN	0.7535
Var (3)	SUBJIDN*TRTAN	0.3012
Var (4)	SUBJIDN*TRTAN	0.5936
Var (5)	SUBJIDN*TRTAN	0.1881
Var (6)	SUBJIDN*TRTAN	0.2078
Var (7)	SUBJIDN*TRTAN	0.1902
Var (8)	SUBJIDN*TRTAN	0.3716
Var (9)	SUBJIDN*TRTAN	0.3713
CSH	SUBJIDN*TRTAN	0.5381

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Fit Statistics

-2 Res Log Likelihood	538.1
AIC (smaller is better)	560.1
AICC (smaller is better)	561.0
BIC (smaller is better)	569.9

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	16	0.36	0.5584
APERIOD	1	288	2.50	0.1150
TRTAN	1	288	5.42	0.0206
ATPTN	8	288	5.47	<.0001
TRTAN*ATPTN	8	288	2.52	0.0115

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		2.5630	0.4561	288	5.62	<.0001	0.05
TRTAN	NRT gum		2.9469	0.4561	288	6.46	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	2.2778	0.5052	288	4.51	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	2.2000	0.4861	288	4.53	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	2.4222	0.4596	288	5.27	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	2.1444	0.4769	288	4.50	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	2.6889	0.4527	288	5.94	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	2.6222	0.4539	288	5.78	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	2.9000	0.4528	288	6.40	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	2.8889	0.4638	288	6.23	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	2.9222	0.4638	288	6.30	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	2.9778	0.5052	288	5.89	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	2.9222	0.4861	288	6.01	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	2.7333	0.4596	288	5.95	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	2.9444	0.4769	288	6.17	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	2.9556	0.4527	288	6.53	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	2.9889	0.4539	288	6.59	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	3.0222	0.4528	288	6.67	<.0001	0.05

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		1.6652	3.4608
TRTAN	NRT gum		2.0491	3.8447
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	1.2834	3.2722
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	1.2432	3.1568
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	1.5177	3.3267
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	1.2058	3.0831
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	1.7979	3.5798
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	1.7289	3.5156
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	2.0088	3.7912
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	1.9760	3.8017
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	2.0094	3.8350
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	1.9834	3.9722
TRTAN*ATPTN	NRT gum	T0 + 30 min	1.9654	3.8790
TRTAN*ATPTN	NRT gum	T0 + 45 min	1.8288	3.6378
TRTAN*ATPTN	NRT gum	T0 + 60 min	2.0058	3.8831
TRTAN*ATPTN	NRT gum	T0 + 2 h	2.0646	3.8465
TRTAN*ATPTN	NRT gum	T0 + 4 h	2.0956	3.8822
TRTAN*ATPTN	NRT gum	T0 + 6 h	2.1310	3.9134

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 9 h	2.9444	0.4638	288	6.35	<.0001	0.05
TRTAN*ATPTN	NRT gum	T0 + 12 h	3.0333	0.4638	288	6.54	<.0001	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 9 h	2.0316	3.8573
TRTAN*ATPTN	NRT gum	T0 + 12 h	2.1205	3.9461

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN	THS 2.2 Menthol		NRT gum		-0.3840	0.1650	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.07778	0.2199	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.1444	0.2079	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	0.1333	0.2135	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.4111	0.2100	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-0.3444	0.2094	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-0.6222	0.2100	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-0.6111	0.2081	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-0.6444	0.2081	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-0.7000	0.3487	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.6444	0.3204	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.4556	0.2784	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.6667	0.3062	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.6778	0.2669	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.7111	0.2690	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.7444	0.2671	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.6667	0.2854	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.7556	0.2853	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol		NRT gum		-2.33	0.0206	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	0.35	0.7239	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.69	0.4877	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	0.62	0.5328	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-1.96	0.0513	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-1.65	0.1010	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-2.96	0.0033	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-2.94	0.0036	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-3.10	0.0022	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-2.01	0.0456	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-2.01	0.0452	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-1.64	0.1029	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-2.18	0.0303	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-2.54	0.0116	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-2.64	0.0086	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-2.79	0.0057	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-2.34	0.0202	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-2.65	0.0085	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN	THS 2.2 Menthol		NRT gum		-0.7087	-0.05922
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 30 min	-0.3551	0.5106
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 45 min	-0.5536	0.2647
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 60 min	-0.2869	0.5536
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 2 h	-0.8245	0.002312
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 4 h	-0.7565	0.06762
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 6 h	-1.0355	-0.2090
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 9 h	-1.0207	-0.2015
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	THS 2.2 Menthol	T0 + 12 h	-1.0541	-0.2348
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 15/20 min	-1.3863	-0.01369
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 30 min	-1.2751	-0.01383
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 45 min	-1.0036	0.09247
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 60 min	-1.2694	-0.06396
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 2 h	-1.2031	-0.1524
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 4 h	-1.2405	-0.1817
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 6 h	-1.2702	-0.2187
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 9 h	-1.2283	-0.1050
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 15/20 min	NRT gum	T0 + 12 h	-1.3172	-0.1939

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.2222	0.1735	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	0.05556	0.1867	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.4889	0.1726	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.4222	0.1725	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-0.7000	0.1726	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-0.6889	0.1757	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-0.7222	0.1757	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-0.7778	0.3204	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-0.7222	0.2893	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-0.5333	0.2421	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-0.7444	0.2736	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-0.7556	0.2287	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-0.7889	0.2311	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-0.8222	0.2290	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-0.7444	0.2500	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-0.8333	0.2500	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	0.2778	0.1563	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.2667	0.1138	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-1.28	0.2014	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	0.30	0.7662	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-2.83	0.0050	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-2.45	0.0150	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-4.06	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-3.92	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-4.11	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-2.43	0.0158	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-2.50	0.0131	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-2.20	0.0284	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-2.72	0.0069	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-3.30	0.0011	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-3.41	0.0007	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-3.59	0.0004	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-2.98	0.0032	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-3.33	0.0010	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	1.78	0.0766	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-2.34	0.0198	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 45 min	-0.5638	0.1193
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 60 min	-0.3119	0.4230
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 2 h	-0.8287	-0.1491
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 4 h	-0.7617	-0.08275
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 6 h	-1.0397	-0.3603
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 9 h	-1.0347	-0.3431
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	THS 2.2 Menthol	T0 + 12 h	-1.0680	-0.3764
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 15/20 min	-1.4084	-0.1472
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 30 min	-1.2917	-0.1527
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 45 min	-1.0098	-0.05691
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 60 min	-1.2829	-0.2060
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 2 h	-1.2057	-0.3054
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 4 h	-1.2437	-0.3340
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 6 h	-1.2729	-0.3716
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 9 h	-1.2365	-0.2524
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 30 min	NRT gum	T0 + 12 h	-1.3253	-0.3413
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 60 min	-0.02986	0.5854
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 2 h	-0.4907	-0.04267

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.2000	0.1154	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.4778	0.1140	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.4667	0.1318	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-0.5000	0.1318	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-0.5556	0.2784	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-0.5000	0.2421	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.3111	0.1829	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-0.5222	0.2229	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-0.5333	0.1649	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-0.5667	0.1682	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-0.6000	0.1652	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-0.5222	0.1933	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-0.6111	0.1933	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.5444	0.1531	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.4778	0.1534	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-0.7556	0.1531	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-0.7444	0.1598	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-0.7778	0.1598	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-1.73	0.0842	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-4.19	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-3.54	0.0005	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-3.79	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-2.00	0.0470	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-2.07	0.0398	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-1.70	0.0901	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-2.34	0.0198	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-3.23	0.0014	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-3.37	0.0009	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-3.63	0.0003	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-2.70	0.0073	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-3.16	0.0017	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-3.56	0.0004	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-3.12	0.0020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-4.93	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-4.66	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-4.87	<.0001	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 4 h	-0.4272	0.02716
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 6 h	-0.7021	-0.2535
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 9 h	-0.7261	-0.2072
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	THS 2.2 Menthol	T0 + 12 h	-0.7594	-0.2406
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 15/20 min	-1.1036	-0.00753
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 30 min	-0.9764	-0.02358
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 45 min	-0.6712	0.04893
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 60 min	-0.9610	-0.08340
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 2 h	-0.8578	-0.2088
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 4 h	-0.8976	-0.2357
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 6 h	-0.9252	-0.2748
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 9 h	-0.9027	-0.1417
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 45 min	NRT gum	T0 + 12 h	-0.9915	-0.2307
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 2 h	-0.8458	-0.2430
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 4 h	-0.7797	-0.1759
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 6 h	-1.0570	-0.4541
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 9 h	-1.0590	-0.4299
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	THS 2.2 Menthol	T0 + 12 h	-1.0923	-0.4632

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-0.8333	0.3062	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-0.7778	0.2736	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-0.5889	0.2229	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-0.8000	0.2568	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-0.8111	0.2084	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-0.8444	0.2110	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-0.8778	0.2087	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-0.8000	0.2316	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-0.8889	0.2315	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	0.06667	0.1009	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.2111	0.09853	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.2000	0.1236	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.2333	0.1236	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.2889	0.2669	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.2333	0.2287	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	-0.04444	0.1649	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.2556	0.2084	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.2667	0.1446	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-2.72	0.0069	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-2.84	0.0048	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-2.64	0.0087	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-3.12	0.0020	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-3.89	0.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-4.00	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-4.21	<.0001	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-3.45	0.0006	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-3.84	0.0002	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	0.66	0.5092	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-2.14	0.0330	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-1.62	0.1069	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-1.89	0.0601	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-1.08	0.2800	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-1.02	0.3085	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	-0.27	0.7877	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-1.23	0.2211	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-1.84	0.0661	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 15/20 min	-1.4360	-0.2306
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 30 min	-1.3162	-0.2393
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 45 min	-1.0277	-0.1501
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 60 min	-1.3055	-0.2945
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 2 h	-1.2213	-0.4009
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 4 h	-1.2597	-0.4291
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 6 h	-1.2885	-0.4671
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 9 h	-1.2558	-0.3442
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 60 min	NRT gum	T0 + 12 h	-1.3446	-0.4332
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 4 h	-0.1319	0.2652
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 6 h	-0.4050	-0.01718
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 9 h	-0.4434	0.04336
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	THS 2.2 Menthol	T0 + 12 h	-0.4766	0.009954
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 15/20 min	-0.8142	0.2365
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 30 min	-0.6835	0.2168
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 45 min	-0.3689	0.2801
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 60 min	-0.6657	0.1546
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 2 h	-0.5512	0.01790

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-0.3000	0.1483	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-0.3333	0.1450	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-0.2556	0.1763	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-0.3444	0.1763	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.2778	0.1011	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.2667	0.1248	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.3000	0.1248	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.3556	0.2690	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.3000	0.2311	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	-0.1111	0.1682	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.3222	0.2110	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.3333	0.1483	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.3667	0.1520	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.4000	0.1487	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.3222	0.1794	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.4111	0.1794	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	0.01111	0.1238	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.02222	0.1237	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-2.02	0.0440	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-2.30	0.0222	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-1.45	0.1484	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-1.95	0.0517	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-2.75	0.0064	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-2.14	0.0335	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-2.40	0.0168	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-1.32	0.1872	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-1.30	0.1953	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	-0.66	0.5093	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-1.53	0.1278	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-2.25	0.0254	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-2.41	0.0164	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-2.69	0.0076	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-1.80	0.0735	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-2.29	0.0226	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	0.09	0.9285	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.18	0.8576	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 4 h	-0.5919	-0.00808
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 6 h	-0.6187	-0.04800
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 9 h	-0.6026	0.09151
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 2 h	NRT gum	T0 + 12 h	-0.6914	0.002542
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 6 h	-0.4768	-0.07875
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 9 h	-0.5123	-0.02103
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	THS 2.2 Menthol	T0 + 12 h	-0.5456	-0.05443
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 15/20 min	-0.8849	0.1738
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 30 min	-0.7549	0.1549
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 45 min	-0.4421	0.2199
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 60 min	-0.7375	0.09308
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 2 h	-0.6253	-0.04142
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 4 h	-0.6658	-0.06757
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 6 h	-0.6927	-0.1073
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 9 h	-0.6753	0.03090
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 4 h	NRT gum	T0 + 12 h	-0.7642	-0.05807
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 9 h	-0.2325	0.2547
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	THS 2.2 Menthol	T0 + 12 h	-0.2657	0.2213

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	-0.07778	0.2671	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	-0.02222	0.2290	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	0.1667	0.1652	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	-0.04444	0.2087	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	-0.05556	0.1450	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	-0.08889	0.1487	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	-0.1222	0.1454	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	-0.04444	0.1767	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.1333	0.1766	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.03333	0.1381	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.08889	0.2854	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	-0.03333	0.2500	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	0.1556	0.1933	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	-0.05556	0.2316	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	-0.06667	0.1763	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.1000	0.1794	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.1333	0.1767	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.05556	0.2032	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	-0.29	0.7711	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	-0.10	0.9228	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	1.01	0.3139	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	-0.21	0.8315	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	-0.38	0.7018	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	-0.60	0.5505	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	-0.84	0.4012	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	-0.25	0.8015	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.75	0.4509	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.24	0.8094	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.31	0.7557	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	-0.13	0.8940	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	0.80	0.4217	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	-0.24	0.8106	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	-0.38	0.7057	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.56	0.5777	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.75	0.4510	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.27	0.7847	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 15/20 min	-0.6036	0.4480
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 30 min	-0.4729	0.4284
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 45 min	-0.1585	0.4919
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 60 min	-0.4551	0.3663
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 2 h	-0.3409	0.2298
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 4 h	-0.3816	0.2038
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 6 h	-0.4083	0.1639
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 9 h	-0.3921	0.3033
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 6 h	NRT gum	T0 + 12 h	-0.4810	0.2143
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	THS 2.2 Menthol	T0 + 12 h	-0.3051	0.2384
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 15/20 min	-0.6506	0.4728
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 30 min	-0.5254	0.4587
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 45 min	-0.2249	0.5361
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 60 min	-0.5113	0.4002
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 2 h	-0.4137	0.2804
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 4 h	-0.4531	0.2531
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 6 h	-0.4810	0.2144
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 9 h	-0.4555	0.3444

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.1444	0.2032	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	-0.05556	0.2853	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	-241E-16	0.2500	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	0.1889	0.1933	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.02222	0.2315	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	-0.03333	0.1763	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.06667	0.1794	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.1000	0.1766	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	-0.02222	0.2032	288
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.1111	0.2031	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.05556	0.2199	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	0.2444	0.2079	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	0.03333	0.2135	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.02222	0.2100	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.01111	0.2094	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.04444	0.2100	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	0.03333	0.2081	288
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.05556	0.2081	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.71	0.4776	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	-0.19	0.8458	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	-0.00	1.0000	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	0.98	0.3293	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.10	0.9236	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	-0.19	0.8502	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.37	0.7104	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.57	0.5717	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	-0.11	0.9130	0.05
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.55	0.5848	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	0.25	0.8008	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	1.18	0.2406	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	0.16	0.8760	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	0.11	0.9158	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.05	0.9577	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.21	0.8325	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	0.16	0.8729	0.05
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.27	0.7897	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 9 h	NRT gum	T0 + 12 h	-0.5443	0.2554
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 15/20 min	-0.6172	0.5061
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 30 min	-0.4920	0.4920
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 45 min	-0.1915	0.5693
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 60 min	-0.4779	0.4335
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 2 h	-0.3803	0.3137
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 4 h	-0.4197	0.2864
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 6 h	-0.4476	0.2476
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 9 h	-0.4221	0.3776
TRTAN*ATPTN	THS 2.2 Menthol	T0 + 12 h	NRT gum	T0 + 12 h	-0.5109	0.2887
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 30 min	-0.3773	0.4884
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 45 min	-0.1647	0.6536
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 60 min	-0.3869	0.4536
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 2 h	-0.3912	0.4356
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 4 h	-0.4232	0.4009
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 6 h	-0.4577	0.3688
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 9 h	-0.3763	0.4430
TRTAN*ATPTN	NRT gum	T0 + 15/20 min	NRT gum	T0 + 12 h	-0.4652	0.3541

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	0.1889	0.1735	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	-0.02222	0.1867	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.03333	0.1726	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.06667	0.1725	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.1000	0.1726	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.02222	0.1757	288
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.1111	0.1757	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.2111	0.1563	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.2222	0.1138	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.2556	0.1154	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-0.2889	0.1140	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-0.2111	0.1318	288
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-0.3000	0.1318	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.01111	0.1531	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.04444	0.1534	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.07778	0.1531	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	2.6E-15	0.1598	288
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.08889	0.1598	288

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	1.09	0.2773	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	-0.12	0.9053	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.19	0.8470	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.39	0.6994	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.58	0.5628	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.13	0.8994	0.05
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.63	0.5276	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-1.35	0.1779	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-1.95	0.0518	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-2.21	0.0276	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-2.53	0.0118	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-1.60	0.1103	0.05
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-2.28	0.0236	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.07	0.9422	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.29	0.7722	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.51	0.6119	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	0.00	1.0000	0.05
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.56	0.5785	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 45 min	-0.1527	0.5304
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 60 min	-0.3897	0.3452
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 2 h	-0.3731	0.3065
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 4 h	-0.4061	0.2728
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 6 h	-0.4397	0.2397
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 9 h	-0.3680	0.3236
TRTAN*ATPTN	NRT gum	T0 + 30 min	NRT gum	T0 + 12 h	-0.4569	0.2347
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 60 min	-0.5187	0.09653
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 2 h	-0.4462	0.001778
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 4 h	-0.4827	-0.02840
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 6 h	-0.5132	-0.06457
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 9 h	-0.4706	0.04833
TRTAN*ATPTN	NRT gum	T0 + 45 min	NRT gum	T0 + 12 h	-0.5594	-0.04062
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 2 h	-0.3125	0.2903
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 4 h	-0.3463	0.2574
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 6 h	-0.3792	0.2237
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 9 h	-0.3146	0.3146
TRTAN*ATPTN	NRT gum	T0 + 60 min	NRT gum	T0 + 12 h	-0.4034	0.2256

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Estimate	Standard Error	DF
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.03333	0.1009	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.06667	0.09853	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	0.01111	0.1236	288
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.07778	0.1236	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.03333	0.1011	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	0.04444	0.1248	288
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.04444	0.1248	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.07778	0.1238	288
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.01111	0.1237	288
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.08889	0.1381	288

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.33	0.7413	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.68	0.4992	0.05

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	t Value	Pr > t	Alpha
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	0.09	0.9285	0.05
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.63	0.5297	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.33	0.7419	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	0.36	0.7220	0.05
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.36	0.7219	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	0.63	0.5302	0.05
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.09	0.9285	0.05
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.64	0.5202	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 4 h	-0.2319	0.1652
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 6 h	-0.2606	0.1273
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 9 h	-0.2322	0.2545
TRTAN*ATPTN	NRT gum	T0 + 2 h	NRT gum	T0 + 12 h	-0.3211	0.1655

**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: pprotfl='Y'

Differences of Least Squares Means

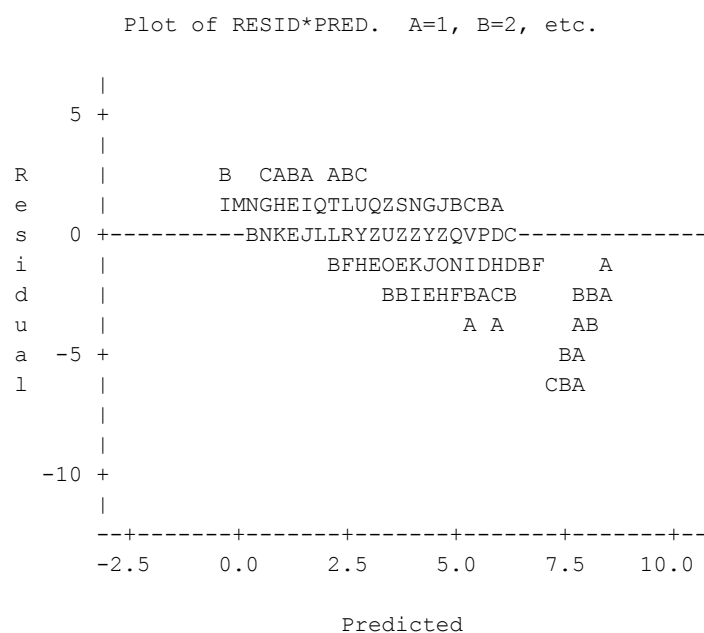
Effect	Actual Treatment (N)	Analysis Timepoint (N)	Actual Treatment (N)	Analysis Timepoint (N)	Lower	Upper
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 6 h	-0.2324	0.1657
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 9 h	-0.2012	0.2901
TRTAN*ATPTN	NRT gum	T0 + 4 h	NRT gum	T0 + 12 h	-0.2900	0.2011
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 9 h	-0.1658	0.3214
TRTAN*ATPTN	NRT gum	T0 + 6 h	NRT gum	T0 + 12 h	-0.2546	0.2324
TRTAN*ATPTN	NRT gum	T0 + 9 h	NRT gum	T0 + 12 h	-0.3607	0.1829

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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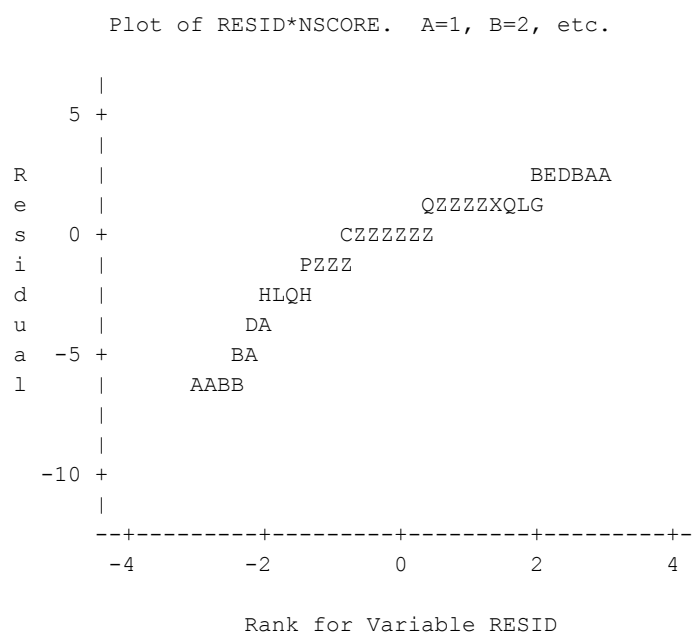
**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Total Score
Residual Plots



NOTE: 18 obs hidden.

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

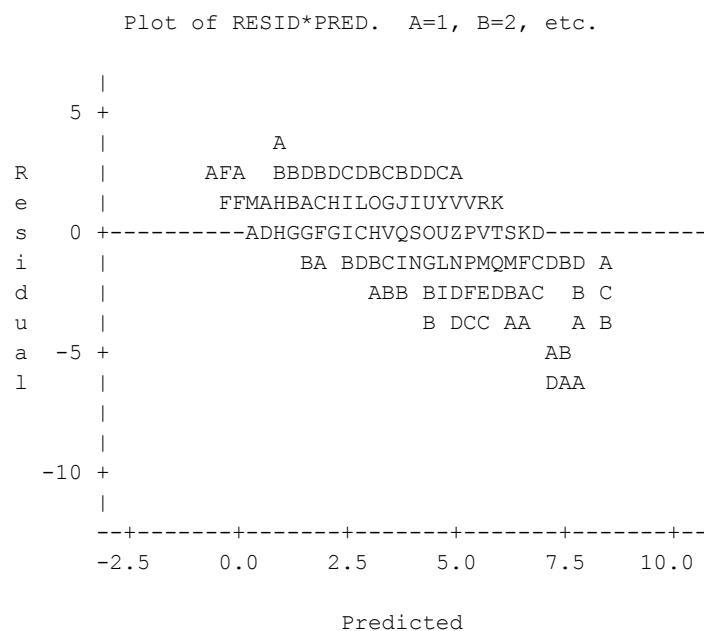


NOTE: 266 obs hidden.

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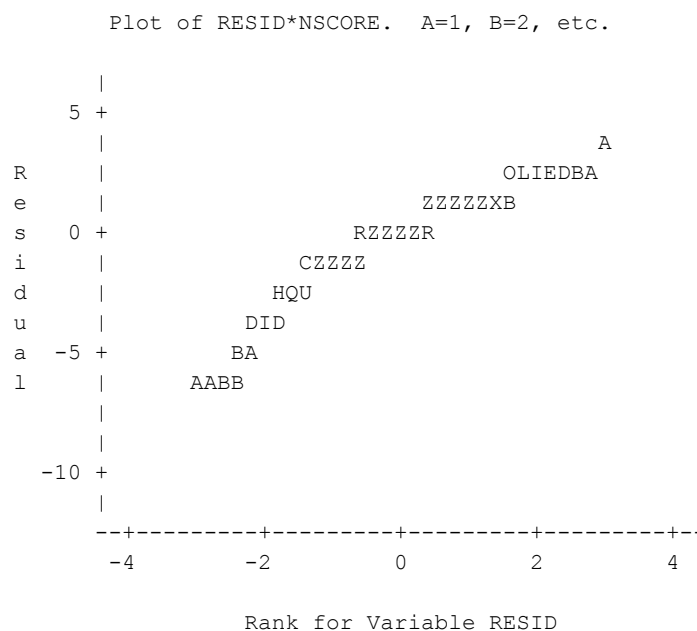
**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 1 - Reward
Residual Plots



NOTE: 3 obs hidden.

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

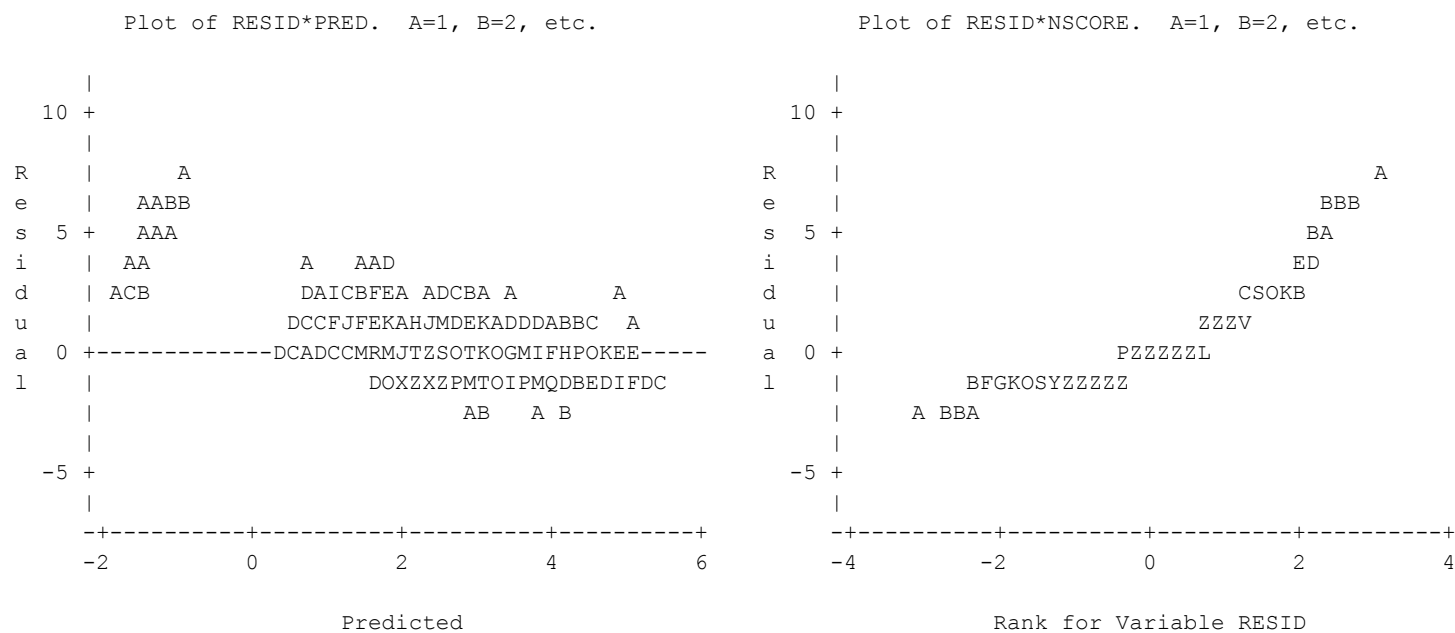


NOTE: 250 obs hidden.

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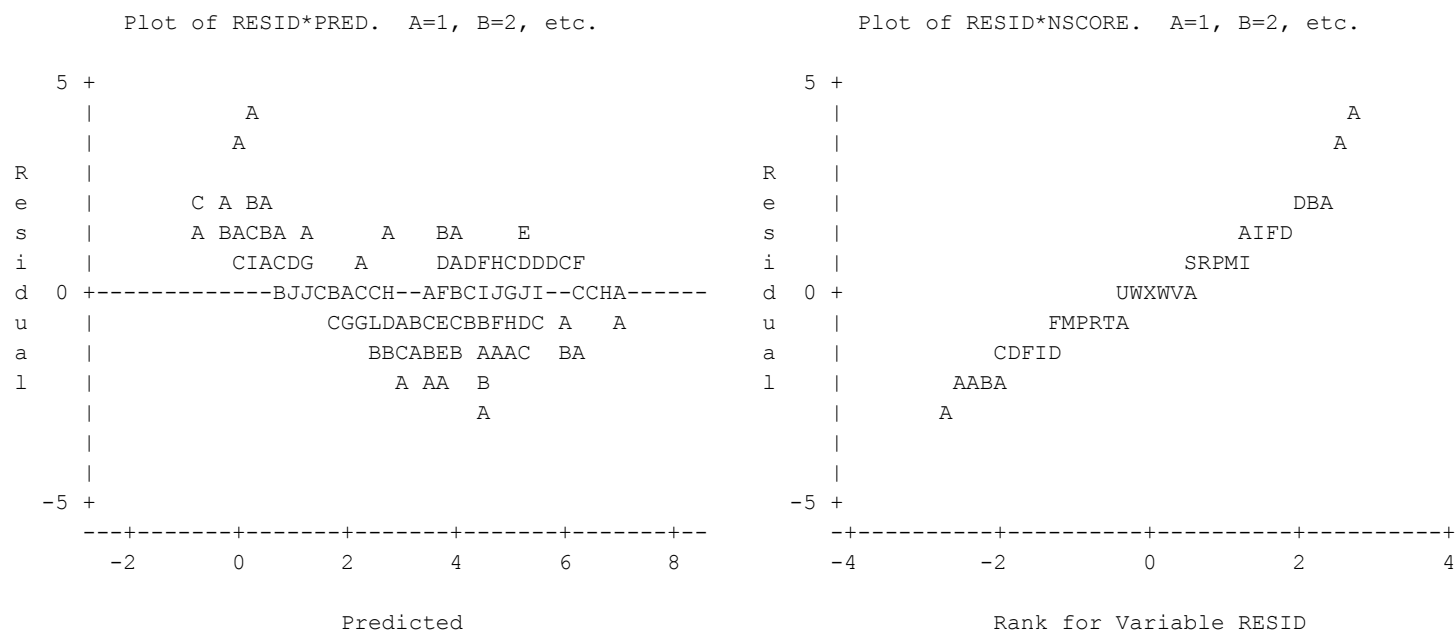
**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-1, Variable: Factor 2 - Relief
Residual Plots



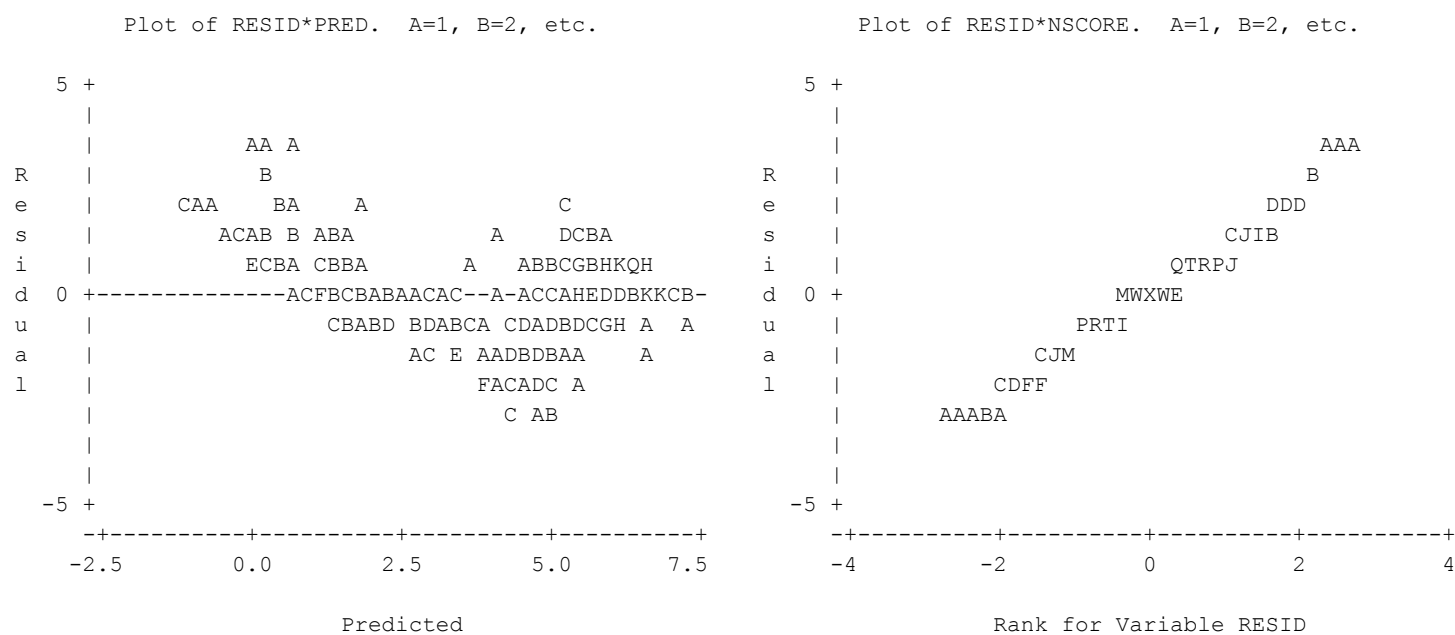
**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Total Score
Residual Plots



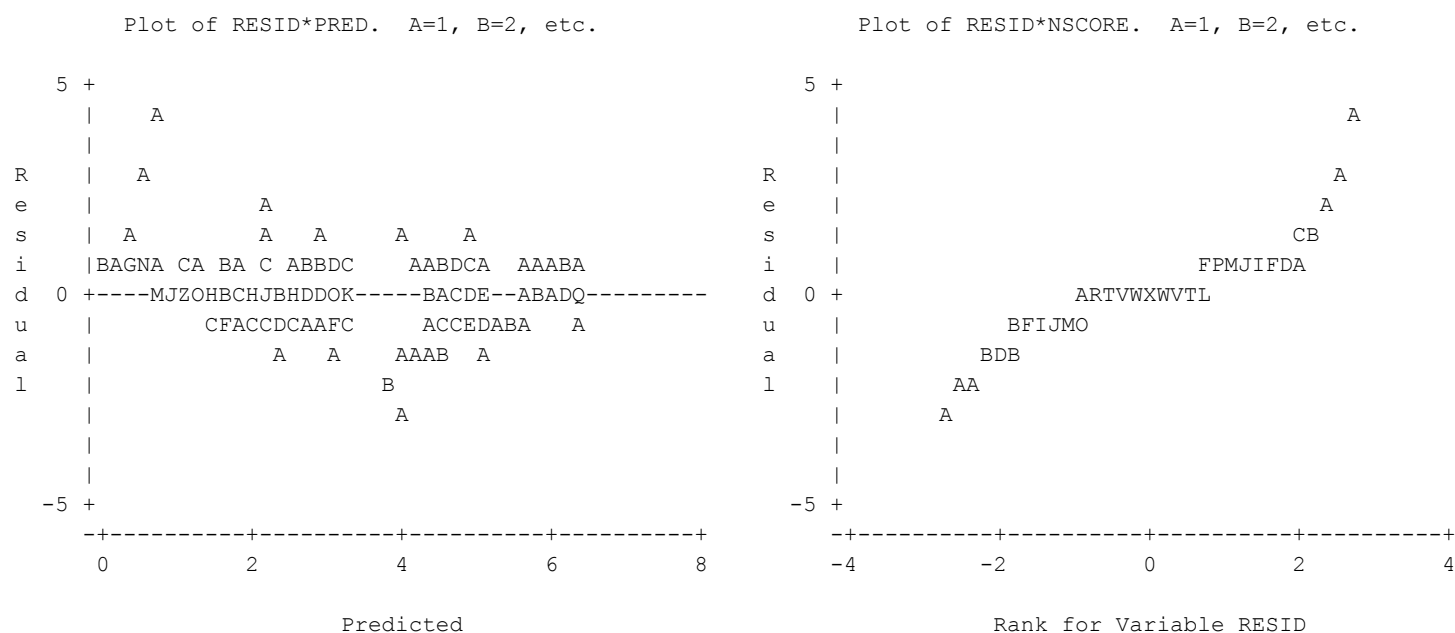
**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 1 - Reward
Residual Plots



**Listing 15.4.4.12 Analysis of QSU-brief Questionnaire Factors and Total Score - PK Population**

PK Group-2, Variable: Factor 2 - Relief
Residual Plots



Path: /cvn/projects/prj/development/000000106326/dev/tables/tlf_anlqsu.sas
Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1	Overall	3.42	3.77	-0.35	3.25	3.54	-0.29
	2	Overall	3.19	3.55	-0.36	3.14	3.49	-0.35
	3	Overall	3.37	3.64	-0.27	3.33	3.84	-0.51
	4	Overall	3.25	3.50	-0.25	3.59	3.90	-0.31
	5	Overall	2.94	3.27	-0.34	3.12	3.35	-0.23
	6	Overall				2.97	3.11	-0.14
	7	Overall	3.17	3.45	-0.28	3.20	3.56	-0.36
	8	Overall	3.37	3.74	-0.38	3.08	3.26	-0.18
	9	Overall	3.40	3.86	-0.46	3.07	3.53	-0.45
	10	Overall	3.50	3.69	-0.19	2.94	3.21	-0.27
	11	Overall	3.35	3.63	-0.27	3.16	3.47	-0.31
	12	Overall	3.26	3.65	-0.39	3.02	3.37	-0.35
	13	Overall	3.31	3.63	-0.32	3.30	3.68	-0.38
	14	Overall	3.47	3.61	-0.14	3.10	3.39	-0.29
	15	Overall	3.27	3.55	-0.28	3.00	3.15	-0.15
	16	Overall	3.39	3.82	-0.43	2.73	3.08	-0.34
	17	Overall	3.44	3.86	-0.42	3.24	3.60	-0.36
	18	Overall	3.02	3.27	-0.24	3.27	3.49	-0.22
	19	Overall	3.01	3.31	-0.31	2.79	3.18	-0.39
	20	Overall	3.40	3.62	-0.22	2.95	3.36	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	21	Overall	3.37	3.67	-0.30	3.34	3.85	-0.52
	22	Overall	3.43	3.82	-0.39	3.24	3.64	-0.40
	23	Overall	3.07	3.23	-0.17	2.70	3.16	-0.47
	24	Overall	3.32	3.62	-0.31	3.19	3.63	-0.44
	25	Overall	3.04	3.34	-0.30	3.14	3.57	-0.42
	26	Overall	3.25	3.55	-0.31	3.14	3.72	-0.58
	27	Overall	3.34	3.49	-0.15	3.19	3.53	-0.34
	28	Overall	3.74	4.10	-0.36	3.02	3.49	-0.47
	29	Overall	3.45	3.72	-0.27	3.58	3.86	-0.28
	30	Overall	3.33	3.49	-0.16	3.39	3.81	-0.42
	31	Overall	3.38	3.65	-0.27	2.23	2.34	-0.11
	32	Overall	3.53	3.85	-0.32	3.74	4.11	-0.37
	33	Overall	3.33	3.58	-0.26	3.10	3.47	-0.37
	34	Overall	3.28	3.55	-0.28	3.18	3.64	-0.45
	35	Overall	3.16	3.48	-0.33	2.82	3.09	-0.28
	36	Overall	3.30	3.56	-0.26	3.09	3.41	-0.31
	37	Overall	3.40	3.73	-0.33	3.62	3.92	-0.29
	38	Overall	3.27	3.56	-0.29	3.25	3.67	-0.42
	39	Overall	2.84	3.05	-0.21	3.68	4.13	-0.45
	40	Overall	3.61	3.77	-0.16	3.32	3.61	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	41	Overall	3.26	3.45	-0.19	3.82	4.24	-0.42
	42	Overall	3.45	3.78	-0.33	3.55	3.86	-0.32
	43	Overall	3.18	3.59	-0.40	3.36	3.63	-0.27
	44	Overall	3.11	3.41	-0.30	3.09	3.45	-0.36
	45	Overall	3.47	3.68	-0.21	2.99	3.37	-0.38
	46	Overall	3.26	3.68	-0.42	2.82	3.27	-0.45
	47	Overall	3.42	3.71	-0.30	2.70	2.98	-0.28
	48	Overall	3.11	3.49	-0.38	3.67	3.78	-0.11
	49	Overall	3.58	3.77	-0.19	4.03	4.59	-0.55
	50	Overall	3.40	3.69	-0.29	2.97	3.35	-0.38
	51	Overall	2.94	3.45	-0.51	3.28	3.76	-0.49
	52	Overall	3.57	3.90	-0.33	3.26	3.72	-0.46
	53	Overall	3.25	3.50	-0.25	3.25	3.65	-0.41
	54	Overall	3.26	3.44	-0.17	3.31	3.59	-0.28
	55	Overall	3.63	3.93	-0.29	3.22	3.59	-0.37
	56	Overall	3.53	3.77	-0.24	3.84	4.16	-0.32
	57	Overall	3.25	3.64	-0.39	3.60	3.67	-0.06
	58	Overall				3.02	3.33	-0.30
	59	Overall	3.41	3.72	-0.31	3.23	3.57	-0.34
	60	Overall	3.81	4.05	-0.24	3.92	4.23	-0.31

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	61	Overall	3.14	3.34	-0.20			
	62	Overall	3.47	3.82	-0.36	3.16	3.45	-0.29
	63	Overall	3.13	3.42	-0.29	3.01	3.11	-0.10
	64	Overall	3.50	3.74	-0.24	3.68	4.19	-0.51
	65	Overall	3.31	3.69	-0.37	3.93	4.12	-0.18
	66	Overall	3.48	3.77	-0.29	3.35	3.38	-0.03
	67	Overall	3.36	3.64	-0.28	3.53	3.77	-0.25
	68	Overall	3.30	3.57	-0.28	3.09	3.32	-0.23
	69	Overall	3.19	3.38	-0.20	2.99	3.58	-0.59
	70	Overall	3.00	3.34	-0.34	3.64	3.95	-0.31
	71	Overall	3.42	3.69	-0.27	3.46	3.95	-0.49
	72	Overall	3.24	3.52	-0.27	4.47	4.80	-0.34
	73	Overall	3.35	3.73	-0.38	3.77	4.03	-0.26
	74	Overall	3.53	3.77	-0.24	2.79	3.17	-0.38
	75	Overall	3.40	3.81	-0.41	2.74	3.15	-0.41
	76	Overall	3.53	3.73	-0.20	3.39	3.80	-0.41
	77	Overall	3.31	3.53	-0.22	3.88	4.23	-0.35
	78	Overall	3.30	3.61	-0.31	3.34	3.65	-0.31
	79	Overall	3.40	3.68	-0.28	3.98	4.30	-0.32
	80	Overall	3.64	3.89	-0.26	3.63	3.80	-0.17

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	81	Overall	3.60	3.67	-0.07	3.66	3.87	-0.20
	82	Overall	2.90	3.08	-0.18	3.09	3.38	-0.28
	83	Overall	2.74	3.04	-0.30	3.42	3.79	-0.37
	84	Overall	3.38	3.60	-0.21	2.88	3.16	-0.29
	85	Overall				3.34	3.49	-0.15
	86	Overall	3.58	3.75	-0.17	3.11	3.51	-0.40
	87	Overall	3.52	3.79	-0.27	3.43	3.93	-0.50
	88	Overall	3.38	3.53	-0.15	2.99	3.48	-0.48
	89	Overall	3.42	3.75	-0.34	3.75	4.01	-0.26
	90	Overall	3.39	3.76	-0.37	3.94	4.02	-0.07
	91	Overall	3.42	3.54	-0.12	3.60	3.99	-0.38
	92	Overall	3.36	3.50	-0.14	3.47	4.14	-0.67
	93	Overall	3.65	3.65	0.00	3.92	4.31	-0.39
	94	Overall	3.21	3.52	-0.31	3.81	4.16	-0.35
	95	Overall	3.35	3.61	-0.25	2.69	3.25	-0.56
	96	Overall	3.34	3.66	-0.32	2.85	3.24	-0.39
	97	Overall	3.15	3.44	-0.29	4.20	4.72	-0.52
	98	Overall	3.34	3.55	-0.21	2.92	3.23	-0.31
	99	Overall	3.29	3.62	-0.33	3.69	4.00	-0.32
	100	Overall	3.35	3.57	-0.21	3.15	3.76	-0.61

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	101	Overall	3.27	3.56	-0.29	3.63	3.96	-0.33
	102	Overall	3.80	3.96	-0.15	3.32	3.70	-0.38
	103	Overall	3.61	3.85	-0.24	2.64	2.83	-0.19
	104	Overall	2.87	3.14	-0.28	3.81	4.18	-0.37
	105	Overall	3.23	3.48	-0.25	3.42	3.75	-0.33
	106	Overall	2.87	3.19	-0.32	3.43	3.77	-0.34
	107	Overall	3.75	4.03	-0.28	3.17	3.44	-0.28
	108	Overall	3.30	3.52	-0.21	3.75	4.00	-0.25
	109	Overall	3.15	3.42	-0.27	3.27	3.64	-0.36
	110	Overall	3.46	3.70	-0.24	3.61	3.85	-0.24
	111	Overall	3.20	3.51	-0.31	2.81	3.25	-0.43
	112	Overall	3.24	3.67	-0.43	2.85	3.36	-0.51
	113	Overall	3.37	3.62	-0.26			
	114	Overall	3.19	3.59	-0.40	3.38	3.87	-0.49
	115	Overall	3.15	3.55	-0.40	3.21	3.73	-0.52
	116	Overall	3.33	3.67	-0.35	2.54	2.67	-0.12
	117	Overall	3.23	3.52	-0.29	3.28	3.47	-0.19
	118	Overall	3.19	3.47	-0.28	3.54	3.99	-0.46
	119	Overall	3.32	3.78	-0.46	2.72	2.93	-0.22
	120	Overall	3.22	3.67	-0.45	3.51	3.86	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	121	Overall	3.23	3.54	-0.31	3.95	4.28	-0.34
	122	Overall	3.18	3.54	-0.36	3.24	3.61	-0.37
	123	Overall	3.34	3.79	-0.45			
	124	Overall	3.31	3.65	-0.35	3.30	3.75	-0.45
	125	Overall	3.35	3.70	-0.35	3.35	3.84	-0.49
	126	Overall	3.65	3.81	-0.17	3.16	3.72	-0.56
	127	Overall	3.06	3.46	-0.40	3.18	3.51	-0.33
	128	Overall	2.96	3.45	-0.49	2.90	3.10	-0.20
	129	Overall	3.44	3.64	-0.20	3.89	4.38	-0.50
	130	Overall	3.65	3.79	-0.13	2.80	3.05	-0.24
	131	Overall	3.40	3.82	-0.42	3.55	3.90	-0.36
	132	Overall	3.22	3.58	-0.36			
	133	Overall	3.45	3.81	-0.36	3.59	3.83	-0.24
	134	Overall	3.49	3.80	-0.31	3.85	3.91	-0.05
	135	Overall	3.66	3.74	-0.08	2.79	3.22	-0.42
	136	Overall	3.25	3.70	-0.45	2.81	3.06	-0.25
	137	Overall	3.05	3.21	-0.16	3.03	3.30	-0.28
	138	Overall	3.40	3.72	-0.32	3.39	4.00	-0.62
	139	Overall	3.44	3.74	-0.30	3.17	3.50	-0.33
	140	Overall	3.58	3.79	-0.21	3.29	3.54	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	141	Overall	3.40	3.67	-0.27	3.28	3.49	-0.21
	142	Overall	3.44	3.75	-0.30	2.84	3.20	-0.36
	143	Overall	3.33	3.61	-0.29	3.69	3.88	-0.18
	144	Overall	3.18	3.47	-0.29	2.98	3.24	-0.25
	145	Overall	3.22	3.53	-0.31	3.23	3.41	-0.18
	146	Overall	3.35	3.60	-0.25	3.46	3.91	-0.45
	147	Overall	3.50	3.86	-0.36	3.20	3.56	-0.36
	148	Overall	3.47	3.74	-0.27	2.82	3.34	-0.52
	149	Overall	3.48	3.81	-0.34	2.85	3.46	-0.62
	150	Overall	3.31	3.61	-0.30	4.75	5.14	-0.39
	151	Overall	3.38	3.69	-0.31	3.14	3.56	-0.42
	152	Overall	3.14	3.49	-0.34	3.09	3.41	-0.32
	153	Overall	3.61	3.83	-0.22	4.14	4.42	-0.29
	154	Overall	3.34	3.59	-0.25	3.19	3.50	-0.31
	155	Overall	3.15	3.51	-0.36	3.89	4.25	-0.36
	156	Overall	3.70	4.02	-0.32	3.85	4.12	-0.27
	157	Overall	2.78	3.10	-0.32	3.33	3.74	-0.41
	158	Overall	3.59	3.85	-0.26	2.94	3.44	-0.50
	159	Overall	3.34	3.64	-0.30	3.19	3.39	-0.20
	160	Overall	3.48	3.63	-0.16	2.74	2.96	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	161	Overall	3.61	3.80	-0.19			
	162	Overall	3.52	3.78	-0.26	2.84	3.18	-0.34
	163	Overall	3.35	3.60	-0.25	3.27	3.67	-0.40
	164	Overall	3.51	3.79	-0.28	3.19	3.62	-0.43
	165	Overall	3.58	3.82	-0.24	3.32	3.43	-0.11
	166	Overall	3.40	3.71	-0.31	3.24	3.61	-0.36
	167	Overall	3.45	3.76	-0.31	4.18	4.51	-0.33
	168	Overall	3.27	3.47	-0.21	3.37	3.90	-0.54
	169	Overall	3.31	3.57	-0.25	2.89	3.18	-0.29
	170	Overall	3.12	3.46	-0.34			
	171	Overall	3.39	3.57	-0.18	3.50	3.72	-0.23
	172	Overall	3.03	3.16	-0.14	3.31	3.77	-0.46
	173	Overall	3.61	3.82	-0.21	2.94	3.35	-0.41
	174	Overall	3.23	3.47	-0.24			
	175	Overall	3.36	3.83	-0.46	3.28	3.41	-0.13
	176	Overall	3.22	3.64	-0.42	2.99	3.16	-0.16
	177	Overall	3.09	3.33	-0.23	3.60	3.86	-0.26
	178	Overall	3.39	3.52	-0.13	3.97	4.20	-0.23
	179	Overall	3.41	3.74	-0.33			
	180	Overall	3.37	3.61	-0.24	3.15	3.71	-0.56

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	181	Overall	2.94	3.23	-0.29	3.94	4.30	-0.36
	182	Overall	3.47	3.68	-0.20	3.46	3.62	-0.15
	183	Overall	3.16	3.43	-0.28	3.71	4.00	-0.29
	184	Overall	3.27	3.55	-0.28	3.33	3.79	-0.46
	185	Overall	3.15	3.58	-0.43	2.85	3.07	-0.22
	186	Overall	3.38	3.49	-0.11	3.26	3.67	-0.41
	187	Overall	3.52	3.86	-0.34	3.42	3.81	-0.39
	188	Overall	3.28	3.52	-0.24	3.17	3.61	-0.43
	189	Overall	3.56	3.77	-0.21	2.67	3.11	-0.44
	190	Overall	3.17	3.41	-0.24	2.75	3.01	-0.25
	191	Overall	3.19	3.55	-0.36	3.25	3.74	-0.49
	192	Overall	3.43	3.65	-0.21	2.71	2.83	-0.12
	193	Overall	3.32	3.60	-0.28	2.87	3.28	-0.41
	194	Overall	3.16	3.47	-0.32	2.75	2.98	-0.22
	195	Overall	3.53	3.66	-0.14	3.12	3.53	-0.41
	196	Overall	3.52	3.90	-0.38	3.31	3.78	-0.47
	197	Overall	3.31	3.64	-0.32	3.81	4.04	-0.23
	198	Overall	3.45	3.81	-0.35	2.84	3.28	-0.44
	199	Overall	3.43	3.66	-0.23	3.52	3.85	-0.32
	200	Overall	3.09	3.44	-0.35	3.40	3.73	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	201	Overall	3.05	3.42	-0.37	2.36	2.72	-0.36
	202	Overall	3.36	3.77	-0.41	3.40	3.75	-0.35
	203	Overall	3.13	3.54	-0.41	2.98	3.38	-0.41
	204	Overall	3.43	3.80	-0.36	3.67	4.02	-0.36
	205	Overall	3.56	3.80	-0.25	3.01	3.39	-0.38
	206	Overall	3.18	3.54	-0.36	3.53	3.68	-0.15
	207	Overall	3.08	3.48	-0.40	3.20	3.63	-0.43
	208	Overall	3.15	3.53	-0.38	2.82	3.17	-0.35
	209	Overall	3.38	3.55	-0.17	3.51	3.73	-0.22
	210	Overall	3.66	3.98	-0.32	3.66	3.96	-0.31
	211	Overall	3.69	3.88	-0.19	3.83	4.06	-0.24
	212	Overall	3.15	3.57	-0.42	2.85	3.11	-0.26
	213	Overall	3.55	3.77	-0.22	3.41	3.60	-0.19
	214	Overall	3.11	3.36	-0.25	3.82	4.16	-0.34
	215	Overall	3.54	3.76	-0.23	2.92	2.97	-0.05
	216	Overall	3.24	3.48	-0.24	4.00	4.26	-0.26
	217	Overall	3.14	3.62	-0.47	3.48	3.60	-0.12
	218	Overall				2.95	3.20	-0.24
	219	Overall	3.63	3.96	-0.33	3.05	3.37	-0.32
	220	Overall	3.40	3.72	-0.33	3.23	3.57	-0.34

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	221	Overall	3.47	3.73	-0.26	3.66	4.04	-0.38
	222	Overall	3.50	3.84	-0.34	2.88	3.13	-0.24
	223	Overall	3.46	3.63	-0.17			
	224	Overall	3.38	3.60	-0.23	3.49	3.96	-0.47
	225	Overall	2.82	3.31	-0.49	4.05	4.42	-0.37
	226	Overall	3.41	3.72	-0.31	4.28	4.85	-0.57
	227	Overall	3.04	3.48	-0.44	3.43	3.75	-0.32
	228	Overall	3.42	3.73	-0.31	2.34	2.83	-0.49
	229	Overall	3.59	3.79	-0.19	3.27	3.48	-0.22
	230	Overall	3.12	3.45	-0.33	2.85	3.36	-0.50
	231	Overall	3.44	3.91	-0.48	3.67	3.85	-0.18
	232	Overall	3.40	3.83	-0.42	2.96	3.02	-0.06
	233	Overall	3.02	3.37	-0.35	4.01	4.26	-0.25
	234	Overall				3.44	3.73	-0.29
	235	Overall	3.47	3.84	-0.37	3.27	3.59	-0.31
	236	Overall	3.32	3.65	-0.34	3.25	3.70	-0.44
	237	Overall	2.99	3.30	-0.31	3.70	4.04	-0.35
	238	Overall	3.43	3.64	-0.21	3.54	3.97	-0.43
	239	Overall	3.34	3.81	-0.47			
	240	Overall	3.54	3.91	-0.37	3.23	3.61	-0.39

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	241	Overall	3.49	3.82	-0.33	2.82	3.06	-0.24
	242	Overall	3.50	3.70	-0.20	2.97	3.11	-0.14
	243	Overall	3.29	3.63	-0.34	3.73	4.11	-0.38
	244	Overall	3.66	3.68	-0.02	2.65	2.79	-0.14
	245	Overall	3.11	3.47	-0.36	3.94	4.24	-0.30
	246	Overall				3.91	4.13	-0.22
	247	Overall	3.39	3.71	-0.33	3.26	3.68	-0.42
	248	Overall	3.18	3.42	-0.24	2.73	2.98	-0.25
	249	Overall	3.30	3.57	-0.27	4.18	4.60	-0.43
	250	Overall	3.47	3.60	-0.14	3.53	3.83	-0.30
	251	Overall	3.08	3.45	-0.37	3.12	3.46	-0.34
	252	Overall	3.46	3.86	-0.40	3.07	3.42	-0.35
	253	Overall	3.32	3.73	-0.41	3.35	3.69	-0.34
	254	Overall	3.66	3.84	-0.17	3.21	3.62	-0.41
	255	Overall	3.35	3.64	-0.28	3.73	3.94	-0.22
	256	Overall	3.19	3.56	-0.37	3.55	3.82	-0.28
	257	Overall	3.36	3.79	-0.43	3.13	3.24	-0.11
	258	Overall	3.32	3.52	-0.20	2.47	2.77	-0.30
	259	Overall	3.46	3.75	-0.29	3.56	4.12	-0.56
	260	Overall	3.22	3.51	-0.29	3.56	3.85	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	261	Overall	3.66	3.94	-0.29	2.54	2.83	-0.29
	262	Overall	3.33	3.64	-0.31	3.26	3.50	-0.23
	263	Overall	3.03	3.37	-0.34	2.95	3.28	-0.33
	264	Overall	3.19	3.47	-0.28	3.35	3.55	-0.20
	265	Overall	3.58	3.81	-0.23	3.25	3.55	-0.29
	266	Overall	3.24	3.50	-0.25	2.83	3.01	-0.17
	267	Overall	3.39	3.67	-0.27	3.88	4.17	-0.29
	268	Overall	3.52	3.90	-0.38	3.53	3.95	-0.43
	269	Overall	3.40	3.68	-0.28	3.55	3.79	-0.24
	270	Overall	3.02	3.35	-0.33	4.18	4.34	-0.16
	271	Overall	3.31	3.54	-0.23	3.10	3.25	-0.16
	272	Overall	3.33	3.71	-0.38	3.84	4.18	-0.34
	273	Overall	3.10	3.38	-0.27	3.06	3.39	-0.34
	274	Overall	3.35	3.60	-0.25	3.23	3.70	-0.47
	275	Overall	3.10	3.45	-0.36	3.40	3.64	-0.24
	276	Overall	3.50	3.83	-0.32	3.21	3.53	-0.31
	277	Overall	3.29	3.57	-0.28	3.01	3.37	-0.36
	278	Overall	3.57	3.76	-0.18	3.42	3.89	-0.47
	279	Overall	3.12	3.60	-0.48	3.15	3.57	-0.42
	280	Overall	3.23	3.52	-0.29	3.66	4.09	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	281	Overall	3.62	3.80	-0.18	2.86	3.14	-0.28
	282	Overall	3.53	3.87	-0.34	3.79	4.16	-0.38
	283	Overall	3.39	3.79	-0.39	3.20	3.80	-0.60
	284	Overall	3.13	3.49	-0.36	3.53	3.86	-0.33
	285	Overall	3.01	3.40	-0.39	3.28	3.67	-0.40
	286	Overall	3.38	3.64	-0.26	3.48	3.65	-0.16
	287	Overall	3.06	3.32	-0.25	3.04	3.45	-0.41
	288	Overall	3.25	3.62	-0.36	2.95	3.27	-0.32
	289	Overall	3.29	3.68	-0.40	3.07	3.43	-0.36
	290	Overall	3.15	3.58	-0.43	3.22	3.76	-0.54
	291	Overall	3.21	3.34	-0.13	3.25	3.42	-0.18
	292	Overall	3.38	3.56	-0.18	3.00	3.29	-0.28
	293	Overall	3.53	3.84	-0.32	3.48	3.75	-0.28
	294	Overall	3.57	3.82	-0.25	3.31	3.66	-0.35
	295	Overall	3.39	3.75	-0.36	2.85	3.06	-0.21
	296	Overall	3.50	3.63	-0.13	3.72	3.82	-0.10
	297	Overall	3.44	3.69	-0.25	3.87	4.42	-0.54
	298	Overall	2.98	3.33	-0.36	3.27	3.59	-0.31
	299	Overall	3.59	3.78	-0.18	3.78	4.01	-0.22
	300	Overall	3.36	3.67	-0.30	3.50	3.93	-0.43

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	301	Overall	3.53	3.72	-0.19	3.78	3.94	-0.16
	302	Overall	3.35	3.73	-0.37	3.35	3.80	-0.45
	303	Overall	3.52	3.70	-0.18	2.57	3.07	-0.50
	304	Overall	3.50	3.80	-0.30	2.94	3.13	-0.19
	305	Overall	3.61	3.93	-0.32	3.38	3.68	-0.30
	306	Overall	3.37	3.58	-0.21	3.52	3.97	-0.45
	307	Overall	3.36	3.63	-0.27	3.53	3.84	-0.31
	308	Overall	3.07	3.30	-0.22	3.55	4.00	-0.44
	309	Overall	3.16	3.51	-0.35	3.04	3.31	-0.28
	310	Overall	3.44	3.79	-0.35	3.39	3.65	-0.26
	311	Overall	3.07	3.33	-0.26	3.35	3.45	-0.11
	312	Overall	3.30	3.66	-0.36	2.88	2.99	-0.11
	313	Overall	3.12	3.57	-0.45	3.74	4.22	-0.48
	314	Overall	3.27	3.64	-0.37	3.10	3.40	-0.30
	315	Overall	3.41	3.58	-0.17	3.60	4.03	-0.43
	316	Overall	3.26	3.49	-0.23	3.05	3.28	-0.23
	317	Overall	3.83	4.08	-0.25	3.08	3.22	-0.15
	318	Overall	3.28	3.61	-0.33	3.12	3.53	-0.40
	319	Overall	3.41	3.81	-0.40	3.23	3.70	-0.47
	320	Overall	3.40	3.73	-0.33	4.20	4.71	-0.51

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	321	Overall	3.31	3.73	-0.41	3.99	4.21	-0.22
	322	Overall	3.60	3.82	-0.22	3.84	4.06	-0.22
	323	Overall	2.92	3.25	-0.32	3.23	3.53	-0.30
	324	Overall	3.37	3.57	-0.20	3.18	3.75	-0.57
	325	Overall	3.40	3.71	-0.31	3.43	4.01	-0.58
	326	Overall	3.03	3.07	-0.04	4.09	4.36	-0.28
	327	Overall	3.32	3.53	-0.21	3.41	3.82	-0.41
	328	Overall	3.22	3.61	-0.39	2.65	2.95	-0.30
	329	Overall	3.41	3.66	-0.25			
	330	Overall	3.16	3.50	-0.35	3.90	4.19	-0.29
	331	Overall	3.55	3.89	-0.34	3.25	3.64	-0.39
	332	Overall	3.18	3.55	-0.37	2.68	2.94	-0.26
	333	Overall	3.29	3.57	-0.28	3.25	3.43	-0.18
	334	Overall	3.40	3.56	-0.15	3.21	3.48	-0.26
	335	Overall	3.40	3.61	-0.21	3.41	3.77	-0.35
	336	Overall	3.64	3.87	-0.23	3.60	3.79	-0.18
	337	Overall	3.29	3.53	-0.24	3.14	3.43	-0.29
	338	Overall	3.74	3.85	-0.12			
	339	Overall	3.28	3.62	-0.35	3.25	3.70	-0.44
	340	Overall	3.11	3.47	-0.37	3.05	3.61	-0.56

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	341	Overall	3.34	3.71	-0.37	3.13	3.40	-0.27
	342	Overall	3.46	3.66	-0.20	3.07	3.43	-0.36
	343	Overall	3.42	3.54	-0.13	4.07	4.48	-0.41
	344	Overall	3.15	3.30	-0.15	3.24	3.33	-0.10
	345	Overall	3.42	3.74	-0.31	3.01	3.27	-0.27
	346	Overall	3.17	3.58	-0.41	3.11	3.25	-0.15
	347	Overall	3.62	3.81	-0.19	3.13	3.56	-0.43
	348	Overall	3.05	3.39	-0.34	3.56	3.94	-0.38
	349	Overall	2.98	3.31	-0.33	3.16	3.61	-0.45
	350	Overall	3.11	3.43	-0.32	3.02	3.30	-0.28
	351	Overall	3.33	3.54	-0.21	3.58	4.16	-0.58
	352	Overall	2.85	3.11	-0.26	3.28	3.90	-0.61
	353	Overall	3.66	3.81	-0.15	3.19	3.54	-0.34
	354	Overall	3.44	3.87	-0.42	3.53	3.99	-0.46
	355	Overall	3.37	3.79	-0.42	3.17	3.71	-0.53
	356	Overall	3.34	3.66	-0.32			
	357	Overall	3.42	3.67	-0.25	3.60	3.68	-0.08
	358	Overall	3.28	3.55	-0.26	3.37	3.54	-0.17
	359	Overall	3.08	3.42	-0.34	4.10	4.25	-0.15
	360	Overall	3.54	3.82	-0.28	3.22	3.47	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	361	Overall	3.31	3.57	-0.26	3.52	3.79	-0.27
	362	Overall	3.42	3.84	-0.41	3.16	3.52	-0.36
	363	Overall	3.15	3.37	-0.21	2.76	3.02	-0.26
	364	Overall	2.83	3.09	-0.26	2.72	2.98	-0.26
	365	Overall	3.35	3.69	-0.34	3.94	4.49	-0.54
	366	Overall	3.33	3.68	-0.35	3.61	3.80	-0.19
	367	Overall	3.61	3.94	-0.33	3.52	3.77	-0.25
	368	Overall	3.16	3.44	-0.28	3.33	3.90	-0.57
	369	Overall	3.44	3.72	-0.28			
	370	Overall	2.92	3.38	-0.46	3.36	3.81	-0.45
	371	Overall	3.24	3.53	-0.30	3.25	3.50	-0.25
	372	Overall	3.27	3.71	-0.45			
	373	Overall	3.33	3.59	-0.26	3.22	3.63	-0.41
	374	Overall	3.38	3.70	-0.31	2.91	3.39	-0.48
	375	Overall	3.49	3.80	-0.31	3.67	4.04	-0.36
	376	Overall	3.24	3.56	-0.32	3.75	4.11	-0.36
	377	Overall	3.32	3.65	-0.33	3.30	3.59	-0.29
	378	Overall	3.43	3.65	-0.22	3.86	4.16	-0.30
	379	Overall	3.51	3.72	-0.21	2.95	3.50	-0.55
	380	Overall	3.57	3.82	-0.26	3.07	3.19	-0.13

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	381	Overall	3.21	3.55	-0.34	4.28	4.74	-0.45
	382	Overall	3.48	3.50	-0.02	3.55	3.74	-0.19
	383	Overall	3.18	3.56	-0.39			
	384	Overall	3.24	3.51	-0.27	3.32	3.72	-0.40
	385	Overall	3.44	3.77	-0.33	3.27	3.73	-0.45
	386	Overall	3.46	3.76	-0.31	3.43	3.85	-0.42
	387	Overall	3.37	3.89	-0.52	3.26	3.64	-0.38
	388	Overall	3.15	3.39	-0.24	3.28	3.62	-0.34
	389	Overall	3.42	3.75	-0.33	3.21	3.45	-0.24
	390	Overall	3.24	3.46	-0.22	3.89	4.28	-0.39
	391	Overall	3.40	3.82	-0.42	3.32	3.65	-0.33
	392	Overall	3.17	3.46	-0.28	3.78	4.13	-0.35
	393	Overall	3.55	3.67	-0.12	2.99	3.53	-0.54
	394	Overall	3.43	3.61	-0.17	3.64	3.91	-0.26
	395	Overall	3.58	3.81	-0.23	3.47	4.06	-0.58
	396	Overall	3.30	3.59	-0.29	3.24	3.63	-0.39
	397	Overall	3.05	3.48	-0.44	3.18	3.59	-0.41
	398	Overall	3.39	3.73	-0.35	3.60	3.89	-0.29
	399	Overall	3.17	3.42	-0.25	3.32	3.68	-0.36
	400	Overall	3.14	3.53	-0.39	3.68	4.18	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	401	Overall	3.22	3.67	-0.45	3.30	3.79	-0.50
	402	Overall	3.22	3.44	-0.22	3.66	3.86	-0.19
	403	Overall	3.47	3.80	-0.34	2.93	3.24	-0.31
	404	Overall	3.67	3.90	-0.22	3.85	4.20	-0.35
	405	Overall	3.46	3.65	-0.19	2.72	3.10	-0.38
	406	Overall	3.48	3.80	-0.31	3.59	4.08	-0.49
	407	Overall	3.36	3.60	-0.24	2.97	3.32	-0.35
	408	Overall	3.46	3.70	-0.24	3.51	3.88	-0.37
	409	Overall	3.31	3.57	-0.27	3.76	4.17	-0.41
	410	Overall	3.76	3.98	-0.22	3.03	3.31	-0.29
	411	Overall	3.26	3.56	-0.30	3.12	3.39	-0.27
	412	Overall	3.23	3.29	-0.06	3.65	3.81	-0.16
	413	Overall	3.37	3.77	-0.40	2.80	2.95	-0.16
	414	Overall	3.24	3.31	-0.07	3.73	3.94	-0.21
	415	Overall	3.23	3.56	-0.34	3.29	3.60	-0.31
	416	Overall	3.41	3.68	-0.27	3.24	3.63	-0.39
	417	Overall	3.22	3.47	-0.25	3.43	3.78	-0.35
	418	Overall	3.48	3.76	-0.28	3.20	3.47	-0.27
	419	Overall	3.18	3.44	-0.26	3.23	3.59	-0.36
	420	Overall	3.29	3.43	-0.14	3.96	4.29	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	421	Overall	3.29	3.52	-0.23	3.34	3.77	-0.43
	422	Overall	3.60	4.00	-0.40	3.34	3.67	-0.33
	423	Overall	3.24	3.67	-0.43	3.46	3.99	-0.53
	424	Overall	3.72	4.10	-0.37	3.41	3.72	-0.30
	425	Overall	3.17	3.53	-0.36	3.35	3.83	-0.48
	426	Overall	2.94	3.18	-0.24	3.57	3.83	-0.26
	427	Overall	3.49	3.86	-0.37	3.40	3.82	-0.41
	428	Overall	3.24	3.62	-0.37	2.29	2.67	-0.38
	429	Overall	3.29	3.67	-0.38	2.89	3.03	-0.14
	430	Overall	3.24	3.58	-0.34	3.05	3.38	-0.33
	431	Overall	3.08	3.42	-0.34	2.98	3.24	-0.26
	432	Overall	2.97	3.38	-0.41	3.36	3.76	-0.40
	433	Overall	3.53	3.80	-0.27	2.82	3.00	-0.18
	434	Overall	3.25	3.64	-0.39	3.01	3.22	-0.21
	435	Overall	3.35	3.71	-0.36	2.79	3.12	-0.33
	436	Overall	3.40	3.67	-0.27	3.23	3.57	-0.33
	437	Overall	3.14	3.51	-0.37	3.24	3.63	-0.39
	438	Overall	3.31	3.56	-0.25	3.98	4.55	-0.57
	439	Overall	3.25	3.60	-0.35	3.51	3.98	-0.46
	440	Overall	3.28	3.64	-0.36	3.97	4.35	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	441	Overall	3.47	3.78	-0.31			
	442	Overall	2.96	3.24	-0.28	3.42	3.68	-0.26
	443	Overall	3.28	3.72	-0.44	3.43	3.88	-0.46
	444	Overall	3.26	3.69	-0.43	2.76	2.96	-0.20
	445	Overall	3.50	3.90	-0.40	3.88	4.29	-0.41
	446	Overall	3.48	3.77	-0.29	2.73	3.15	-0.42
	447	Overall	3.39	3.48	-0.10	2.83	3.03	-0.20
	448	Overall	3.33	3.62	-0.29	3.69	3.96	-0.27
	449	Overall	3.18	3.51	-0.33	3.36	3.69	-0.34
	450	Overall	3.11	3.38	-0.27	3.38	3.55	-0.17
	451	Overall	3.16	3.56	-0.40	3.65	3.67	-0.02
	452	Overall	3.39	3.69	-0.29	2.57	2.80	-0.23
	453	Overall	3.32	3.65	-0.33			
	454	Overall	3.76	4.05	-0.29	3.35	3.73	-0.38
	455	Overall	3.17	3.50	-0.34	3.75	4.09	-0.33
	456	Overall	3.34	3.71	-0.37	3.49	3.72	-0.23
	457	Overall	3.48	3.62	-0.14	3.53	3.99	-0.46
	458	Overall	3.37	3.73	-0.36	4.05	4.31	-0.26
	459	Overall	3.56	3.78	-0.23	3.33	3.76	-0.43
	460	Overall	3.45	3.74	-0.29	3.78	4.27	-0.49

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	461	Overall	3.33	3.65	-0.33	3.17	3.56	-0.39
	462	Overall	3.29	3.59	-0.31	3.21	3.49	-0.29
	463	Overall	3.23	3.48	-0.26	3.30	3.68	-0.38
	464	Overall	3.10	3.57	-0.47	3.42	3.74	-0.32
	465	Overall	3.41	3.64	-0.24	4.05	4.34	-0.29
	466	Overall	3.27	3.63	-0.37	3.03	3.47	-0.44
	467	Overall	3.55	3.84	-0.29	2.61	2.84	-0.23
	468	Overall	3.26	3.39	-0.13	3.16	3.44	-0.28
	469	Overall	3.26	3.56	-0.29	3.43	3.76	-0.33
	470	Overall	3.22	3.63	-0.41	3.48	3.75	-0.26
	471	Overall	3.49	3.80	-0.31	3.56	3.88	-0.31
	472	Overall	3.47	3.69	-0.22	3.28	3.77	-0.50
	473	Overall	3.56	3.76	-0.20	3.58	4.00	-0.43
	474	Overall	3.09	3.35	-0.26	3.53	3.89	-0.37
	475	Overall	3.21	3.49	-0.28	2.91	3.07	-0.16
	476	Overall	3.45	3.71	-0.26	3.27	3.58	-0.31
	477	Overall	3.28	3.49	-0.21	3.21	3.53	-0.31
	478	Overall	3.48	3.77	-0.29	2.63	2.97	-0.34
	479	Overall	3.47	3.61	-0.14	3.10	3.37	-0.27
	480	Overall	3.46	3.77	-0.31	2.89	3.31	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	481	Overall	3.30	3.61	-0.31	3.07	3.56	-0.49
	482	Overall	3.45	3.79	-0.35	3.41	3.84	-0.43
	483	Overall	3.22	3.40	-0.19	3.13	3.52	-0.39
	484	Overall	3.39	3.68	-0.29	2.96	3.31	-0.35
	485	Overall	3.07	3.36	-0.28	2.97	3.39	-0.41
	486	Overall	3.33	3.68	-0.35	2.89	3.09	-0.20
	487	Overall	3.17	3.43	-0.26	2.85	3.34	-0.49
	488	Overall	3.36	3.56	-0.20	3.22	3.52	-0.30
	489	Overall	3.37	3.56	-0.19	3.23	3.46	-0.23
	490	Overall	3.39	3.67	-0.28	4.20	4.42	-0.23
	491	Overall	3.22	3.54	-0.31	2.98	3.52	-0.54
	492	Overall	2.98	3.32	-0.34	3.24	3.54	-0.30
	493	Overall	3.49	3.84	-0.35			
	494	Overall	3.31	3.55	-0.24	3.68	4.15	-0.47
	495	Overall	3.36	3.75	-0.39			
	496	Overall	3.58	3.82	-0.24	3.46	3.66	-0.20
	497	Overall	3.05	3.28	-0.23	3.00	3.44	-0.44
	498	Overall	2.91	3.27	-0.36	3.25	3.51	-0.26
	499	Overall	2.88	3.27	-0.39	2.50	2.81	-0.31
	500	Overall	3.75	3.89	-0.14	4.16	4.41	-0.26

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	501	Overall	3.48	3.70	-0.23	3.71	4.13	-0.42
	502	Overall	3.66	3.89	-0.23	2.95	3.27	-0.32
	503	Overall	3.12	3.37	-0.25	3.03	3.45	-0.42
	504	Overall	3.14	3.66	-0.52	3.22	3.59	-0.37
	505	Overall	3.38	3.63	-0.25			
	506	Overall	3.27	3.54	-0.27	3.25	3.74	-0.48
	507	Overall	3.41	3.62	-0.21	4.07	4.36	-0.28
	508	Overall	3.50	3.71	-0.21	3.31	3.48	-0.16
	509	Overall	3.47	3.68	-0.21	2.54	3.06	-0.52
	510	Overall	3.11	3.51	-0.40	2.44	2.77	-0.34
	511	Overall	3.15	3.49	-0.34	3.55	4.14	-0.59
	512	Overall	3.15	3.52	-0.37	3.16	3.69	-0.53
	513	Overall	3.30	3.54	-0.24	3.67	4.11	-0.44
	514	Overall	3.59	3.97	-0.38	3.20	3.53	-0.33
	515	Overall	3.48	3.68	-0.20	3.20	3.54	-0.34
	516	Overall	3.27	3.77	-0.50	3.35	3.88	-0.53
	517	Overall	3.74	3.94	-0.20			
	518	Overall	3.29	3.60	-0.31	3.39	3.66	-0.27
	519	Overall	3.29	3.50	-0.20	3.01	3.31	-0.30
	520	Overall	3.23	3.68	-0.45	3.50	3.91	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	521	Overall	3.32	3.58	-0.26	2.93	3.23	-0.29
	522	Overall	3.38	3.76	-0.38	4.55	5.07	-0.52
	523	Overall	3.21	3.43	-0.22	4.00	4.31	-0.31
	524	Overall	3.26	3.50	-0.24	3.25	3.65	-0.40
	525	Overall	3.26	3.56	-0.30			
	526	Overall	3.36	3.74	-0.38	3.72	4.13	-0.41
	527	Overall	3.28	3.40	-0.12	3.09	3.63	-0.54
	528	Overall	3.71	3.94	-0.23	2.94	3.39	-0.45
	529	Overall	2.84	3.28	-0.45	3.86	4.25	-0.38
	530	Overall	3.49	3.75	-0.26	3.27	3.62	-0.36
	531	Overall	3.21	3.39	-0.18	3.57	3.97	-0.39
	532	Overall	3.20	3.56	-0.36	3.49	3.84	-0.36
	533	Overall	3.50	3.69	-0.19	4.12	4.73	-0.61
	534	Overall	3.14	3.31	-0.17	3.41	3.86	-0.45
	535	Overall	2.99	3.44	-0.45	3.31	3.70	-0.39
	536	Overall	3.28	3.73	-0.45	2.87	3.05	-0.18
	537	Overall	3.30	3.63	-0.33	4.20	4.54	-0.35
	538	Overall	3.46	3.83	-0.36	3.74	4.17	-0.43
	539	Overall	3.72	3.85	-0.13	3.25	3.66	-0.41
	540	Overall	3.23	3.56	-0.33	2.69	2.72	-0.03

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	541	Overall	3.45	3.81	-0.37	3.46	3.91	-0.45
	542	Overall	3.69	3.91	-0.22	3.11	3.50	-0.39
	543	Overall	3.16	3.40	-0.24	3.03	3.36	-0.33
	544	Overall	3.15	3.53	-0.38	3.77	4.04	-0.27
	545	Overall	3.29	3.45	-0.16	3.68	4.08	-0.41
	546	Overall	3.34	3.54	-0.20	3.76	4.17	-0.41
	547	Overall	3.57	3.91	-0.34	3.61	3.95	-0.34
	548	Overall	3.18	3.51	-0.33	3.45	3.84	-0.39
	549	Overall	3.58	3.81	-0.23	3.81	4.20	-0.39
	550	Overall	3.22	3.46	-0.24	3.18	3.66	-0.48
	551	Overall	3.55	3.83	-0.28	3.66	3.91	-0.25
	552	Overall	3.36	3.70	-0.34	3.69	4.05	-0.37
	553	Overall	2.99	3.29	-0.30	3.11	3.35	-0.25
	554	Overall	3.25	3.52	-0.27	3.63	3.92	-0.30
	555	Overall	3.38	3.60	-0.22	3.70	3.89	-0.19
	556	Overall	3.24	3.67	-0.42	3.35	3.59	-0.25
	557	Overall	3.57	3.88	-0.31	3.76	4.02	-0.26
	558	Overall	2.89	3.30	-0.41	3.77	4.07	-0.30
	559	Overall	3.43	3.66	-0.23	3.34	3.66	-0.31
	560	Overall	3.50	3.81	-0.31	3.31	3.72	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	561	Overall	3.14	3.54	-0.40	3.96	4.24	-0.28
	562	Overall	3.19	3.49	-0.31	2.43	2.78	-0.35
	563	Overall	3.38	3.59	-0.22	2.54	2.58	-0.04
	564	Overall	3.09	3.33	-0.24	3.44	3.84	-0.40
	565	Overall	3.40	3.77	-0.37			
	566	Overall	3.39	3.77	-0.38	4.28	4.59	-0.31
	567	Overall	3.22	3.41	-0.20	3.17	3.61	-0.43
	568	Overall	3.49	3.76	-0.27	3.74	4.00	-0.26
	569	Overall	3.40	3.55	-0.14	3.79	4.25	-0.46
	570	Overall	3.14	3.37	-0.23	3.07	3.14	-0.07
	571	Overall	3.03	3.37	-0.34	3.45	3.69	-0.24
	572	Overall	3.62	3.78	-0.16	3.72	4.26	-0.55
	573	Overall	3.54	3.64	-0.09	3.93	4.12	-0.20
	574	Overall	3.24	3.53	-0.29	2.24	2.57	-0.33
	575	Overall	3.73	3.94	-0.21	3.25	3.70	-0.45
	576	Overall	3.67	3.93	-0.26	3.52	3.85	-0.32
	577	Overall	3.50	3.85	-0.36	3.00	3.25	-0.25
	578	Overall	3.35	3.73	-0.38	3.33	3.38	-0.06
	579	Overall	3.05	3.51	-0.46	3.13	3.61	-0.48
	580	Overall	3.39	3.67	-0.28	2.91	3.12	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	581	Overall	3.40	3.65	-0.25	3.55	3.83	-0.27
	582	Overall	3.63	3.72	-0.09	3.35	3.79	-0.43
	583	Overall	3.38	3.67	-0.29	2.58	3.04	-0.45
	584	Overall	3.57	3.88	-0.31	3.63	4.01	-0.38
	585	Overall	3.36	3.63	-0.27	3.28	3.70	-0.42
	586	Overall	3.73	3.95	-0.21	3.91	4.25	-0.34
	587	Overall	3.41	3.66	-0.24	3.10	3.47	-0.37
	588	Overall	3.24	3.68	-0.44	2.98	3.22	-0.24
	589	Overall	3.62	3.93	-0.31	2.69	3.10	-0.41
	590	Overall	3.30	3.62	-0.31			
	591	Overall	3.76	4.05	-0.29	3.39	3.87	-0.48
	592	Overall	3.28	3.51	-0.22	3.34	3.70	-0.36
	593	Overall	3.41	3.59	-0.19	2.97	3.47	-0.50
	594	Overall	3.38	3.79	-0.41	3.46	3.88	-0.43
	595	Overall	3.08	3.44	-0.36	3.47	3.73	-0.26
	596	Overall	3.18	3.48	-0.31	3.36	3.67	-0.31
	597	Overall	3.23	3.62	-0.40	3.74	4.10	-0.35
	598	Overall	3.23	3.38	-0.14	3.90	4.23	-0.33
	599	Overall	3.45	3.60	-0.15	2.98	3.31	-0.33
	600	Overall	3.22	3.40	-0.18	3.46	4.02	-0.55

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	601	Overall	3.28	3.64	-0.36	2.98	3.36	-0.38
	602	Overall	3.36	3.50	-0.14	4.06	4.56	-0.50
	603	Overall	3.34	3.50	-0.16	2.92	3.32	-0.40
	604	Overall	3.22	3.58	-0.36	3.10	3.48	-0.37
	605	Overall	3.11	3.43	-0.32	2.87	3.17	-0.31
	606	Overall	3.32	3.60	-0.28	3.40	3.74	-0.34
	607	Overall	3.20	3.47	-0.27	3.57	3.81	-0.24
	608	Overall	3.30	3.62	-0.32	2.68	3.25	-0.57
	609	Overall	3.21	3.44	-0.24	2.99	3.27	-0.28
	610	Overall	3.34	3.62	-0.27	3.59	4.06	-0.47
	611	Overall	3.33	3.67	-0.34	3.28	3.65	-0.37
	612	Overall	3.30	3.76	-0.47	4.02	4.39	-0.37
	613	Overall	3.45	3.70	-0.25	3.42	3.68	-0.26
	614	Overall	3.56	3.80	-0.24	2.32	2.59	-0.26
	615	Overall	3.20	3.62	-0.41			
	616	Overall	3.28	3.54	-0.26	4.14	4.60	-0.47
	617	Overall	3.57	3.73	-0.15	3.60	3.94	-0.34
	618	Overall	3.25	3.52	-0.27	2.84	3.38	-0.53
	619	Overall	3.22	3.56	-0.34	3.44	3.68	-0.24
	620	Overall	3.39	3.57	-0.18	2.67	3.07	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	621	Overall	3.13	3.43	-0.30	2.63	2.91	-0.28
	622	Overall	3.34	3.61	-0.27	3.42	3.58	-0.16
	623	Overall	3.49	3.76	-0.27	2.07	2.22	-0.15
	624	Overall	3.49	3.72	-0.22	3.72	4.06	-0.34
	625	Overall	3.52	3.86	-0.34	3.19	3.55	-0.35
	626	Overall	3.36	3.51	-0.15	4.22	4.63	-0.41
	627	Overall	3.30	3.58	-0.28	3.77	4.13	-0.36
	628	Overall	3.25	3.61	-0.36	3.73	4.00	-0.27
	629	Overall	3.55	3.73	-0.18	2.59	2.92	-0.33
	630	Overall	3.60	3.76	-0.16	2.88	3.32	-0.45
	631	Overall	3.35	3.65	-0.30	3.77	4.27	-0.50
	632	Overall	3.37	3.71	-0.33	3.05	3.40	-0.35
	633	Overall	3.51	3.83	-0.32	3.67	3.88	-0.21
	634	Overall	3.14	3.39	-0.25	2.57	2.75	-0.18
	635	Overall	3.79	4.15	-0.37	3.68	4.03	-0.35
	636	Overall	3.22	3.61	-0.39	3.26	3.45	-0.19
	637	Overall	3.25	3.54	-0.29			
	638	Overall	3.62	3.88	-0.26	3.74	4.13	-0.39
	639	Overall	3.02	3.56	-0.55	3.99	4.40	-0.41
	640	Overall	3.14	3.41	-0.26			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	641	Overall	3.35	3.69	-0.33	3.68	4.26	-0.58
	642	Overall	3.27	3.51	-0.24	3.30	3.50	-0.20
	643	Overall	3.34	3.66	-0.31	4.37	4.63	-0.26
	644	Overall	3.43	3.60	-0.16	3.97	4.15	-0.17
	645	Overall	3.01	3.34	-0.32	3.28	3.44	-0.16
	646	Overall	3.42	3.58	-0.16	3.03	3.25	-0.22
	647	Overall	3.51	3.75	-0.24			
	648	Overall	3.67	3.83	-0.17	2.73	2.98	-0.25
	649	Overall	3.37	3.73	-0.36	3.05	3.38	-0.32
	650	Overall	3.30	3.49	-0.19	3.34	3.74	-0.40
	651	Overall	3.31	3.52	-0.21			
	652	Overall	3.27	3.56	-0.29			
	653	Overall	3.41	3.61	-0.20	2.67	2.97	-0.30
	654	Overall	3.54	3.77	-0.23	2.50	2.80	-0.30
	655	Overall	3.50	3.76	-0.26	3.23	3.47	-0.24
	656	Overall	3.45	3.54	-0.09	3.23	3.65	-0.41
	657	Overall	3.31	3.68	-0.37	3.66	3.93	-0.27
	658	Overall	3.48	3.81	-0.33	3.98	4.40	-0.42
	659	Overall	3.15	3.53	-0.38	3.81	4.15	-0.34
	660	Overall	3.48	3.61	-0.13	2.70	2.86	-0.17

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	661	Overall	3.61	3.88	-0.26	3.32	3.78	-0.46
	662	Overall	3.39	3.60	-0.21	3.10	3.20	-0.10
	663	Overall	3.41	3.72	-0.32	3.90	4.31	-0.41
	664	Overall	3.34	3.72	-0.39	3.11	3.57	-0.47
	665	Overall	3.50	3.69	-0.18	3.48	4.06	-0.58
	666	Overall	3.44	3.74	-0.30	3.38	3.75	-0.37
	667	Overall	3.33	3.53	-0.20	3.82	3.97	-0.15
	668	Overall	3.26	3.47	-0.21	3.33	3.47	-0.14
	669	Overall	2.85	3.18	-0.33	3.94	4.12	-0.18
	670	Overall	3.43	3.80	-0.37	2.58	2.99	-0.41
	671	Overall	3.35	3.46	-0.11	2.17	2.44	-0.27
	672	Overall	3.27	3.43	-0.16	2.67	3.10	-0.43
	673	Overall	3.39	3.82	-0.43	2.94	3.33	-0.40
	674	Overall	2.97	3.34	-0.37	2.72	2.93	-0.21
	675	Overall	3.60	3.88	-0.28	2.71	2.82	-0.11
	676	Overall	3.34	3.68	-0.33	3.69	3.95	-0.26
	677	Overall	3.03	3.46	-0.43	3.55	3.86	-0.31
	678	Overall	3.45	3.81	-0.36	2.96	3.04	-0.08
	679	Overall	3.07	3.42	-0.35	2.95	3.33	-0.38
	680	Overall	3.24	3.43	-0.19	3.55	3.81	-0.26

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	681	Overall	3.19	3.50	-0.31			
	682	Overall	3.36	3.69	-0.33	3.80	4.28	-0.48
	683	Overall	3.68	3.84	-0.16	3.42	3.85	-0.43
	684	Overall	3.58	3.80	-0.22	2.47	2.78	-0.31
	685	Overall	3.45	3.61	-0.16	3.24	3.59	-0.35
	686	Overall	3.50	3.67	-0.17	3.17	3.64	-0.48
	687	Overall	2.98	3.23	-0.25	3.71	4.13	-0.42
	688	Overall	3.07	3.41	-0.35	2.95	3.20	-0.24
	689	Overall	3.04	3.39	-0.35	3.49	3.58	-0.08
	690	Overall	3.42	3.75	-0.33	2.98	3.40	-0.42
	691	Overall	3.72	3.84	-0.11	3.10	3.28	-0.18
	692	Overall	3.28	3.61	-0.32	3.40	3.58	-0.18
	693	Overall	3.17	3.34	-0.18	3.68	3.76	-0.08
	694	Overall	3.33	3.60	-0.27	3.03	3.43	-0.40
	695	Overall	3.11	3.29	-0.17	3.34	3.57	-0.23
	696	Overall	3.41	3.70	-0.28	2.91	3.30	-0.39
	697	Overall	3.53	3.87	-0.34	2.85	3.18	-0.33
	698	Overall	3.24	3.52	-0.28	3.33	3.78	-0.45
	699	Overall	3.49	3.73	-0.24	2.95	3.29	-0.33
	700	Overall	3.71	4.06	-0.36	3.91	4.38	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	701	Overall	3.37	3.57	-0.20			
	702	Overall	3.43	3.72	-0.28	3.75	3.83	-0.07
	703	Overall	3.15	3.45	-0.30	3.31	3.64	-0.33
	704	Overall	3.59	3.91	-0.32	3.36	3.67	-0.31
	705	Overall	3.37	3.72	-0.35	3.97	4.21	-0.24
	706	Overall	3.45	3.66	-0.22	3.40	3.75	-0.35
	707	Overall	3.27	3.55	-0.28	3.90	4.08	-0.18
	708	Overall	3.20	3.69	-0.49	3.32	3.75	-0.43
	709	Overall	3.17	3.50	-0.34	3.13	3.49	-0.37
	710	Overall	3.42	3.72	-0.30	3.86	4.39	-0.52
	711	Overall	3.36	3.72	-0.37	3.48	3.77	-0.29
	712	Overall	3.31	3.52	-0.20	3.56	3.81	-0.25
	713	Overall	3.48	3.78	-0.30	3.56	3.98	-0.42
	714	Overall	3.27	3.60	-0.32	2.87	3.27	-0.40
	715	Overall	3.55	3.80	-0.25			
	716	Overall	3.15	3.44	-0.29			
	717	Overall	3.23	3.58	-0.35	2.99	3.67	-0.68
	718	Overall	3.30	3.61	-0.31	3.07	3.52	-0.45
	719	Overall	3.52	3.78	-0.26	2.72	3.11	-0.39
	720	Overall	3.10	3.38	-0.27	2.95	3.24	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	721	Overall	3.11	3.40	-0.29	3.42	3.72	-0.30
	722	Overall	3.71	4.00	-0.29	3.07	3.50	-0.43
	723	Overall	2.99	3.43	-0.45	3.39	3.57	-0.18
	724	Overall	3.45	3.86	-0.41	3.70	4.02	-0.32
	725	Overall	3.20	3.48	-0.29	3.51	3.94	-0.42
	726	Overall	3.74	3.98	-0.25	3.21	3.62	-0.41
	727	Overall	3.70	4.02	-0.32			
	728	Overall	3.49	3.67	-0.18	3.23	3.51	-0.28
	729	Overall	3.27	3.52	-0.25	3.15	3.52	-0.38
	730	Overall	3.51	3.80	-0.28	3.72	4.15	-0.42
	731	Overall	3.20	3.53	-0.34	3.05	3.28	-0.22
	732	Overall	3.59	3.93	-0.34	3.06	3.21	-0.15
	733	Overall	2.97	3.26	-0.29	3.75	3.99	-0.24
	734	Overall	3.40	3.76	-0.36	2.91	3.18	-0.28
	735	Overall	3.54	3.88	-0.34	3.20	3.53	-0.33
	736	Overall	3.56	3.82	-0.25	2.66	2.95	-0.29
	737	Overall	3.06	3.12	-0.07	3.16	3.60	-0.44
	738	Overall	3.28	3.50	-0.22	2.97	3.26	-0.29
	739	Overall	3.43	3.70	-0.27			
	740	Overall	3.37	3.64	-0.27	3.43	3.74	-0.31

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	741	Overall	3.06	3.44	-0.39	3.76	4.14	-0.38
	742	Overall	3.27	3.67	-0.39	3.38	3.95	-0.57
	743	Overall	3.27	3.60	-0.33	3.39	3.78	-0.39
	744	Overall	3.42	3.59	-0.17	3.06	3.53	-0.47
	745	Overall	3.18	3.38	-0.20	3.76	4.19	-0.43
	746	Overall	3.28	3.51	-0.23	2.69	3.12	-0.43
	747	Overall	3.33	3.59	-0.26	2.92	3.26	-0.34
	748	Overall	3.50	3.75	-0.26	3.84	4.19	-0.35
	749	Overall	3.49	3.82	-0.33	2.55	2.89	-0.34
	750	Overall	3.26	3.42	-0.15	3.06	3.16	-0.10
	751	Overall	3.32	3.69	-0.36	4.08	4.34	-0.26
	752	Overall	2.98	3.45	-0.47	2.78	3.01	-0.23
	753	Overall	3.05	3.38	-0.33	3.41	3.71	-0.30
	754	Overall	3.43	3.75	-0.31	2.95	3.19	-0.25
	755	Overall	3.26	3.46	-0.20	2.95	3.39	-0.44
	756	Overall	3.08	3.47	-0.39	3.05	3.37	-0.33
	757	Overall	3.19	3.55	-0.36	2.66	2.87	-0.21
	758	Overall	3.33	3.73	-0.39	3.57	3.68	-0.10
	759	Overall	3.24	3.44	-0.20	4.28	4.55	-0.27
	760	Overall	3.84	3.96	-0.13	3.48	3.75	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	761	Overall	3.25	3.62	-0.37	3.27	3.43	-0.16
	762	Overall	3.07	3.43	-0.35	3.06	3.35	-0.29
	763	Overall	3.08	3.47	-0.39	3.09	3.57	-0.49
	764	Overall	3.14	3.53	-0.39	2.98	3.20	-0.22
	765	Overall	3.36	3.72	-0.37	3.56	3.91	-0.35
	766	Overall	3.49	3.79	-0.30	2.84	3.32	-0.48
	767	Overall	3.38	3.75	-0.38	2.91	3.16	-0.26
	768	Overall	3.59	3.85	-0.27	3.33	3.91	-0.58
	769	Overall	3.35	3.68	-0.33	3.28	3.58	-0.30
	770	Overall	3.49	3.59	-0.10	3.29	3.59	-0.31
	771	Overall	3.47	3.74	-0.27	3.03	3.26	-0.22
	772	Overall	3.21	3.55	-0.34	3.72	4.21	-0.48
	773	Overall	3.38	3.70	-0.32			
	774	Overall	3.50	3.84	-0.34	3.91	4.25	-0.34
	775	Overall	3.42	3.69	-0.27	3.82	4.19	-0.37
	776	Overall	3.26	3.51	-0.25	3.11	3.44	-0.33
	777	Overall	3.38	3.61	-0.23	3.69	4.08	-0.39
	778	Overall	3.21	3.42	-0.21	3.25	3.56	-0.31
	779	Overall	3.41	3.63	-0.22	3.12	3.17	-0.05
	780	Overall	3.25	3.50	-0.26	3.84	4.20	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	781	Overall	3.33	3.71	-0.38	3.48	3.82	-0.34
	782	Overall	3.54	3.76	-0.22			
	783	Overall	3.28	3.51	-0.23	2.98	3.51	-0.53
	784	Overall	3.09	3.37	-0.27	3.03	3.23	-0.20
	785	Overall	3.54	3.79	-0.25	3.63	3.77	-0.14
	786	Overall	3.55	3.73	-0.18			
	787	Overall	3.34	3.57	-0.22	3.80	4.15	-0.35
	788	Overall	3.34	3.64	-0.31	2.86	3.32	-0.47
	789	Overall	3.34	3.64	-0.30	3.28	3.58	-0.30
	790	Overall	3.26	3.56	-0.30			
	791	Overall	3.49	3.68	-0.19	2.68	3.00	-0.32
	792	Overall	3.37	3.72	-0.35	3.70	4.27	-0.58
	793	Overall	3.20	3.48	-0.29	3.44	3.69	-0.25
	794	Overall	3.45	3.69	-0.24	2.94	3.38	-0.44
	795	Overall	3.03	3.39	-0.36	3.19	3.67	-0.49
	796	Overall	3.31	3.50	-0.19	3.69	4.16	-0.47
	797	Overall	3.37	3.57	-0.19	3.35	3.67	-0.33
	798	Overall	3.61	3.88	-0.26	4.20	4.61	-0.41
	799	Overall	3.48	3.55	-0.07	3.69	4.09	-0.41
	800	Overall	3.29	3.58	-0.30	3.39	3.61	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	801	Overall	3.83	4.05	-0.22	3.69	4.10	-0.40
	802	Overall	3.27	3.56	-0.29			
	803	Overall	3.58	3.91	-0.33	3.95	4.28	-0.33
	804	Overall	3.43	3.70	-0.27	2.84	3.08	-0.24
	805	Overall	3.27	3.63	-0.36	2.82	3.22	-0.39
	806	Overall	3.34	3.55	-0.21	3.47	3.97	-0.50
	807	Overall	3.44	3.80	-0.36	3.00	3.16	-0.16
	808	Overall	3.42	3.56	-0.14	3.75	4.08	-0.33
	809	Overall	3.39	3.69	-0.30	3.73	4.02	-0.29
	810	Overall	3.40	3.48	-0.08	3.31	3.68	-0.37
	811	Overall	3.44	3.64	-0.20	3.19	3.49	-0.30
	812	Overall	3.45	3.61	-0.16	3.34	3.77	-0.43
	813	Overall	3.17	3.50	-0.34	3.06	3.31	-0.25
	814	Overall	3.12	3.54	-0.42	3.37	3.82	-0.45
	815	Overall	3.47	3.74	-0.27	3.00	3.52	-0.52
	816	Overall	3.66	3.88	-0.22	3.36	3.57	-0.21
	817	Overall	3.29	3.69	-0.39	3.41	3.79	-0.37
	818	Overall	3.18	3.53	-0.35	3.59	3.79	-0.20
	819	Overall	3.36	3.63	-0.27	3.19	3.74	-0.55
	820	Overall	3.30	3.50	-0.19	3.03	3.40	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	821	Overall	3.63	3.95	-0.32	3.23	3.53	-0.31
	822	Overall	3.40	3.75	-0.35	3.85	4.05	-0.20
	823	Overall	3.24	3.42	-0.19	3.62	3.94	-0.32
	824	Overall	3.32	3.49	-0.17	2.74	2.92	-0.18
	825	Overall	3.02	3.25	-0.24	3.79	4.12	-0.33
	826	Overall	3.24	3.57	-0.33	3.62	4.23	-0.61
	827	Overall	3.50	3.88	-0.38	3.33	3.51	-0.18
	828	Overall	3.49	3.58	-0.09	3.49	4.01	-0.52
	829	Overall	3.58	3.77	-0.19	3.71	4.09	-0.38
	830	Overall	3.15	3.38	-0.23	3.10	3.38	-0.28
	831	Overall	3.29	3.51	-0.22	3.07	3.32	-0.25
	832	Overall	3.10	3.41	-0.31	3.84	4.39	-0.56
	833	Overall	3.33	3.65	-0.32	3.29	3.56	-0.27
	834	Overall	3.09	3.41	-0.32	3.17	3.35	-0.19
	835	Overall	3.29	3.57	-0.28	3.26	3.51	-0.25
	836	Overall	3.05	3.41	-0.36	2.52	2.93	-0.41
	837	Overall	3.56	3.76	-0.20	2.99	3.19	-0.19
	838	Overall	3.22	3.33	-0.11	2.70	3.14	-0.44
	839	Overall	3.29	3.63	-0.35	3.31	3.43	-0.13
	840	Overall	3.38	3.70	-0.32	3.27	3.59	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	841	Overall	3.52	3.83	-0.31	3.42	3.71	-0.29
	842	Overall	3.20	3.54	-0.34	2.88	3.28	-0.40
	843	Overall	3.47	3.71	-0.24	3.85	3.95	-0.11
	844	Overall	3.37	3.56	-0.19	3.19	3.53	-0.33
	845	Overall	3.45	3.73	-0.28			
	846	Overall	3.64	3.85	-0.21	3.91	4.27	-0.36
	847	Overall	3.19	3.45	-0.25	3.28	3.58	-0.30
	848	Overall	3.28	3.49	-0.21	3.49	3.94	-0.45
	849	Overall	3.46	3.65	-0.19	3.97	4.35	-0.38
	850	Overall	3.45	3.72	-0.27	3.15	3.55	-0.39
	851	Overall	3.05	3.53	-0.48	4.30	4.57	-0.27
	852	Overall	3.20	3.59	-0.39	3.37	3.60	-0.23
	853	Overall	3.12	3.35	-0.22	3.51	3.74	-0.23
	854	Overall	3.48	3.58	-0.09	3.52	3.69	-0.17
	855	Overall	3.24	3.61	-0.37			
	856	Overall	3.42	3.77	-0.35	2.96	3.57	-0.61
	857	Overall	3.32	3.43	-0.11	3.67	4.14	-0.46
	858	Overall	3.37	3.57	-0.20	3.72	3.93	-0.20
	859	Overall	3.31	3.68	-0.37	3.03	3.36	-0.33
	860	Overall	3.17	3.38	-0.21	3.14	3.29	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	861	Overall	3.62	3.80	-0.18			
	862	Overall	3.50	3.78	-0.29	3.78	4.08	-0.30
	863	Overall	3.70	3.99	-0.29	3.09	3.34	-0.25
	864	Overall	3.32	3.58	-0.26	3.05	3.50	-0.44
	865	Overall	3.21	3.54	-0.33	3.04	3.33	-0.29
	866	Overall	3.23	3.63	-0.40	3.01	3.40	-0.39
	867	Overall	3.25	3.56	-0.31	4.29	4.69	-0.40
	868	Overall	3.57	3.75	-0.18	2.72	2.88	-0.16
	869	Overall	3.41	3.75	-0.34	3.67	4.05	-0.38
	870	Overall	3.37	3.53	-0.15	3.31	3.43	-0.12
	871	Overall	3.01	3.25	-0.23	3.07	3.49	-0.41
	872	Overall	3.19	3.42	-0.23	2.93	3.18	-0.25
	873	Overall	3.10	3.23	-0.13	4.04	4.35	-0.30
	874	Overall	3.47	3.88	-0.41	3.44	3.62	-0.18
	875	Overall	3.51	3.82	-0.31	2.91	3.42	-0.51
	876	Overall	2.94	3.27	-0.34	3.01	3.06	-0.05
	877	Overall	3.34	3.77	-0.43	2.63	2.83	-0.20
	878	Overall	3.46	3.62	-0.15	3.27	3.32	-0.05
	879	Overall	3.25	3.38	-0.13	3.34	3.63	-0.29
	880	Overall	3.51	3.92	-0.40	2.35	2.50	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	881	Overall	2.92	3.28	-0.36	3.64	4.15	-0.50
	882	Overall	3.60	3.89	-0.29	3.06	3.37	-0.31
	883	Overall	3.43	3.68	-0.25	3.80	4.30	-0.50
	884	Overall	3.26	3.52	-0.27	3.51	3.80	-0.29
	885	Overall	3.48	3.64	-0.16	3.40	3.62	-0.23
	886	Overall	3.23	3.57	-0.34	3.31	3.85	-0.54
	887	Overall	3.30	3.68	-0.39	4.34	4.51	-0.17
	888	Overall	3.32	3.53	-0.21	3.29	3.65	-0.37
	889	Overall	3.08	3.42	-0.33	2.44	2.79	-0.36
	890	Overall	3.60	3.86	-0.27			
	891	Overall	3.02	3.50	-0.49	3.57	3.79	-0.22
	892	Overall	3.38	3.74	-0.36	3.06	3.34	-0.28
	893	Overall	3.35	3.74	-0.39	3.38	3.42	-0.04
	894	Overall	3.29	3.62	-0.32	3.63	4.05	-0.41
	895	Overall	3.71	3.84	-0.13	3.91	4.15	-0.24
	896	Overall	3.50	3.77	-0.27	2.77	3.20	-0.43
	897	Overall	3.70	3.93	-0.23	3.76	4.06	-0.31
	898	Overall	3.30	3.62	-0.32	3.29	3.65	-0.36
	899	Overall	3.31	3.80	-0.49	2.57	2.90	-0.33
	900	Overall	3.59	3.89	-0.29	3.75	3.99	-0.24

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	901	Overall	3.30	3.66	-0.35	3.73	4.06	-0.32
	902	Overall	3.27	3.54	-0.27	2.73	3.14	-0.41
	903	Overall	3.53	3.68	-0.15	4.23	4.58	-0.35
	904	Overall	3.82	4.02	-0.20	3.52	3.78	-0.27
	905	Overall	3.46	3.81	-0.35			
	906	Overall	3.55	3.71	-0.16	3.76	3.94	-0.17
	907	Overall	3.51	3.92	-0.41	3.94	4.20	-0.27
	908	Overall	3.58	3.85	-0.27			
	909	Overall	3.11	3.49	-0.37	3.12	3.49	-0.37
	910	Overall	3.29	3.59	-0.30	2.83	3.29	-0.46
	911	Overall	3.39	3.64	-0.25	2.61	2.79	-0.18
	912	Overall	3.58	3.84	-0.25	3.65	4.15	-0.50
	913	Overall	3.16	3.53	-0.37	3.52	4.01	-0.49
	914	Overall	3.17	3.47	-0.30	3.54	3.91	-0.36
	915	Overall	3.28	3.36	-0.08	3.03	3.46	-0.43
	916	Overall	3.15	3.40	-0.25	3.46	3.90	-0.44
	917	Overall	3.73	3.95	-0.22	4.40	4.99	-0.59
	918	Overall	3.60	3.94	-0.34	2.88	3.28	-0.40
	919	Overall	3.34	3.55	-0.22	2.54	2.68	-0.13
	920	Overall	2.85	3.04	-0.19	3.38	3.65	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	921	Overall	3.42	3.75	-0.34	3.69	4.17	-0.48
	922	Overall	3.24	3.52	-0.29	2.89	3.06	-0.17
	923	Overall	3.28	3.56	-0.28	3.19	3.38	-0.20
	924	Overall	3.63	3.83	-0.20	3.50	3.67	-0.17
	925	Overall	3.24	3.45	-0.21	2.99	3.26	-0.27
	926	Overall	3.32	3.54	-0.22	2.89	3.12	-0.23
	927	Overall	3.36	3.69	-0.33	2.90	3.05	-0.16
	928	Overall	3.34	3.75	-0.41	3.26	3.64	-0.38
	929	Overall	3.68	3.96	-0.28	3.26	3.51	-0.25
	930	Overall	3.11	3.30	-0.19	3.46	3.94	-0.48
	931	Overall	3.20	3.51	-0.31	3.42	3.63	-0.20
	932	Overall	3.39	3.61	-0.22			
	933	Overall	3.03	3.38	-0.35	2.57	2.88	-0.31
	934	Overall	3.00	3.38	-0.38	2.75	3.05	-0.30
	935	Overall	3.52	3.75	-0.23	2.96	3.19	-0.23
	936	Overall	3.26	3.54	-0.28	3.07	3.54	-0.47
	937	Overall	3.30	3.51	-0.20			
	938	Overall	3.48	3.85	-0.37	3.20	3.63	-0.44
	939	Overall	3.46	3.65	-0.19	2.64	2.91	-0.27
	940	Overall	3.53	3.82	-0.29	3.00	3.14	-0.14

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	941	Overall	3.23	3.56	-0.33			
	942	Overall	3.47	3.78	-0.31	3.08	3.57	-0.49
	943	Overall	3.48	3.75	-0.27	3.38	4.03	-0.65
	944	Overall	3.70	3.97	-0.27			
	945	Overall	3.29	3.63	-0.34	3.10	3.37	-0.27
	946	Overall	3.25	3.54	-0.29	3.11	3.44	-0.33
	947	Overall	3.59	3.86	-0.27	3.78	4.01	-0.22
	948	Overall	3.46	3.76	-0.30	2.84	3.22	-0.38
	949	Overall	3.80	3.99	-0.19	3.18	3.38	-0.19
	950	Overall	3.84	4.11	-0.27	3.00	3.23	-0.23
	951	Overall	3.67	4.02	-0.35	2.76	2.99	-0.23
	952	Overall	3.44	3.71	-0.27	3.80	4.31	-0.51
	953	Overall	3.34	3.66	-0.32	2.95	3.15	-0.20
	954	Overall	3.46	3.81	-0.35	2.90	3.14	-0.24
	955	Overall	3.31	3.78	-0.46	3.33	3.61	-0.28
	956	Overall	3.35	3.72	-0.37	3.01	3.66	-0.65
	957	Overall	3.23	3.64	-0.41	2.81	3.11	-0.30
	958	Overall	3.41	3.70	-0.29	3.23	3.62	-0.40
	959	Overall	3.68	3.90	-0.22	3.35	3.66	-0.31
	960	Overall	3.31	3.56	-0.25	3.65	4.25	-0.60

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	961	Overall	3.59	3.81	-0.22	3.65	4.15	-0.51
	962	Overall	3.03	3.33	-0.30	2.92	3.35	-0.43
	963	Overall	3.24	3.54	-0.30	3.09	3.22	-0.13
	964	Overall	3.33	3.59	-0.27	2.73	3.09	-0.36
	965	Overall	3.44	3.72	-0.28	3.59	3.87	-0.28
	966	Overall	3.54	3.79	-0.25	3.80	4.18	-0.37
	967	Overall	3.38	3.69	-0.31	3.17	3.61	-0.44
	968	Overall	3.56	3.86	-0.30	2.88	3.40	-0.52
	969	Overall	3.40	3.57	-0.17	3.39	3.90	-0.51
	970	Overall	3.33	3.65	-0.33	2.86	3.31	-0.45
	971	Overall	3.79	4.07	-0.27	3.53	3.83	-0.30
	972	Overall	3.27	3.63	-0.36	3.97	4.05	-0.09
	973	Overall	3.14	3.41	-0.27	3.38	3.73	-0.35
	974	Overall	3.38	3.61	-0.22	3.81	3.90	-0.08
	975	Overall	3.12	3.49	-0.36	2.57	2.80	-0.24
	976	Overall	3.39	3.73	-0.35	2.70	2.85	-0.15
	977	Overall	3.34	3.67	-0.34	3.88	4.20	-0.32
	978	Overall	3.42	3.72	-0.30	3.96	4.34	-0.38
	979	Overall	3.25	3.43	-0.17	2.97	3.39	-0.41
	980	Overall	3.62	3.94	-0.32	3.00	3.28	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	981	Overall	3.22	3.51	-0.29	4.13	4.46	-0.33
	982	Overall	3.36	3.57	-0.21			
	983	Overall	3.13	3.42	-0.30	3.00	3.37	-0.37
	984	Overall	3.35	3.79	-0.44	3.06	3.56	-0.50
	985	Overall	3.34	3.67	-0.32	2.78	3.10	-0.32
	986	Overall	3.37	3.59	-0.22	3.22	3.71	-0.48
	987	Overall	3.68	3.93	-0.25	3.57	3.98	-0.40
	988	Overall	3.31	3.54	-0.22	3.59	3.80	-0.22
	989	Overall	3.13	3.45	-0.32	3.16	3.37	-0.21
	990	Overall	3.30	3.53	-0.23	3.61	3.94	-0.32
	991	Overall	3.35	3.61	-0.26	2.66	3.13	-0.48
	992	Overall	3.32	3.55	-0.23	3.57	3.94	-0.37
	993	Overall	3.68	3.94	-0.26	2.97	3.51	-0.54
	994	Overall	3.13	3.46	-0.33	3.23	3.81	-0.59
	995	Overall	3.18	3.55	-0.37	3.31	3.62	-0.31
	996	Overall	3.55	3.82	-0.28	3.20	3.73	-0.52
	997	Overall	3.45	3.78	-0.33	2.94	3.24	-0.30
	998	Overall	2.94	3.23	-0.29	2.78	2.96	-0.18
	999	Overall	3.33	3.52	-0.18	4.05	4.32	-0.27
	1000	Overall	3.55	3.95	-0.40	3.94	4.19	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1001	Overall	3.15	3.44	-0.29	3.37	3.65	-0.28
	1002	Overall	3.07	3.51	-0.43	3.43	3.94	-0.51
	1003	Overall	3.60	3.96	-0.36	3.99	4.43	-0.43
	1004	Overall	3.41	3.69	-0.28	2.94	3.26	-0.32
	1005	Overall	3.42	3.62	-0.20	3.46	3.84	-0.38
	1006	Overall	3.16	3.55	-0.39	3.94	4.39	-0.45
	1007	Overall	3.40	3.71	-0.31	2.95	3.46	-0.52
	1008	Overall	3.28	3.56	-0.28			
	1009	Overall	3.39	3.58	-0.19	3.64	3.96	-0.32
	1010	Overall	3.51	4.00	-0.49	3.51	4.13	-0.62
	1011	Overall	3.39	3.78	-0.39	3.33	3.66	-0.33
	1012	Overall	3.17	3.58	-0.41	2.64	2.84	-0.20
	1013	Overall	3.30	3.39	-0.09	3.84	4.12	-0.28
	1014	Overall	3.29	3.35	-0.06	2.90	3.24	-0.34
	1015	Overall	3.44	3.76	-0.31	3.50	3.67	-0.17
	1016	Overall	3.50	3.78	-0.28	3.67	4.19	-0.52
	1017	Overall	3.32	3.42	-0.10	3.09	3.65	-0.56
	1018	Overall	3.29	3.63	-0.34	2.90	3.12	-0.21
	1019	Overall	3.37	3.51	-0.15			
	1020	Overall	3.60	3.88	-0.28	2.66	2.78	-0.12

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1021	Overall	3.33	3.47	-0.14	3.17	3.73	-0.56
	1022	Overall	3.40	3.68	-0.28	2.83	3.18	-0.35
	1023	Overall	3.56	3.79	-0.24	3.09	3.30	-0.21
	1024	Overall	3.48	3.71	-0.24	3.71	4.04	-0.32
	1025	Overall	3.21	3.46	-0.25	2.97	3.22	-0.24
	1026	Overall	3.14	3.55	-0.42	3.28	3.68	-0.39
	1027	Overall	3.54	3.76	-0.22	3.66	4.00	-0.35
	1028	Overall	3.48	3.57	-0.09	3.12	3.35	-0.23
	1029	Overall	3.39	3.73	-0.33	3.44	3.53	-0.08
	1030	Overall	3.15	3.54	-0.39	2.20	2.40	-0.20
	1031	Overall	3.55	3.88	-0.33	3.16	3.51	-0.35
	1032	Overall	3.43	3.66	-0.23	3.12	3.44	-0.32
	1033	Overall	3.36	3.60	-0.23	3.20	3.42	-0.22
	1034	Overall	3.39	3.66	-0.27	3.40	3.73	-0.33
	1035	Overall	3.69	3.95	-0.26	3.12	3.43	-0.31
	1036	Overall	3.40	3.66	-0.26	3.22	3.81	-0.58
	1037	Overall	3.12	3.42	-0.30	3.12	3.27	-0.15
	1038	Overall	3.29	3.51	-0.23	3.33	3.49	-0.16
	1039	Overall	3.28	3.50	-0.23	2.23	2.38	-0.15
	1040	Overall	3.60	3.77	-0.17	3.12	3.64	-0.52

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1041	Overall	3.59	3.84	-0.25	2.48	2.75	-0.28
	1042	Overall	3.55	3.80	-0.25	3.04	3.37	-0.34
	1043	Overall	3.36	3.58	-0.23	3.61	3.79	-0.18
	1044	Overall	3.43	3.74	-0.31	3.58	3.74	-0.16
	1045	Overall	3.37	3.57	-0.20	2.56	2.82	-0.26
	1046	Overall	2.99	3.36	-0.37	3.73	4.25	-0.53
	1047	Overall	3.01	3.36	-0.34	2.98	3.14	-0.16
	1048	Overall	3.32	3.67	-0.35	3.04	3.51	-0.47
	1049	Overall	3.29	3.61	-0.33	3.77	4.28	-0.51
	1050	Overall	3.40	3.46	-0.06	3.13	3.44	-0.30
	1051	Overall	3.22	3.62	-0.41	3.83	4.09	-0.26
	1052	Overall	3.39	3.57	-0.18	3.46	3.74	-0.28
	1053	Overall	3.00	3.20	-0.20	3.03	3.52	-0.49
	1054	Overall	3.27	3.49	-0.23	3.40	3.61	-0.21
	1055	Overall	3.16	3.51	-0.35	3.07	3.27	-0.20
	1056	Overall	3.10	3.39	-0.29	3.37	3.67	-0.29
	1057	Overall	3.75	4.17	-0.42	3.52	4.03	-0.51
	1058	Overall	3.09	3.51	-0.41	3.38	3.50	-0.12
	1059	Overall	3.27	3.50	-0.23	3.85	4.37	-0.52
	1060	Overall	3.76	3.91	-0.15	3.16	3.27	-0.11

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1061	Overall	3.15	3.49	-0.33	3.24	3.65	-0.41
	1062	Overall	3.33	3.66	-0.33	3.58	3.99	-0.40
	1063	Overall	3.39	3.74	-0.34	2.80	3.20	-0.40
	1064	Overall	3.50	3.85	-0.34	3.39	3.60	-0.22
	1065	Overall	3.33	3.68	-0.35	3.80	4.20	-0.40
	1066	Overall	3.36	3.73	-0.36	3.34	3.70	-0.36
	1067	Overall	3.53	3.67	-0.15	4.50	4.96	-0.45
	1068	Overall	3.36	3.74	-0.39	4.60	5.06	-0.46
	1069	Overall	3.36	3.72	-0.35	3.56	4.15	-0.59
	1070	Overall	3.27	3.57	-0.30	2.92	3.22	-0.30
	1071	Overall	3.42	3.77	-0.35	3.49	3.81	-0.32
	1072	Overall	3.49	3.80	-0.31	3.19	3.56	-0.37
	1073	Overall	3.34	3.50	-0.17	3.41	3.88	-0.47
	1074	Overall	3.33	3.63	-0.30	3.64	4.00	-0.36
	1075	Overall	3.36	3.66	-0.31	3.00	3.44	-0.44
	1076	Overall	3.14	3.49	-0.35	2.57	2.74	-0.16
	1077	Overall	3.49	3.78	-0.29	3.65	3.88	-0.23
	1078	Overall	3.57	3.71	-0.14	3.07	3.48	-0.41
	1079	Overall	3.51	3.62	-0.11	3.33	3.57	-0.24
	1080	Overall	3.21	3.56	-0.35	3.32	3.62	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1081	Overall	3.24	3.61	-0.38	3.41	3.80	-0.39
	1082	Overall	3.46	3.76	-0.29	3.17	3.70	-0.53
	1083	Overall	3.45	3.66	-0.21	3.98	4.31	-0.34
	1084	Overall	3.37	3.62	-0.25	3.38	3.72	-0.34
	1085	Overall	3.29	3.48	-0.18	2.88	2.93	-0.05
	1086	Overall	3.50	3.57	-0.07	2.61	2.96	-0.36
	1087	Overall	3.30	3.53	-0.23	3.66	3.93	-0.26
	1088	Overall	3.65	4.04	-0.39	2.98	3.39	-0.41
	1089	Overall	3.31	3.55	-0.24	3.15	3.44	-0.29
	1090	Overall	3.49	3.67	-0.19	3.40	3.75	-0.35
	1091	Overall	3.45	3.74	-0.29	3.37	3.55	-0.18
	1092	Overall	3.34	3.51	-0.17	2.94	3.25	-0.31
	1093	Overall	3.30	3.64	-0.34	3.85	4.13	-0.28
	1094	Overall	3.74	3.96	-0.22	2.95	3.15	-0.20
	1095	Overall	3.41	3.69	-0.29	3.28	3.58	-0.31
	1096	Overall	3.43	3.56	-0.14	3.40	3.70	-0.30
	1097	Overall	3.24	3.58	-0.35	2.63	3.05	-0.42
	1098	Overall	3.36	3.60	-0.24	3.71	4.16	-0.46
	1099	Overall	3.61	3.73	-0.13	3.36	3.63	-0.27
	1100	Overall	3.42	3.76	-0.33	3.05	3.45	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1101	Overall	3.30	3.46	-0.15	3.57	3.80	-0.23
	1102	Overall	3.42	3.84	-0.42	3.20	3.65	-0.44
	1103	Overall	3.05	3.46	-0.41	2.76	3.36	-0.60
	1104	Overall	3.20	3.53	-0.34	3.69	4.16	-0.46
	1105	Overall	3.35	3.56	-0.21	2.98	3.06	-0.08
	1106	Overall	3.23	3.53	-0.30	2.72	2.99	-0.27
	1107	Overall	3.10	3.39	-0.29	3.14	3.49	-0.35
	1108	Overall	3.56	3.74	-0.18	3.56	3.89	-0.32
	1109	Overall	3.44	3.82	-0.38	3.52	3.84	-0.32
	1110	Overall	3.51	3.74	-0.24	3.27	3.52	-0.25
	1111	Overall	3.29	3.55	-0.26	3.84	4.18	-0.34
	1112	Overall	3.55	3.71	-0.17	3.39	3.73	-0.34
	1113	Overall	3.42	3.63	-0.21	4.10	4.41	-0.30
	1114	Overall	3.55	3.80	-0.25	3.02	3.48	-0.46
	1115	Overall	3.22	3.51	-0.28	3.29	3.61	-0.31
	1116	Overall	3.21	3.66	-0.45	2.63	3.00	-0.37
	1117	Overall	3.44	3.76	-0.32	3.40	3.60	-0.20
	1118	Overall	3.32	3.43	-0.11	3.77	3.98	-0.20
	1119	Overall	3.28	3.43	-0.15	3.34	3.70	-0.36
	1120	Overall	3.33	3.66	-0.32	2.94	3.19	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1121	Overall	3.37	3.68	-0.31	3.02	3.56	-0.55
	1122	Overall	3.27	3.56	-0.29	2.85	3.16	-0.31
	1123	Overall	3.33	3.65	-0.32	2.27	2.71	-0.44
	1124	Overall	3.57	3.74	-0.17	3.24	3.51	-0.27
	1125	Overall	3.23	3.63	-0.40	3.22	3.65	-0.44
	1126	Overall	3.32	3.77	-0.45	2.58	2.94	-0.36
	1127	Overall	3.17	3.58	-0.41	3.21	3.62	-0.41
	1128	Overall	3.18	3.61	-0.42	3.25	3.64	-0.39
	1129	Overall	3.55	3.78	-0.22	2.92	3.26	-0.33
	1130	Overall	3.25	3.43	-0.19	3.42	3.84	-0.42
	1131	Overall	3.33	3.53	-0.20	3.17	3.48	-0.30
	1132	Overall	3.24	3.40	-0.16			
	1133	Overall	3.34	3.79	-0.45	3.08	3.59	-0.51
	1134	Overall	3.34	3.66	-0.32	3.26	3.61	-0.35
	1135	Overall	3.37	3.57	-0.20	2.89	3.34	-0.45
	1136	Overall	3.32	3.51	-0.19	3.69	4.13	-0.44
	1137	Overall	3.26	3.60	-0.34	3.12	3.39	-0.27
	1138	Overall	3.16	3.45	-0.29	3.18	3.43	-0.25
	1139	Overall	3.54	3.78	-0.24	3.06	3.47	-0.41
	1140	Overall	3.32	3.60	-0.29	3.31	3.78	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1141	Overall	3.14	3.62	-0.48	2.75	3.03	-0.28
	1142	Overall	3.41	3.68	-0.27	2.78	3.01	-0.23
	1143	Overall	3.40	3.63	-0.24	2.95	3.42	-0.47
	1144	Overall	3.53	3.68	-0.15	3.99	4.57	-0.58
	1145	Overall	3.35	3.78	-0.42	3.57	3.86	-0.29
	1146	Overall	3.65	3.93	-0.28			
	1147	Overall	3.65	4.06	-0.41	2.96	3.25	-0.29
	1148	Overall	3.26	3.83	-0.56	3.69	3.95	-0.26
	1149	Overall	3.15	3.50	-0.35	2.95	3.39	-0.45
	1150	Overall	3.67	3.89	-0.21	3.34	3.71	-0.37
	1151	Overall	3.25	3.35	-0.10	3.32	3.58	-0.27
	1152	Overall	3.42	3.70	-0.28	3.53	3.99	-0.46
	1153	Overall	3.52	3.76	-0.24	2.89	3.02	-0.13
	1154	Overall	2.96	3.47	-0.51	3.45	3.82	-0.36
	1155	Overall	3.17	3.49	-0.33	2.95	3.32	-0.37
	1156	Overall	3.22	3.58	-0.36	3.14	3.43	-0.30
	1157	Overall	3.53	3.75	-0.22	3.70	3.99	-0.29
	1158	Overall	3.39	3.74	-0.35	3.55	3.84	-0.29
	1159	Overall	3.55	3.80	-0.25	3.49	3.90	-0.41
	1160	Overall	2.88	3.37	-0.49	3.74	4.19	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1161	Overall	3.22	3.36	-0.14	4.03	4.35	-0.32
	1162	Overall	3.51	3.74	-0.23	2.52	2.85	-0.33
	1163	Overall	3.69	3.87	-0.18	3.56	3.97	-0.41
	1164	Overall	3.55	3.75	-0.20	3.29	3.58	-0.29
	1165	Overall	3.56	3.93	-0.38	3.65	4.09	-0.44
	1166	Overall	3.65	4.01	-0.36	3.57	3.91	-0.34
	1167	Overall	3.21	3.56	-0.34	3.25	3.34	-0.09
	1168	Overall	3.07	3.25	-0.18	3.31	3.72	-0.40
	1169	Overall	3.34	3.63	-0.29	2.82	3.06	-0.24
	1170	Overall	3.32	3.72	-0.40	2.93	3.28	-0.35
	1171	Overall	3.23	3.54	-0.32	3.56	4.07	-0.51
	1172	Overall	3.08	3.52	-0.44	3.94	4.45	-0.51
	1173	Overall	3.47	3.69	-0.22	3.27	3.54	-0.27
	1174	Overall	3.56	3.76	-0.20	2.71	3.08	-0.37
	1175	Overall	3.27	3.70	-0.43	3.11	3.45	-0.34
	1176	Overall	3.40	3.68	-0.28	3.57	3.87	-0.30
	1177	Overall	3.14	3.45	-0.31	3.16	3.41	-0.25
	1178	Overall	3.74	3.92	-0.18	3.72	4.17	-0.45
	1179	Overall	3.80	4.20	-0.39	2.90	3.09	-0.19
	1180	Overall	3.32	3.53	-0.21	3.00	3.32	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1181	Overall	3.34	3.66	-0.33			
	1182	Overall	3.29	3.67	-0.39			
	1183	Overall	3.06	3.48	-0.42	3.08	3.21	-0.13
	1184	Overall	3.42	3.81	-0.39	2.92	3.23	-0.31
	1185	Overall	3.27	3.54	-0.27	3.20	3.45	-0.25
	1186	Overall	3.35	3.66	-0.30	3.42	3.54	-0.12
	1187	Overall	3.54	3.86	-0.32	3.06	3.28	-0.22
	1188	Overall	3.06	3.33	-0.27	3.63	3.84	-0.21
	1189	Overall	2.97	3.14	-0.17	3.63	3.84	-0.21
	1190	Overall	3.52	3.86	-0.35	3.18	3.58	-0.40
	1191	Overall	3.38	3.63	-0.25	3.23	3.50	-0.28
	1192	Overall	3.46	3.82	-0.36	3.31	3.59	-0.28
	1193	Overall	3.11	3.50	-0.39	3.66	4.01	-0.34
	1194	Overall	3.25	3.49	-0.24	3.39	3.83	-0.44
	1195	Overall	3.63	3.92	-0.29	3.09	3.61	-0.52
	1196	Overall	3.38	3.70	-0.31	2.96	3.38	-0.41
	1197	Overall	3.18	3.52	-0.34	2.67	3.00	-0.33
	1198	Overall	3.33	3.68	-0.35	3.73	4.26	-0.53
	1199	Overall	3.32	3.69	-0.37	3.21	3.43	-0.22
	1200	Overall	3.59	3.87	-0.28	3.71	3.96	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1201	Overall	3.25	3.47	-0.21	3.39	3.68	-0.29
	1202	Overall	3.15	3.66	-0.50	3.96	4.40	-0.44
	1203	Overall	3.37	3.55	-0.18	3.84	4.10	-0.26
	1204	Overall	3.30	3.46	-0.16	4.15	4.41	-0.26
	1205	Overall	3.48	3.60	-0.12	3.58	3.72	-0.15
	1206	Overall	3.36	3.71	-0.35	3.81	4.04	-0.22
	1207	Overall	2.93	3.23	-0.30	3.80	4.06	-0.26
	1208	Overall	3.22	3.51	-0.28	2.54	2.77	-0.24
	1209	Overall	3.20	3.41	-0.20	2.98	3.37	-0.40
	1210	Overall	3.55	3.84	-0.29	3.05	3.33	-0.27
	1211	Overall	3.62	3.87	-0.25	4.15	4.44	-0.29
	1212	Overall	3.15	3.44	-0.29	3.22	3.65	-0.43
	1213	Overall	3.35	3.59	-0.25	3.43	3.74	-0.32
	1214	Overall	3.37	3.70	-0.33	3.30	3.46	-0.17
	1215	Overall	3.50	3.76	-0.26	3.26	3.62	-0.36
	1216	Overall	3.04	3.33	-0.29	3.15	3.56	-0.41
	1217	Overall	3.10	3.44	-0.34	2.77	3.13	-0.36
	1218	Overall	3.26	3.55	-0.29	3.07	3.66	-0.60
	1219	Overall	3.48	3.79	-0.31	3.83	4.28	-0.45
	1220	Overall	3.19	3.26	-0.08	2.68	2.98	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1221	Overall	3.73	3.88	-0.15	3.87	4.23	-0.36
	1222	Overall	3.06	3.29	-0.23	3.61	3.91	-0.30
	1223	Overall	3.59	3.81	-0.22	3.90	4.40	-0.50
	1224	Overall	3.38	3.63	-0.25	2.96	3.47	-0.51
	1225	Overall	3.31	3.59	-0.28	3.64	3.94	-0.30
	1226	Overall	3.83	4.02	-0.19	3.45	3.86	-0.40
	1227	Overall	3.42	3.76	-0.33	3.60	3.81	-0.21
	1228	Overall	3.27	3.62	-0.36	3.13	3.57	-0.45
	1229	Overall	3.43	3.68	-0.25	3.41	3.64	-0.23
	1230	Overall	3.19	3.35	-0.16	3.62	3.89	-0.28
	1231	Overall	3.53	3.69	-0.16	3.20	3.54	-0.33
	1232	Overall	3.40	3.60	-0.20	3.15	3.58	-0.43
	1233	Overall	3.33	3.54	-0.21	3.12	3.41	-0.30
	1234	Overall	3.22	3.49	-0.27	3.22	3.64	-0.41
	1235	Overall	3.08	3.28	-0.19	3.23	3.59	-0.36
	1236	Overall	3.53	3.87	-0.34	2.83	3.19	-0.35
	1237	Overall	3.28	3.73	-0.45			
	1238	Overall	3.04	3.60	-0.56	3.19	3.48	-0.29
	1239	Overall	3.71	3.91	-0.21	2.73	3.22	-0.49
	1240	Overall	3.41	3.59	-0.18	3.34	3.59	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1241	Overall	3.29	3.61	-0.31	3.38	3.78	-0.41
	1242	Overall	3.73	4.06	-0.33	3.32	3.51	-0.19
	1243	Overall	3.20	3.50	-0.30	3.82	4.16	-0.33
	1244	Overall	3.32	3.46	-0.14	2.77	2.93	-0.16
	1245	Overall	3.28	3.65	-0.38	2.84	3.07	-0.23
	1246	Overall	3.34	3.65	-0.31	4.04	4.24	-0.20
	1247	Overall	3.30	3.59	-0.29	3.68	4.02	-0.34
	1248	Overall	3.33	3.66	-0.33	2.86	3.15	-0.29
	1249	Overall	3.42	3.59	-0.17	3.67	4.07	-0.40
	1250	Overall	3.11	3.47	-0.36	2.64	2.93	-0.29
	1251	Overall	3.59	3.72	-0.13	3.53	3.70	-0.17
	1252	Overall	3.54	3.87	-0.34	3.27	3.43	-0.16
	1253	Overall	3.49	3.80	-0.32	3.97	4.40	-0.43
	1254	Overall	3.26	3.57	-0.31	2.23	2.43	-0.20
	1255	Overall	3.35	3.75	-0.40	2.67	3.04	-0.37
	1256	Overall	3.22	3.43	-0.20	3.61	3.91	-0.31
	1257	Overall	3.56	3.89	-0.33	3.06	3.49	-0.43
	1258	Overall	3.49	3.73	-0.24	2.92	3.24	-0.32
	1259	Overall	3.45	3.85	-0.40	3.27	3.53	-0.26
	1260	Overall	3.59	3.74	-0.15			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1261	Overall	3.36	3.76	-0.40	2.99	3.37	-0.37
	1262	Overall	3.37	3.57	-0.20	3.77	4.15	-0.38
	1263	Overall	3.17	3.54	-0.37	3.04	3.44	-0.40
	1264	Overall	3.72	3.97	-0.25	3.29	3.59	-0.31
	1265	Overall	3.56	3.83	-0.27	3.25	3.53	-0.28
	1266	Overall	3.10	3.50	-0.40	2.42	2.86	-0.43
	1267	Overall	3.16	3.43	-0.27	3.53	3.82	-0.29
	1268	Overall	3.62	3.76	-0.13	3.38	3.65	-0.27
	1269	Overall	3.23	3.49	-0.26	3.55	3.93	-0.38
	1270	Overall	3.43	3.71	-0.28	4.07	4.27	-0.20
	1271	Overall	3.46	3.68	-0.22	3.32	3.77	-0.45
	1272	Overall	3.03	3.26	-0.23	2.73	3.28	-0.55
	1273	Overall	3.33	3.55	-0.22	2.97	3.33	-0.36
	1274	Overall	3.14	3.38	-0.24	3.66	4.12	-0.46
	1275	Overall	3.22	3.54	-0.33			
	1276	Overall	3.34	3.64	-0.30	3.39	3.62	-0.23
	1277	Overall	3.05	3.39	-0.34	2.68	3.10	-0.42
	1278	Overall	3.33	3.58	-0.25	3.48	3.68	-0.21
	1279	Overall	2.89	3.34	-0.45	2.78	2.99	-0.21
	1280	Overall	3.17	3.48	-0.31	3.14	3.76	-0.62

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1281	Overall	3.19	3.51	-0.32	3.40	3.77	-0.37
	1282	Overall	3.18	3.47	-0.29	3.31	3.82	-0.50
	1283	Overall	3.34	3.53	-0.18	3.47	3.81	-0.34
	1284	Overall	3.07	3.52	-0.45			
	1285	Overall	3.27	3.59	-0.32	3.84	4.30	-0.46
	1286	Overall	3.42	3.75	-0.33	3.58	3.91	-0.33
	1287	Overall	3.51	3.70	-0.19	3.31	3.58	-0.27
	1288	Overall	3.43	3.83	-0.40	3.67	4.12	-0.45
	1289	Overall	3.13	3.43	-0.30	3.36	3.58	-0.21
	1290	Overall	3.58	3.81	-0.22	3.83	4.28	-0.45
	1291	Overall	3.45	3.86	-0.41	3.65	3.83	-0.18
	1292	Overall	3.25	3.55	-0.29	3.57	4.12	-0.55
	1293	Overall	3.29	3.44	-0.15	3.84	4.30	-0.46
	1294	Overall	3.38	3.48	-0.10	3.61	4.05	-0.44
	1295	Overall	3.27	3.51	-0.25	3.38	3.96	-0.58
	1296	Overall	3.50	3.96	-0.46	4.28	4.63	-0.35
	1297	Overall	3.06	3.29	-0.23	3.68	4.23	-0.54
	1298	Overall	3.27	3.64	-0.37	3.55	3.80	-0.24
	1299	Overall	3.50	3.84	-0.34	3.24	3.51	-0.27
	1300	Overall	3.28	3.52	-0.24	3.59	3.79	-0.20

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1301	Overall	3.49	3.77	-0.28	3.12	3.50	-0.38
	1302	Overall	3.36	3.71	-0.35	3.25	3.59	-0.33
	1303	Overall	3.37	3.45	-0.08	3.55	3.84	-0.29
	1304	Overall	3.44	3.79	-0.35	2.66	2.92	-0.25
	1305	Overall	3.64	4.05	-0.42	3.81	4.06	-0.25
	1306	Overall	3.03	3.24	-0.20	3.23	3.69	-0.46
	1307	Overall	3.41	3.74	-0.33	3.72	4.19	-0.47
	1308	Overall	3.70	3.97	-0.26	3.68	4.09	-0.41
	1309	Overall	3.00	3.26	-0.27	3.08	3.43	-0.35
	1310	Overall	3.60	3.92	-0.32	3.61	3.84	-0.23
	1311	Overall	3.26	3.57	-0.31	3.10	3.34	-0.24
	1312	Overall	3.33	3.73	-0.40	3.37	3.61	-0.24
	1313	Overall	3.21	3.45	-0.24	2.69	2.87	-0.18
	1314	Overall	3.66	4.03	-0.37	3.63	4.04	-0.41
	1315	Overall	3.57	3.86	-0.29	3.86	4.25	-0.39
	1316	Overall	3.30	3.60	-0.29	3.87	4.23	-0.37
	1317	Overall	3.09	3.38	-0.29	3.28	3.51	-0.23
	1318	Overall	3.57	3.75	-0.18	3.41	3.90	-0.48
	1319	Overall	3.29	3.63	-0.34	3.75	4.24	-0.49
	1320	Overall	3.22	3.45	-0.23	4.02	4.30	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1321	Overall	3.42	3.68	-0.26	3.40	3.66	-0.26
	1322	Overall	3.52	3.77	-0.25	3.10	3.53	-0.43
	1323	Overall	3.36	3.70	-0.34	4.09	4.49	-0.41
	1324	Overall	3.68	3.95	-0.27	3.36	3.92	-0.56
	1325	Overall	3.43	3.67	-0.24	3.26	3.43	-0.17
	1326	Overall	3.01	3.20	-0.19	3.28	3.81	-0.53
	1327	Overall	3.53	3.67	-0.13	2.99	3.39	-0.40
	1328	Overall	3.51	3.74	-0.23	3.14	3.30	-0.17
	1329	Overall	3.45	3.56	-0.11	3.65	4.21	-0.55
	1330	Overall	3.55	3.77	-0.22	3.16	3.71	-0.55
	1331	Overall	3.63	3.88	-0.25	2.89	2.93	-0.04
	1332	Overall	3.48	3.93	-0.45	3.67	4.03	-0.36
	1333	Overall	3.11	3.47	-0.36	2.91	3.11	-0.19
	1334	Overall	2.87	3.19	-0.32	2.46	2.71	-0.25
	1335	Overall	3.27	3.57	-0.30	2.81	3.35	-0.54
	1336	Overall	3.27	3.52	-0.24	3.90	4.21	-0.31
	1337	Overall	3.41	3.66	-0.26	3.12	3.58	-0.46
	1338	Overall	3.23	3.44	-0.21	4.28	4.55	-0.27
	1339	Overall	3.68	3.91	-0.23	4.48	4.71	-0.23
	1340	Overall	3.46	3.66	-0.20	3.30	3.52	-0.23

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1341	Overall	3.37	3.57	-0.21	3.38	3.85	-0.47
	1342	Overall	3.22	3.66	-0.44	3.57	3.91	-0.34
	1343	Overall	3.43	3.71	-0.29	3.61	4.06	-0.46
	1344	Overall	3.29	3.59	-0.30	3.74	4.18	-0.44
	1345	Overall	3.05	3.40	-0.35	4.39	4.74	-0.35
	1346	Overall	3.22	3.65	-0.43	3.22	3.59	-0.37
	1347	Overall	3.15	3.35	-0.20	3.57	4.08	-0.51
	1348	Overall	3.35	3.61	-0.26	3.35	3.71	-0.36
	1349	Overall	3.50	3.67	-0.17	2.85	3.19	-0.35
	1350	Overall	3.48	3.62	-0.13	3.53	3.79	-0.25
	1351	Overall	3.31	3.63	-0.32	3.66	4.07	-0.41
	1352	Overall	3.53	3.84	-0.31	3.19	3.39	-0.20
	1353	Overall	3.46	3.75	-0.29	3.20	3.62	-0.42
	1354	Overall	3.38	3.64	-0.26	2.73	3.20	-0.47
	1355	Overall	3.33	3.72	-0.39	3.54	3.78	-0.25
	1356	Overall	3.27	3.62	-0.35	3.92	4.45	-0.54
	1357	Overall	3.51	3.66	-0.15	3.40	3.90	-0.49
	1358	Overall	2.87	3.35	-0.48	3.39	3.80	-0.41
	1359	Overall	3.38	3.81	-0.43	3.89	4.19	-0.30
	1360	Overall	3.01	3.23	-0.22	3.18	3.48	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1361	Overall	3.23	3.65	-0.41	3.42	3.85	-0.43
	1362	Overall	3.25	3.52	-0.27	3.92	4.17	-0.24
	1363	Overall	3.15	3.26	-0.11			
	1364	Overall	3.46	3.84	-0.38	3.10	3.33	-0.24
	1365	Overall	3.28	3.52	-0.24	3.70	3.98	-0.28
	1366	Overall	3.39	3.70	-0.31	3.08	3.64	-0.57
	1367	Overall	3.09	3.40	-0.31	3.44	3.90	-0.46
	1368	Overall	3.26	3.71	-0.45	2.75	3.05	-0.30
	1369	Overall	3.17	3.41	-0.24	3.25	3.48	-0.24
	1370	Overall	3.41	3.67	-0.26	3.76	4.04	-0.28
	1371	Overall	3.72	4.03	-0.32			
	1372	Overall	3.44	3.51	-0.07	3.74	4.11	-0.38
	1373	Overall	3.26	3.49	-0.22	3.05	3.34	-0.29
	1374	Overall	3.61	3.76	-0.14	3.47	3.89	-0.42
	1375	Overall	3.36	3.71	-0.35	2.70	3.02	-0.32
	1376	Overall	3.44	3.92	-0.48	3.10	3.52	-0.42
	1377	Overall	3.50	3.75	-0.25	3.14	3.59	-0.45
	1378	Overall	3.69	3.97	-0.29			
	1379	Overall	3.61	3.81	-0.20	3.36	3.54	-0.18
	1380	Overall	3.40	3.79	-0.39	3.48	3.90	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1381	Overall	3.27	3.58	-0.31	3.17	3.54	-0.37
	1382	Overall	3.37	3.66	-0.30	3.42	3.68	-0.27
	1383	Overall	3.26	3.48	-0.21	2.91	3.13	-0.22
	1384	Overall	3.47	3.77	-0.30	3.16	3.39	-0.23
	1385	Overall	3.38	3.50	-0.12			
	1386	Overall	3.37	3.74	-0.37	3.37	3.77	-0.39
	1387	Overall	3.38	3.55	-0.18	3.23	3.62	-0.39
	1388	Overall	3.23	3.44	-0.21	3.20	3.77	-0.58
	1389	Overall	3.17	3.40	-0.23	2.90	3.28	-0.38
	1390	Overall	3.44	3.74	-0.29			
	1391	Overall	3.46	3.66	-0.20	3.08	3.32	-0.24
	1392	Overall	3.18	3.49	-0.31	3.62	3.99	-0.37
	1393	Overall	3.04	3.43	-0.39	3.38	3.94	-0.56
	1394	Overall	3.80	4.05	-0.26	3.13	3.29	-0.15
	1395	Overall	3.29	3.61	-0.32	2.70	3.11	-0.41
	1396	Overall	3.54	3.81	-0.27	3.42	3.80	-0.38
	1397	Overall	3.21	3.60	-0.39	3.73	4.13	-0.41
	1398	Overall	3.31	3.60	-0.29	3.60	3.80	-0.20
	1399	Overall	3.23	3.60	-0.37	2.91	3.15	-0.24
	1400	Overall	3.35	3.54	-0.19	3.16	3.43	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1401	Overall	3.17	3.39	-0.22	3.31	3.72	-0.41
	1402	Overall	3.24	3.61	-0.38	3.41	3.73	-0.31
	1403	Overall	3.35	3.59	-0.24	3.48	4.00	-0.52
	1404	Overall	3.33	3.60	-0.27	2.79	3.01	-0.22
	1405	Overall	3.11	3.39	-0.28	3.07	3.49	-0.42
	1406	Overall	3.62	3.83	-0.22	3.50	3.85	-0.35
	1407	Overall	3.23	3.61	-0.38	2.76	3.10	-0.34
	1408	Overall	3.43	3.55	-0.13	3.55	4.11	-0.56
	1409	Overall	3.40	3.70	-0.30	3.78	4.27	-0.48
	1410	Overall	3.12	3.49	-0.37	2.64	3.05	-0.41
	1411	Overall	3.46	3.70	-0.24	3.57	3.95	-0.38
	1412	Overall	3.32	3.56	-0.24	3.36	3.79	-0.43
	1413	Overall	3.22	3.36	-0.14	3.68	3.94	-0.26
	1414	Overall	3.32	3.70	-0.38	4.22	4.45	-0.24
	1415	Overall	3.32	3.54	-0.22	3.45	3.69	-0.24
	1416	Overall	3.11	3.38	-0.27	3.62	4.01	-0.39
	1417	Overall	3.41	3.68	-0.27	3.29	3.62	-0.32
	1418	Overall	3.45	3.63	-0.18	2.70	2.91	-0.21
	1419	Overall	3.41	3.56	-0.15	3.49	3.71	-0.23
	1420	Overall	3.16	3.47	-0.31	3.50	3.82	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1421	Overall	3.57	3.98	-0.42	3.45	3.71	-0.26
	1422	Overall	3.51	3.73	-0.22	4.25	4.49	-0.24
	1423	Overall	3.44	3.90	-0.46	2.70	3.06	-0.36
	1424	Overall	3.43	3.70	-0.27	3.25	3.55	-0.30
	1425	Overall	3.63	3.96	-0.33	3.12	3.52	-0.39
	1426	Overall	3.10	3.45	-0.35	3.63	3.77	-0.14
	1427	Overall	3.22	3.45	-0.24	3.96	4.47	-0.50
	1428	Overall	3.27	3.69	-0.42	3.48	3.81	-0.34
	1429	Overall	3.33	3.71	-0.38	3.47	3.75	-0.28
	1430	Overall	3.15	3.54	-0.39	3.15	3.30	-0.15
	1431	Overall	3.18	3.47	-0.29	3.86	4.26	-0.39
	1432	Overall	3.21	3.47	-0.25	3.23	3.51	-0.27
	1433	Overall	3.70	3.85	-0.15	3.40	3.63	-0.24
	1434	Overall	3.26	3.51	-0.25	3.37	3.72	-0.35
	1435	Overall	3.26	3.71	-0.44	3.70	3.95	-0.24
	1436	Overall	3.17	3.48	-0.31	3.72	4.12	-0.40
	1437	Overall	3.46	3.72	-0.27	3.62	4.02	-0.40
	1438	Overall	3.11	3.37	-0.26			
	1439	Overall	2.96	3.30	-0.34	3.24	3.53	-0.29
	1440	Overall	3.21	3.54	-0.32	3.64	4.11	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1441	Overall	3.08	3.55	-0.47	3.21	3.50	-0.29
	1442	Overall	3.50	3.72	-0.22	2.75	3.10	-0.35
	1443	Overall	3.25	3.54	-0.29	3.07	3.19	-0.13
	1444	Overall	3.49	3.80	-0.31	3.26	3.43	-0.17
	1445	Overall	3.33	3.52	-0.20	3.12	3.41	-0.30
	1446	Overall	3.26	3.69	-0.43	3.41	3.69	-0.27
	1447	Overall	3.44	3.61	-0.17	2.72	3.11	-0.39
	1448	Overall	3.48	3.86	-0.38	3.71	4.02	-0.31
	1449	Overall	3.38	3.63	-0.25	3.78	4.02	-0.23
	1450	Overall	3.46	3.71	-0.26	3.57	3.90	-0.33
	1451	Overall	3.08	3.48	-0.41	3.47	3.63	-0.16
	1452	Overall	3.36	3.88	-0.51			
	1453	Overall	3.58	3.88	-0.30	3.23	3.52	-0.29
	1454	Overall	3.32	3.58	-0.26	3.42	3.57	-0.15
	1455	Overall	3.24	3.53	-0.29	3.87	4.00	-0.13
	1456	Overall	3.65	3.93	-0.28	3.39	3.90	-0.51
	1457	Overall	3.46	3.50	-0.04	3.79	4.05	-0.25
	1458	Overall	3.08	3.40	-0.32	3.13	3.41	-0.28
	1459	Overall	3.41	3.70	-0.29	3.79	4.23	-0.45
	1460	Overall	3.76	4.07	-0.31	3.18	3.56	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1461	Overall	3.50	3.82	-0.31	2.73	3.02	-0.29
	1462	Overall	3.40	3.59	-0.19	3.31	3.65	-0.34
	1463	Overall	3.17	3.48	-0.30	3.29	3.53	-0.24
	1464	Overall	3.63	3.92	-0.29	3.20	3.55	-0.36
	1465	Overall	3.39	3.70	-0.30	4.13	4.59	-0.46
	1466	Overall	3.68	3.89	-0.21	3.44	3.81	-0.37
	1467	Overall	3.34	3.68	-0.33	4.16	4.54	-0.38
	1468	Overall	3.36	3.76	-0.40	3.08	3.53	-0.45
	1469	Overall	3.18	3.45	-0.27	3.70	4.10	-0.39
	1470	Overall	3.07	3.27	-0.21	2.99	3.38	-0.39
	1471	Overall	3.40	3.73	-0.34	3.96	4.28	-0.32
	1472	Overall	3.28	3.59	-0.32	3.80	4.10	-0.30
	1473	Overall	3.53	3.74	-0.21	3.66	3.97	-0.31
	1474	Overall	3.49	3.75	-0.25	2.77	3.22	-0.45
	1475	Overall	3.31	3.74	-0.43	3.37	3.67	-0.29
	1476	Overall	3.40	3.76	-0.36	2.77	3.07	-0.30
	1477	Overall	2.91	3.29	-0.38	3.67	3.96	-0.29
	1478	Overall	3.45	3.74	-0.29	2.63	2.75	-0.11
	1479	Overall	3.29	3.58	-0.29	3.56	4.05	-0.49
	1480	Overall	3.35	3.63	-0.28	4.24	4.70	-0.46

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1481	Overall	3.43	3.75	-0.32	2.89	3.15	-0.26
	1482	Overall	3.77	3.98	-0.21	2.86	3.40	-0.54
	1483	Overall	3.62	3.72	-0.10	2.90	3.29	-0.39
	1484	Overall	3.45	3.64	-0.19	2.79	3.10	-0.31
	1485	Overall	3.17	3.36	-0.19	2.85	3.06	-0.21
	1486	Overall	3.13	3.51	-0.39	3.49	3.77	-0.28
	1487	Overall	3.37	3.59	-0.22	3.41	3.69	-0.28
	1488	Overall	3.25	3.39	-0.13	2.95	3.24	-0.29
	1489	Overall	3.15	3.30	-0.15	2.90	3.33	-0.43
	1490	Overall	3.24	3.56	-0.32	3.61	3.98	-0.37
	1491	Overall	3.41	3.62	-0.20	4.18	4.39	-0.21
	1492	Overall	3.77	4.05	-0.29	3.77	3.96	-0.19
	1493	Overall	3.50	3.75	-0.25	3.48	3.84	-0.35
	1494	Overall	3.52	3.77	-0.25	3.95	4.39	-0.44
	1495	Overall	3.33	3.52	-0.19	2.33	2.62	-0.29
	1496	Overall	3.41	3.73	-0.31	3.91	4.07	-0.16
	1497	Overall	3.60	3.91	-0.31	3.14	3.21	-0.08
	1498	Overall	3.25	3.46	-0.21	3.41	3.49	-0.08
	1499	Overall	3.64	3.84	-0.21	3.14	3.43	-0.30
	1500	Overall	3.57	3.88	-0.30	2.88	3.25	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1501	Overall	3.63	3.94	-0.31	3.71	4.16	-0.45
	1502	Overall	3.22	3.49	-0.27	2.85	3.20	-0.35
	1503	Overall	3.36	3.86	-0.50	3.18	3.44	-0.26
	1504	Overall	3.17	3.55	-0.38	3.37	3.65	-0.28
	1505	Overall	3.58	3.80	-0.22	2.72	3.06	-0.33
	1506	Overall	3.07	3.47	-0.41	2.95	3.50	-0.55
	1507	Overall	3.47	3.66	-0.18	3.89	4.21	-0.32
	1508	Overall	3.51	3.69	-0.18	3.53	3.90	-0.37
	1509	Overall	3.45	3.61	-0.16	3.73	4.02	-0.29
	1510	Overall	3.54	3.72	-0.18	3.19	3.53	-0.34
	1511	Overall	3.51	3.91	-0.39	2.95	3.28	-0.33
	1512	Overall	3.13	3.57	-0.43	3.98	4.46	-0.47
	1513	Overall	3.53	3.80	-0.27	3.24	3.84	-0.61
	1514	Overall	3.30	3.54	-0.24	2.84	3.29	-0.45
	1515	Overall	3.46	3.66	-0.20	3.39	3.87	-0.49
	1516	Overall	3.44	3.56	-0.11	4.31	4.73	-0.42
	1517	Overall	3.17	3.44	-0.27			
	1518	Overall	3.32	3.57	-0.25	3.86	4.22	-0.35
	1519	Overall	3.12	3.25	-0.13	3.86	4.22	-0.36
	1520	Overall	3.42	3.63	-0.21	2.83	3.26	-0.43

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1521	Overall	3.32	3.65	-0.33	3.14	3.47	-0.33
	1522	Overall	3.82	3.98	-0.16	3.75	4.09	-0.33
	1523	Overall	3.31	3.57	-0.26	2.99	3.39	-0.40
	1524	Overall	3.20	3.54	-0.34	3.22	3.52	-0.30
	1525	Overall	3.45	3.72	-0.27	3.05	3.55	-0.50
	1526	Overall	3.51	3.94	-0.43	3.14	3.37	-0.23
	1527	Overall	3.29	3.55	-0.25			
	1528	Overall	3.27	3.57	-0.31	4.09	4.40	-0.32
	1529	Overall	3.05	3.43	-0.38	2.87	2.97	-0.10
	1530	Overall	3.00	3.34	-0.34	3.53	3.80	-0.26
	1531	Overall	3.28	3.64	-0.36	3.07	3.41	-0.34
	1532	Overall	3.55	3.92	-0.37	3.44	3.95	-0.51
	1533	Overall	3.55	3.79	-0.23			
	1534	Overall	3.72	3.89	-0.17	3.62	4.02	-0.40
	1535	Overall	3.51	3.61	-0.10	3.34	3.76	-0.42
	1536	Overall	3.42	3.57	-0.15	4.55	4.85	-0.29
	1537	Overall	3.45	3.68	-0.23	3.50	3.89	-0.39
	1538	Overall	3.35	3.68	-0.33	3.69	4.06	-0.38
	1539	Overall	3.20	3.61	-0.41	3.81	4.25	-0.44
	1540	Overall	3.29	3.56	-0.28	3.30	3.67	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1541	Overall	3.52	3.94	-0.43	3.36	3.76	-0.40
	1542	Overall	3.51	3.66	-0.15	3.73	4.03	-0.30
	1543	Overall	3.12	3.34	-0.22	3.83	4.07	-0.24
	1544	Overall	3.49	3.81	-0.32	3.42	3.68	-0.26
	1545	Overall	3.19	3.61	-0.42	2.72	2.92	-0.19
	1546	Overall	2.96	3.26	-0.30	3.47	3.86	-0.39
	1547	Overall	3.30	3.38	-0.07	2.65	2.77	-0.12
	1548	Overall	3.75	3.95	-0.21	2.18	2.17	0.02
	1549	Overall	3.05	3.22	-0.17	3.09	3.59	-0.50
	1550	Overall	3.27	3.53	-0.26			
	1551	Overall	3.26	3.60	-0.34	2.78	3.06	-0.28
	1552	Overall	3.19	3.51	-0.33	3.47	3.56	-0.09
	1553	Overall	3.38	3.57	-0.19	3.20	3.26	-0.06
	1554	Overall	2.92	3.29	-0.37	3.91	4.20	-0.29
	1555	Overall	3.48	3.84	-0.36	3.52	4.03	-0.51
	1556	Overall	3.48	3.76	-0.28	3.31	3.74	-0.43
	1557	Overall	3.06	3.35	-0.29	3.36	3.82	-0.46
	1558	Overall	3.34	3.61	-0.27	3.23	3.51	-0.28
	1559	Overall	3.44	3.86	-0.41	3.46	3.89	-0.43
	1560	Overall	3.16	3.54	-0.38	2.92	3.35	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1561	Overall	3.28	3.61	-0.33	3.36	3.78	-0.42
	1562	Overall	3.52	3.70	-0.18	2.72	2.96	-0.24
	1563	Overall	3.46	3.68	-0.22	3.31	3.59	-0.28
	1564	Overall	3.42	3.81	-0.39	3.23	3.59	-0.37
	1565	Overall	3.64	3.86	-0.23	2.53	3.00	-0.47
	1566	Overall	3.27	3.46	-0.18	2.98	3.24	-0.26
	1567	Overall	3.11	3.34	-0.22	3.51	3.82	-0.30
	1568	Overall	3.33	3.61	-0.28	3.31	3.76	-0.44
	1569	Overall	3.46	3.71	-0.25	3.26	3.61	-0.35
	1570	Overall	3.31	3.60	-0.29	3.08	3.28	-0.20
	1571	Overall	3.46	3.90	-0.43	3.25	3.74	-0.49
	1572	Overall	3.31	3.65	-0.34	3.61	4.05	-0.44
	1573	Overall	3.65	3.99	-0.34	2.70	3.28	-0.57
	1574	Overall	3.34	3.56	-0.22	3.61	3.70	-0.09
	1575	Overall	3.23	3.62	-0.39	3.78	3.97	-0.19
	1576	Overall	3.01	3.31	-0.31	3.43	3.85	-0.42
	1577	Overall	3.26	3.57	-0.32	3.68	4.14	-0.46
	1578	Overall	3.49	3.66	-0.16	3.41	3.80	-0.39
	1579	Overall	3.37	3.64	-0.27	2.95	3.21	-0.26
	1580	Overall	3.15	3.61	-0.47	3.61	3.78	-0.16

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1581	Overall	3.07	3.41	-0.35	3.73	4.08	-0.35
	1582	Overall	3.20	3.52	-0.32	2.91	3.16	-0.25
	1583	Overall	3.25	3.35	-0.10	3.54	3.58	-0.04
	1584	Overall	3.67	3.81	-0.14	3.30	3.86	-0.56
	1585	Overall	3.60	3.81	-0.21	2.88	3.22	-0.35
	1586	Overall	3.17	3.59	-0.42	3.29	3.64	-0.35
	1587	Overall	3.36	3.76	-0.40	2.87	3.27	-0.40
	1588	Overall	3.13	3.42	-0.30	4.29	4.83	-0.53
	1589	Overall	3.18	3.78	-0.60	3.82	4.08	-0.26
	1590	Overall	3.28	3.63	-0.35	3.28	3.76	-0.47
	1591	Overall	3.31	3.50	-0.20	4.02	4.36	-0.34
	1592	Overall	3.13	3.52	-0.39	2.98	3.45	-0.47
	1593	Overall	3.13	3.60	-0.47	2.55	2.98	-0.42
	1594	Overall	3.21	3.59	-0.38	3.78	4.00	-0.21
	1595	Overall	3.04	3.33	-0.29	3.13	3.72	-0.60
	1596	Overall	3.23	3.55	-0.31	3.22	3.33	-0.11
	1597	Overall	3.13	3.49	-0.35	3.52	3.98	-0.46
	1598	Overall	3.48	3.78	-0.29	3.45	3.84	-0.38
	1599	Overall	3.16	3.52	-0.37	3.20	3.46	-0.25
	1600	Overall	3.09	3.39	-0.30	3.44	3.97	-0.53

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1601	Overall	3.23	3.65	-0.42	3.50	3.74	-0.24
	1602	Overall	3.22	3.64	-0.41	3.38	3.88	-0.50
	1603	Overall	3.40	3.56	-0.16	3.35	3.68	-0.33
	1604	Overall	3.15	3.57	-0.43	3.15	3.46	-0.31
	1605	Overall	3.16	3.33	-0.17	3.34	3.70	-0.36
	1606	Overall	3.41	3.68	-0.27	3.61	3.91	-0.30
	1607	Overall	3.45	3.72	-0.27	3.70	3.88	-0.18
	1608	Overall	3.48	3.72	-0.24	3.80	4.16	-0.36
	1609	Overall	3.31	3.60	-0.29	3.82	4.30	-0.47
	1610	Overall	3.22	3.65	-0.43	2.50	2.76	-0.26
	1611	Overall	3.47	3.61	-0.14	3.83	4.03	-0.20
	1612	Overall	3.33	3.56	-0.23	3.21	3.34	-0.14
	1613	Overall	3.29	3.79	-0.51	4.28	4.65	-0.37
	1614	Overall	3.59	3.75	-0.17	2.96	3.27	-0.32
	1615	Overall	3.52	3.89	-0.37	3.72	4.00	-0.28
	1616	Overall	3.64	3.88	-0.24	3.31	3.55	-0.24
	1617	Overall	3.32	3.73	-0.40	3.58	4.18	-0.60
	1618	Overall	3.55	3.72	-0.17	2.99	3.43	-0.44
	1619	Overall	3.25	3.65	-0.41			
	1620	Overall	3.33	3.58	-0.25	3.16	3.44	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1621	Overall	3.41	3.64	-0.23	3.71	4.11	-0.39
	1622	Overall	3.32	3.59	-0.28	4.01	4.52	-0.51
	1623	Overall	3.38	3.75	-0.37	4.09	4.52	-0.44
	1624	Overall	3.43	3.65	-0.22	3.05	3.32	-0.26
	1625	Overall	3.66	3.65	0.01	3.20	3.62	-0.42
	1626	Overall	3.34	3.45	-0.11	2.84	3.12	-0.29
	1627	Overall	3.34	3.56	-0.22	3.40	3.57	-0.17
	1628	Overall	3.07	3.67	-0.60	3.63	3.92	-0.29
	1629	Overall	3.44	3.71	-0.28	3.24	3.72	-0.48
	1630	Overall	3.55	3.93	-0.38	2.85	3.16	-0.31
	1631	Overall	3.34	3.57	-0.22	2.68	3.31	-0.63
	1632	Overall	3.52	3.81	-0.29			
	1633	Overall	3.70	3.97	-0.26	3.29	3.75	-0.46
	1634	Overall	3.39	3.47	-0.08	3.36	3.72	-0.36
	1635	Overall	3.45	3.80	-0.35	3.59	3.85	-0.27
	1636	Overall	3.32	3.50	-0.19			
	1637	Overall	3.25	3.58	-0.33	2.97	3.34	-0.37
	1638	Overall	3.53	3.90	-0.36	3.65	3.80	-0.15
	1639	Overall	3.33	3.75	-0.41	2.93	3.25	-0.32
	1640	Overall	3.28	3.57	-0.29	3.11	3.42	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1641	Overall	3.36	3.59	-0.24	3.32	3.71	-0.40
	1642	Overall	3.10	3.49	-0.38	3.84	4.10	-0.26
	1643	Overall	3.17	3.51	-0.34	3.10	3.49	-0.39
	1644	Overall	3.33	3.63	-0.30	3.64	4.11	-0.47
	1645	Overall	3.15	3.37	-0.22	2.82	3.05	-0.23
	1646	Overall	3.52	3.81	-0.29	3.67	4.16	-0.49
	1647	Overall	3.10	3.46	-0.35	3.21	3.53	-0.32
	1648	Overall	3.36	3.72	-0.36	3.16	3.65	-0.48
	1649	Overall	3.07	3.43	-0.35	3.45	3.90	-0.45
	1650	Overall	3.03	3.35	-0.31	3.08	3.33	-0.25
	1651	Overall	3.62	3.98	-0.36	3.46	3.90	-0.44
	1652	Overall	3.33	3.76	-0.42	3.05	3.22	-0.17
	1653	Overall	3.48	3.75	-0.28	2.64	3.18	-0.54
	1654	Overall	3.46	3.63	-0.17			
	1655	Overall	3.72	3.93	-0.21	4.18	4.44	-0.26
	1656	Overall	3.30	3.52	-0.23	3.31	3.65	-0.33
	1657	Overall	3.12	3.39	-0.27	3.99	4.40	-0.41
	1658	Overall	3.08	3.43	-0.36	3.81	4.09	-0.28
	1659	Overall	3.30	3.44	-0.14	2.94	3.20	-0.26
	1660	Overall	3.45	3.66	-0.21	3.36	3.76	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1661	Overall	3.15	3.54	-0.39	3.13	3.43	-0.30
	1662	Overall	3.12	3.33	-0.21	3.14	3.49	-0.35
	1663	Overall	3.62	3.75	-0.13	3.13	3.57	-0.44
	1664	Overall	3.29	3.70	-0.41	2.79	3.19	-0.41
	1665	Overall	3.32	3.57	-0.25	3.92	4.39	-0.47
	1666	Overall	3.16	3.49	-0.33	3.22	3.58	-0.36
	1667	Overall	3.18	3.44	-0.26	3.64	3.88	-0.24
	1668	Overall	3.53	3.93	-0.40	2.78	2.97	-0.19
	1669	Overall	3.60	3.81	-0.21	3.35	3.78	-0.43
	1670	Overall	3.19	3.78	-0.59	2.99	3.33	-0.34
	1671	Overall	3.32	3.62	-0.30	2.51	2.77	-0.26
	1672	Overall	3.22	3.40	-0.18	2.79	3.05	-0.26
	1673	Overall	3.38	3.61	-0.22	2.88	3.23	-0.35
	1674	Overall	3.14	3.45	-0.31	2.99	3.36	-0.37
	1675	Overall	3.12	3.56	-0.43	3.09	3.16	-0.07
	1676	Overall	3.58	3.85	-0.28	3.89	4.12	-0.23
	1677	Overall	3.17	3.43	-0.26	3.93	4.29	-0.36
	1678	Overall	3.15	3.59	-0.44	3.42	3.76	-0.33
	1679	Overall	3.07	3.35	-0.28			
	1680	Overall	3.60	3.91	-0.31	2.87	3.21	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1681	Overall	3.10	3.48	-0.38	3.93	4.42	-0.49
	1682	Overall	3.33	3.56	-0.23	3.23	3.70	-0.47
	1683	Overall	3.50	3.72	-0.22	3.08	3.34	-0.26
	1684	Overall	3.53	3.78	-0.25	3.53	3.81	-0.28
	1685	Overall	3.31	3.63	-0.31	3.03	3.25	-0.22
	1686	Overall	3.56	3.61	-0.05	2.65	2.80	-0.14
	1687	Overall	3.61	3.82	-0.21	4.54	4.94	-0.40
	1688	Overall	3.26	3.51	-0.25	3.57	3.96	-0.39
	1689	Overall	3.24	3.42	-0.18	3.68	3.93	-0.26
	1690	Overall	3.20	3.50	-0.31	3.36	3.83	-0.47
	1691	Overall	3.50	3.78	-0.28	3.36	3.59	-0.23
	1692	Overall	3.32	3.67	-0.35	3.70	4.03	-0.34
	1693	Overall	3.53	3.79	-0.26	2.65	3.02	-0.37
	1694	Overall	3.59	4.02	-0.43	3.39	3.94	-0.55
	1695	Overall	3.57	3.77	-0.20	3.52	3.74	-0.21
	1696	Overall	3.58	3.85	-0.27	3.26	3.58	-0.31
	1697	Overall	3.40	3.82	-0.41	2.59	3.11	-0.52
	1698	Overall	3.34	3.72	-0.39	2.65	3.05	-0.40
	1699	Overall	3.03	3.22	-0.19	3.75	4.06	-0.31
	1700	Overall	3.68	3.88	-0.20	3.85	3.96	-0.11

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1701	Overall	3.62	3.92	-0.29	3.16	3.45	-0.29
	1702	Overall	3.29	3.46	-0.17	3.20	3.54	-0.33
	1703	Overall	3.15	3.63	-0.48	3.59	3.77	-0.18
	1704	Overall	3.22	3.53	-0.31	3.14	3.44	-0.30
	1705	Overall	2.95	3.33	-0.38	3.41	3.90	-0.49
	1706	Overall	3.45	3.53	-0.09	3.52	3.69	-0.17
	1707	Overall	3.38	3.68	-0.30	3.46	3.88	-0.42
	1708	Overall	3.23	3.36	-0.13	3.59	4.15	-0.56
	1709	Overall	3.35	3.67	-0.32			
	1710	Overall	3.33	3.72	-0.39	3.06	3.30	-0.24
	1711	Overall	3.60	3.99	-0.39	3.26	3.63	-0.36
	1712	Overall	3.36	3.65	-0.29	3.35	3.77	-0.43
	1713	Overall	3.50	3.86	-0.36	3.89	3.95	-0.06
	1714	Overall	3.39	3.57	-0.18	2.41	2.93	-0.52
	1715	Overall	3.27	3.60	-0.33	3.23	3.71	-0.48
	1716	Overall	3.53	3.76	-0.22	3.17	3.32	-0.15
	1717	Overall	3.47	3.63	-0.16	3.00	3.27	-0.27
	1718	Overall	3.15	3.51	-0.36	3.36	3.55	-0.20
	1719	Overall	3.17	3.52	-0.36			
	1720	Overall	3.38	3.54	-0.15	2.65	2.79	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1721	Overall	3.25	3.53	-0.29	3.22	3.25	-0.03
	1722	Overall	3.28	3.48	-0.20	3.54	3.79	-0.25
	1723	Overall	3.39	3.52	-0.14	3.10	3.47	-0.37
	1724	Overall	3.50	3.77	-0.27	3.66	4.01	-0.36
	1725	Overall	3.15	3.44	-0.28	3.65	3.99	-0.34
	1726	Overall	3.15	3.49	-0.33			
	1727	Overall	3.14	3.47	-0.34	2.86	3.20	-0.34
	1728	Overall	3.14	3.36	-0.22	3.48	3.93	-0.46
	1729	Overall	3.28	3.68	-0.40	3.60	3.79	-0.18
	1730	Overall	3.63	3.76	-0.14			
	1731	Overall	3.63	3.83	-0.20	3.01	3.29	-0.28
	1732	Overall	3.21	3.63	-0.42	3.72	3.91	-0.20
	1733	Overall	3.49	3.76	-0.27	3.10	3.39	-0.30
	1734	Overall	3.41	3.74	-0.32	3.82	4.05	-0.23
	1735	Overall	3.63	3.91	-0.28			
	1736	Overall	3.45	3.71	-0.26	3.14	3.43	-0.29
	1737	Overall	3.31	3.68	-0.36	3.10	3.51	-0.41
	1738	Overall	3.33	3.51	-0.18	3.33	3.68	-0.35
	1739	Overall	3.62	3.93	-0.31	2.80	3.15	-0.35
	1740	Overall	3.74	3.98	-0.25	3.04	3.60	-0.56

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1741	Overall	3.45	3.63	-0.19	3.20	3.57	-0.37
	1742	Overall	3.20	3.48	-0.28	2.97	2.88	0.09
	1743	Overall	3.28	3.59	-0.31	4.02	4.24	-0.21
	1744	Overall	3.48	3.65	-0.16	3.47	3.91	-0.44
	1745	Overall	3.37	3.70	-0.32	3.70	4.00	-0.30
	1746	Overall	3.32	3.52	-0.20	3.23	3.64	-0.41
	1747	Overall	3.56	3.88	-0.31	4.22	4.67	-0.46
	1748	Overall	3.57	3.76	-0.19	3.04	3.36	-0.32
	1749	Overall	3.24	3.59	-0.35	3.28	3.73	-0.46
	1750	Overall	3.41	3.70	-0.29	3.68	3.67	0.01
	1751	Overall	3.44	3.61	-0.17	3.21	3.59	-0.37
	1752	Overall	3.60	3.82	-0.22	2.79	3.24	-0.45
	1753	Overall	3.56	3.72	-0.16	3.19	3.49	-0.30
	1754	Overall	3.30	3.57	-0.26	3.71	4.11	-0.40
	1755	Overall	3.42	3.83	-0.41	3.63	3.85	-0.22
	1756	Overall	3.47	3.84	-0.37	3.52	3.61	-0.09
	1757	Overall	3.34	3.65	-0.31	3.60	4.01	-0.41
	1758	Overall	3.48	3.75	-0.26	2.83	3.13	-0.30
	1759	Overall	3.40	3.78	-0.38	3.98	4.30	-0.32
	1760	Overall	2.98	3.31	-0.33	3.36	3.87	-0.52

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1761	Overall	3.51	3.76	-0.25	2.51	2.73	-0.21
	1762	Overall	3.36	3.69	-0.33	3.50	3.84	-0.34
	1763	Overall	3.32	3.47	-0.15	3.08	3.54	-0.46
	1764	Overall	3.10	3.35	-0.25	3.64	4.17	-0.53
	1765	Overall	3.32	3.57	-0.25	2.82	3.05	-0.23
	1766	Overall	3.33	3.72	-0.39	4.37	4.75	-0.38
	1767	Overall	3.39	3.60	-0.22	3.52	3.75	-0.23
	1768	Overall	3.46	3.79	-0.33	3.25	3.60	-0.35
	1769	Overall	3.14	3.40	-0.26	3.07	3.37	-0.30
	1770	Overall	3.31	3.63	-0.32			
	1771	Overall	3.34	3.56	-0.23	2.37	2.62	-0.24
	1772	Overall	3.27	3.63	-0.36	3.44	3.69	-0.25
	1773	Overall	3.11	3.39	-0.28	2.91	3.32	-0.41
	1774	Overall	3.31	3.58	-0.28			
	1775	Overall	3.51	3.80	-0.29	3.45	3.85	-0.40
	1776	Overall	3.41	3.97	-0.55	2.86	3.14	-0.28
	1777	Overall	3.12	3.58	-0.45	3.16	3.60	-0.44
	1778	Overall	3.38	3.75	-0.37	3.00	3.08	-0.08
	1779	Overall	3.08	3.38	-0.30	2.76	3.18	-0.42
	1780	Overall	3.23	3.45	-0.22	3.32	3.78	-0.46

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1781	Overall	3.46	3.83	-0.37	3.52	3.77	-0.25
	1782	Overall	3.22	3.58	-0.36	2.69	3.02	-0.32
	1783	Overall	3.17	3.52	-0.35	3.04	3.28	-0.24
	1784	Overall	3.17	3.40	-0.23	3.34	3.80	-0.46
	1785	Overall	3.34	3.53	-0.19	3.25	3.63	-0.38
	1786	Overall	3.44	3.80	-0.36	2.81	3.23	-0.42
	1787	Overall	3.53	3.83	-0.30	3.78	3.97	-0.19
	1788	Overall	3.24	3.65	-0.41			
	1789	Overall	3.48	3.66	-0.18	3.00	3.36	-0.36
	1790	Overall	3.36	3.64	-0.28	3.22	3.46	-0.23
	1791	Overall	3.30	3.57	-0.27	3.85	4.22	-0.37
	1792	Overall	3.56	3.83	-0.26	3.08	3.34	-0.26
	1793	Overall	3.20	3.53	-0.33	3.30	3.51	-0.21
	1794	Overall	3.42	3.66	-0.24	2.89	3.25	-0.36
	1795	Overall	3.47	3.92	-0.45	3.09	3.26	-0.18
	1796	Overall	3.47	3.71	-0.24	3.00	3.40	-0.41
	1797	Overall	3.42	3.62	-0.20	3.11	3.51	-0.40
	1798	Overall	3.40	3.66	-0.26	3.20	3.55	-0.35
	1799	Overall	3.24	3.57	-0.33	3.60	3.96	-0.37
	1800	Overall	3.41	3.72	-0.31	3.42	3.73	-0.31

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1801	Overall	3.33	3.70	-0.37	2.93	3.24	-0.32
	1802	Overall	3.49	3.65	-0.16	3.13	3.41	-0.28
	1803	Overall	3.40	3.66	-0.26	3.51	3.71	-0.20
	1804	Overall	3.18	3.48	-0.30	3.79	4.06	-0.26
	1805	Overall	3.09	3.52	-0.43	3.49	3.71	-0.22
	1806	Overall	3.53	3.71	-0.18	3.38	3.73	-0.35
	1807	Overall	3.31	3.66	-0.36			
	1808	Overall	3.40	3.64	-0.24	2.71	2.84	-0.13
	1809	Overall	3.39	3.71	-0.32	3.72	4.07	-0.34
	1810	Overall	3.28	3.49	-0.21	3.58	3.90	-0.32
	1811	Overall	3.38	3.55	-0.18	3.54	3.81	-0.28
	1812	Overall	3.47	3.86	-0.38	3.12	3.64	-0.51
	1813	Overall	3.71	3.90	-0.20	3.63	3.93	-0.29
	1814	Overall	3.07	3.26	-0.20	4.33	4.66	-0.33
	1815	Overall	3.58	3.86	-0.28	3.96	4.32	-0.36
	1816	Overall	3.34	3.66	-0.32	3.33	3.81	-0.49
	1817	Overall	3.42	3.58	-0.16	3.59	3.69	-0.10
	1818	Overall	3.49	3.70	-0.21	3.34	3.77	-0.43
	1819	Overall	3.32	3.50	-0.18	2.80	3.45	-0.64
	1820	Overall	3.38	3.64	-0.26	3.76	4.16	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1821	Overall	3.32	3.60	-0.28	3.75	4.24	-0.49
	1822	Overall	3.77	4.05	-0.27	3.60	4.13	-0.52
	1823	Overall				3.23	3.42	-0.19
	1824	Overall	3.59	3.86	-0.27	3.53	3.73	-0.20
	1825	Overall	3.72	3.99	-0.28	3.39	3.70	-0.31
	1826	Overall	3.49	3.79	-0.30	3.15	3.42	-0.27
	1827	Overall	3.61	3.97	-0.35	3.01	3.54	-0.53
	1828	Overall	3.60	3.89	-0.30	3.55	4.02	-0.47
	1829	Overall	3.38	3.56	-0.17	2.77	3.18	-0.40
	1830	Overall	3.51	3.81	-0.29			
	1831	Overall	3.14	3.38	-0.24	3.31	3.72	-0.41
	1832	Overall	3.38	3.61	-0.22	3.74	3.93	-0.19
	1833	Overall	3.39	3.64	-0.25	3.02	3.55	-0.53
	1834	Overall	2.85	3.19	-0.33	3.43	3.70	-0.26
	1835	Overall	3.19	3.40	-0.21	2.82	3.20	-0.38
	1836	Overall	3.07	3.45	-0.38	3.37	3.64	-0.27
	1837	Overall	3.35	3.53	-0.18	3.11	3.49	-0.38
	1838	Overall	3.10	3.38	-0.28	3.10	3.49	-0.39
	1839	Overall	3.65	4.01	-0.36	3.72	4.09	-0.38
	1840	Overall	3.09	3.37	-0.28	4.06	4.43	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1841	Overall	3.13	3.67	-0.53	3.21	3.62	-0.41
	1842	Overall	3.52	3.79	-0.27	3.38	3.89	-0.51
	1843	Overall	3.35	3.69	-0.34	2.99	3.19	-0.19
	1844	Overall	3.34	3.64	-0.29			
	1845	Overall	3.37	3.49	-0.12	3.11	3.34	-0.23
	1846	Overall	3.28	3.69	-0.41	3.23	3.58	-0.36
	1847	Overall	3.41	3.72	-0.30	3.58	3.91	-0.33
	1848	Overall	3.10	3.41	-0.31	3.36	3.77	-0.41
	1849	Overall	3.46	3.72	-0.25	3.44	3.82	-0.39
	1850	Overall	3.56	3.90	-0.34	3.04	3.41	-0.37
	1851	Overall	3.49	3.83	-0.34	3.02	3.29	-0.27
	1852	Overall	3.52	3.73	-0.21	3.39	3.94	-0.55
	1853	Overall	3.66	3.83	-0.17	3.69	3.93	-0.24
	1854	Overall	3.32	3.58	-0.26	3.46	3.87	-0.40
	1855	Overall	3.12	3.45	-0.33	3.24	3.53	-0.29
	1856	Overall	3.20	3.45	-0.25	3.38	3.66	-0.28
	1857	Overall	3.25	3.49	-0.24	3.35	3.67	-0.33
	1858	Overall	3.49	3.76	-0.27	3.01	3.41	-0.40
	1859	Overall	3.48	3.60	-0.12	3.88	4.10	-0.22
	1860	Overall	3.31	3.60	-0.30	3.73	4.22	-0.49

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1861	Overall	3.29	3.63	-0.34	3.21	3.50	-0.29
	1862	Overall	3.33	3.58	-0.25	3.14	3.36	-0.23
	1863	Overall	2.95	3.20	-0.25	3.17	3.59	-0.42
	1864	Overall	3.31	3.54	-0.23	3.26	3.50	-0.24
	1865	Overall	3.17	3.57	-0.40	3.14	3.59	-0.45
	1866	Overall	3.12	3.42	-0.29	3.54	3.91	-0.37
	1867	Overall	3.62	4.02	-0.39	3.69	4.03	-0.34
	1868	Overall	3.53	3.84	-0.31	3.29	3.63	-0.35
	1869	Overall	3.26	3.55	-0.28	3.75	3.97	-0.22
	1870	Overall	3.40	3.68	-0.28	2.60	3.13	-0.52
	1871	Overall	3.39	3.56	-0.17	3.32	3.66	-0.33
	1872	Overall	3.50	3.82	-0.32	3.17	3.50	-0.33
	1873	Overall	3.47	3.74	-0.27	3.13	3.34	-0.21
	1874	Overall	3.52	3.86	-0.34	3.49	3.76	-0.27
	1875	Overall	3.61	3.78	-0.17	4.31	4.47	-0.16
	1876	Overall	3.51	3.68	-0.17	2.40	2.63	-0.23
	1877	Overall	3.30	3.67	-0.38	3.38	3.73	-0.35
	1878	Overall	3.36	3.61	-0.25	3.54	3.94	-0.40
	1879	Overall	3.23	3.56	-0.33	3.02	3.37	-0.35
	1880	Overall	3.42	3.66	-0.24	2.24	2.52	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1881	Overall	3.40	3.74	-0.33	3.28	3.57	-0.29
	1882	Overall	3.39	3.66	-0.27	3.08	3.53	-0.46
	1883	Overall	3.24	3.37	-0.13	3.63	4.04	-0.41
	1884	Overall	3.31	3.47	-0.16	3.04	3.48	-0.43
	1885	Overall	3.26	3.60	-0.34	3.30	3.71	-0.42
	1886	Overall	3.26	3.56	-0.30	3.74	4.23	-0.49
	1887	Overall	3.25	3.57	-0.32	3.32	3.49	-0.17
	1888	Overall	3.58	3.87	-0.30	3.53	3.66	-0.13
	1889	Overall	3.38	3.68	-0.30	3.09	3.57	-0.48
	1890	Overall	3.03	3.37	-0.34	3.50	3.66	-0.16
	1891	Overall	3.52	3.78	-0.26	2.97	3.31	-0.34
	1892	Overall	3.25	3.50	-0.25	3.54	3.94	-0.40
	1893	Overall	3.47	3.50	-0.03	3.21	3.50	-0.29
	1894	Overall	3.26	3.46	-0.20	3.61	3.86	-0.25
	1895	Overall	3.78	3.93	-0.15	3.38	3.50	-0.12
	1896	Overall	3.40	3.65	-0.25	3.35	3.69	-0.34
	1897	Overall	2.99	3.52	-0.52	2.88	3.11	-0.23
	1898	Overall	3.74	4.03	-0.29	3.50	3.91	-0.41
	1899	Overall	3.05	3.41	-0.36	2.89	3.06	-0.17
	1900	Overall	3.20	3.51	-0.31	3.28	3.61	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1901	Overall	3.26	3.64	-0.38	3.38	3.65	-0.27
	1902	Overall	3.62	3.88	-0.25	3.19	3.43	-0.24
	1903	Overall	3.42	3.83	-0.40	3.45	3.74	-0.29
	1904	Overall	3.70	4.10	-0.40	3.32	3.53	-0.22
	1905	Overall	3.20	3.53	-0.33	2.98	3.22	-0.24
	1906	Overall	3.46	3.66	-0.20	3.14	3.59	-0.45
	1907	Overall	3.45	3.81	-0.36	3.00	3.46	-0.46
	1908	Overall	3.43	3.72	-0.29	4.16	4.41	-0.26
	1909	Overall	3.29	3.48	-0.19	3.41	3.60	-0.19
	1910	Overall	3.16	3.51	-0.34	3.14	3.66	-0.52
	1911	Overall	3.94	4.08	-0.14	3.71	4.18	-0.48
	1912	Overall	3.32	3.62	-0.30	3.52	3.79	-0.27
	1913	Overall	3.29	3.38	-0.09	3.21	3.53	-0.32
	1914	Overall	3.48	3.68	-0.20	3.83	4.21	-0.37
	1915	Overall	3.13	3.53	-0.40	3.33	3.98	-0.65
	1916	Overall	3.70	3.98	-0.28	2.95	3.03	-0.08
	1917	Overall	3.09	3.36	-0.27			
	1918	Overall	3.55	3.88	-0.33	2.78	2.97	-0.19
	1919	Overall	3.03	3.25	-0.22	3.42	3.83	-0.41
	1920	Overall	3.35	3.60	-0.25	3.38	3.93	-0.55

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1921	Overall	3.46	3.86	-0.41	3.20	3.48	-0.28
	1922	Overall	3.46	3.67	-0.22	3.00	3.14	-0.14
	1923	Overall	3.32	3.66	-0.35	3.66	4.17	-0.51
	1924	Overall	3.54	3.89	-0.35	3.01	3.44	-0.43
	1925	Overall	3.40	3.69	-0.29	3.45	4.00	-0.56
	1926	Overall	3.35	3.48	-0.13	2.63	2.88	-0.25
	1927	Overall	2.97	3.21	-0.24	3.43	3.68	-0.25
	1928	Overall	3.02	3.25	-0.22	3.54	3.68	-0.14
	1929	Overall	3.43	3.73	-0.30	3.25	3.69	-0.44
	1930	Overall	3.44	3.78	-0.34	3.11	3.37	-0.26
	1931	Overall	3.51	3.81	-0.31	2.61	3.05	-0.44
	1932	Overall	3.41	3.83	-0.41	3.79	3.86	-0.06
	1933	Overall	3.29	3.62	-0.33	3.85	4.24	-0.38
	1934	Overall	3.34	3.70	-0.36			
	1935	Overall	3.43	3.61	-0.19	3.81	4.07	-0.26
	1936	Overall	3.49	3.80	-0.31	3.22	3.54	-0.32
	1937	Overall	3.29	3.50	-0.22	2.71	2.99	-0.29
	1938	Overall	3.42	3.55	-0.13	3.86	4.14	-0.28
	1939	Overall	3.55	3.68	-0.13	2.94	3.58	-0.64
	1940	Overall	3.24	3.60	-0.36	3.22	3.47	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1941	Overall	3.57	3.89	-0.32	2.59	2.96	-0.37
	1942	Overall	3.32	3.66	-0.34	3.02	3.40	-0.38
	1943	Overall	3.63	3.92	-0.29	3.65	3.92	-0.26
	1944	Overall	3.36	3.68	-0.32	3.39	3.73	-0.34
	1945	Overall	3.15	3.38	-0.24	2.54	2.90	-0.36
	1946	Overall	3.47	3.77	-0.30	2.91	3.29	-0.39
	1947	Overall	3.33	3.71	-0.38			
	1948	Overall	3.76	4.00	-0.23	3.33	3.45	-0.12
	1949	Overall	3.34	3.79	-0.45	3.47	3.77	-0.29
	1950	Overall	3.28	3.52	-0.25	3.39	3.85	-0.46
	1951	Overall	3.59	3.84	-0.26	4.02	4.17	-0.15
	1952	Overall	3.37	3.58	-0.22	3.22	3.58	-0.36
	1953	Overall	3.57	3.88	-0.31	3.55	3.62	-0.07
	1954	Overall	3.73	3.78	-0.06	3.02	3.30	-0.28
	1955	Overall	3.12	3.33	-0.21	3.74	3.99	-0.25
	1956	Overall	3.21	3.40	-0.18	3.44	3.95	-0.51
	1957	Overall	3.49	3.75	-0.26	3.27	3.52	-0.26
	1958	Overall	3.34	3.77	-0.42	3.57	3.61	-0.04
	1959	Overall	3.38	3.62	-0.24	3.57	3.98	-0.41
	1960	Overall	3.27	3.29	-0.03	3.25	3.53	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1961	Overall	3.50	3.71	-0.22			
	1962	Overall	3.21	3.52	-0.30	2.72	3.13	-0.41
	1963	Overall	3.32	3.58	-0.26	3.63	3.77	-0.14
	1964	Overall	3.30	3.56	-0.26	3.37	3.51	-0.14
	1965	Overall	3.32	3.55	-0.23	3.21	3.51	-0.30
	1966	Overall	3.28	3.51	-0.23	3.58	4.00	-0.42
	1967	Overall	3.19	3.49	-0.30	3.17	3.36	-0.19
	1968	Overall	3.47	3.68	-0.21	3.71	4.23	-0.52
	1969	Overall	3.54	3.79	-0.25	3.22	3.55	-0.33
	1970	Overall	3.41	3.76	-0.34	3.47	3.73	-0.26
	1971	Overall	3.12	3.55	-0.43	3.78	4.19	-0.41
	1972	Overall	3.07	3.41	-0.35	3.98	4.37	-0.39
	1973	Overall	3.35	3.55	-0.21	3.08	3.37	-0.30
	1974	Overall	3.19	3.49	-0.30	3.72	3.96	-0.24
	1975	Overall	3.40	3.65	-0.24	3.65	4.03	-0.38
	1976	Overall	3.29	3.69	-0.39	3.50	3.73	-0.23
	1977	Overall	3.64	3.82	-0.18	2.83	3.21	-0.38
	1978	Overall	3.24	3.56	-0.31	3.39	3.88	-0.48
	1979	Overall	3.47	3.72	-0.25	2.47	2.88	-0.40
	1980	Overall	3.69	3.78	-0.09	3.44	3.97	-0.53

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Total Score	1981	Overall	3.23	3.52	-0.28	3.47	4.03	-0.57
	1982	Overall	3.07	3.36	-0.29	3.97	4.27	-0.30
	1983	Overall	3.42	3.77	-0.35	2.71	3.17	-0.46
	1984	Overall	3.41	3.58	-0.17	3.45	3.75	-0.29
	1985	Overall	3.46	3.61	-0.14	2.47	2.96	-0.49
	1986	Overall	3.48	3.63	-0.15	3.16	3.37	-0.21
	1987	Overall	3.45	3.62	-0.17	2.76	3.06	-0.30
	1988	Overall	3.23	3.50	-0.27	3.06	3.49	-0.42
	1989	Overall	3.47	3.93	-0.47	3.95	4.51	-0.55
	1990	Overall	3.44	3.74	-0.30	4.05	4.40	-0.35
	1991	Overall	3.84	4.09	-0.25	3.10	3.26	-0.16
	1992	Overall	3.60	3.87	-0.28	3.37	3.62	-0.25
	1993	Overall	3.49	3.81	-0.32	3.26	3.51	-0.25
	1994	Overall	3.09	3.50	-0.41	3.44	3.70	-0.27
	1995	Overall	3.50	3.72	-0.22	2.14	2.68	-0.54
	1996	Overall	3.95	4.18	-0.22	3.66	4.27	-0.61
	1997	Overall	3.16	3.36	-0.20	3.45	3.71	-0.27
	1998	Overall	3.41	3.70	-0.29			
	1999	Overall	3.04	3.44	-0.41	2.77	2.96	-0.19
	2000	Overall	3.23	3.53	-0.30	3.11	3.55	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1	Overall	4.14	4.58	-0.44	4.10	4.34	-0.23
	2	Overall	3.88	4.35	-0.47			
	3	Overall	4.13	4.41	-0.28	4.00	4.40	-0.40
	4	Overall	4.07	4.32	-0.25	4.54	4.75	-0.21
	5	Overall	3.60	4.02	-0.42	3.89	4.04	-0.15
	6	Overall	4.49	4.70	-0.21	3.67	3.75	-0.08
	7	Overall	3.99	4.31	-0.32			
	8	Overall	4.05	4.48	-0.42			
	9	Overall	4.14	4.68	-0.55	3.84	4.38	-0.54
	10	Overall	4.36	4.50	-0.15	3.48	3.70	-0.22
	11	Overall	4.10	4.42	-0.32	4.01	4.31	-0.30
	12	Overall	4.03	4.51	-0.47	3.75	3.93	-0.18
	13	Overall	4.01	4.43	-0.42	4.04	4.39	-0.35
	14	Overall	4.36	4.47	-0.11	3.75	3.97	-0.22
	15	Overall	4.18	4.48	-0.29	3.72	3.80	-0.08
	16	Overall	4.19	4.75	-0.56	3.61	3.90	-0.29
	17	Overall	4.20	4.74	-0.54	4.02	4.37	-0.35
	18	Overall	3.78	4.05	-0.27	4.18	4.31	-0.13
	19	Overall	3.73	4.06	-0.33	3.47	3.84	-0.37
	20	Overall	4.26	4.41	-0.14	3.64	3.99	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	21	Overall	4.14	4.42	-0.28	4.03	4.47	-0.44
	22	Overall	4.23	4.68	-0.45	4.05	4.37	-0.32
	23	Overall	3.74	3.90	-0.16	3.47	3.89	-0.42
	24	Overall	4.14	4.46	-0.32	3.90	4.36	-0.46
	25	Overall	3.69	4.08	-0.39	3.84	4.25	-0.41
	26	Overall	4.13	4.49	-0.37	3.81	4.30	-0.49
	27	Overall	4.16	4.28	-0.12	3.94	4.18	-0.23
	28	Overall	4.49	4.98	-0.49	3.86	4.23	-0.37
	29	Overall	4.35	4.64	-0.29			
	30	Overall	4.13	4.24	-0.11	4.19	4.63	-0.43
	31	Overall	4.22	4.50	-0.28	2.94	2.84	0.09
	32	Overall	4.26	4.62	-0.36	4.34	4.64	-0.30
	33	Overall	4.06	4.33	-0.27	3.92	4.22	-0.30
	34	Overall	4.02	4.36	-0.34	4.02	4.44	-0.42
	35	Overall	3.91	4.34	-0.43	3.50	3.73	-0.23
	36	Overall	4.14	4.42	-0.28	3.80	4.07	-0.27
	37	Overall	4.11	4.50	-0.39	4.57	4.83	-0.26
	38	Overall	3.97	4.31	-0.35	3.84	4.31	-0.47
	39	Overall	3.61	3.85	-0.25	4.47	4.89	-0.42
	40	Overall	4.44	4.60	-0.16	4.24	4.61	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	41	Overall	4.06	4.23	-0.17	4.54	4.91	-0.36
	42	Overall	4.16	4.55	-0.39	4.18	4.45	-0.27
	43	Overall	4.06	4.52	-0.46	3.98	4.10	-0.13
	44	Overall	4.00	4.35	-0.35	3.96	4.29	-0.32
	45	Overall	4.26	4.46	-0.20	3.57	3.89	-0.31
	46	Overall	4.12	4.60	-0.48	3.50	3.94	-0.43
	47	Overall	4.21	4.59	-0.37	3.57	3.77	-0.19
	48	Overall	3.82	4.25	-0.43	4.57	4.63	-0.06
	49	Overall	4.40	4.63	-0.23	4.91	5.52	-0.60
	50	Overall	4.23	4.53	-0.30	3.71	4.02	-0.31
	51	Overall	3.62	4.26	-0.64	3.92	4.30	-0.38
	52	Overall	4.33	4.79	-0.47	3.99	4.40	-0.42
	53	Overall	3.93	4.25	-0.31	3.95	4.21	-0.26
	54	Overall	4.10	4.27	-0.17	4.27	4.42	-0.16
	55	Overall	4.33	4.74	-0.40	3.81	4.24	-0.43
	56	Overall	4.31	4.52	-0.21			
	57	Overall	3.91	4.42	-0.51	4.35	4.32	0.03
	58	Overall	3.94	4.17	-0.23	3.81	4.01	-0.20
	59	Overall	4.26	4.59	-0.33	3.79	4.00	-0.22
	60	Overall				4.69	5.02	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	61	Overall	4.04	4.18	-0.14	4.26	4.42	-0.16
	62	Overall	4.20	4.60	-0.40	3.94	4.14	-0.20
	63	Overall	3.92	4.20	-0.28	3.83	3.86	-0.03
	64	Overall	4.20	4.49	-0.29	4.31	4.81	-0.50
	65	Overall	4.15	4.58	-0.43			
	66	Overall	4.36	4.69	-0.34	4.11	4.20	-0.09
	67	Overall	4.05	4.38	-0.33	4.43	4.65	-0.22
	68	Overall	4.15	4.40	-0.25	3.88	4.10	-0.22
	69	Overall	3.99	4.22	-0.22	3.83	4.38	-0.55
	70	Overall	3.77	4.15	-0.38	4.54	4.86	-0.32
	71	Overall	4.23	4.47	-0.24	4.47	4.83	-0.36
	72	Overall	4.03	4.39	-0.36	5.21	5.48	-0.26
	73	Overall	4.14	4.59	-0.45	4.37	4.67	-0.30
	74	Overall	4.36	4.64	-0.28	3.33	3.71	-0.38
	75	Overall	4.06	4.59	-0.53	3.34	3.75	-0.41
	76	Overall	4.47	4.65	-0.18	3.95	4.39	-0.44
	77	Overall	4.20	4.44	-0.25	4.57	4.91	-0.34
	78	Overall	3.99	4.39	-0.40	4.09	4.34	-0.25
	79	Overall	4.11	4.42	-0.31			
	80	Overall	4.45	4.74	-0.29	4.42	4.59	-0.17

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	81	Overall	4.65	4.58	0.07	4.66	4.77	-0.11
	82	Overall	3.65	3.83	-0.17	3.90	4.19	-0.29
	83	Overall	3.34	3.76	-0.43	4.18	4.47	-0.29
	84	Overall	4.28	4.46	-0.18	3.81	4.01	-0.21
	85	Overall	3.81	4.00	-0.19	4.33	4.33	-0.00
	86	Overall	4.38	4.53	-0.15	3.89	4.23	-0.34
	87	Overall	4.32	4.61	-0.28	4.10	4.60	-0.50
	88	Overall	4.27	4.44	-0.17	3.59	3.98	-0.39
	89	Overall	4.06	4.49	-0.43	4.61	4.82	-0.20
	90	Overall	4.14	4.57	-0.43	4.97	4.97	-0.00
	91	Overall	4.05	4.19	-0.14	4.36	4.63	-0.27
	92	Overall	4.15	4.27	-0.12	4.20	4.83	-0.62
	93	Overall	4.61	4.52	0.08			
	94	Overall	3.94	4.29	-0.35	4.40	4.75	-0.35
	95	Overall	4.16	4.49	-0.33	3.43	3.93	-0.50
	96	Overall	4.06	4.43	-0.37	3.49	3.85	-0.36
	97	Overall	3.98	4.30	-0.31	5.39	5.89	-0.50
	98	Overall	4.10	4.30	-0.20			
	99	Overall	4.03	4.39	-0.35	4.77	5.12	-0.35
	100	Overall	4.18	4.42	-0.24	3.76	4.35	-0.59

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	101	Overall	3.98	4.33	-0.34			
	102	Overall	4.57	4.71	-0.15	4.01	4.28	-0.27
	103	Overall	4.46	4.74	-0.28	3.35	3.51	-0.16
	104	Overall	3.74	4.01	-0.27	4.83	5.09	-0.27
	105	Overall	3.94	4.16	-0.22	4.31	4.58	-0.27
	106	Overall	3.54	3.98	-0.45			
	107	Overall	4.50	4.82	-0.32	3.80	4.00	-0.20
	108	Overall	4.11	4.33	-0.22	4.46	4.77	-0.31
	109	Overall	3.82	4.20	-0.37	3.84	4.16	-0.32
	110	Overall	4.28	4.48	-0.20	4.51	4.72	-0.22
	111	Overall	4.02	4.42	-0.40	3.45	3.86	-0.41
	112	Overall	4.02	4.54	-0.52	3.57	4.09	-0.52
	113	Overall	4.18	4.47	-0.29	3.39	3.63	-0.24
	114	Overall	3.96	4.41	-0.45	4.10	4.54	-0.44
	115	Overall	3.87	4.38	-0.51	3.89	4.33	-0.44
	116	Overall	4.10	4.47	-0.36	3.24	3.27	-0.04
	117	Overall	3.86	4.24	-0.38	4.05	4.15	-0.10
	118	Overall	3.83	4.18	-0.35	4.22	4.68	-0.46
	119	Overall	3.94	4.45	-0.51	3.48	3.49	-0.02
	120	Overall	3.93	4.38	-0.46	4.51	5.01	-0.51

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	121	Overall	3.88	4.30	-0.41	4.92	5.33	-0.42
	122	Overall	3.88	4.35	-0.47	3.90	4.19	-0.29
	123	Overall	4.06	4.59	-0.53	4.37	4.75	-0.38
	124	Overall	3.99	4.40	-0.41	4.14	4.55	-0.41
	125	Overall	4.12	4.46	-0.34	3.90	4.30	-0.40
	126	Overall	4.57	4.67	-0.10	3.72	4.16	-0.44
	127	Overall	3.75	4.27	-0.52	3.91	4.26	-0.35
	128	Overall	3.53	4.18	-0.65	3.62	3.68	-0.05
	129	Overall	4.27	4.46	-0.19	4.63	5.04	-0.42
	130	Overall	4.49	4.63	-0.14	3.48	3.72	-0.24
	131	Overall	4.16	4.65	-0.49	4.43	4.73	-0.30
	132	Overall	4.00	4.41	-0.41			
	133	Overall	4.20	4.64	-0.44	4.34	4.48	-0.14
	134	Overall	4.26	4.68	-0.42	4.72	4.71	0.01
	135	Overall	4.59	4.62	-0.03	3.50	3.90	-0.40
	136	Overall	4.05	4.57	-0.52	3.67	3.80	-0.12
	137	Overall	3.74	3.90	-0.16	3.63	3.81	-0.18
	138	Overall	4.28	4.61	-0.33	4.11	4.71	-0.60
	139	Overall	4.30	4.63	-0.33	3.81	4.10	-0.30
	140	Overall	4.36	4.54	-0.18	4.03	4.29	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	141	Overall	4.28	4.57	-0.29	4.11	4.20	-0.10
	142	Overall	4.17	4.55	-0.37	3.42	3.74	-0.32
	143	Overall	4.09	4.44	-0.36	4.38	4.56	-0.18
	144	Overall	3.99	4.32	-0.32	3.77	3.86	-0.09
	145	Overall	4.01	4.38	-0.37	4.13	4.28	-0.15
	146	Overall	4.27	4.55	-0.28	4.08	4.55	-0.47
	147	Overall	4.36	4.79	-0.42	3.94	4.40	-0.46
	148	Overall	4.38	4.67	-0.29	3.51	3.94	-0.43
	149	Overall	4.34	4.68	-0.33	3.43	4.04	-0.61
	150	Overall	4.02	4.33	-0.30	5.48	5.79	-0.30
	151	Overall	4.23	4.55	-0.32			
	152	Overall	3.91	4.31	-0.41	3.82	4.13	-0.30
	153	Overall	4.34	4.63	-0.29	5.12	5.38	-0.26
	154	Overall	4.10	4.42	-0.32	3.91	4.21	-0.30
	155	Overall	3.83	4.27	-0.44	4.93	5.22	-0.29
	156	Overall	4.64	5.00	-0.36	4.54	4.77	-0.23
	157	Overall	3.39	3.79	-0.40	4.24	4.59	-0.35
	158	Overall	4.60	4.80	-0.21	3.55	3.99	-0.44
	159	Overall	4.06	4.44	-0.38	4.12	4.28	-0.16
	160	Overall	4.24	4.37	-0.13	3.26	3.40	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	161	Overall	4.39	4.58	-0.18	4.21	4.33	-0.11
	162	Overall	4.36	4.59	-0.22	3.72	4.11	-0.39
	163	Overall	4.14	4.38	-0.24	3.79	4.15	-0.36
	164	Overall	4.21	4.49	-0.28	4.10	4.46	-0.36
	165	Overall	4.44	4.67	-0.24	4.00	3.92	0.08
	166	Overall	4.21	4.57	-0.37	4.20	4.56	-0.36
	167	Overall	4.19	4.57	-0.39	4.92	5.21	-0.29
	168	Overall	3.96	4.11	-0.15	4.19	4.80	-0.61
	169	Overall	4.13	4.36	-0.22	3.43	3.66	-0.23
	170	Overall	3.87	4.26	-0.39	4.65	4.91	-0.26
	171	Overall	4.22	4.39	-0.17	4.34	4.63	-0.29
	172	Overall	3.78	3.91	-0.13	4.06	4.48	-0.42
	173	Overall	4.35	4.61	-0.27	3.60	4.00	-0.40
	174	Overall	4.04	4.29	-0.25	4.00	4.42	-0.42
	175	Overall	4.04	4.63	-0.58	4.14	4.17	-0.02
	176	Overall	3.80	4.39	-0.59	3.67	3.74	-0.07
	177	Overall	4.00	4.20	-0.20	4.44	4.69	-0.25
	178	Overall				4.57	4.68	-0.11
	179	Overall	4.16	4.54	-0.37	4.08	4.28	-0.20
	180	Overall	4.22	4.39	-0.17	3.89	4.35	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	181	Overall	3.57	3.92	-0.35	4.79	5.14	-0.35
	182	Overall	4.24	4.44	-0.20	4.43	4.45	-0.02
	183	Overall	3.97	4.32	-0.35	4.72	4.92	-0.20
	184	Overall	3.98	4.26	-0.27	4.07	4.55	-0.48
	185	Overall	3.88	4.45	-0.57	3.56	3.80	-0.24
	186	Overall	4.25	4.32	-0.06	3.85	4.25	-0.40
	187	Overall	4.30	4.71	-0.41	4.16	4.50	-0.34
	188	Overall	3.98	4.28	-0.30	3.80	4.20	-0.40
	189	Overall	4.37	4.59	-0.23	3.47	3.78	-0.31
	190	Overall	3.91	4.14	-0.23	3.36	3.49	-0.13
	191	Overall	3.90	4.41	-0.51	4.11	4.49	-0.38
	192	Overall	4.37	4.49	-0.13	3.44	3.43	0.01
	193	Overall	4.02	4.33	-0.32	3.54	3.88	-0.34
	194	Overall	4.01	4.36	-0.35	3.58	3.74	-0.16
	195	Overall	4.24	4.35	-0.11	3.59	3.91	-0.32
	196	Overall	4.25	4.68	-0.43	4.08	4.40	-0.32
	197	Overall	4.07	4.49	-0.42			
	198	Overall	4.17	4.63	-0.46	3.48	3.81	-0.33
	199	Overall	4.28	4.53	-0.24	4.12	4.40	-0.28
	200	Overall	3.85	4.32	-0.46	3.95	4.28	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	201	Overall	3.86	4.33	-0.46	3.00	3.25	-0.25
	202	Overall	4.06	4.59	-0.53	4.37	4.77	-0.40
	203	Overall	3.90	4.35	-0.45	3.64	3.99	-0.35
	204	Overall	4.24	4.68	-0.44	4.58	4.92	-0.34
	205	Overall	4.38	4.60	-0.22	3.92	4.23	-0.30
	206	Overall	3.96	4.44	-0.48	4.57	4.77	-0.20
	207	Overall	3.82	4.38	-0.56	3.97	4.35	-0.37
	208	Overall	3.80	4.29	-0.50	3.52	3.84	-0.32
	209	Overall	4.30	4.47	-0.17	4.32	4.48	-0.15
	210	Overall	4.54	4.87	-0.33	4.72	4.91	-0.19
	211	Overall	4.56	4.72	-0.16	4.58	4.83	-0.25
	212	Overall	3.84	4.40	-0.56	3.69	3.84	-0.14
	213	Overall	4.39	4.60	-0.21	4.27	4.36	-0.08
	214	Overall	3.84	4.12	-0.28	4.31	4.72	-0.41
	215	Overall	4.35	4.51	-0.17	3.68	3.65	0.03
	216	Overall	4.01	4.29	-0.28	5.10	5.43	-0.33
	217	Overall	3.83	4.46	-0.63	4.44	4.48	-0.04
	218	Overall	4.54	4.85	-0.31	3.70	3.90	-0.20
	219	Overall	4.47	4.84	-0.36	3.81	4.05	-0.24
	220	Overall	4.08	4.44	-0.36	3.95	4.31	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	221	Overall	4.38	4.62	-0.24	4.27	4.68	-0.41
	222	Overall	4.31	4.73	-0.42	3.53	3.69	-0.16
	223	Overall	4.30	4.50	-0.20	4.89	5.12	-0.24
	224	Overall	4.16	4.41	-0.25			
	225	Overall	3.44	4.02	-0.58	5.06	5.43	-0.37
	226	Overall	4.18	4.51	-0.34	4.96	5.39	-0.43
	227	Overall	3.72	4.25	-0.53	4.35	4.62	-0.27
	228	Overall	4.21	4.56	-0.35	2.85	3.24	-0.39
	229	Overall	4.51	4.66	-0.15	4.15	4.25	-0.10
	230	Overall	3.84	4.19	-0.35	3.29	3.78	-0.49
	231	Overall	4.10	4.66	-0.56	4.55	4.64	-0.08
	232	Overall	4.12	4.67	-0.55	3.72	3.71	0.02
	233	Overall	3.76	4.12	-0.35	4.96	5.20	-0.24
	234	Overall	3.85	4.19	-0.34	4.48	4.65	-0.17
	235	Overall	4.21	4.65	-0.44	4.12	4.41	-0.29
	236	Overall	4.15	4.51	-0.36			
	237	Overall	3.73	4.07	-0.34	4.88	5.35	-0.47
	238	Overall	4.31	4.56	-0.25	4.26	4.70	-0.44
	239	Overall	3.98	4.51	-0.54	4.12	4.66	-0.54
	240	Overall	4.27	4.71	-0.44	3.92	4.37	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	241	Overall	4.30	4.67	-0.37	3.40	3.62	-0.22
	242	Overall	4.21	4.43	-0.22	3.89	4.01	-0.12
	243	Overall	3.92	4.34	-0.42	4.74	5.22	-0.48
	244	Overall	4.64	4.56	0.08	3.46	3.42	0.04
	245	Overall	3.89	4.28	-0.39	4.65	4.90	-0.25
	246	Overall	3.93	4.24	-0.31	4.87	5.03	-0.16
	247	Overall	4.16	4.56	-0.40	4.04	4.54	-0.49
	248	Overall	4.02	4.22	-0.20	3.52	3.82	-0.29
	249	Overall	4.00	4.31	-0.31	4.93	5.37	-0.43
	250	Overall	4.41	4.42	-0.01			
	251	Overall	3.74	4.28	-0.54	3.78	4.06	-0.28
	252	Overall	4.25	4.72	-0.48	3.88	4.22	-0.34
	253	Overall	4.07	4.62	-0.55	4.22	4.54	-0.32
	254	Overall	4.50	4.61	-0.11	3.85	4.22	-0.37
	255	Overall	4.21	4.44	-0.23	4.80	4.92	-0.13
	256	Overall	3.89	4.34	-0.45	4.32	4.56	-0.25
	257	Overall	4.31	4.79	-0.49	3.71	3.82	-0.12
	258	Overall	4.16	4.30	-0.14	3.03	3.35	-0.32
	259	Overall	4.28	4.59	-0.31	4.27	4.77	-0.50
	260	Overall	3.86	4.29	-0.43	4.25	4.48	-0.23

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	261	Overall	4.58	4.92	-0.34	3.04	3.28	-0.24
	262	Overall	4.06	4.39	-0.33	4.05	4.18	-0.13
	263	Overall	3.77	4.12	-0.36	3.56	3.96	-0.39
	264	Overall	3.92	4.22	-0.30	4.19	4.33	-0.14
	265	Overall	4.45	4.62	-0.17	3.92	4.26	-0.34
	266	Overall	4.04	4.23	-0.19	3.53	3.67	-0.14
	267	Overall	4.13	4.48	-0.35	4.56	4.77	-0.21
	268	Overall	4.28	4.75	-0.47	4.35	4.68	-0.33
	269	Overall	4.18	4.51	-0.33			
	270	Overall	3.71	4.14	-0.44	5.04	5.11	-0.07
	271	Overall	4.19	4.49	-0.30	4.09	4.20	-0.11
	272	Overall	4.08	4.53	-0.45	4.48	4.74	-0.26
	273	Overall	3.84	4.15	-0.32			
	274	Overall	4.12	4.34	-0.22	4.07	4.48	-0.40
	275	Overall	3.95	4.33	-0.38	4.18	4.20	-0.02
	276	Overall	4.18	4.63	-0.45	4.08	4.31	-0.23
	277	Overall	4.11	4.39	-0.28	3.65	3.98	-0.33
	278	Overall	4.43	4.57	-0.14	4.45	4.93	-0.48
	279	Overall	3.75	4.34	-0.59	4.06	4.44	-0.37
	280	Overall	4.09	4.38	-0.29	4.60	4.99	-0.39

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	281	Overall	4.50	4.66	-0.16	3.61	3.78	-0.17
	282	Overall	4.35	4.73	-0.38	4.42	4.77	-0.35
	283	Overall	4.07	4.57	-0.50	3.99	4.54	-0.55
	284	Overall	3.88	4.32	-0.44	4.27	4.53	-0.26
	285	Overall	3.75	4.16	-0.41	3.87	4.22	-0.35
	286	Overall	4.08	4.40	-0.32	4.26	4.40	-0.14
	287	Overall	3.88	4.19	-0.31	3.84	4.20	-0.36
	288	Overall	3.99	4.44	-0.45	3.49	3.76	-0.27
	289	Overall	4.09	4.56	-0.47	3.88	4.12	-0.24
	290	Overall	3.98	4.54	-0.56	3.93	4.41	-0.47
	291	Overall	3.98	4.07	-0.08	4.01	4.17	-0.15
	292	Overall	4.21	4.36	-0.15	3.62	3.76	-0.14
	293	Overall	4.35	4.67	-0.32			
	294	Overall	4.33	4.60	-0.28	4.18	4.36	-0.18
	295	Overall	4.12	4.60	-0.48	3.66	3.75	-0.09
	296	Overall	4.32	4.43	-0.11	4.42	4.44	-0.02
	297	Overall	4.32	4.53	-0.21	4.74	5.25	-0.51
	298	Overall	3.63	4.00	-0.37	3.94	4.26	-0.32
	299	Overall	4.48	4.64	-0.16	4.70	4.99	-0.29
	300	Overall	4.15	4.48	-0.33	4.32	4.67	-0.34

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	301	Overall	4.41	4.54	-0.13			
	302	Overall	4.11	4.48	-0.37	4.27	4.63	-0.36
	303	Overall	4.42	4.57	-0.15	3.26	3.66	-0.40
	304	Overall	4.41	4.85	-0.44	3.54	3.62	-0.08
	305	Overall	4.46	4.83	-0.37	4.06	4.30	-0.23
	306	Overall	4.23	4.44	-0.20	4.08	4.39	-0.32
	307	Overall	4.21	4.53	-0.32	4.46	4.71	-0.25
	308	Overall	3.83	4.12	-0.29	4.20	4.61	-0.41
	309	Overall	3.95	4.35	-0.40	3.83	3.87	-0.04
	310	Overall	4.31	4.71	-0.40			
	311	Overall	3.82	4.10	-0.28	4.04	4.05	-0.01
	312	Overall	4.03	4.47	-0.44	3.80	3.84	-0.04
	313	Overall	3.83	4.35	-0.52			
	314	Overall	4.12	4.62	-0.49	4.01	4.28	-0.26
	315	Overall	4.19	4.39	-0.20	4.25	4.75	-0.50
	316	Overall	4.09	4.36	-0.27	3.79	4.02	-0.23
	317	Overall	4.62	4.91	-0.29	3.83	3.94	-0.11
	318	Overall	4.10	4.48	-0.37	3.78	4.08	-0.30
	319	Overall	4.21	4.72	-0.51	4.00	4.45	-0.45
	320	Overall	4.13	4.54	-0.41	5.06	5.52	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	321	Overall	4.10	4.66	-0.56	5.03	5.29	-0.25
	322	Overall	4.42	4.69	-0.27	4.85	5.08	-0.23
	323	Overall	3.54	3.99	-0.45	4.14	4.45	-0.30
	324	Overall	4.18	4.38	-0.20	3.76	4.28	-0.52
	325	Overall	4.19	4.55	-0.36	4.24	4.79	-0.55
	326	Overall	3.79	3.78	0.01	5.03	5.25	-0.22
	327	Overall	4.01	4.25	-0.25	4.25	4.61	-0.36
	328	Overall	4.00	4.46	-0.46	3.27	3.57	-0.30
	329	Overall	4.32	4.52	-0.20	3.57	4.10	-0.53
	330	Overall	3.92	4.35	-0.43	4.77	5.04	-0.27
	331	Overall				3.83	4.14	-0.30
	332	Overall	3.94	4.36	-0.42	3.62	3.76	-0.14
	333	Overall	4.09	4.39	-0.30	4.04	4.07	-0.03
	334	Overall	4.41	4.53	-0.11	4.00	4.19	-0.18
	335	Overall	4.23	4.48	-0.25	4.24	4.58	-0.34
	336	Overall	4.45	4.68	-0.23	4.47	4.57	-0.10
	337	Overall	4.11	4.36	-0.25	3.95	4.11	-0.16
	338	Overall	4.75	4.79	-0.03	4.65	4.95	-0.30
	339	Overall	4.02	4.40	-0.38			
	340	Overall	3.78	4.29	-0.51	3.73	4.16	-0.43

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	341	Overall	3.97	4.44	-0.46	3.87	4.02	-0.15
	342	Overall	4.26	4.49	-0.23	3.85	4.14	-0.28
	343	Overall	4.30	4.40	-0.09	4.87	5.15	-0.27
	344	Overall	3.99	4.09	-0.09	4.05	3.98	0.07
	345	Overall	4.17	4.53	-0.35	3.65	3.77	-0.12
	346	Overall	3.99	4.43	-0.44	3.80	3.77	0.03
	347	Overall	4.33	4.56	-0.23	3.66	3.99	-0.33
	348	Overall	3.73	4.18	-0.45	4.32	4.57	-0.25
	349	Overall	3.75	4.12	-0.37	3.83	4.24	-0.41
	350	Overall	3.92	4.24	-0.33	3.94	4.37	-0.43
	351	Overall	4.07	4.31	-0.23	4.21	4.75	-0.54
	352	Overall	3.46	3.80	-0.34	3.94	4.44	-0.50
	353	Overall	4.45	4.57	-0.12	3.99	4.28	-0.28
	354	Overall	4.31	4.74	-0.43	4.36	4.85	-0.49
	355	Overall	4.14	4.61	-0.47	3.91	4.37	-0.46
	356	Overall	4.05	4.46	-0.40	4.23	4.47	-0.23
	357	Overall	4.12	4.39	-0.26	4.36	4.31	0.04
	358	Overall	4.23	4.50	-0.27			
	359	Overall	3.83	4.19	-0.36	4.92	4.95	-0.02
	360	Overall	4.36	4.72	-0.36	3.95	4.01	-0.06

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	361	Overall	4.06	4.39	-0.33	4.39	4.59	-0.20
	362	Overall	4.29	4.73	-0.44	3.78	4.11	-0.34
	363	Overall	3.89	4.13	-0.24	3.45	3.57	-0.12
	364	Overall	3.43	3.79	-0.36	3.27	3.52	-0.25
	365	Overall	4.07	4.45	-0.37			
	366	Overall	4.02	4.45	-0.43	4.36	4.54	-0.18
	367	Overall	4.39	4.79	-0.40	4.24	4.48	-0.24
	368	Overall	3.83	4.17	-0.34	4.21	4.62	-0.41
	369	Overall	4.33	4.59	-0.26	3.65	3.67	-0.02
	370	Overall	3.59	4.15	-0.56	4.07	4.48	-0.41
	371	Overall	4.06	4.45	-0.40	3.89	4.08	-0.19
	372	Overall	4.00	4.62	-0.61	4.71	5.05	-0.34
	373	Overall	4.10	4.41	-0.31	3.88	4.26	-0.39
	374	Overall	4.18	4.52	-0.35	3.41	3.87	-0.46
	375	Overall	4.20	4.63	-0.43			
	376	Overall	4.10	4.40	-0.30	4.63	4.94	-0.31
	377	Overall	4.13	4.47	-0.34	3.99	4.26	-0.27
	378	Overall	4.11	4.38	-0.27	4.70	5.00	-0.30
	379	Overall	4.32	4.53	-0.21	3.55	4.03	-0.48
	380	Overall	4.35	4.60	-0.25	3.80	3.92	-0.11

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	381	Overall	3.95	4.35	-0.40	5.01	5.55	-0.53
	382	Overall	4.48	4.35	0.13	4.37	4.54	-0.16
	383	Overall	3.88	4.38	-0.50	5.35	5.56	-0.22
	384	Overall	4.08	4.38	-0.30			
	385	Overall	4.18	4.60	-0.42	3.86	4.24	-0.37
	386	Overall	4.17	4.53	-0.36	4.26	4.72	-0.45
	387	Overall	4.07	4.66	-0.59	4.10	4.48	-0.39
	388	Overall	4.04	4.20	-0.16	3.97	4.29	-0.32
	389	Overall	4.18	4.57	-0.40	3.91	4.11	-0.20
	390	Overall	3.86	4.15	-0.29	4.43	4.75	-0.32
	391	Overall	4.16	4.66	-0.50	4.19	4.50	-0.31
	392	Overall	4.02	4.32	-0.31	4.50	4.77	-0.28
	393	Overall	4.42	4.47	-0.05	3.53	3.90	-0.37
	394	Overall	4.25	4.39	-0.14	4.44	4.62	-0.18
	395	Overall	4.48	4.68	-0.20	4.10	4.54	-0.44
	396	Overall	4.04	4.40	-0.35	3.89	4.15	-0.26
	397	Overall	3.74	4.27	-0.52	4.07	4.45	-0.38
	398	Overall	4.19	4.56	-0.38	4.35	4.60	-0.25
	399	Overall	3.86	4.13	-0.28	4.12	4.37	-0.25
	400	Overall	3.84	4.30	-0.46	4.19	4.73	-0.54

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	401	Overall	3.92	4.45	-0.53	4.16	4.72	-0.55
	402	Overall	4.00	4.19	-0.20	4.54	4.68	-0.14
	403	Overall	4.24	4.65	-0.41	3.60	3.81	-0.21
	404	Overall	4.56	4.75	-0.19	4.69	5.06	-0.37
	405	Overall	4.30	4.47	-0.17	3.26	3.60	-0.34
	406	Overall	4.29	4.61	-0.32	4.46	4.86	-0.40
	407	Overall	4.17	4.42	-0.24	3.77	4.15	-0.38
	408	Overall	4.32	4.59	-0.27	4.24	4.53	-0.29
	409	Overall	4.17	4.45	-0.28	4.80	5.21	-0.40
	410	Overall	4.53	4.75	-0.22	3.80	4.03	-0.23
	411	Overall	4.05	4.41	-0.36	3.93	4.02	-0.09
	412	Overall	4.09	4.04	0.04	4.44	4.52	-0.08
	413	Overall	4.20	4.65	-0.45	3.43	3.52	-0.09
	414	Overall	4.06	4.05	0.00	4.67	4.73	-0.06
	415	Overall	4.03	4.34	-0.31	4.23	4.36	-0.13
	416	Overall	4.27	4.60	-0.33	4.01	4.43	-0.42
	417	Overall	3.98	4.30	-0.32	4.27	4.67	-0.40
	418	Overall	4.41	4.65	-0.24	3.96	4.24	-0.28
	419	Overall	4.09	4.36	-0.27	3.95	4.34	-0.39
	420	Overall	4.10	4.23	-0.13	4.81	5.15	-0.34

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	421	Overall	4.07	4.29	-0.22	4.16	4.53	-0.37
	422	Overall	4.21	4.73	-0.52	4.12	4.40	-0.28
	423	Overall	4.01	4.48	-0.47	4.15	4.68	-0.52
	424	Overall	4.64	5.04	-0.40	3.99	4.26	-0.28
	425	Overall	3.96	4.47	-0.51	4.09	4.61	-0.52
	426	Overall	3.73	3.95	-0.22	4.29	4.40	-0.11
	427	Overall	4.31	4.68	-0.37	4.18	4.59	-0.41
	428	Overall	3.96	4.40	-0.44	2.71	3.09	-0.37
	429	Overall	4.01	4.44	-0.43	3.58	3.70	-0.12
	430	Overall	4.04	4.46	-0.42	3.75	4.08	-0.33
	431	Overall	3.80	4.21	-0.41	3.82	3.99	-0.17
	432	Overall	3.64	4.13	-0.49	4.00	4.40	-0.40
	433	Overall	4.28	4.59	-0.30	3.71	3.77	-0.07
	434	Overall	3.97	4.40	-0.43			
	435	Overall	4.07	4.48	-0.40	3.77	4.00	-0.23
	436	Overall	4.19	4.51	-0.32	4.03	4.31	-0.28
	437	Overall	3.77	4.24	-0.47	3.89	4.23	-0.35
	438	Overall	4.05	4.36	-0.30	4.74	5.30	-0.57
	439	Overall	4.16	4.54	-0.39	4.22	4.77	-0.55
	440	Overall	4.05	4.52	-0.46	4.84	5.24	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	441	Overall	4.16	4.54	-0.38	4.49	4.66	-0.18
	442	Overall	3.75	4.03	-0.28	4.19	4.47	-0.28
	443	Overall	4.05	4.55	-0.50	4.04	4.53	-0.49
	444	Overall	3.97	4.51	-0.54	3.26	3.39	-0.13
	445	Overall				4.60	5.02	-0.41
	446	Overall	4.24	4.55	-0.31	3.48	3.68	-0.20
	447	Overall	4.20	4.27	-0.07			
	448	Overall	4.10	4.48	-0.38	4.64	4.80	-0.16
	449	Overall	3.96	4.37	-0.41	4.15	4.52	-0.36
	450	Overall	3.89	4.20	-0.31	4.30	4.42	-0.13
	451	Overall	3.94	4.37	-0.44	4.53	4.46	0.07
	452	Overall	4.32	4.57	-0.24	3.22	3.36	-0.14
	453	Overall	4.05	4.48	-0.43	3.80	4.14	-0.35
	454	Overall	4.56	4.92	-0.36	4.04	4.42	-0.38
	455	Overall	3.92	4.30	-0.39	4.54	4.94	-0.40
	456	Overall	4.04	4.47	-0.42	4.03	4.22	-0.19
	457	Overall	4.28	4.42	-0.14	4.50	5.01	-0.51
	458	Overall	4.10	4.58	-0.48	4.99	5.20	-0.21
	459	Overall	4.18	4.47	-0.29	3.94	4.37	-0.43
	460	Overall	4.20	4.59	-0.40	4.74	5.12	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	461	Overall	4.12	4.45	-0.33	4.22	4.51	-0.29
	462	Overall	4.15	4.49	-0.34	4.00	4.23	-0.23
	463	Overall	3.99	4.30	-0.31	3.94	4.24	-0.29
	464	Overall	3.76	4.42	-0.66			
	465	Overall	4.23	4.49	-0.26	4.77	5.01	-0.23
	466	Overall	4.00	4.48	-0.48	3.61	3.99	-0.38
	467	Overall	4.54	4.82	-0.28	3.15	3.40	-0.25
	468	Overall	4.04	4.10	-0.05	3.76	3.97	-0.21
	469	Overall	4.06	4.38	-0.33	4.26	4.50	-0.25
	470	Overall	4.05	4.50	-0.45	4.04	4.16	-0.11
	471	Overall	4.26	4.59	-0.33	4.24	4.59	-0.35
	472	Overall	4.30	4.50	-0.20	3.98	4.48	-0.50
	473	Overall	4.38	4.56	-0.18			
	474	Overall	3.85	4.13	-0.28	4.41	4.78	-0.38
	475	Overall	3.98	4.28	-0.31	3.84	4.00	-0.16
	476	Overall	4.36	4.61	-0.25	4.01	4.13	-0.12
	477	Overall	4.18	4.36	-0.19	3.82	4.15	-0.33
	478	Overall	4.28	4.61	-0.33	3.32	3.59	-0.27
	479	Overall	4.31	4.44	-0.14	3.81	4.04	-0.24
	480	Overall	4.35	4.71	-0.36	3.63	4.03	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	481	Overall	4.11	4.40	-0.30	3.73	4.17	-0.44
	482	Overall	4.18	4.58	-0.40	4.18	4.62	-0.44
	483	Overall	3.96	4.13	-0.17	3.89	4.22	-0.33
	484	Overall	4.15	4.47	-0.32	3.62	3.92	-0.31
	485	Overall	3.79	4.13	-0.34	3.68	3.93	-0.25
	486	Overall	4.15	4.53	-0.38	3.59	3.70	-0.10
	487	Overall	3.84	4.13	-0.29	3.55	3.84	-0.29
	488	Overall	4.19	4.41	-0.22	4.05	4.27	-0.22
	489	Overall	3.98	4.19	-0.21	4.10	4.22	-0.12
	490	Overall	4.25	4.58	-0.33	4.79	5.01	-0.22
	491	Overall	3.89	4.24	-0.35	3.86	4.36	-0.51
	492	Overall	3.76	4.16	-0.40	3.85	4.00	-0.15
	493	Overall	4.26	4.67	-0.41			
	494	Overall	4.17	4.44	-0.26	4.60	5.09	-0.48
	495	Overall	4.10	4.55	-0.45	3.57	3.95	-0.37
	496	Overall	4.45	4.76	-0.31	4.30	4.40	-0.10
	497	Overall	3.74	3.99	-0.26	3.76	4.22	-0.47
	498	Overall	3.69	4.13	-0.45	3.97	4.20	-0.22
	499	Overall	3.55	3.99	-0.44	3.04	3.39	-0.34
	500	Overall	4.70	4.82	-0.12	4.94	5.19	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	501	Overall	4.18	4.42	-0.24	4.71	5.08	-0.37
	502	Overall	4.52	4.79	-0.27	3.81	4.16	-0.35
	503	Overall	3.86	4.13	-0.27	3.84	4.15	-0.31
	504	Overall	3.79	4.44	-0.66	4.04	4.38	-0.34
	505	Overall	4.32	4.60	-0.27			
	506	Overall	3.96	4.25	-0.29	3.93	4.36	-0.43
	507	Overall	4.20	4.51	-0.30	5.06	5.28	-0.22
	508	Overall	4.42	4.66	-0.24	4.02	4.19	-0.17
	509	Overall	4.31	4.52	-0.21	3.02	3.53	-0.51
	510	Overall	3.75	4.16	-0.41	3.06	3.37	-0.32
	511	Overall	3.92	4.31	-0.39	4.18	4.79	-0.61
	512	Overall	3.84	4.22	-0.38	3.94	4.42	-0.48
	513	Overall	4.10	4.33	-0.23	4.58	4.87	-0.29
	514	Overall	4.41	4.82	-0.41	3.79	4.06	-0.27
	515	Overall	4.31	4.53	-0.23	3.94	4.28	-0.34
	516	Overall	4.00	4.58	-0.59	4.14	4.60	-0.46
	517	Overall	4.49	4.77	-0.28			
	518	Overall	4.10	4.48	-0.38	3.98	4.24	-0.25
	519	Overall	4.19	4.40	-0.21	3.64	3.80	-0.16
	520	Overall	3.92	4.51	-0.59	4.17	4.62	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	521	Overall	4.11	4.37	-0.26	3.87	4.12	-0.25
	522	Overall	4.15	4.58	-0.42	5.28	5.78	-0.50
	523	Overall	3.94	4.18	-0.24	4.90	5.22	-0.32
	524	Overall	4.03	4.27	-0.25	4.00	4.34	-0.35
	525	Overall	4.06	4.47	-0.41	4.59	4.83	-0.24
	526	Overall	4.15	4.57	-0.42	4.19	4.63	-0.44
	527	Overall	4.11	4.21	-0.10	3.60	4.11	-0.51
	528	Overall	4.59	4.86	-0.26	3.68	4.22	-0.54
	529	Overall	3.48	4.05	-0.58	4.56	4.92	-0.36
	530	Overall	4.37	4.60	-0.23	3.81	4.17	-0.35
	531	Overall	4.08	4.25	-0.17			
	532	Overall	3.90	4.33	-0.43			
	533	Overall	4.26	4.40	-0.14	4.86	5.41	-0.54
	534	Overall	3.95	4.17	-0.21	4.07	4.46	-0.39
	535	Overall	3.71	4.31	-0.60	4.22	4.64	-0.43
	536	Overall	4.05	4.53	-0.48	3.68	3.86	-0.18
	537	Overall	4.09	4.49	-0.40	5.27	5.54	-0.28
	538	Overall	4.28	4.68	-0.40	4.37	4.82	-0.45
	539	Overall	4.67	4.81	-0.14	4.16	4.42	-0.26
	540	Overall	3.91	4.31	-0.40	3.44	3.38	0.06

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	541	Overall	4.29	4.66	-0.37	4.34	4.68	-0.34
	542	Overall	4.58	4.85	-0.27	3.68	4.04	-0.36
	543	Overall	4.01	4.19	-0.18	3.76	4.00	-0.24
	544	Overall	4.03	4.53	-0.50	4.83	5.06	-0.23
	545	Overall	4.02	4.17	-0.15	4.21	4.61	-0.40
	546	Overall	4.19	4.42	-0.23	4.96	5.23	-0.28
	547	Overall	4.32	4.77	-0.45			
	548	Overall	3.97	4.34	-0.37	4.37	4.71	-0.35
	549	Overall	4.36	4.56	-0.20	4.64	4.98	-0.34
	550	Overall	4.02	4.23	-0.21	3.87	4.31	-0.44
	551	Overall	4.41	4.74	-0.33	4.44	4.64	-0.20
	552	Overall	4.14	4.53	-0.39	4.49	4.96	-0.47
	553	Overall	3.72	4.08	-0.36	3.83	4.16	-0.33
	554	Overall	4.00	4.34	-0.34			
	555	Overall	4.24	4.45	-0.20	4.43	4.61	-0.18
	556	Overall	3.92	4.46	-0.54	4.03	4.18	-0.15
	557	Overall	4.36	4.72	-0.37	4.55	4.77	-0.22
	558	Overall	3.54	4.08	-0.54	4.67	4.94	-0.27
	559	Overall	4.36	4.53	-0.17	4.23	4.48	-0.25
	560	Overall	4.37	4.67	-0.30	4.16	4.51	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	561	Overall	3.86	4.43	-0.58	4.52	4.73	-0.21
	562	Overall	3.98	4.32	-0.33	3.19	3.48	-0.30
	563	Overall	4.28	4.42	-0.14	3.37	3.29	0.09
	564	Overall	3.92	4.11	-0.19	4.30	4.56	-0.26
	565	Overall	4.25	4.62	-0.37	3.90	4.10	-0.20
	566	Overall	4.16	4.58	-0.42	5.32	5.79	-0.47
	567	Overall	3.95	4.17	-0.22	3.83	4.25	-0.42
	568	Overall	4.22	4.52	-0.31	4.81	5.09	-0.27
	569	Overall	4.26	4.39	-0.13	4.51	5.00	-0.49
	570	Overall	3.90	4.18	-0.28	3.79	3.88	-0.09
	571	Overall	3.74	4.11	-0.37	4.17	4.36	-0.19
	572	Overall	4.59	4.69	-0.10	4.52	4.89	-0.37
	573	Overall	4.28	4.38	-0.10	4.73	4.83	-0.09
	574	Overall	4.00	4.34	-0.34	2.79	3.08	-0.29
	575	Overall	4.57	4.86	-0.29	3.87	4.31	-0.44
	576	Overall				4.64	4.88	-0.24
	577	Overall	4.45	4.88	-0.43	3.93	4.09	-0.17
	578	Overall	4.08	4.53	-0.45	4.19	4.11	0.07
	579	Overall	3.82	4.35	-0.52	3.93	4.50	-0.58
	580	Overall	4.06	4.43	-0.38	3.66	3.93	-0.26

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	581	Overall	4.22	4.53	-0.30	4.42	4.70	-0.27
	582	Overall	4.56	4.63	-0.07	4.14	4.65	-0.51
	583	Overall	4.13	4.50	-0.38	3.18	3.66	-0.48
	584	Overall	4.35	4.69	-0.34	4.46	4.74	-0.28
	585	Overall	4.28	4.48	-0.20	4.06	4.50	-0.44
	586	Overall	4.55	4.78	-0.24	4.46	4.69	-0.22
	587	Overall	4.21	4.43	-0.22	3.84	4.23	-0.40
	588	Overall	3.89	4.50	-0.61	3.70	3.93	-0.23
	589	Overall	4.39	4.72	-0.33	3.39	3.73	-0.34
	590	Overall	3.94	4.36	-0.41	4.92	5.08	-0.16
	591	Overall	4.58	4.89	-0.30	4.12	4.53	-0.41
	592	Overall	4.11	4.35	-0.25	4.24	4.54	-0.30
	593	Overall	4.17	4.35	-0.19	3.75	4.27	-0.52
	594	Overall	4.06	4.54	-0.47	4.27	4.55	-0.28
	595	Overall	3.85	4.28	-0.43	4.23	4.44	-0.21
	596	Overall	3.97	4.25	-0.28			
	597	Overall	4.05	4.56	-0.51	4.62	4.98	-0.36
	598	Overall	4.25	4.30	-0.05	4.57	4.94	-0.37
	599	Overall	4.33	4.51	-0.18	3.49	3.75	-0.26
	600	Overall	3.94	4.15	-0.21			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	601	Overall	3.88	4.37	-0.49	3.73	4.18	-0.45
	602	Overall	4.13	4.27	-0.13	4.97	5.43	-0.46
	603	Overall	4.06	4.25	-0.18	3.59	4.03	-0.44
	604	Overall	4.00	4.43	-0.43	3.70	4.04	-0.34
	605	Overall	3.88	4.22	-0.34	3.43	3.74	-0.31
	606	Overall	4.03	4.36	-0.33	4.17	4.40	-0.23
	607	Overall	3.96	4.23	-0.28	4.40	4.48	-0.07
	608	Overall	4.06	4.44	-0.38	3.37	3.82	-0.45
	609	Overall	3.88	4.18	-0.30	3.79	3.93	-0.14
	610	Overall	4.07	4.37	-0.29	4.33	4.75	-0.42
	611	Overall	4.13	4.50	-0.37	3.82	4.19	-0.37
	612	Overall	4.10	4.63	-0.53	4.94	5.22	-0.28
	613	Overall	4.25	4.51	-0.26	4.26	4.46	-0.20
	614	Overall				2.97	3.13	-0.15
	615	Overall	3.94	4.33	-0.39	4.17	4.56	-0.39
	616	Overall	4.16	4.45	-0.30	4.85	5.23	-0.38
	617	Overall	4.42	4.53	-0.11	4.55	4.79	-0.23
	618	Overall	4.01	4.39	-0.38	3.47	4.02	-0.55
	619	Overall	4.08	4.49	-0.41	4.33	4.51	-0.18
	620	Overall	4.34	4.51	-0.17	3.46	3.72	-0.26

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	621	Overall	3.88	4.31	-0.43	3.32	3.59	-0.27
	622	Overall	4.12	4.45	-0.33	4.25	4.31	-0.06
	623	Overall	4.29	4.60	-0.31	2.66	2.75	-0.09
	624	Overall	4.26	4.47	-0.21	4.69	5.03	-0.33
	625	Overall	4.36	4.73	-0.37			
	626	Overall	4.25	4.37	-0.12	5.23	5.64	-0.41
	627	Overall	4.01	4.34	-0.33	4.50	4.82	-0.32
	628	Overall	3.99	4.45	-0.46	4.56	4.85	-0.29
	629	Overall	4.36	4.55	-0.20	3.26	3.41	-0.15
	630	Overall	4.56	4.69	-0.13	3.40	3.84	-0.44
	631	Overall	4.15	4.51	-0.36	4.73	5.20	-0.48
	632	Overall	4.00	4.39	-0.39	3.88	4.15	-0.27
	633	Overall	4.32	4.66	-0.34	4.53	4.69	-0.16
	634	Overall	4.05	4.27	-0.23	3.30	3.24	0.05
	635	Overall	4.51	4.93	-0.41	4.53	4.86	-0.33
	636	Overall	3.98	4.45	-0.47	3.77	3.94	-0.17
	637	Overall	4.04	4.35	-0.31			
	638	Overall	4.41	4.76	-0.35	4.53	4.85	-0.32
	639	Overall	3.60	4.25	-0.65	4.83	5.22	-0.39
	640	Overall	3.93	4.20	-0.26	3.91	4.33	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	641	Overall	4.14	4.49	-0.35	4.52	5.09	-0.57
	642	Overall	3.96	4.27	-0.31	3.85	3.97	-0.12
	643	Overall	4.09	4.44	-0.35	5.15	5.48	-0.32
	644	Overall	4.34	4.48	-0.14	5.00	5.26	-0.26
	645	Overall	3.73	4.14	-0.41	4.09	4.15	-0.07
	646	Overall	4.26	4.39	-0.13	3.84	4.02	-0.18
	647	Overall	4.26	4.53	-0.27	4.63	4.97	-0.34
	648	Overall	4.50	4.70	-0.19	3.47	3.76	-0.28
	649	Overall	4.03	4.55	-0.51	3.81	4.10	-0.29
	650	Overall	4.14	4.38	-0.23	4.03	4.35	-0.32
	651	Overall	4.15	4.32	-0.17	3.35	3.60	-0.24
	652	Overall	3.94	4.26	-0.32	3.98	4.30	-0.32
	653	Overall				3.20	3.41	-0.20
	654	Overall				3.19	3.45	-0.26
	655	Overall	4.22	4.55	-0.32	4.02	4.22	-0.19
	656	Overall	4.27	4.29	-0.02	4.08	4.46	-0.38
	657	Overall	4.05	4.47	-0.42	4.33	4.69	-0.36
	658	Overall	4.24	4.62	-0.38	4.70	5.08	-0.39
	659	Overall	3.80	4.34	-0.54	4.66	4.90	-0.25
	660	Overall	4.27	4.40	-0.14	3.55	3.53	0.02

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	661	Overall	4.40	4.70	-0.30	3.88	4.19	-0.31
	662	Overall	4.21	4.43	-0.22			
	663	Overall	4.31	4.65	-0.34	4.60	5.11	-0.51
	664	Overall	3.99	4.45	-0.46	3.73	4.32	-0.59
	665	Overall	4.32	4.54	-0.22	4.15	4.71	-0.55
	666	Overall	4.18	4.54	-0.36	4.20	4.57	-0.37
	667	Overall	4.17	4.35	-0.18	4.76	4.90	-0.14
	668	Overall	4.01	4.26	-0.25	4.00	4.06	-0.06
	669	Overall	3.58	3.98	-0.39	4.65	4.83	-0.18
	670	Overall	4.15	4.61	-0.46	3.22	3.59	-0.38
	671	Overall	4.14	4.19	-0.05	2.77	3.10	-0.33
	672	Overall	4.15	4.28	-0.14	3.44	4.00	-0.56
	673	Overall	4.19	4.72	-0.53	3.56	3.97	-0.41
	674	Overall	3.73	4.12	-0.39	3.25	3.41	-0.16
	675	Overall	4.46	4.80	-0.34	3.64	3.73	-0.09
	676	Overall	4.07	4.45	-0.38	4.49	4.85	-0.36
	677	Overall	3.77	4.27	-0.50	4.24	4.54	-0.30
	678	Overall	4.32	4.65	-0.33	3.93	4.00	-0.07
	679	Overall	3.77	4.17	-0.40	3.62	3.98	-0.36
	680	Overall	4.15	4.27	-0.12	4.50	4.75	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	681	Overall	4.06	4.42	-0.36	4.13	4.20	-0.06
	682	Overall	4.15	4.60	-0.45	4.62	5.14	-0.53
	683	Overall	4.35	4.58	-0.23	3.99	4.36	-0.37
	684	Overall	4.33	4.55	-0.22	2.98	3.21	-0.23
	685	Overall	4.32	4.48	-0.15	3.88	4.30	-0.42
	686	Overall	4.25	4.41	-0.16	4.08	4.55	-0.47
	687	Overall	3.70	3.96	-0.26	4.49	4.87	-0.38
	688	Overall	3.85	4.23	-0.38	3.53	3.74	-0.22
	689	Overall	3.69	4.11	-0.41	4.52	4.55	-0.03
	690	Overall	4.16	4.52	-0.36	3.75	4.07	-0.32
	691	Overall	4.64	4.78	-0.13	3.92	4.02	-0.10
	692	Overall	4.18	4.59	-0.41	4.35	4.45	-0.09
	693	Overall	4.01	4.12	-0.11	4.41	4.44	-0.03
	694	Overall	4.02	4.32	-0.30	3.55	3.72	-0.17
	695	Overall	3.98	4.08	-0.09	4.13	4.34	-0.21
	696	Overall	4.18	4.47	-0.29	3.70	4.11	-0.40
	697	Overall	4.30	4.70	-0.40	3.75	4.03	-0.29
	698	Overall	4.06	4.33	-0.27	4.17	4.67	-0.50
	699	Overall	4.39	4.59	-0.21	3.73	4.05	-0.32
	700	Overall	4.46	4.86	-0.41	5.01	5.48	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	701	Overall	4.31	4.43	-0.11	4.14	4.40	-0.26
	702	Overall	4.30	4.60	-0.31	4.67	4.66	0.01
	703	Overall	3.89	4.27	-0.38	4.21	4.35	-0.14
	704	Overall	4.34	4.71	-0.37	3.93	4.24	-0.31
	705	Overall	4.23	4.59	-0.36	4.90	5.21	-0.31
	706	Overall	4.16	4.40	-0.24	3.98	4.27	-0.30
	707	Overall	3.83	4.23	-0.40	4.75	4.83	-0.08
	708	Overall	3.84	4.45	-0.61	4.03	4.41	-0.38
	709	Overall	3.92	4.34	-0.41	3.65	4.02	-0.37
	710	Overall	4.35	4.73	-0.37	4.64	5.05	-0.41
	711	Overall	4.18	4.58	-0.40	4.26	4.46	-0.20
	712	Overall	4.14	4.33	-0.20	4.43	4.71	-0.27
	713	Overall	4.21	4.54	-0.33	4.30	4.63	-0.33
	714	Overall	3.96	4.42	-0.47	3.42	3.82	-0.40
	715	Overall	4.28	4.58	-0.29	4.41	4.66	-0.24
	716	Overall	3.88	4.21	-0.33	3.99	4.06	-0.07
	717	Overall	4.04	4.44	-0.40	3.52	4.07	-0.55
	718	Overall	4.01	4.38	-0.37	3.71	4.12	-0.41
	719	Overall	4.29	4.60	-0.31	3.47	3.91	-0.44
	720	Overall	3.85	4.25	-0.40	3.78	3.93	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	721	Overall	3.93	4.21	-0.28	4.17	4.44	-0.27
	722	Overall	4.62	4.96	-0.34	3.68	4.10	-0.42
	723	Overall	3.66	4.25	-0.59	4.17	4.34	-0.17
	724	Overall	4.23	4.73	-0.51	4.35	4.63	-0.28
	725	Overall	3.94	4.26	-0.31	4.25	4.61	-0.37
	726	Overall	4.48	4.78	-0.30	3.92	4.23	-0.31
	727	Overall	4.46	4.77	-0.32	4.33	4.33	0.00
	728	Overall	4.44	4.57	-0.13	3.89	4.24	-0.35
	729	Overall	4.04	4.32	-0.28			
	730	Overall	4.36	4.67	-0.32			
	731	Overall	3.92	4.29	-0.38	3.67	3.92	-0.25
	732	Overall	4.44	4.83	-0.39			
	733	Overall	3.63	4.02	-0.39	4.56	4.68	-0.11
	734	Overall	4.15	4.55	-0.40	3.70	3.90	-0.20
	735	Overall	4.41	4.74	-0.33	3.75	4.05	-0.30
	736	Overall	4.40	4.64	-0.24	3.41	3.73	-0.31
	737	Overall	3.84	3.84	-0.00	3.84	4.29	-0.45
	738	Overall	4.15	4.41	-0.26	3.56	3.80	-0.24
	739	Overall	4.29	4.60	-0.31	3.06	3.61	-0.55
	740	Overall	4.21	4.44	-0.23	4.35	4.66	-0.31

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	741	Overall	3.86	4.39	-0.53	4.47	4.78	-0.31
	742	Overall	3.90	4.46	-0.56	4.00	4.49	-0.49
	743	Overall	4.13	4.51	-0.38	4.11	4.48	-0.37
	744	Overall	4.22	4.42	-0.20	3.83	4.24	-0.41
	745	Overall	3.91	4.11	-0.19	4.71	5.07	-0.36
	746	Overall	4.01	4.27	-0.26	3.26	3.56	-0.30
	747	Overall	4.14	4.41	-0.28	3.61	3.87	-0.26
	748	Overall	4.40	4.64	-0.24	4.75	5.05	-0.30
	749	Overall	4.29	4.66	-0.37	3.23	3.45	-0.22
	750	Overall	4.01	4.12	-0.12	3.83	3.78	0.05
	751	Overall	4.12	4.55	-0.42	4.75	4.90	-0.15
	752	Overall	3.61	4.24	-0.63	3.52	3.66	-0.13
	753	Overall	3.71	4.12	-0.41	4.33	4.62	-0.29
	754	Overall	4.30	4.64	-0.34	3.80	3.82	-0.02
	755	Overall	4.00	4.22	-0.23	3.68	3.88	-0.20
	756	Overall	3.85	4.30	-0.46	3.63	3.88	-0.25
	757	Overall	3.97	4.41	-0.44	3.28	3.41	-0.13
	758	Overall	4.11	4.57	-0.45	4.35	4.44	-0.09
	759	Overall	4.00	4.20	-0.20	5.04	5.20	-0.16
	760	Overall	4.69	4.78	-0.09	4.49	4.65	-0.16

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	761	Overall	4.08	4.55	-0.47	4.14	4.09	0.05
	762	Overall	3.72	4.11	-0.39	3.84	4.07	-0.22
	763	Overall	3.84	4.25	-0.41	3.88	4.17	-0.30
	764	Overall	3.86	4.34	-0.47	3.77	3.92	-0.15
	765	Overall	4.11	4.57	-0.46	4.28	4.53	-0.25
	766	Overall	4.23	4.60	-0.37	3.36	3.83	-0.48
	767	Overall	4.12	4.54	-0.41			
	768	Overall	4.51	4.75	-0.23	4.13	4.72	-0.59
	769	Overall	4.17	4.48	-0.32	3.90	4.23	-0.33
	770	Overall	4.52	4.57	-0.05	4.06	4.31	-0.25
	771	Overall	4.35	4.62	-0.27	3.58	3.78	-0.19
	772	Overall	3.87	4.32	-0.45	4.51	4.98	-0.47
	773	Overall	4.02	4.45	-0.42	4.36	4.55	-0.19
	774	Overall	4.30	4.67	-0.37	4.54	4.83	-0.29
	775	Overall	4.23	4.57	-0.34	4.79	5.18	-0.39
	776	Overall	3.90	4.22	-0.33	3.88	4.26	-0.39
	777	Overall	4.12	4.34	-0.22	4.49	4.90	-0.41
	778	Overall	3.98	4.13	-0.15	4.00	4.30	-0.30
	779	Overall	4.30	4.51	-0.22	3.87	3.83	0.03
	780	Overall	4.10	4.37	-0.27	4.43	4.70	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	781	Overall	4.13	4.53	-0.40	4.24	4.50	-0.26
	782	Overall	4.28	4.59	-0.31	4.51	4.74	-0.23
	783	Overall	4.18	4.41	-0.23	3.51	4.06	-0.55
	784	Overall	3.74	4.05	-0.31	3.70	3.81	-0.10
	785	Overall	4.38	4.63	-0.24	4.50	4.57	-0.08
	786	Overall	4.35	4.55	-0.20	4.28	4.46	-0.18
	787	Overall	4.10	4.42	-0.32	4.68	4.89	-0.21
	788	Overall	4.12	4.46	-0.33	3.72	4.12	-0.40
	789	Overall	4.11	4.42	-0.31	3.98	4.25	-0.26
	790	Overall	4.04	4.43	-0.38	3.82	4.11	-0.29
	791	Overall	4.36	4.58	-0.22	3.39	3.62	-0.23
	792	Overall	4.23	4.64	-0.41	4.42	5.02	-0.60
	793	Overall	3.96	4.28	-0.32	4.29	4.48	-0.19
	794	Overall	4.31	4.56	-0.25	3.63	4.02	-0.39
	795	Overall	3.71	4.12	-0.42	3.88	4.33	-0.45
	796	Overall	4.12	4.37	-0.26	4.72	5.12	-0.40
	797	Overall	4.22	4.41	-0.18	4.04	4.39	-0.35
	798	Overall	4.39	4.68	-0.29	5.09	5.45	-0.36
	799	Overall	4.34	4.29	0.05	4.46	4.87	-0.41
	800	Overall	4.11	4.44	-0.34	4.24	4.35	-0.11

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	801	Overall	4.66	4.89	-0.23	4.38	4.79	-0.40
	802	Overall	4.05	4.39	-0.34	4.17	4.36	-0.19
	803	Overall	4.38	4.76	-0.39	4.65	4.90	-0.25
	804	Overall	4.23	4.55	-0.32	3.42	3.56	-0.14
	805	Overall	4.05	4.39	-0.34	3.65	3.99	-0.35
	806	Overall	4.24	4.47	-0.23	4.19	4.66	-0.47
	807	Overall	4.24	4.61	-0.37	3.88	4.01	-0.13
	808	Overall	4.30	4.44	-0.14			
	809	Overall	4.12	4.47	-0.35	4.75	5.05	-0.30
	810	Overall	4.31	4.34	-0.03	4.14	4.57	-0.42
	811	Overall	4.20	4.40	-0.20	3.88	4.06	-0.19
	812	Overall				4.12	4.48	-0.36
	813	Overall	3.94	4.33	-0.38	3.62	3.82	-0.21
	814	Overall	3.81	4.33	-0.52	4.14	4.55	-0.41
	815	Overall	4.44	4.68	-0.24	3.84	4.32	-0.48
	816	Overall	4.70	4.87	-0.18	4.40	4.57	-0.16
	817	Overall	4.12	4.52	-0.40	4.09	4.40	-0.32
	818	Overall	3.92	4.33	-0.41	4.36	4.49	-0.13
	819	Overall	4.16	4.46	-0.30	3.67	4.20	-0.52
	820	Overall	4.05	4.26	-0.21	3.84	3.94	-0.10

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	821	Overall	4.23	4.60	-0.37	3.99	4.27	-0.28
	822	Overall	4.16	4.56	-0.39	4.56	4.71	-0.15
	823	Overall	3.93	4.12	-0.20	4.66	4.98	-0.32
	824	Overall	4.11	4.27	-0.16	3.59	3.71	-0.12
	825	Overall	3.85	4.10	-0.26	4.68	5.03	-0.35
	826	Overall	4.05	4.45	-0.40	4.39	4.93	-0.54
	827	Overall	4.38	4.83	-0.45	4.25	4.34	-0.09
	828	Overall	4.26	4.36	-0.11	4.31	4.76	-0.44
	829	Overall	4.44	4.68	-0.23	4.34	4.70	-0.35
	830	Overall	3.99	4.28	-0.30	3.92	4.17	-0.25
	831	Overall	4.11	4.39	-0.28	3.73	3.88	-0.15
	832	Overall	3.82	4.21	-0.39	4.66	5.32	-0.66
	833	Overall	4.10	4.46	-0.36	4.46	4.67	-0.21
	834	Overall	3.77	4.20	-0.43	4.05	4.21	-0.16
	835	Overall	4.08	4.36	-0.28			
	836	Overall	3.70	4.14	-0.45	3.18	3.50	-0.32
	837	Overall				3.85	4.08	-0.23
	838	Overall	3.98	3.99	-0.01	3.45	3.78	-0.33
	839	Overall	3.99	4.37	-0.38	4.18	4.35	-0.17
	840	Overall	4.22	4.60	-0.38	3.92	4.14	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	841	Overall	4.33	4.65	-0.32	4.42	4.59	-0.17
	842	Overall	3.77	4.19	-0.42	3.46	3.86	-0.39
	843	Overall	4.23	4.49	-0.27	4.71	4.80	-0.09
	844	Overall	4.24	4.39	-0.15	4.04	4.27	-0.22
	845	Overall	4.40	4.68	-0.28	3.47	3.81	-0.33
	846	Overall	4.60	4.75	-0.15	4.76	4.99	-0.22
	847	Overall	3.92	4.17	-0.26	3.89	4.17	-0.28
	848	Overall	3.97	4.26	-0.29	4.32	4.79	-0.47
	849	Overall	4.34	4.59	-0.25	4.76	5.20	-0.45
	850	Overall	4.23	4.57	-0.34	3.86	4.10	-0.23
	851	Overall	3.78	4.35	-0.57	5.19	5.51	-0.32
	852	Overall	3.98	4.38	-0.40	3.99	4.05	-0.06
	853	Overall	3.99	4.21	-0.22	4.12	4.29	-0.18
	854	Overall	4.35	4.42	-0.07	4.24	4.44	-0.20
	855	Overall	4.05	4.49	-0.44	3.63	3.78	-0.15
	856	Overall	4.18	4.58	-0.40	3.81	4.45	-0.64
	857	Overall	4.18	4.27	-0.09	4.57	5.03	-0.46
	858	Overall	4.28	4.45	-0.17	4.71	4.86	-0.15
	859	Overall	4.16	4.53	-0.38	3.69	4.00	-0.31
	860	Overall	3.98	4.18	-0.20	3.98	4.00	-0.02

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	861	Overall	4.54	4.67	-0.13	3.45	3.34	0.10
	862	Overall	4.21	4.58	-0.36	4.61	4.84	-0.22
	863	Overall	4.58	4.94	-0.36	3.74	4.03	-0.29
	864	Overall	4.12	4.48	-0.36			
	865	Overall	3.97	4.38	-0.41	3.68	4.01	-0.32
	866	Overall	3.99	4.48	-0.49	3.61	4.00	-0.39
	867	Overall	4.00	4.37	-0.37	5.08	5.49	-0.41
	868	Overall	4.44	4.63	-0.18	3.32	3.34	-0.02
	869	Overall	4.02	4.41	-0.39	4.59	4.99	-0.40
	870	Overall	4.06	4.25	-0.19	4.08	4.09	-0.01
	871	Overall	3.67	3.95	-0.28	4.04	4.38	-0.34
	872	Overall	3.99	4.21	-0.22	3.69	3.96	-0.27
	873	Overall	4.03	4.09	-0.06	5.00	5.27	-0.27
	874	Overall	4.19	4.69	-0.50	4.23	4.32	-0.09
	875	Overall	4.31	4.67	-0.36	3.68	4.07	-0.39
	876	Overall	3.50	3.93	-0.43	3.80	3.82	-0.01
	877	Overall	3.99	4.54	-0.55	3.43	3.57	-0.14
	878	Overall	4.23	4.44	-0.21	4.08	4.06	0.02
	879	Overall	4.15	4.29	-0.15	4.13	4.39	-0.25
	880	Overall	4.33	4.79	-0.46	2.91	2.99	-0.07

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	881	Overall	3.60	4.02	-0.42	4.27	4.69	-0.42
	882	Overall	4.41	4.74	-0.33	3.81	4.00	-0.19
	883	Overall	4.20	4.53	-0.33	4.75	5.23	-0.48
	884	Overall	4.02	4.30	-0.28	4.31	4.59	-0.28
	885	Overall	4.34	4.43	-0.09			
	886	Overall	4.09	4.45	-0.36	4.01	4.39	-0.38
	887	Overall	4.08	4.60	-0.52	5.12	5.18	-0.06
	888	Overall	4.11	4.31	-0.20	4.21	4.57	-0.36
	889	Overall	3.89	4.25	-0.36	3.01	3.41	-0.40
	890	Overall	4.63	4.87	-0.25	4.04	4.09	-0.05
	891	Overall	3.62	4.26	-0.64	4.46	4.62	-0.16
	892	Overall	4.07	4.54	-0.48	3.79	4.01	-0.22
	893	Overall	4.10	4.63	-0.53	4.09	3.99	0.10
	894	Overall	3.95	4.34	-0.39	4.57	4.83	-0.26
	895	Overall	4.52	4.67	-0.15	4.59	4.85	-0.26
	896	Overall	4.35	4.64	-0.28	3.44	3.84	-0.39
	897	Overall	4.57	4.83	-0.26	4.62	4.88	-0.25
	898	Overall	4.09	4.47	-0.38	4.05	4.48	-0.43
	899	Overall	4.02	4.67	-0.65	3.23	3.58	-0.35
	900	Overall	4.42	4.74	-0.32	4.75	4.89	-0.15

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	901	Overall	4.01	4.41	-0.40	4.71	4.98	-0.27
	902	Overall	4.02	4.31	-0.29	3.33	3.64	-0.31
	903	Overall	4.32	4.44	-0.11	5.21	5.51	-0.30
	904	Overall	4.64	4.87	-0.23	4.24	4.37	-0.13
	905	Overall	4.27	4.65	-0.39	4.51	4.78	-0.27
	906	Overall	4.35	4.54	-0.18	4.60	4.67	-0.08
	907	Overall	4.30	4.80	-0.50	4.67	4.95	-0.28
	908	Overall	4.35	4.69	-0.34	4.26	4.55	-0.30
	909	Overall	3.76	4.21	-0.45	3.94	4.12	-0.18
	910	Overall	4.01	4.35	-0.34	3.43	3.88	-0.44
	911	Overall	4.20	4.43	-0.23	3.34	3.37	-0.03
	912	Overall	4.44	4.72	-0.28	4.43	4.98	-0.55
	913	Overall	4.00	4.40	-0.40	4.14	4.61	-0.47
	914	Overall	3.99	4.29	-0.30	4.15	4.37	-0.22
	915	Overall	4.09	4.15	-0.05	3.92	4.29	-0.36
	916	Overall	3.86	4.14	-0.28	4.10	4.46	-0.36
	917	Overall	4.38	4.65	-0.26	5.34	5.94	-0.60
	918	Overall	4.35	4.81	-0.45	3.37	3.80	-0.43
	919	Overall	4.14	4.36	-0.22	3.09	3.15	-0.06
	920	Overall	3.75	3.87	-0.11	4.27	4.43	-0.16

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	921	Overall	4.16	4.51	-0.35	4.51	4.94	-0.43
	922	Overall	4.06	4.32	-0.26	3.74	3.92	-0.18
	923	Overall	3.95	4.36	-0.41	3.83	4.08	-0.25
	924	Overall	4.52	4.65	-0.12	4.46	4.68	-0.22
	925	Overall	4.00	4.19	-0.19	3.80	4.10	-0.30
	926	Overall	4.22	4.42	-0.20	3.52	3.80	-0.27
	927	Overall	4.09	4.55	-0.46	3.46	3.50	-0.04
	928	Overall	4.04	4.54	-0.50	3.84	4.17	-0.33
	929	Overall	4.51	4.82	-0.31	4.19	4.32	-0.13
	930	Overall	4.00	4.15	-0.15	4.12	4.64	-0.52
	931	Overall	4.07	4.41	-0.33	4.14	4.28	-0.14
	932	Overall	4.24	4.42	-0.18	3.27	3.67	-0.40
	933	Overall	3.84	4.20	-0.36	3.11	3.50	-0.39
	934	Overall	3.76	4.19	-0.43	3.30	3.58	-0.29
	935	Overall	4.33	4.59	-0.26	3.80	3.99	-0.19
	936	Overall	3.99	4.39	-0.40	3.93	4.22	-0.29
	937	Overall	4.13	4.29	-0.16	3.89	4.02	-0.13
	938	Overall	4.41	4.80	-0.40	3.87	4.18	-0.31
	939	Overall	4.23	4.44	-0.21	3.32	3.53	-0.21
	940	Overall	4.35	4.63	-0.28	3.77	3.90	-0.13

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	941	Overall	3.95	4.36	-0.41	3.67	4.04	-0.38
	942	Overall	4.39	4.71	-0.32	3.84	4.33	-0.49
	943	Overall	4.33	4.59	-0.26	4.11	4.60	-0.49
	944	Overall	4.54	4.86	-0.31	4.16	4.36	-0.20
	945	Overall	4.05	4.43	-0.38	3.83	4.07	-0.24
	946	Overall	4.17	4.48	-0.31	3.71	4.00	-0.28
	947	Overall	4.44	4.69	-0.25	4.74	5.05	-0.31
	948	Overall	4.38	4.69	-0.31	3.46	3.87	-0.41
	949	Overall	4.67	4.93	-0.26	3.78	3.97	-0.19
	950	Overall	4.77	5.01	-0.24	3.94	4.07	-0.13
	951	Overall	4.31	4.76	-0.45	3.55	3.73	-0.18
	952	Overall	4.28	4.55	-0.27	4.44	4.84	-0.40
	953	Overall	4.11	4.49	-0.38	3.67	3.67	-0.00
	954	Overall	4.24	4.68	-0.44	3.76	3.94	-0.18
	955	Overall	4.19	4.78	-0.59	4.20	4.41	-0.21
	956	Overall	4.04	4.46	-0.41	3.76	4.44	-0.68
	957	Overall	3.93	4.46	-0.53	3.44	3.74	-0.30
	958	Overall	4.18	4.48	-0.30	3.83	4.19	-0.36
	959	Overall	4.62	4.84	-0.21	4.24	4.51	-0.27
	960	Overall	4.09	4.39	-0.30	4.43	5.01	-0.58

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	961	Overall	4.46	4.66	-0.20	4.30	4.90	-0.60
	962	Overall	3.86	4.16	-0.30	3.69	4.13	-0.43
	963	Overall	4.01	4.33	-0.32	3.74	3.74	0.00
	964	Overall	4.12	4.39	-0.27	3.59	3.91	-0.32
	965	Overall	4.16	4.54	-0.37	4.38	4.58	-0.20
	966	Overall	4.38	4.64	-0.26	4.48	4.76	-0.28
	967	Overall	4.13	4.40	-0.27	3.91	4.31	-0.39
	968	Overall	4.30	4.67	-0.37	3.56	4.11	-0.54
	969	Overall	4.18	4.35	-0.17	4.31	4.84	-0.52
	970	Overall	4.28	4.56	-0.29	3.48	3.86	-0.38
	971	Overall	4.66	4.96	-0.30	4.28	4.60	-0.32
	972	Overall	3.86	4.36	-0.49	4.70	4.66	0.04
	973	Overall	3.75	4.10	-0.35	4.13	4.34	-0.20
	974	Overall	4.13	4.37	-0.23	4.52	4.55	-0.03
	975	Overall	3.90	4.33	-0.43	3.15	3.30	-0.14
	976	Overall	4.07	4.52	-0.45	3.54	3.55	-0.01
	977	Overall	3.96	4.36	-0.40	4.82	5.06	-0.24
	978	Overall	4.19	4.53	-0.35	4.68	4.95	-0.27
	979	Overall	4.11	4.26	-0.16	3.86	4.32	-0.46
	980	Overall	4.42	4.74	-0.32	3.76	4.11	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	981	Overall	4.05	4.39	-0.34	4.79	5.09	-0.30
	982	Overall	4.07	4.34	-0.27			
	983	Overall	3.79	4.14	-0.35	3.62	3.97	-0.35
	984	Overall	4.13	4.73	-0.60			
	985	Overall	4.09	4.60	-0.51	3.48	3.71	-0.23
	986	Overall	4.12	4.34	-0.22	3.88	4.24	-0.35
	987	Overall	4.50	4.87	-0.37	4.45	4.76	-0.31
	988	Overall	4.21	4.48	-0.27			
	989	Overall	3.84	4.22	-0.38	3.86	3.95	-0.09
	990	Overall	4.06	4.27	-0.21	4.30	4.52	-0.22
	991	Overall	4.07	4.38	-0.31	3.42	3.83	-0.41
	992	Overall	4.14	4.43	-0.29	4.41	4.65	-0.24
	993	Overall	4.50	4.78	-0.29	3.60	3.99	-0.39
	994	Overall	3.89	4.29	-0.39	4.01	4.55	-0.54
	995	Overall	3.91	4.34	-0.43	4.12	4.35	-0.23
	996	Overall	4.29	4.59	-0.31	3.92	4.49	-0.56
	997	Overall	4.11	4.52	-0.41	3.65	4.00	-0.35
	998	Overall	3.68	3.98	-0.31	3.79	3.91	-0.11
	999	Overall	4.20	4.32	-0.12	4.99	5.36	-0.37
	1000	Overall	4.29	4.73	-0.44	4.90	5.12	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1001	Overall	3.92	4.31	-0.38	4.31	4.55	-0.24
	1002	Overall	3.81	4.32	-0.52	4.23	4.67	-0.44
	1003	Overall	4.45	4.86	-0.41	4.69	5.03	-0.34
	1004	Overall	4.32	4.61	-0.28	3.62	3.92	-0.30
	1005	Overall				4.47	4.72	-0.25
	1006	Overall	3.98	4.43	-0.45	4.76	5.26	-0.50
	1007	Overall	4.27	4.61	-0.34	3.40	3.93	-0.53
	1008	Overall	4.04	4.37	-0.33	3.85	3.79	0.06
	1009	Overall	4.16	4.33	-0.17	4.47	4.74	-0.27
	1010	Overall	4.33	4.86	-0.53	4.15	4.70	-0.55
	1011	Overall	4.12	4.63	-0.50	4.23	4.43	-0.20
	1012	Overall	3.97	4.54	-0.57	3.34	3.49	-0.16
	1013	Overall	4.15	4.19	-0.05	4.78	4.96	-0.18
	1014	Overall	4.22	4.17	0.05	3.67	3.97	-0.30
	1015	Overall	4.26	4.62	-0.36			
	1016	Overall	4.15	4.51	-0.36	4.61	5.17	-0.56
	1017	Overall	4.28	4.33	-0.05	3.66	4.12	-0.46
	1018	Overall	4.09	4.46	-0.37	3.63	3.75	-0.12
	1019	Overall	4.09	4.17	-0.08	3.75	3.97	-0.23
	1020	Overall	4.51	4.75	-0.24	3.28	3.33	-0.05

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1021	Overall	4.11	4.25	-0.14	4.01	4.60	-0.59
	1022	Overall	4.20	4.50	-0.30	3.51	3.83	-0.32
	1023	Overall	4.55	4.80	-0.25	3.82	4.05	-0.24
	1024	Overall	4.20	4.49	-0.29	4.63	5.00	-0.36
	1025	Overall	3.97	4.20	-0.22	3.62	3.87	-0.25
	1026	Overall	3.95	4.42	-0.47	4.20	4.46	-0.26
	1027	Overall	4.34	4.57	-0.23	4.60	5.00	-0.40
	1028	Overall	4.41	4.42	-0.02	4.01	4.10	-0.09
	1029	Overall	4.16	4.51	-0.35	4.49	4.51	-0.01
	1030	Overall	3.82	4.30	-0.48	2.88	2.94	-0.06
	1031	Overall	4.36	4.72	-0.36	3.93	4.22	-0.29
	1032	Overall	4.19	4.44	-0.25	3.84	4.17	-0.33
	1033	Overall	4.20	4.50	-0.30	4.07	4.28	-0.21
	1034	Overall	4.17	4.47	-0.30	4.14	4.29	-0.14
	1035	Overall	4.53	4.78	-0.25	3.90	4.14	-0.24
	1036	Overall	4.01	4.39	-0.38	4.15	4.74	-0.60
	1037	Overall	3.87	4.21	-0.34			
	1038	Overall	4.01	4.18	-0.17	3.95	4.07	-0.12
	1039	Overall	4.27	4.49	-0.23	2.96	3.06	-0.10
	1040	Overall	4.51	4.68	-0.17	3.98	4.45	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1041	Overall	4.47	4.67	-0.20	3.08	3.38	-0.30
	1042	Overall	4.40	4.67	-0.27	3.86	4.19	-0.33
	1043	Overall	4.13	4.33	-0.20	4.36	4.43	-0.07
	1044	Overall	4.21	4.52	-0.31	4.28	4.34	-0.06
	1045	Overall	4.22	4.46	-0.23	3.20	3.43	-0.24
	1046	Overall	3.75	4.17	-0.42	4.72	5.25	-0.53
	1047	Overall	3.72	4.14	-0.41	3.65	3.72	-0.07
	1048	Overall	3.96	4.39	-0.42	3.73	4.12	-0.39
	1049	Overall	4.07	4.47	-0.40	4.64	5.03	-0.39
	1050	Overall	4.29	4.36	-0.06	4.08	4.45	-0.37
	1051	Overall	3.95	4.42	-0.47	4.81	4.94	-0.13
	1052	Overall	4.27	4.48	-0.21	4.17	4.44	-0.27
	1053	Overall	3.84	4.02	-0.18	3.79	4.25	-0.46
	1054	Overall	3.98	4.27	-0.28	4.32	4.54	-0.22
	1055	Overall	3.87	4.32	-0.45	3.89	4.02	-0.13
	1056	Overall	3.81	4.13	-0.31	4.11	4.22	-0.11
	1057	Overall	4.65	5.08	-0.43	4.54	4.97	-0.43
	1058	Overall	3.82	4.26	-0.44	4.30	4.30	0.01
	1059	Overall	4.05	4.26	-0.22	4.45	4.85	-0.40
	1060	Overall	4.62	4.76	-0.15	4.01	3.94	0.07

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1061	Overall	3.87	4.31	-0.43	3.97	4.39	-0.42
	1062	Overall	4.08	4.48	-0.40	4.31	4.60	-0.29
	1063	Overall	4.17	4.54	-0.38	3.31	3.71	-0.40
	1064	Overall	4.26	4.70	-0.44	4.16	4.33	-0.17
	1065	Overall	4.03	4.46	-0.44	4.62	4.90	-0.28
	1066	Overall	4.26	4.68	-0.42	4.17	4.51	-0.34
	1067	Overall	4.34	4.46	-0.12			
	1068	Overall	4.17	4.57	-0.40			
	1069	Overall	4.04	4.47	-0.43	4.32	4.88	-0.56
	1070	Overall	3.95	4.30	-0.35	3.64	3.97	-0.33
	1071	Overall	4.14	4.57	-0.43	4.44	4.79	-0.34
	1072	Overall	4.19	4.51	-0.32	4.22	4.63	-0.41
	1073	Overall	4.20	4.37	-0.17	4.15	4.64	-0.48
	1074	Overall	4.18	4.50	-0.32	4.55	4.90	-0.34
	1075	Overall				3.59	3.97	-0.38
	1076	Overall	3.83	4.24	-0.41	3.45	3.56	-0.12
	1077	Overall	4.30	4.63	-0.33	4.41	4.54	-0.12
	1078	Overall	4.41	4.53	-0.11	3.92	4.33	-0.41
	1079	Overall	4.30	4.37	-0.07	4.22	4.43	-0.21
	1080	Overall	3.97	4.42	-0.44	4.08	4.30	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1081	Overall	3.99	4.45	-0.46	4.12	4.46	-0.33
	1082	Overall	4.19	4.56	-0.37	4.05	4.37	-0.32
	1083	Overall	4.24	4.48	-0.25	4.95	5.27	-0.32
	1084	Overall	4.11	4.36	-0.25	4.05	4.29	-0.24
	1085	Overall	3.93	4.15	-0.21	3.67	3.63	0.04
	1086	Overall	4.39	4.38	0.01	3.32	3.62	-0.30
	1087	Overall	4.20	4.36	-0.16	4.66	4.98	-0.31
	1088	Overall	4.40	4.89	-0.49	3.77	4.21	-0.45
	1089	Overall	4.13	4.40	-0.27	3.98	4.23	-0.25
	1090	Overall	4.49	4.68	-0.19	4.19	4.39	-0.20
	1091	Overall	4.26	4.55	-0.30	4.18	4.23	-0.05
	1092	Overall	4.14	4.30	-0.17	3.60	3.82	-0.22
	1093	Overall	4.12	4.48	-0.36	4.68	4.83	-0.16
	1094	Overall	4.56	4.77	-0.21	3.67	3.74	-0.07
	1095	Overall	4.35	4.67	-0.32	3.99	4.22	-0.23
	1096	Overall	4.24	4.36	-0.12	4.05	4.30	-0.24
	1097	Overall	3.99	4.50	-0.51			
	1098	Overall	4.14	4.42	-0.27	4.20	4.62	-0.42
	1099	Overall	4.53	4.69	-0.15	4.20	4.50	-0.31
	1100	Overall	4.20	4.55	-0.35	3.64	4.05	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1101	Overall	4.13	4.23	-0.09	4.22	4.31	-0.09
	1102	Overall	4.05	4.55	-0.50	3.82	4.23	-0.41
	1103	Overall	3.76	4.26	-0.50	3.47	3.90	-0.44
	1104	Overall	3.95	4.34	-0.39	4.41	4.75	-0.34
	1105	Overall	4.20	4.41	-0.21	3.69	3.75	-0.06
	1106	Overall	4.13	4.46	-0.33	3.45	3.70	-0.25
	1107	Overall	3.90	4.19	-0.29	3.88	4.33	-0.46
	1108	Overall	4.45	4.65	-0.20			
	1109	Overall	4.21	4.64	-0.43	4.12	4.33	-0.21
	1110	Overall	4.27	4.57	-0.30	4.19	4.38	-0.19
	1111	Overall	4.16	4.45	-0.30	4.66	5.04	-0.38
	1112	Overall	4.39	4.52	-0.13	4.01	4.30	-0.29
	1113	Overall	4.28	4.46	-0.19	4.88	5.14	-0.26
	1114	Overall	4.42	4.65	-0.23	3.73	4.09	-0.36
	1115	Overall	3.83	4.20	-0.37	4.04	4.40	-0.36
	1116	Overall	3.92	4.54	-0.62	3.40	3.72	-0.32
	1117	Overall	4.30	4.69	-0.38	4.11	4.18	-0.07
	1118	Overall	4.19	4.27	-0.08	4.79	4.92	-0.13
	1119	Overall	4.08	4.26	-0.18	4.20	4.43	-0.23
	1120	Overall	4.01	4.36	-0.35	3.65	3.90	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1121	Overall	4.03	4.31	-0.28	3.71	4.23	-0.52
	1122	Overall	3.97	4.32	-0.35	3.49	3.72	-0.23
	1123	Overall	4.16	4.54	-0.39	2.83	3.13	-0.30
	1124	Overall	4.40	4.59	-0.18	4.16	4.46	-0.30
	1125	Overall	3.99	4.48	-0.49	3.89	4.39	-0.50
	1126	Overall	4.13	4.68	-0.55	3.10	3.46	-0.37
	1127	Overall	3.84	4.30	-0.46	3.82	4.14	-0.32
	1128	Overall	3.89	4.39	-0.50	3.90	4.32	-0.42
	1129	Overall	4.24	4.48	-0.24	3.57	3.84	-0.27
	1130	Overall	4.04	4.26	-0.23	4.16	4.53	-0.38
	1131	Overall	4.11	4.38	-0.27	3.88	4.04	-0.16
	1132	Overall	4.13	4.30	-0.17	4.17	4.44	-0.27
	1133	Overall	4.21	4.74	-0.53	3.66	4.03	-0.37
	1134	Overall	4.14	4.50	-0.35	4.05	4.43	-0.38
	1135	Overall	4.15	4.40	-0.25	3.61	4.07	-0.46
	1136	Overall	4.10	4.31	-0.21	4.36	4.74	-0.38
	1137	Overall	4.04	4.38	-0.33	4.08	4.37	-0.29
	1138	Overall	4.01	4.36	-0.36	3.87	4.10	-0.23
	1139	Overall	4.41	4.68	-0.28	3.76	4.01	-0.24
	1140	Overall	4.02	4.43	-0.41	4.05	4.47	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1141	Overall	3.82	4.47	-0.66	3.52	3.72	-0.21
	1142	Overall	4.19	4.49	-0.30	3.48	3.70	-0.22
	1143	Overall	4.11	4.38	-0.27	3.53	3.98	-0.45
	1144	Overall	4.32	4.53	-0.21	4.74	5.19	-0.45
	1145	Overall	4.26	4.74	-0.48	4.30	4.58	-0.27
	1146	Overall	4.45	4.75	-0.31	3.80	3.95	-0.15
	1147	Overall	4.40	4.87	-0.47	3.64	3.96	-0.32
	1148	Overall	3.88	4.61	-0.73	4.42	4.58	-0.16
	1149	Overall	3.87	4.37	-0.50	3.52	4.02	-0.50
	1150	Overall	4.56	4.80	-0.24			
	1151	Overall	4.13	4.22	-0.09	4.01	4.19	-0.19
	1152	Overall	4.16	4.47	-0.31	4.16	4.70	-0.54
	1153	Overall	4.34	4.60	-0.26	3.60	3.68	-0.08
	1154	Overall	3.64	4.29	-0.66	4.29	4.52	-0.23
	1155	Overall	3.93	4.30	-0.36	3.74	4.07	-0.34
	1156	Overall	4.05	4.45	-0.39	3.83	3.94	-0.11
	1157	Overall	4.45	4.66	-0.21	4.56	4.85	-0.29
	1158	Overall	4.15	4.51	-0.36	4.37	4.63	-0.26
	1159	Overall	4.17	4.48	-0.31	4.27	4.65	-0.39
	1160	Overall	3.50	4.18	-0.68	4.57	5.06	-0.49

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1161	Overall	4.02	4.09	-0.08	4.85	5.22	-0.37
	1162	Overall	4.53	4.68	-0.15	3.22	3.56	-0.34
	1163	Overall	4.56	4.76	-0.20	4.33	4.77	-0.44
	1164	Overall	4.47	4.68	-0.21			
	1165	Overall	4.27	4.71	-0.43	4.40	4.86	-0.45
	1166	Overall	4.42	4.82	-0.41	4.26	4.50	-0.24
	1167	Overall	3.87	4.23	-0.36	4.05	4.01	0.03
	1168	Overall	3.75	3.95	-0.20	3.95	4.25	-0.30
	1169	Overall	4.16	4.48	-0.33	3.67	3.82	-0.15
	1170	Overall	4.01	4.48	-0.47	3.54	3.77	-0.23
	1171	Overall	3.86	4.27	-0.41	4.66	5.08	-0.42
	1172	Overall	3.76	4.24	-0.48	4.33	4.86	-0.53
	1173	Overall	4.27	4.52	-0.25	4.10	4.34	-0.24
	1174	Overall	4.42	4.65	-0.22	3.38	3.69	-0.31
	1175	Overall	4.01	4.53	-0.52	3.74	4.02	-0.28
	1176	Overall	4.24	4.56	-0.32	4.30	4.46	-0.16
	1177	Overall	3.86	4.26	-0.40	4.03	4.09	-0.06
	1178	Overall	4.66	4.80	-0.13	4.67	5.09	-0.42
	1179	Overall	4.64	5.07	-0.43	3.49	3.60	-0.11
	1180	Overall	4.09	4.31	-0.22	3.84	4.14	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1181	Overall	4.17	4.59	-0.42	4.25	4.53	-0.28
	1182	Overall	3.93	4.41	-0.48	4.63	4.80	-0.17
	1183	Overall	3.65	4.23	-0.58	3.86	3.79	0.07
	1184	Overall	4.22	4.72	-0.51	3.55	3.85	-0.29
	1185	Overall	4.06	4.37	-0.31	3.95	3.99	-0.04
	1186	Overall	4.24	4.51	-0.27	4.36	4.46	-0.10
	1187	Overall	4.20	4.58	-0.38			
	1188	Overall	3.86	4.10	-0.23	4.39	4.60	-0.21
	1189	Overall	3.83	4.00	-0.17			
	1190	Overall	4.25	4.63	-0.38	4.04	4.40	-0.36
	1191	Overall	4.16	4.49	-0.34	3.84	4.15	-0.31
	1192	Overall	4.27	4.68	-0.41	4.00	4.14	-0.14
	1193	Overall	3.87	4.33	-0.46			
	1194	Overall	4.11	4.31	-0.20			
	1195	Overall	4.45	4.77	-0.32	3.81	4.19	-0.38
	1196	Overall	4.16	4.56	-0.40	3.58	3.96	-0.38
	1197	Overall	3.92	4.34	-0.42	3.33	3.70	-0.37
	1198	Overall	4.21	4.54	-0.32	4.60	5.14	-0.54
	1199	Overall	3.98	4.40	-0.41	3.81	3.97	-0.16
	1200	Overall	4.38	4.66	-0.28	4.65	4.84	-0.19

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1201	Overall	4.04	4.27	-0.23	4.34	4.53	-0.19
	1202	Overall	3.73	4.32	-0.59	4.82	5.32	-0.50
	1203	Overall	4.17	4.39	-0.21	4.68	4.95	-0.27
	1204	Overall	4.14	4.28	-0.14	5.03	5.24	-0.20
	1205	Overall	4.32	4.36	-0.04	4.42	4.48	-0.06
	1206	Overall	4.22	4.62	-0.39	4.74	4.98	-0.23
	1207	Overall	3.60	3.91	-0.31	4.47	4.78	-0.31
	1208	Overall	3.96	4.26	-0.30	3.17	3.30	-0.13
	1209	Overall	4.02	4.22	-0.20	3.73	4.05	-0.32
	1210	Overall	4.40	4.68	-0.27	3.84	4.08	-0.23
	1211	Overall	4.31	4.62	-0.31	5.06	5.34	-0.28
	1212	Overall	3.82	4.13	-0.31	3.97	4.57	-0.60
	1213	Overall	4.07	4.40	-0.33	4.09	4.38	-0.29
	1214	Overall	4.19	4.55	-0.36			
	1215	Overall	4.27	4.52	-0.25	4.08	4.44	-0.36
	1216	Overall	3.77	4.10	-0.32	3.83	4.15	-0.31
	1217	Overall	3.83	4.24	-0.41	3.58	4.11	-0.53
	1218	Overall	4.07	4.43	-0.36	3.49	4.20	-0.70
	1219	Overall	4.33	4.71	-0.38	4.77	5.16	-0.39
	1220	Overall	3.97	4.01	-0.04	3.52	3.82	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1221	Overall	4.59	4.76	-0.17	4.74	5.03	-0.29
	1222	Overall	3.76	3.99	-0.23	4.54	4.86	-0.32
	1223	Overall	4.37	4.63	-0.26	4.64	5.13	-0.49
	1224	Overall	4.19	4.44	-0.25	3.59	4.07	-0.49
	1225	Overall	4.10	4.39	-0.29	4.55	4.72	-0.17
	1226	Overall	4.74	4.92	-0.19	4.25	4.75	-0.50
	1227	Overall	4.22	4.63	-0.41	4.62	4.87	-0.25
	1228	Overall	3.99	4.40	-0.41	3.75	4.21	-0.46
	1229	Overall	4.18	4.45	-0.27	4.25	4.44	-0.19
	1230	Overall	3.87	4.07	-0.20	4.38	4.61	-0.23
	1231	Overall	4.39	4.53	-0.14	3.85	4.15	-0.30
	1232	Overall	4.20	4.41	-0.21	3.88	4.36	-0.48
	1233	Overall	4.11	4.32	-0.21	3.74	3.87	-0.13
	1234	Overall	4.10	4.41	-0.31	3.80	4.24	-0.44
	1235	Overall	4.02	4.16	-0.15	4.14	4.47	-0.34
	1236	Overall	4.27	4.66	-0.39	3.39	3.69	-0.29
	1237	Overall	4.06	4.62	-0.57	4.17	4.74	-0.57
	1238	Overall	3.72	4.43	-0.71	3.94	4.20	-0.25
	1239	Overall	4.49	4.68	-0.19	3.21	3.75	-0.54
	1240	Overall	4.19	4.34	-0.16	4.18	4.42	-0.25

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1241	Overall	4.16	4.52	-0.36	4.02	4.42	-0.39
	1242	Overall	4.50	4.90	-0.41	4.17	4.30	-0.14
	1243	Overall	3.86	4.22	-0.36	4.79	5.18	-0.39
	1244	Overall	4.11	4.21	-0.10	3.64	3.77	-0.14
	1245	Overall	4.06	4.49	-0.43	3.69	4.00	-0.30
	1246	Overall	4.00	4.36	-0.36	4.73	5.02	-0.29
	1247	Overall	4.01	4.36	-0.35	4.59	4.99	-0.40
	1248	Overall	4.16	4.53	-0.37	3.32	3.50	-0.18
	1249	Overall	4.36	4.55	-0.19	4.58	4.85	-0.28
	1250	Overall	3.81	4.26	-0.46	3.18	3.43	-0.25
	1251	Overall	4.56	4.66	-0.10	4.59	4.66	-0.07
	1252	Overall	4.16	4.53	-0.37	4.32	4.42	-0.09
	1253	Overall	4.19	4.57	-0.38	4.55	4.92	-0.38
	1254	Overall	4.04	4.50	-0.46	2.78	2.92	-0.14
	1255	Overall	4.06	4.53	-0.47	3.27	3.72	-0.45
	1256	Overall	3.93	4.23	-0.30	4.75	5.10	-0.35
	1257	Overall	4.34	4.69	-0.35	3.66	4.01	-0.35
	1258	Overall	4.33	4.53	-0.20	3.62	3.82	-0.20
	1259	Overall	4.30	4.71	-0.41	4.01	4.10	-0.08
	1260	Overall	4.43	4.53	-0.10	3.54	4.15	-0.61

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1261	Overall	4.14	4.55	-0.42	3.88	4.22	-0.34
	1262	Overall	4.15	4.39	-0.24	4.64	4.91	-0.27
	1263	Overall	3.91	4.38	-0.47	3.69	4.10	-0.41
	1264	Overall	4.78	4.99	-0.22	3.92	4.16	-0.24
	1265	Overall	4.40	4.68	-0.28			
	1266	Overall	3.80	4.28	-0.48	3.04	3.44	-0.40
	1267	Overall	3.99	4.27	-0.28	4.45	4.71	-0.26
	1268	Overall	4.61	4.73	-0.12	4.11	4.46	-0.35
	1269	Overall	3.90	4.22	-0.32	4.20	4.61	-0.40
	1270	Overall	4.24	4.51	-0.28	5.05	5.33	-0.28
	1271	Overall	4.39	4.65	-0.26	3.99	4.27	-0.28
	1272	Overall	3.63	3.91	-0.28	3.39	3.86	-0.48
	1273	Overall	4.36	4.56	-0.20	3.57	3.89	-0.32
	1274	Overall	3.95	4.17	-0.22	4.38	4.70	-0.32
	1275	Overall	3.98	4.38	-0.40	4.48	4.89	-0.41
	1276	Overall	4.22	4.52	-0.30	4.01	4.11	-0.09
	1277	Overall	3.75	4.19	-0.44	3.21	3.68	-0.47
	1278	Overall	4.15	4.45	-0.30	4.64	4.83	-0.19
	1279	Overall	3.61	4.16	-0.55	3.53	3.50	0.03
	1280	Overall	3.96	4.34	-0.38	3.87	4.54	-0.67

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1281	Overall	3.99	4.30	-0.31	4.04	4.37	-0.33
	1282	Overall	3.89	4.20	-0.31	4.07	4.51	-0.43
	1283	Overall				4.29	4.66	-0.37
	1284	Overall	3.78	4.33	-0.56	3.96	4.16	-0.20
	1285	Overall	4.09	4.37	-0.28	4.80	5.26	-0.45
	1286	Overall	4.22	4.60	-0.38	4.46	4.60	-0.13
	1287	Overall	4.22	4.49	-0.26	4.25	4.50	-0.25
	1288	Overall	4.19	4.61	-0.43	4.55	4.96	-0.41
	1289	Overall	3.83	4.20	-0.37	4.20	4.42	-0.22
	1290	Overall	4.32	4.67	-0.35	4.57	4.98	-0.41
	1291	Overall	4.26	4.71	-0.46			
	1292	Overall	4.00	4.34	-0.35	4.34	4.82	-0.48
	1293	Overall	4.18	4.41	-0.22	4.63	4.88	-0.24
	1294	Overall	4.30	4.35	-0.05	4.37	4.66	-0.29
	1295	Overall	4.19	4.43	-0.23	4.06	4.57	-0.52
	1296	Overall	4.25	4.79	-0.54	5.10	5.38	-0.28
	1297	Overall	3.92	4.08	-0.17	4.30	4.81	-0.51
	1298	Overall	4.01	4.46	-0.46	4.40	4.68	-0.28
	1299	Overall	4.16	4.58	-0.42			
	1300	Overall	4.06	4.31	-0.25	4.41	4.61	-0.20

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1301	Overall	4.31	4.65	-0.34	3.78	4.13	-0.36
	1302	Overall	4.18	4.54	-0.36	4.09	4.30	-0.21
	1303	Overall	4.21	4.27	-0.06	4.43	4.68	-0.25
	1304	Overall	4.25	4.57	-0.32	3.39	3.52	-0.13
	1305	Overall	4.45	4.86	-0.42	4.61	4.75	-0.14
	1306	Overall	3.70	3.94	-0.25			
	1307	Overall	4.04	4.45	-0.40	4.58	4.94	-0.36
	1308	Overall	4.52	4.78	-0.26	4.43	4.84	-0.41
	1309	Overall	3.92	4.23	-0.31	3.85	4.07	-0.22
	1310	Overall	4.46	4.82	-0.36	4.53	4.62	-0.10
	1311	Overall	3.96	4.32	-0.36	3.88	3.98	-0.10
	1312	Overall	4.10	4.56	-0.46	4.00	4.26	-0.26
	1313	Overall	4.08	4.33	-0.25	3.61	3.83	-0.22
	1314	Overall	4.46	4.85	-0.39	4.46	4.78	-0.32
	1315	Overall	4.32	4.63	-0.32	4.66	5.00	-0.34
	1316	Overall	4.10	4.41	-0.31	4.75	5.07	-0.32
	1317	Overall	3.77	4.13	-0.36	4.00	4.17	-0.17
	1318	Overall	4.46	4.64	-0.18	3.98	4.39	-0.41
	1319	Overall	3.97	4.44	-0.47	4.59	5.17	-0.57
	1320	Overall	4.02	4.20	-0.18	4.87	5.04	-0.17

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1321	Overall	4.28	4.59	-0.31	4.06	4.20	-0.14
	1322	Overall	4.31	4.59	-0.28	3.95	4.33	-0.38
	1323	Overall	4.29	4.68	-0.39	4.76	5.13	-0.37
	1324	Overall	4.50	4.78	-0.28	4.16	4.69	-0.52
	1325	Overall	4.17	4.45	-0.28	3.95	4.04	-0.09
	1326	Overall	3.62	3.84	-0.23	4.10	4.62	-0.53
	1327	Overall	4.37	4.50	-0.13	3.68	3.98	-0.30
	1328	Overall	4.19	4.51	-0.32	3.77	3.93	-0.16
	1329	Overall	4.38	4.42	-0.03	4.37	4.86	-0.49
	1330	Overall	4.39	4.58	-0.19			
	1331	Overall	4.35	4.66	-0.31			
	1332	Overall	4.29	4.90	-0.61			
	1333	Overall	3.90	4.36	-0.46	3.63	3.88	-0.25
	1334	Overall	3.63	3.94	-0.31	3.20	3.37	-0.17
	1335	Overall	3.98	4.34	-0.35	3.34	3.81	-0.47
	1336	Overall	4.07	4.36	-0.29	4.80	5.17	-0.36
	1337	Overall	4.16	4.48	-0.32	3.90	4.31	-0.41
	1338	Overall	4.04	4.27	-0.23	5.31	5.60	-0.29
	1339	Overall	4.47	4.74	-0.27	5.27	5.45	-0.18
	1340	Overall				4.00	4.17	-0.17

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1341	Overall	4.14	4.41	-0.27	4.35	4.81	-0.45
	1342	Overall	3.88	4.42	-0.54	4.13	4.42	-0.29
	1343	Overall	4.25	4.54	-0.29	4.36	4.73	-0.37
	1344	Overall	4.07	4.39	-0.32	4.69	5.08	-0.40
	1345	Overall	3.82	4.19	-0.36	5.29	5.65	-0.36
	1346	Overall	3.99	4.52	-0.53	3.84	4.31	-0.46
	1347	Overall	4.02	4.18	-0.16	4.35	4.87	-0.52
	1348	Overall	4.08	4.41	-0.33	4.31	4.69	-0.38
	1349	Overall	4.50	4.64	-0.14	3.56	3.93	-0.37
	1350	Overall	4.43	4.54	-0.11	4.31	4.46	-0.14
	1351	Overall	3.99	4.40	-0.41	4.33	4.76	-0.43
	1352	Overall	4.28	4.68	-0.39	3.82	3.89	-0.06
	1353	Overall	4.26	4.59	-0.33	3.93	4.20	-0.27
	1354	Overall	4.09	4.37	-0.28	3.25	3.65	-0.40
	1355	Overall	4.11	4.56	-0.45	4.30	4.38	-0.09
	1356	Overall	3.93	4.30	-0.37	4.67	5.09	-0.41
	1357	Overall	4.42	4.50	-0.08	3.84	4.30	-0.46
	1358	Overall	3.49	4.09	-0.60	4.22	4.59	-0.37
	1359	Overall	4.08	4.54	-0.46	4.86	5.25	-0.39
	1360	Overall	3.79	4.06	-0.26	3.86	4.07	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1361	Overall	3.94	4.46	-0.51	4.30	4.68	-0.38
	1362	Overall	3.93	4.24	-0.32			
	1363	Overall	3.93	3.99	-0.06	4.60	5.04	-0.44
	1364	Overall	4.30	4.71	-0.40	3.79	3.96	-0.17
	1365	Overall	4.07	4.29	-0.22	4.44	4.67	-0.24
	1366	Overall	4.15	4.48	-0.34	3.84	4.42	-0.58
	1367	Overall	3.87	4.19	-0.32	4.20	4.66	-0.46
	1368	Overall	4.00	4.60	-0.60	3.48	3.76	-0.28
	1369	Overall	4.01	4.26	-0.25	3.88	4.05	-0.18
	1370	Overall	4.12	4.41	-0.29	4.70	4.93	-0.23
	1371	Overall	4.62	5.00	-0.38	3.86	4.24	-0.38
	1372	Overall	4.36	4.37	-0.01	4.38	4.65	-0.27
	1373	Overall	4.05	4.27	-0.23	3.94	4.17	-0.24
	1374	Overall	4.51	4.63	-0.12	4.10	4.55	-0.46
	1375	Overall	4.12	4.55	-0.43	3.52	3.82	-0.30
	1376	Overall	4.15	4.72	-0.57	3.85	4.23	-0.37
	1377	Overall	4.35	4.60	-0.25	3.75	4.15	-0.41
	1378	Overall	4.50	4.79	-0.28	3.89	4.31	-0.43
	1379	Overall	4.63	4.73	-0.10	4.00	4.13	-0.13
	1380	Overall	4.11	4.59	-0.48	4.24	4.71	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1381	Overall	3.92	4.30	-0.38	3.82	4.12	-0.30
	1382	Overall	4.18	4.49	-0.31	4.27	4.63	-0.36
	1383	Overall	3.94	4.20	-0.26	3.73	3.86	-0.13
	1384	Overall	4.43	4.70	-0.27	4.05	4.09	-0.04
	1385	Overall	4.30	4.36	-0.05			
	1386	Overall	4.21	4.61	-0.40	3.90	4.33	-0.43
	1387	Overall	4.25	4.41	-0.17	3.76	4.09	-0.33
	1388	Overall	4.03	4.23	-0.20	3.99	4.55	-0.56
	1389	Overall	3.95	4.27	-0.32	3.66	4.01	-0.35
	1390	Overall	4.27	4.56	-0.29	4.33	4.69	-0.37
	1391	Overall	4.20	4.42	-0.22	3.80	3.96	-0.16
	1392	Overall	3.89	4.22	-0.33	4.25	4.55	-0.30
	1393	Overall	3.78	4.20	-0.43	4.21	4.73	-0.53
	1394	Overall	4.58	4.89	-0.31	3.79	3.79	0.01
	1395	Overall	4.14	4.44	-0.30	3.31	3.77	-0.46
	1396	Overall	4.37	4.68	-0.31	4.36	4.84	-0.47
	1397	Overall	3.97	4.47	-0.50	4.45	4.94	-0.49
	1398	Overall	3.98	4.30	-0.32	4.40	4.49	-0.09
	1399	Overall	3.98	4.45	-0.46	3.78	3.81	-0.03
	1400	Overall	4.13	4.30	-0.18	3.96	4.17	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1401	Overall	3.98	4.21	-0.22	4.00	4.48	-0.47
	1402	Overall	3.96	4.41	-0.45	4.18	4.44	-0.26
	1403	Overall	4.27	4.47	-0.20	4.31	4.69	-0.38
	1404	Overall	4.06	4.41	-0.35	3.63	3.86	-0.23
	1405	Overall	3.88	4.17	-0.30	3.91	4.48	-0.57
	1406	Overall	4.39	4.59	-0.20	4.30	4.50	-0.19
	1407	Overall	4.00	4.44	-0.44	3.66	3.99	-0.33
	1408	Overall	4.33	4.41	-0.08	4.22	4.75	-0.53
	1409	Overall	4.33	4.61	-0.28	4.59	5.08	-0.49
	1410	Overall	3.77	4.23	-0.46	3.28	3.65	-0.37
	1411	Overall	4.23	4.48	-0.24	4.29	4.65	-0.35
	1412	Overall	4.13	4.34	-0.21	4.18	4.55	-0.37
	1413	Overall	4.12	4.19	-0.07	4.40	4.56	-0.16
	1414	Overall	3.97	4.43	-0.46	5.02	5.15	-0.12
	1415	Overall	4.02	4.28	-0.26	4.23	4.39	-0.16
	1416	Overall	3.79	4.10	-0.31	4.19	4.51	-0.32
	1417	Overall	4.21	4.54	-0.33	4.32	4.62	-0.30
	1418	Overall	4.27	4.46	-0.19	3.42	3.59	-0.17
	1419	Overall	4.35	4.44	-0.09	4.34	4.47	-0.12
	1420	Overall	3.95	4.29	-0.35	4.17	4.54	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1421	Overall	4.36	4.84	-0.48	4.18	4.39	-0.21
	1422	Overall	4.42	4.69	-0.28	5.03	5.23	-0.20
	1423	Overall	4.21	4.70	-0.49	3.60	3.92	-0.32
	1424	Overall	4.17	4.48	-0.30	4.05	4.37	-0.32
	1425	Overall	4.43	4.79	-0.36	3.82	4.08	-0.26
	1426	Overall	3.79	4.24	-0.45	4.55	4.67	-0.12
	1427	Overall	4.09	4.39	-0.30	5.00	5.50	-0.49
	1428	Overall	4.01	4.49	-0.48	4.22	4.54	-0.32
	1429	Overall	4.14	4.57	-0.44	4.37	4.70	-0.33
	1430	Overall	3.85	4.25	-0.41	4.02	4.01	0.01
	1431	Overall	4.00	4.29	-0.29	4.67	5.19	-0.52
	1432	Overall	3.99	4.32	-0.32	4.09	4.30	-0.21
	1433	Overall	4.56	4.70	-0.14	4.06	4.26	-0.21
	1434	Overall	4.04	4.33	-0.29	4.21	4.51	-0.29
	1435	Overall	4.04	4.63	-0.59	4.59	4.75	-0.16
	1436	Overall	3.80	4.17	-0.37	4.62	4.96	-0.35
	1437	Overall	4.24	4.53	-0.28	4.57	4.87	-0.31
	1438	Overall	3.94	4.21	-0.27	4.94	5.15	-0.21
	1439	Overall	3.68	4.02	-0.33			
	1440	Overall	4.00	4.34	-0.35	4.51	4.98	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1441	Overall	3.72	4.36	-0.64	4.14	4.43	-0.29
	1442	Overall	4.31	4.59	-0.28	3.56	3.85	-0.29
	1443	Overall	4.12	4.41	-0.28	3.83	3.86	-0.02
	1444	Overall	4.23	4.60	-0.37	3.93	4.09	-0.16
	1445	Overall	4.14	4.33	-0.19	3.91	3.98	-0.07
	1446	Overall	4.10	4.59	-0.49	4.11	4.28	-0.17
	1447	Overall	4.20	4.42	-0.22	3.27	3.55	-0.28
	1448	Overall	4.12	4.55	-0.43	4.51	4.68	-0.17
	1449	Overall	4.10	4.40	-0.30	4.52	4.69	-0.17
	1450	Overall	4.37	4.60	-0.22	4.45	4.58	-0.12
	1451	Overall	3.74	4.35	-0.61	4.35	4.49	-0.14
	1452	Overall	4.01	4.66	-0.66	4.28	4.49	-0.20
	1453	Overall				4.09	4.31	-0.22
	1454	Overall	4.18	4.50	-0.32	4.28	4.57	-0.30
	1455	Overall	4.04	4.32	-0.28	4.65	4.80	-0.15
	1456	Overall	4.49	4.84	-0.34	4.05	4.51	-0.47
	1457	Overall	4.38	4.33	0.06	4.50	4.71	-0.20
	1458	Overall	3.78	4.17	-0.38	3.96	4.08	-0.12
	1459	Overall	4.30	4.63	-0.34	4.48	4.77	-0.29
	1460	Overall	4.58	4.87	-0.30	3.96	4.37	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1461	Overall	4.37	4.75	-0.39	3.37	3.70	-0.33
	1462	Overall	4.29	4.50	-0.21	4.30	4.63	-0.33
	1463	Overall	3.97	4.23	-0.26	4.06	4.22	-0.15
	1464	Overall	4.40	4.70	-0.30	4.00	4.36	-0.36
	1465	Overall	4.23	4.55	-0.33	4.75	5.20	-0.45
	1466	Overall	4.61	4.81	-0.20	4.11	4.38	-0.27
	1467	Overall	4.09	4.57	-0.47	4.96	5.37	-0.41
	1468	Overall	4.12	4.66	-0.53	3.81	4.17	-0.36
	1469	Overall	3.96	4.24	-0.29	4.74	5.09	-0.35
	1470	Overall	3.74	3.97	-0.23	3.80	4.14	-0.34
	1471	Overall	4.09	4.47	-0.38	5.04	5.41	-0.38
	1472	Overall	3.95	4.35	-0.40	4.62	4.86	-0.24
	1473	Overall	4.34	4.58	-0.23	4.34	4.60	-0.26
	1474	Overall	4.35	4.60	-0.25	3.33	3.67	-0.35
	1475	Overall	4.18	4.67	-0.50	4.11	4.40	-0.28
	1476	Overall	4.12	4.60	-0.48	3.57	3.79	-0.22
	1477	Overall	3.64	4.10	-0.47	4.51	4.76	-0.25
	1478	Overall	4.27	4.58	-0.31	3.61	3.63	-0.02
	1479	Overall	4.08	4.41	-0.33	4.13	4.53	-0.40
	1480	Overall	4.11	4.39	-0.28	5.00	5.41	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1481	Overall	4.16	4.58	-0.42	3.66	3.89	-0.23
	1482	Overall	4.64	4.85	-0.21	3.45	3.98	-0.54
	1483	Overall	4.64	4.72	-0.07	3.53	3.99	-0.46
	1484	Overall	4.25	4.44	-0.19	3.38	3.63	-0.25
	1485	Overall	3.92	4.16	-0.24	3.44	3.46	-0.02
	1486	Overall	3.77	4.24	-0.47	4.45	4.62	-0.16
	1487	Overall	4.11	4.35	-0.23	4.07	4.39	-0.32
	1488	Overall	4.16	4.25	-0.09	3.63	3.79	-0.16
	1489	Overall	3.93	4.15	-0.22	3.68	4.11	-0.43
	1490	Overall	4.11	4.44	-0.33	4.28	4.57	-0.30
	1491	Overall	4.29	4.50	-0.21	4.91	5.08	-0.17
	1492	Overall	4.56	4.92	-0.36	4.67	4.80	-0.13
	1493	Overall	4.35	4.60	-0.25	4.13	4.46	-0.33
	1494	Overall	4.27	4.59	-0.32	4.68	5.10	-0.42
	1495	Overall	4.18	4.36	-0.18	2.79	2.97	-0.18
	1496	Overall	4.15	4.53	-0.37	4.71	4.77	-0.06
	1497	Overall	4.42	4.74	-0.31			
	1498	Overall	4.12	4.30	-0.18	4.23	4.22	0.01
	1499	Overall	4.56	4.75	-0.19	3.70	3.97	-0.27
	1500	Overall	4.45	4.76	-0.31	3.66	4.10	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1501	Overall	4.50	4.80	-0.30	4.57	4.97	-0.40
	1502	Overall	3.93	4.29	-0.37	3.89	4.14	-0.25
	1503	Overall	4.16	4.77	-0.61			
	1504	Overall	3.91	4.38	-0.48	4.18	4.36	-0.18
	1505	Overall	4.41	4.65	-0.24	3.49	3.75	-0.26
	1506	Overall	3.73	4.30	-0.57	3.56	4.04	-0.47
	1507	Overall	4.31	4.45	-0.14	4.63	4.86	-0.23
	1508	Overall	4.31	4.49	-0.18	4.33	4.71	-0.38
	1509	Overall	4.33	4.44	-0.11	4.54	4.69	-0.15
	1510	Overall	4.43	4.60	-0.16	3.93	4.26	-0.33
	1511	Overall	4.29	4.67	-0.38	3.69	4.05	-0.36
	1512	Overall	3.84	4.43	-0.59	4.76	5.27	-0.50
	1513	Overall	4.29	4.55	-0.26	3.92	4.39	-0.47
	1514	Overall	4.13	4.41	-0.28	3.67	4.04	-0.37
	1515	Overall	4.38	4.55	-0.17			
	1516	Overall	4.26	4.33	-0.07	5.20	5.52	-0.33
	1517	Overall	4.05	4.27	-0.22	4.95	5.22	-0.27
	1518	Overall	4.12	4.35	-0.24	4.64	4.96	-0.32
	1519	Overall	3.93	4.05	-0.12	4.91	5.29	-0.38
	1520	Overall	4.15	4.44	-0.29	3.31	3.81	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1521	Overall	4.05	4.44	-0.39	3.84	4.12	-0.28
	1522	Overall	4.69	4.82	-0.13			
	1523	Overall	4.16	4.48	-0.32			
	1524	Overall	3.86	4.26	-0.40	4.05	4.35	-0.31
	1525	Overall	4.41	4.66	-0.26	3.64	4.11	-0.47
	1526	Overall	4.29	4.83	-0.54	3.84	4.15	-0.31
	1527	Overall	4.01	4.28	-0.27	3.70	4.16	-0.46
	1528	Overall	4.03	4.39	-0.36	4.98	5.24	-0.27
	1529	Overall	3.79	4.24	-0.45	3.71	3.75	-0.05
	1530	Overall	3.63	4.05	-0.43	4.50	4.70	-0.19
	1531	Overall	4.02	4.42	-0.40	3.79	4.13	-0.33
	1532	Overall	4.26	4.68	-0.42	4.15	4.55	-0.39
	1533	Overall	4.38	4.68	-0.30	4.84	5.23	-0.39
	1534	Overall	4.64	4.82	-0.18			
	1535	Overall	4.23	4.30	-0.08	4.13	4.45	-0.33
	1536	Overall	4.33	4.43	-0.10			
	1537	Overall	4.25	4.47	-0.22	4.08	4.51	-0.43
	1538	Overall	4.07	4.46	-0.39	4.63	4.99	-0.36
	1539	Overall	3.92	4.42	-0.50			
	1540	Overall	4.18	4.47	-0.28	4.03	4.45	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1541	Overall	4.23	4.71	-0.48	3.99	4.40	-0.41
	1542	Overall	4.22	4.36	-0.14	4.77	5.09	-0.32
	1543	Overall	3.91	4.11	-0.20	4.73	4.93	-0.20
	1544	Overall	4.37	4.72	-0.35			
	1545	Overall	3.87	4.42	-0.55	3.55	3.72	-0.16
	1546	Overall	3.68	4.04	-0.37	4.20	4.58	-0.38
	1547	Overall	4.18	4.22	-0.04	3.41	3.41	-0.01
	1548	Overall	4.66	4.88	-0.22	2.79	2.64	0.15
	1549	Overall	3.74	3.92	-0.18	3.76	4.17	-0.41
	1550	Overall	4.07	4.28	-0.20	3.78	4.11	-0.33
	1551	Overall	4.06	4.49	-0.43	3.35	3.58	-0.22
	1552	Overall	3.94	4.34	-0.40	4.38	4.38	-0.00
	1553	Overall	4.26	4.43	-0.16	3.79	3.73	0.06
	1554	Overall	3.59	4.06	-0.46	4.74	4.88	-0.14
	1555	Overall	4.29	4.72	-0.43	4.35	4.73	-0.38
	1556	Overall	4.25	4.56	-0.30	3.86	4.31	-0.45
	1557	Overall	3.79	4.19	-0.39	4.13	4.53	-0.40
	1558	Overall	4.10	4.48	-0.38	3.83	4.05	-0.22
	1559	Overall	4.30	4.75	-0.45	4.19	4.69	-0.50
	1560	Overall	3.94	4.34	-0.41	3.55	3.98	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1561	Overall	4.12	4.44	-0.32	4.19	4.50	-0.30
	1562	Overall	4.33	4.53	-0.20	3.39	3.59	-0.20
	1563	Overall	4.20	4.45	-0.24	4.14	4.44	-0.31
	1564	Overall	4.11	4.55	-0.44	4.03	4.33	-0.30
	1565	Overall	4.50	4.80	-0.30	3.29	3.76	-0.47
	1566	Overall	4.19	4.40	-0.21	3.64	3.90	-0.25
	1567	Overall	3.89	4.11	-0.22	4.37	4.53	-0.15
	1568	Overall	4.03	4.34	-0.31	3.89	4.34	-0.45
	1569	Overall	4.28	4.57	-0.29	3.95	4.27	-0.31
	1570	Overall	4.27	4.59	-0.31	4.03	4.20	-0.17
	1571	Overall	4.19	4.70	-0.51	3.87	4.35	-0.48
	1572	Overall	4.13	4.51	-0.37	4.45	4.80	-0.35
	1573	Overall	4.51	4.86	-0.34	3.24	3.72	-0.48
	1574	Overall	4.11	4.34	-0.24	4.40	4.43	-0.02
	1575	Overall	3.84	4.32	-0.48	4.68	4.88	-0.20
	1576	Overall	3.69	4.03	-0.34	3.94	4.37	-0.43
	1577	Overall	3.89	4.28	-0.39	4.38	4.78	-0.40
	1578	Overall	4.23	4.45	-0.22	4.13	4.52	-0.38
	1579	Overall	4.13	4.41	-0.27	3.56	3.72	-0.16
	1580	Overall	3.88	4.42	-0.55	4.53	4.64	-0.11

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1581	Overall	3.75	4.21	-0.46	4.46	4.80	-0.34
	1582	Overall	4.02	4.37	-0.35	3.77	3.91	-0.14
	1583	Overall	4.00	4.07	-0.07	4.52	4.59	-0.07
	1584	Overall	4.54	4.65	-0.11	4.15	4.73	-0.58
	1585	Overall	4.32	4.56	-0.24	3.56	3.90	-0.34
	1586	Overall	3.91	4.37	-0.46	4.09	4.36	-0.27
	1587	Overall	4.10	4.56	-0.46	3.69	4.04	-0.35
	1588	Overall	3.86	4.21	-0.35	5.42	5.95	-0.53
	1589	Overall	3.77	4.52	-0.75	4.73	4.89	-0.16
	1590	Overall	4.10	4.51	-0.41	3.96	4.42	-0.46
	1591	Overall	4.00	4.20	-0.20	4.89	5.26	-0.36
	1592	Overall	3.78	4.28	-0.50	3.62	4.04	-0.42
	1593	Overall	3.84	4.42	-0.58	3.24	3.43	-0.18
	1594	Overall	3.92	4.40	-0.48	4.62	4.75	-0.13
	1595	Overall	3.73	4.09	-0.36	3.81	4.36	-0.55
	1596	Overall	3.91	4.29	-0.38	4.11	4.20	-0.09
	1597	Overall	3.78	4.27	-0.49	4.00	4.44	-0.44
	1598	Overall	4.37	4.67	-0.30	4.13	4.44	-0.32
	1599	Overall	3.89	4.37	-0.48	4.10	4.28	-0.17
	1600	Overall	3.84	4.21	-0.37	4.46	5.00	-0.54

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1601	Overall	4.11	4.66	-0.55	4.71	4.85	-0.14
	1602	Overall	3.92	4.46	-0.54	4.19	4.67	-0.48
	1603	Overall	4.22	4.42	-0.20	4.21	4.52	-0.32
	1604	Overall	3.87	4.41	-0.54	3.89	4.19	-0.30
	1605	Overall	3.80	3.97	-0.17	3.94	4.38	-0.43
	1606	Overall	4.28	4.58	-0.30	4.37	4.62	-0.25
	1607	Overall	4.19	4.51	-0.32	4.38	4.49	-0.12
	1608	Overall	4.30	4.53	-0.22	4.64	4.98	-0.34
	1609	Overall	3.99	4.38	-0.38			
	1610	Overall	3.89	4.43	-0.54	3.22	3.34	-0.12
	1611	Overall	4.27	4.41	-0.14	4.50	4.55	-0.04
	1612	Overall	4.07	4.31	-0.24	3.93	3.99	-0.06
	1613	Overall	3.87	4.60	-0.73	5.00	5.34	-0.34
	1614	Overall	4.55	4.66	-0.10	3.79	4.05	-0.26
	1615	Overall	4.37	4.74	-0.37	4.56	4.71	-0.16
	1616	Overall	4.34	4.67	-0.33	4.19	4.36	-0.17
	1617	Overall	4.06	4.49	-0.43	4.42	4.92	-0.51
	1618	Overall	4.39	4.52	-0.14	3.84	4.26	-0.42
	1619	Overall	3.93	4.48	-0.55	3.89	4.04	-0.15
	1620	Overall	4.17	4.42	-0.25	3.95	4.17	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1621	Overall	4.32	4.52	-0.20	4.54	4.94	-0.41
	1622	Overall	4.03	4.38	-0.35	4.99	5.47	-0.48
	1623	Overall	4.14	4.58	-0.43	4.65	5.06	-0.41
	1624	Overall	4.25	4.44	-0.19	3.67	3.82	-0.15
	1625	Overall	4.54	4.41	0.12	3.91	4.30	-0.39
	1626	Overall	4.12	4.22	-0.11	3.34	3.45	-0.11
	1627	Overall	4.09	4.32	-0.23	4.10	4.22	-0.13
	1628	Overall	3.70	4.46	-0.76	4.50	4.69	-0.19
	1629	Overall	4.27	4.59	-0.32	4.14	4.53	-0.39
	1630	Overall	4.38	4.79	-0.41	3.46	3.70	-0.23
	1631	Overall	4.15	4.39	-0.24	3.24	3.89	-0.65
	1632	Overall	4.29	4.66	-0.37	3.97	4.11	-0.14
	1633	Overall	4.61	4.87	-0.27	3.94	4.28	-0.34
	1634	Overall	4.28	4.30	-0.02	4.25	4.41	-0.16
	1635	Overall	4.16	4.57	-0.42	4.50	4.75	-0.24
	1636	Overall	4.12	4.37	-0.24	4.00	4.42	-0.42
	1637	Overall	4.04	4.41	-0.37	3.90	4.22	-0.32
	1638	Overall	4.34	4.76	-0.41	4.36	4.43	-0.07
	1639	Overall	4.01	4.54	-0.53	3.76	4.02	-0.26
	1640	Overall	4.18	4.46	-0.28	3.78	4.05	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1641	Overall	4.33	4.54	-0.21	4.23	4.44	-0.20
	1642	Overall	3.86	4.29	-0.44	4.66	4.83	-0.17
	1643	Overall	3.88	4.22	-0.34	3.78	4.16	-0.38
	1644	Overall	4.12	4.45	-0.33	4.57	5.07	-0.50
	1645	Overall	3.81	4.08	-0.28	3.65	3.83	-0.19
	1646	Overall	4.27	4.61	-0.34	4.61	5.08	-0.47
	1647	Overall	3.89	4.27	-0.37	3.91	4.11	-0.20
	1648	Overall	4.15	4.57	-0.43	3.76	4.19	-0.44
	1649	Overall	3.69	4.14	-0.45			
	1650	Overall	3.77	4.09	-0.32	3.84	4.09	-0.25
	1651	Overall	4.37	4.72	-0.35	4.37	4.72	-0.35
	1652	Overall	3.98	4.54	-0.56	4.03	4.11	-0.09
	1653	Overall	4.21	4.53	-0.32	3.19	3.70	-0.51
	1654	Overall	4.26	4.45	-0.19	4.82	5.01	-0.19
	1655	Overall	4.43	4.70	-0.27	5.01	5.27	-0.26
	1656	Overall	4.22	4.44	-0.22	4.07	4.41	-0.34
	1657	Overall	3.92	4.15	-0.24	4.57	4.99	-0.42
	1658	Overall	3.79	4.23	-0.44	4.61	4.80	-0.19
	1659	Overall	4.15	4.28	-0.13	3.70	3.87	-0.17
	1660	Overall	4.19	4.47	-0.28	4.20	4.49	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1661	Overall	3.85	4.29	-0.44	3.84	3.99	-0.16
	1662	Overall	3.99	4.20	-0.21	3.82	4.08	-0.26
	1663	Overall				3.83	4.22	-0.39
	1664	Overall	3.98	4.51	-0.52	3.58	3.93	-0.34
	1665	Overall	4.18	4.45	-0.28	4.78	5.17	-0.39
	1666	Overall	3.89	4.32	-0.42	3.89	4.23	-0.34
	1667	Overall	4.00	4.32	-0.31	4.25	4.43	-0.18
	1668	Overall	4.37	4.81	-0.44	3.69	3.69	0.00
	1669	Overall	4.39	4.63	-0.24			
	1670	Overall	3.88	4.64	-0.76	3.68	4.00	-0.32
	1671	Overall	4.08	4.40	-0.33	3.29	3.60	-0.31
	1672	Overall	4.02	4.28	-0.26	3.47	3.65	-0.18
	1673	Overall	4.14	4.41	-0.27	3.68	4.07	-0.39
	1674	Overall	4.00	4.40	-0.40	3.80	4.14	-0.34
	1675	Overall	3.76	4.29	-0.53	3.79	3.70	0.09
	1676	Overall	4.36	4.70	-0.34	4.64	4.85	-0.21
	1677	Overall	4.01	4.27	-0.26	4.78	5.09	-0.32
	1678	Overall	3.73	4.35	-0.62	4.40	4.56	-0.16
	1679	Overall	3.82	4.10	-0.28	4.16	4.84	-0.68
	1680	Overall	4.50	4.83	-0.34	3.61	3.98	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1681	Overall	3.79	4.25	-0.46	4.69	5.13	-0.44
	1682	Overall	4.11	4.37	-0.26	4.05	4.48	-0.43
	1683	Overall	4.32	4.48	-0.16	3.91	4.07	-0.16
	1684	Overall				4.50	4.74	-0.24
	1685	Overall	4.05	4.39	-0.34	3.90	3.98	-0.08
	1686	Overall	4.41	4.39	0.01	3.20	3.32	-0.12
	1687	Overall	4.45	4.73	-0.28	5.50	5.93	-0.42
	1688	Overall	4.05	4.29	-0.24	4.37	4.63	-0.26
	1689	Overall	4.07	4.25	-0.18	4.62	4.81	-0.19
	1690	Overall	3.95	4.29	-0.34	4.16	4.56	-0.40
	1691	Overall	4.27	4.55	-0.27	4.22	4.36	-0.14
	1692	Overall	4.08	4.52	-0.45	4.46	4.88	-0.42
	1693	Overall	4.42	4.75	-0.33	3.29	3.67	-0.38
	1694	Overall	4.38	4.84	-0.46	4.07	4.51	-0.44
	1695	Overall	4.46	4.60	-0.15	4.32	4.56	-0.24
	1696	Overall	4.43	4.70	-0.27	3.85	4.12	-0.27
	1697	Overall	4.23	4.66	-0.43	3.07	3.61	-0.55
	1698	Overall	4.10	4.52	-0.42	3.30	3.65	-0.35
	1699	Overall	3.78	3.96	-0.18	4.39	4.63	-0.24
	1700	Overall				4.53	4.62	-0.09

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1701	Overall	4.47	4.81	-0.33	4.06	4.32	-0.26
	1702	Overall	4.04	4.21	-0.17	3.77	4.01	-0.24
	1703	Overall	3.82	4.42	-0.60	4.37	4.45	-0.08
	1704	Overall	3.98	4.31	-0.34	3.77	3.99	-0.22
	1705	Overall	3.73	4.14	-0.41	4.06	4.48	-0.42
	1706	Overall	4.28	4.30	-0.02	4.29	4.39	-0.09
	1707	Overall	4.13	4.41	-0.28	4.10	4.48	-0.38
	1708	Overall	4.08	4.19	-0.11	4.36	4.88	-0.52
	1709	Overall	4.16	4.54	-0.37	3.70	3.84	-0.14
	1710	Overall	4.01	4.45	-0.44			
	1711	Overall	4.26	4.72	-0.46	3.94	4.22	-0.28
	1712	Overall	4.13	4.43	-0.31	4.02	4.42	-0.40
	1713	Overall	4.30	4.70	-0.41	4.85	4.82	0.03
	1714	Overall	4.36	4.48	-0.12	3.04	3.45	-0.40
	1715	Overall	3.97	4.38	-0.41	3.86	4.26	-0.40
	1716	Overall	4.26	4.49	-0.23	3.97	3.99	-0.03
	1717	Overall	4.28	4.43	-0.14			
	1718	Overall	3.87	4.37	-0.50	4.17	4.39	-0.22
	1719	Overall	3.85	4.29	-0.44	3.85	4.31	-0.46
	1720	Overall	4.16	4.31	-0.15	3.26	3.39	-0.13

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1721	Overall	3.99	4.27	-0.28	4.03	3.92	0.11
	1722	Overall	4.08	4.25	-0.18	4.35	4.49	-0.14
	1723	Overall	4.18	4.28	-0.09			
	1724	Overall	4.39	4.65	-0.26	4.39	4.75	-0.35
	1725	Overall	3.97	4.31	-0.34	4.42	4.66	-0.25
	1726	Overall	3.93	4.28	-0.36	4.70	4.66	0.04
	1727	Overall	3.88	4.29	-0.41	3.67	4.02	-0.35
	1728	Overall	3.98	4.19	-0.21	4.29	4.74	-0.45
	1729	Overall	4.06	4.48	-0.42	4.36	4.46	-0.10
	1730	Overall	4.54	4.65	-0.11			
	1731	Overall	4.38	4.61	-0.23	3.61	3.81	-0.20
	1732	Overall	3.87	4.34	-0.47			
	1733	Overall	4.15	4.48	-0.32	4.00	4.23	-0.23
	1734	Overall	4.15	4.52	-0.36	4.79	4.86	-0.08
	1735	Overall	4.45	4.75	-0.30	3.91	3.99	-0.08
	1736	Overall	4.29	4.57	-0.27	3.84	4.16	-0.32
	1737	Overall	4.00	4.47	-0.47	4.02	4.44	-0.42
	1738	Overall	4.19	4.36	-0.16	4.00	4.31	-0.32
	1739	Overall	4.44	4.77	-0.32	3.49	3.74	-0.25
	1740	Overall	4.65	4.91	-0.26	3.75	4.30	-0.54

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1741	Overall	4.29	4.39	-0.10	4.11	4.44	-0.32
	1742	Overall	3.96	4.24	-0.28	3.83	3.59	0.24
	1743	Overall	4.01	4.39	-0.38	5.00	5.25	-0.25
	1744	Overall	4.23	4.37	-0.14	4.14	4.53	-0.38
	1745	Overall	4.03	4.43	-0.40	4.44	4.70	-0.26
	1746	Overall	4.12	4.33	-0.21	4.04	4.32	-0.29
	1747	Overall	4.42	4.79	-0.38	5.07	5.51	-0.44
	1748	Overall	4.41	4.57	-0.16	3.76	4.04	-0.28
	1749	Overall	3.98	4.42	-0.44	4.07	4.54	-0.47
	1750	Overall	4.17	4.46	-0.29	4.40	4.30	0.10
	1751	Overall	4.27	4.39	-0.12	4.00	4.37	-0.37
	1752	Overall	4.56	4.76	-0.20	3.45	3.78	-0.33
	1753	Overall	4.34	4.52	-0.18	3.87	4.09	-0.23
	1754	Overall	4.01	4.34	-0.32	4.30	4.70	-0.39
	1755	Overall	4.19	4.68	-0.49	4.44	4.61	-0.17
	1756	Overall	4.24	4.63	-0.39	4.42	4.59	-0.18
	1757	Overall	4.07	4.44	-0.37			
	1758	Overall	4.36	4.61	-0.25	3.58	3.85	-0.27
	1759	Overall	4.15	4.56	-0.41	4.95	5.21	-0.26
	1760	Overall	3.56	4.02	-0.47	4.24	4.69	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1761	Overall	4.48	4.80	-0.31	3.30	3.40	-0.10
	1762	Overall	4.15	4.57	-0.41			
	1763	Overall	4.22	4.42	-0.20	3.88	4.27	-0.39
	1764	Overall	3.93	4.19	-0.26	4.52	4.92	-0.40
	1765	Overall	4.17	4.40	-0.24	3.44	3.66	-0.22
	1766	Overall	4.02	4.46	-0.44	5.15	5.53	-0.37
	1767	Overall	4.16	4.41	-0.25	4.51	4.64	-0.14
	1768	Overall	4.30	4.69	-0.39	3.96	4.22	-0.26
	1769	Overall	3.79	4.07	-0.28	3.85	4.00	-0.16
	1770	Overall				3.85	4.12	-0.27
	1771	Overall	3.98	4.31	-0.32	3.03	3.20	-0.16
	1772	Overall	4.04	4.46	-0.41	4.14	4.39	-0.25
	1773	Overall	3.88	4.20	-0.32	3.54	3.94	-0.40
	1774	Overall	4.10	4.42	-0.32	3.84	4.45	-0.61
	1775	Overall	4.34	4.64	-0.30	4.21	4.62	-0.41
	1776	Overall	4.18	4.79	-0.61	3.74	4.07	-0.34
	1777	Overall	3.91	4.45	-0.54	3.93	4.42	-0.49
	1778	Overall	4.12	4.54	-0.43	3.94	3.88	0.05
	1779	Overall	3.78	4.16	-0.38	3.36	3.72	-0.36
	1780	Overall	4.00	4.23	-0.23	4.29	4.73	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1781	Overall	4.32	4.67	-0.35	4.35	4.58	-0.23
	1782	Overall	4.03	4.47	-0.45	3.31	3.53	-0.22
	1783	Overall	3.96	4.35	-0.38	3.75	4.03	-0.28
	1784	Overall	4.10	4.28	-0.18	4.26	4.60	-0.34
	1785	Overall	4.22	4.39	-0.17	4.00	4.39	-0.39
	1786	Overall	4.25	4.64	-0.39	3.47	3.80	-0.33
	1787	Overall	4.29	4.66	-0.36	4.63	4.89	-0.25
	1788	Overall	3.92	4.46	-0.54	4.13	4.68	-0.54
	1789	Overall	4.32	4.44	-0.12	3.56	3.91	-0.35
	1790	Overall	4.20	4.51	-0.30	3.80	4.02	-0.23
	1791	Overall	4.09	4.43	-0.34	4.55	4.92	-0.37
	1792	Overall	4.28	4.65	-0.36	4.00	4.23	-0.24
	1793	Overall	4.00	4.30	-0.30	4.19	4.39	-0.20
	1794	Overall	4.18	4.42	-0.24	3.66	4.03	-0.37
	1795	Overall	4.20	4.74	-0.53	3.95	4.03	-0.09
	1796	Overall	4.23	4.47	-0.24	3.76	4.17	-0.41
	1797	Overall	4.25	4.45	-0.20	3.79	4.10	-0.31
	1798	Overall	4.07	4.38	-0.31	3.86	4.22	-0.35
	1799	Overall	4.05	4.41	-0.36	4.35	4.65	-0.30
	1800	Overall	4.22	4.52	-0.29	4.06	4.29	-0.22

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1801	Overall	4.12	4.55	-0.43	3.68	3.80	-0.12
	1802	Overall				3.96	4.19	-0.23
	1803	Overall	4.25	4.54	-0.29	4.27	4.40	-0.13
	1804	Overall	3.89	4.26	-0.37	4.66	4.97	-0.31
	1805	Overall	3.79	4.33	-0.54	4.38	4.45	-0.07
	1806	Overall	4.37	4.54	-0.16	4.17	4.40	-0.23
	1807	Overall	4.10	4.48	-0.37	4.22	4.45	-0.23
	1808	Overall	4.09	4.40	-0.32	3.43	3.28	0.15
	1809	Overall	4.19	4.50	-0.32	4.42	4.67	-0.25
	1810	Overall	4.25	4.42	-0.18	4.50	4.87	-0.37
	1811	Overall	4.27	4.42	-0.15	4.16	4.30	-0.14
	1812	Overall	4.31	4.72	-0.41	3.76	4.17	-0.41
	1813	Overall	4.56	4.71	-0.16	4.81	5.03	-0.22
	1814	Overall	3.77	4.01	-0.24	5.19	5.53	-0.34
	1815	Overall	4.49	4.77	-0.29	4.70	5.04	-0.35
	1816	Overall	4.10	4.46	-0.35	4.13	4.63	-0.51
	1817	Overall	4.33	4.42	-0.09	4.48	4.57	-0.09
	1818	Overall	4.41	4.55	-0.14	4.10	4.53	-0.43
	1819	Overall	4.13	4.30	-0.17	3.22	3.87	-0.65
	1820	Overall	4.31	4.54	-0.23	4.23	4.61	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1821	Overall	4.14	4.47	-0.33	4.27	4.58	-0.32
	1822	Overall	4.56	4.86	-0.31	4.26	4.79	-0.53
	1823	Overall	3.57	3.97	-0.40	4.25	4.36	-0.11
	1825	Overall	4.54	4.89	-0.35	4.19	4.46	-0.27
	1826	Overall	4.23	4.60	-0.37	4.33	4.43	-0.10
	1827	Overall	4.42	4.82	-0.41	3.84	4.27	-0.42
	1828	Overall	4.41	4.80	-0.39	4.44	4.86	-0.42
	1829	Overall	4.12	4.28	-0.16	3.45	3.90	-0.45
	1830	Overall	4.24	4.63	-0.39			
	1831	Overall	3.92	4.24	-0.32	3.97	4.36	-0.39
	1832	Overall	4.30	4.56	-0.27	4.76	4.97	-0.21
	1833	Overall	4.21	4.44	-0.23	3.73	4.24	-0.50
	1834	Overall	3.45	3.86	-0.40	4.02	4.21	-0.19
	1835	Overall	3.91	4.09	-0.18	3.30	3.65	-0.35
	1836	Overall	3.91	4.32	-0.42	4.18	4.47	-0.28
	1837	Overall	4.08	4.27	-0.19	3.77	4.06	-0.29
	1838	Overall	3.86	4.19	-0.33	3.75	4.15	-0.40
	1839	Overall	4.31	4.72	-0.41	4.62	5.07	-0.44
	1840	Overall	3.73	4.04	-0.32			
	1841	Overall	3.85	4.53	-0.69	3.71	4.10	-0.39

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1842	Overall	4.29	4.58	-0.29	4.28	4.70	-0.42
	1843	Overall	4.14	4.51	-0.37	3.89	4.05	-0.16
	1844	Overall	4.10	4.47	-0.37	4.54	5.01	-0.47
	1845	Overall	4.25	4.35	-0.11	3.84	4.00	-0.16
	1846	Overall	4.05	4.55	-0.50	4.00	4.24	-0.24
	1847	Overall	4.06	4.40	-0.34	4.45	4.76	-0.31
	1848	Overall	3.92	4.31	-0.39	3.98	4.28	-0.30
	1849	Overall	4.27	4.54	-0.28	4.19	4.53	-0.34
	1850	Overall	4.32	4.72	-0.40	3.78	4.03	-0.24
	1851	Overall	4.28	4.69	-0.41	3.70	3.85	-0.14
	1852	Overall	4.44	4.68	-0.25	3.97	4.44	-0.47
	1853	Overall	4.50	4.71	-0.21			
	1854	Overall	4.17	4.43	-0.26	4.27	4.66	-0.40
	1855	Overall	3.88	4.24	-0.36			
	1856	Overall	4.02	4.27	-0.25			
	1857	Overall	4.08	4.36	-0.27	4.04	4.41	-0.37
	1858	Overall	4.40	4.70	-0.30	3.59	3.90	-0.31
	1859	Overall	4.24	4.43	-0.20	4.60	4.78	-0.18
	1860	Overall	4.06	4.41	-0.35	4.44	4.78	-0.34
	1861	Overall	3.90	4.32	-0.42	4.01	4.21	-0.19

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1862	Overall	4.13	4.38	-0.25	3.79	3.89	-0.10
	1863	Overall	3.83	4.09	-0.26	3.96	4.33	-0.37
	1864	Overall	4.17	4.38	-0.21	4.08	4.24	-0.17
	1865	Overall	3.82	4.38	-0.56	3.58	4.07	-0.49
	1866	Overall	3.81	4.14	-0.33	4.51	4.83	-0.32
	1867	Overall	4.46	4.89	-0.43	4.47	4.62	-0.15
	1868	Overall	4.22	4.63	-0.41	4.20	4.47	-0.27
	1869	Overall	4.08	4.41	-0.33	4.56	4.69	-0.12
	1870	Overall	4.19	4.55	-0.36	3.21	3.70	-0.49
	1871	Overall	4.19	4.31	-0.12	3.94	4.19	-0.25
	1872	Overall	4.29	4.63	-0.34	4.12	4.42	-0.30
	1873	Overall	4.36	4.63	-0.27			
	1874	Overall	4.38	4.78	-0.40	4.30	4.59	-0.29
	1875	Overall	4.40	4.59	-0.19	5.03	5.12	-0.08
	1876	Overall	4.47	4.64	-0.16	3.19	3.39	-0.20
	1877	Overall	3.99	4.48	-0.49	4.15	4.55	-0.40
	1878	Overall	4.10	4.41	-0.31	4.55	4.92	-0.38
	1879	Overall	3.98	4.39	-0.41	3.72	4.08	-0.36
	1880	Overall				2.78	3.04	-0.27
	1881	Overall	4.16	4.54	-0.39			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1882	Overall	4.29	4.56	-0.28	3.75	4.19	-0.44
	1883	Overall	4.22	4.31	-0.10	4.58	4.92	-0.34
	1884	Overall	4.20	4.32	-0.12	3.77	4.12	-0.35
	1885	Overall	4.11	4.44	-0.32	4.03	4.31	-0.28
	1886	Overall	3.99	4.32	-0.34			
	1887	Overall	4.07	4.45	-0.38	4.18	4.28	-0.10
	1888	Overall	4.28	4.62	-0.34	4.23	4.29	-0.06
	1889	Overall	4.15	4.47	-0.33			
	1890	Overall	3.69	4.15	-0.45	4.36	4.45	-0.08
	1891	Overall	4.35	4.66	-0.31	3.68	3.94	-0.26
	1892	Overall	3.89	4.23	-0.33	4.24	4.56	-0.32
	1893	Overall	4.42	4.40	0.02	3.97	4.11	-0.14
	1894	Overall	4.03	4.23	-0.20	4.48	4.70	-0.21
	1895	Overall	4.59	4.81	-0.22			
	1896	Overall	4.26	4.47	-0.21	3.87	4.26	-0.39
	1897	Overall	3.56	4.27	-0.71	3.54	3.58	-0.04
	1898	Overall	4.57	4.91	-0.35	4.29	4.62	-0.33
	1899	Overall	3.76	4.21	-0.45	3.72	3.85	-0.13
	1900	Overall	3.93	4.27	-0.34	4.00	4.28	-0.27
	1901	Overall	3.96	4.45	-0.49	4.34	4.63	-0.29

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1902	Overall	4.52	4.81	-0.29	3.89	4.09	-0.20
	1903	Overall	4.14	4.70	-0.56	4.16	4.47	-0.31
	1904	Overall	4.46	4.88	-0.41	4.21	4.34	-0.13
	1905	Overall	4.01	4.38	-0.38	3.66	3.92	-0.26
	1906	Overall	4.38	4.62	-0.24	3.83	4.29	-0.46
	1907	Overall	4.20	4.59	-0.39	3.82	4.24	-0.43
	1908	Overall	4.23	4.57	-0.34	5.02	5.28	-0.26
	1909	Overall	4.14	4.29	-0.15	4.14	4.24	-0.10
	1910	Overall	3.93	4.30	-0.37	3.93	4.32	-0.40
	1911	Overall	4.93	5.05	-0.12	4.30	4.65	-0.35
	1912	Overall	4.08	4.41	-0.33			
	1913	Overall	4.27	4.30	-0.04	3.81	4.07	-0.25
	1914	Overall	4.22	4.42	-0.20			
	1915	Overall	4.02	4.46	-0.44	3.94	4.55	-0.60
	1916	Overall	4.35	4.71	-0.36			
	1917	Overall	3.83	4.17	-0.35	4.62	5.05	-0.43
	1918	Overall	4.28	4.65	-0.36	3.54	3.77	-0.23
	1919	Overall	3.85	4.09	-0.24	4.32	4.75	-0.42
	1920	Overall	4.31	4.54	-0.24	4.26	4.83	-0.56
	1921	Overall	4.14	4.61	-0.46	4.02	4.32	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1922	Overall	4.20	4.41	-0.21	3.81	3.88	-0.07
	1923	Overall	3.92	4.35	-0.43			
	1924	Overall	4.27	4.75	-0.48	3.90	4.28	-0.37
	1925	Overall	4.22	4.56	-0.34	4.16	4.62	-0.46
	1926	Overall	4.13	4.32	-0.18	3.38	3.59	-0.21
	1927	Overall	3.74	4.06	-0.32			
	1928	Overall	3.77	3.97	-0.20	4.59	4.68	-0.09
	1929	Overall	4.02	4.37	-0.35	3.99	4.39	-0.40
	1930	Overall	4.18	4.62	-0.45	3.95	4.28	-0.33
	1931	Overall	4.22	4.60	-0.38	3.39	3.82	-0.42
	1932	Overall	4.22	4.70	-0.48	4.67	4.71	-0.04
	1933	Overall	3.99	4.41	-0.42	4.87	5.19	-0.33
	1934	Overall	4.14	4.54	-0.40	5.10	5.32	-0.22
	1935	Overall	4.28	4.49	-0.21	4.65	4.80	-0.15
	1936	Overall	4.31	4.64	-0.33	4.05	4.39	-0.34
	1937	Overall	4.14	4.37	-0.23	3.40	3.61	-0.21
	1938	Overall	4.24	4.37	-0.13			
	1939	Overall	4.41	4.49	-0.08	3.86	4.42	-0.56
	1940	Overall	4.06	4.45	-0.39	4.13	4.34	-0.21
	1941	Overall	4.42	4.75	-0.32	3.27	3.64	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1942	Overall	4.09	4.54	-0.45	3.77	4.14	-0.37
	1943	Overall	4.38	4.76	-0.37	4.67	4.75	-0.08
	1944	Overall	4.12	4.50	-0.38	4.45	4.83	-0.38
	1945	Overall	3.96	4.21	-0.25	3.29	3.55	-0.26
	1946	Overall	4.30	4.71	-0.41	3.55	3.85	-0.30
	1947	Overall	4.08	4.48	-0.40	4.01	4.10	-0.08
	1948	Overall	4.71	4.92	-0.22	4.05	4.03	0.02
	1949	Overall	4.09	4.62	-0.52	4.17	4.33	-0.16
	1950	Overall	4.04	4.34	-0.30	4.09	4.57	-0.49
	1951	Overall	4.46	4.73	-0.27	4.90	4.99	-0.09
	1952	Overall	4.15	4.34	-0.20	3.85	4.19	-0.34
	1953	Overall	4.37	4.73	-0.36	4.35	4.41	-0.07
	1954	Overall	4.69	4.70	-0.01	3.86	4.05	-0.19
	1955	Overall	3.88	4.11	-0.23	4.44	4.59	-0.15
	1956	Overall				4.13	4.72	-0.59
	1957	Overall	4.17	4.48	-0.31	3.85	4.10	-0.25
	1958	Overall	4.16	4.67	-0.50	4.26	4.24	0.02
	1959	Overall	4.24	4.45	-0.22	4.40	4.86	-0.45
	1960	Overall	4.07	4.04	0.03	3.96	4.18	-0.22
	1961	Overall	4.41	4.58	-0.17	4.15	4.75	-0.60

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1962	Overall	4.03	4.32	-0.29	3.40	3.74	-0.34
	1963	Overall	4.18	4.43	-0.25	4.43	4.54	-0.11
	1964	Overall	4.11	4.43	-0.32	4.04	4.11	-0.07
	1965	Overall	4.24	4.42	-0.18	3.95	4.28	-0.33
	1966	Overall	4.07	4.32	-0.25			
	1967	Overall	4.04	4.40	-0.36	4.19	4.30	-0.12
	1968	Overall	4.41	4.63	-0.22	4.43	4.92	-0.49
	1969	Overall	4.28	4.55	-0.26	4.08	4.27	-0.19
	1970	Overall				4.29	4.49	-0.20
	1971	Overall	3.84	4.37	-0.53	4.56	4.93	-0.37
	1972	Overall	3.92	4.32	-0.40	4.84	5.19	-0.35
	1973	Overall	4.08	4.33	-0.25	3.76	3.95	-0.19
	1974	Overall	3.93	4.30	-0.37	4.70	4.85	-0.15
	1975	Overall	4.15	4.43	-0.28	4.37	4.73	-0.36
	1976	Overall	3.95	4.40	-0.45	4.36	4.49	-0.13
	1977	Overall	4.45	4.68	-0.23	3.39	3.78	-0.39
	1978	Overall	3.95	4.26	-0.32	4.16	4.58	-0.42
	1979	Overall	4.41	4.67	-0.26	3.11	3.51	-0.40
	1980	Overall	4.61	4.62	-0.01	3.95	4.47	-0.52
	1981	Overall	3.95	4.28	-0.33	4.21	4.72	-0.51

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 1 - Reward	1982	Overall	3.75	4.07	-0.32	4.71	5.00	-0.29
	1983	Overall	4.11	4.52	-0.41	3.50	3.93	-0.43
	1984	Overall	4.19	4.37	-0.18	4.38	4.53	-0.16
	1985	Overall	4.44	4.52	-0.09	3.04	3.49	-0.46
	1986	Overall	4.30	4.41	-0.11	3.88	4.04	-0.16
	1987	Overall	4.29	4.48	-0.19	3.25	3.45	-0.20
	1988	Overall	4.06	4.39	-0.33	3.76	4.22	-0.46
	1989	Overall	4.26	4.82	-0.56	4.70	5.09	-0.38
	1990	Overall	4.13	4.49	-0.36	5.06	5.26	-0.20
	1991	Overall	4.62	4.97	-0.35	3.76	3.91	-0.14
	1992	Overall	4.43	4.69	-0.26	4.31	4.49	-0.18
	1993	Overall	4.32	4.65	-0.33	3.86	3.99	-0.13
	1994	Overall	3.81	4.30	-0.49			
	1995	Overall	4.34	4.56	-0.22	2.69	3.26	-0.56
	1996	Overall	4.86	5.04	-0.18	4.57	5.14	-0.57
	1997	Overall	4.00	4.16	-0.16	4.43	4.65	-0.22
	1998	Overall	4.33	4.62	-0.29	4.97	5.00	-0.03
	1999	Overall	3.77	4.26	-0.48	3.51	3.61	-0.10
	2000	Overall	3.95	4.33	-0.38	3.71	4.11	-0.40
Factor 2 - Relief 1		Overall	2.68	2.94	-0.26	2.39	2.73	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	2	Overall	2.51	2.75	-0.25	2.57	2.80	-0.24
	3	Overall	2.61	2.87	-0.26	2.66	3.28	-0.62
	4	Overall				2.63	3.05	-0.42
	5	Overall	2.32	2.54	-0.22	2.36	2.66	-0.30
	6	Overall	2.78	2.96	-0.18	2.27	2.47	-0.20
	7	Overall	2.34	2.57	-0.23	2.77	3.09	-0.32
	8	Overall	2.68	3.01	-0.33	2.38	2.57	-0.19
	9	Overall	2.67	3.04	-0.37	2.31	2.68	-0.37
	10	Overall	2.64	2.86	-0.22	2.41	2.72	-0.32
	11	Overall	2.60	2.83	-0.23	2.30	2.63	-0.32
	12	Overall	2.48	2.78	-0.30	2.29	2.80	-0.52
	13	Overall	2.61	2.82	-0.22	2.57	2.98	-0.41
	14	Overall	2.56	2.73	-0.18	2.44	2.81	-0.36
	15	Overall	2.37	2.63	-0.26	2.28	2.49	-0.21
	16	Overall	2.59	2.90	-0.31	1.86	2.25	-0.39
	17	Overall	2.67	2.98	-0.30	2.46	2.84	-0.38
	18	Overall	2.25	2.47	-0.22	2.36	2.67	-0.31
	19	Overall	2.28	2.57	-0.28	2.11	2.52	-0.42
	20	Overall	2.52	2.81	-0.29	2.27	2.72	-0.45
	21	Overall	2.59	2.90	-0.31	2.64	3.24	-0.60

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	22	Overall	2.62	2.94	-0.32	2.43	2.92	-0.49
	23	Overall	2.39	2.56	-0.17	1.92	2.43	-0.51
	24	Overall	2.47	2.75	-0.28	2.47	2.89	-0.41
	26	Overall	2.36	2.60	-0.24	2.47	3.14	-0.67
	27	Overall	2.52	2.70	-0.18	2.44	2.87	-0.44
	28	Overall	2.98	3.21	-0.23	2.19	2.75	-0.57
	29	Overall	2.54	2.79	-0.25	2.78	3.15	-0.37
	30	Overall	2.52	2.72	-0.20	2.58	2.99	-0.41
	31	Overall	2.50	2.77	-0.27	1.52	1.83	-0.31
	32	Overall	2.79	3.07	-0.27	3.14	3.59	-0.44
	33	Overall	2.59	2.83	-0.24	2.28	2.72	-0.43
	34	Overall	2.54	2.75	-0.21	2.35	2.83	-0.49
	35	Overall	2.43	2.67	-0.24	2.13	2.46	-0.32
	36	Overall	2.46	2.69	-0.23	2.39	2.74	-0.36
	37	Overall	2.67	2.93	-0.26	2.67	3.00	-0.33
	38	Overall				2.67	3.03	-0.36
	39	Overall	2.12	2.29	-0.18	2.88	3.37	-0.48
	40	Overall	2.78	2.95	-0.17	2.41	2.62	-0.21
	41	Overall	2.46	2.66	-0.20	3.09	3.57	-0.48
	42	Overall	2.70	2.98	-0.28	2.92	3.28	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	43	Overall	2.30	2.64	-0.34	2.75	3.16	-0.41
	44	Overall				2.22	2.61	-0.39
	45	Overall	2.67	2.90	-0.23	2.40	2.85	-0.44
	46	Overall	2.38	2.73	-0.35	2.14	2.61	-0.46
	47	Overall	2.62	2.84	-0.22	1.82	2.19	-0.37
	48	Overall	2.40	2.73	-0.33	2.77	2.94	-0.16
	49	Overall	2.74	2.89	-0.15			
	50	Overall	2.58	2.85	-0.27	2.24	2.68	-0.44
	51	Overall	2.25	2.62	-0.37			
	52	Overall	2.82	3.01	-0.19	2.54	3.03	-0.50
	53	Overall	2.55	2.74	-0.20	2.54	3.10	-0.55
	54	Overall	2.42	2.60	-0.18	2.35	2.76	-0.40
	55	Overall	2.92	3.10	-0.18	2.62	2.93	-0.31
	56	Overall	2.75	3.02	-0.27	3.15	3.49	-0.34
	57	Overall	2.58	2.87	-0.28	2.86	3.02	-0.16
	58	Overall	2.50	2.69	-0.19	2.24	2.64	-0.40
	59	Overall				2.66	3.13	-0.47
	60	Overall	2.90	3.10	-0.20	3.15	3.44	-0.29
	61	Overall				2.79	3.04	-0.25
	62	Overall	2.73	3.05	-0.31	2.39	2.77	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	63	Overall	2.40	2.68	-0.28	2.19	2.36	-0.17
	64	Overall	2.77	2.96	-0.19	3.04	3.56	-0.52
	65	Overall	2.48	2.79	-0.32	3.02	3.30	-0.28
	66	Overall	2.58	2.83	-0.25	2.58	2.56	0.02
	67	Overall	2.65	2.89	-0.24	2.62	2.90	-0.27
	68	Overall	2.40	2.72	-0.31	2.30	2.54	-0.24
	69	Overall	2.37	2.54	-0.17	2.15	2.78	-0.63
	70	Overall	2.21	2.52	-0.30	2.73	3.03	-0.30
	71	Overall	2.61	2.91	-0.30	2.45	3.06	-0.61
	72	Overall	2.45	2.64	-0.19	3.72	4.13	-0.41
	73	Overall	2.53	2.84	-0.31	3.17	3.39	-0.22
	74	Overall	2.68	2.88	-0.20	2.25	2.63	-0.38
	75	Overall	2.72	2.99	-0.28	2.14	2.56	-0.42
	76	Overall	2.58	2.80	-0.23	2.84	3.21	-0.37
	77	Overall				3.20	3.55	-0.35
	78	Overall	2.60	2.83	-0.23	2.58	2.95	-0.37
	79	Overall	2.68	2.94	-0.25	3.06	3.35	-0.29
	80	Overall	2.83	3.05	-0.23	2.84	3.01	-0.17
	81	Overall				2.66	2.97	-0.30
	82	Overall	2.13	2.32	-0.18	2.29	2.56	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	83	Overall	2.13	2.30	-0.18	2.67	3.12	-0.45
	84	Overall	2.49	2.73	-0.24	1.95	2.31	-0.37
	85	Overall	2.33	2.45	-0.12	2.36	2.65	-0.30
	86	Overall				2.33	2.78	-0.46
	87	Overall	2.72	2.98	-0.25	2.76	3.26	-0.51
	88	Overall	2.49	2.61	-0.12	2.39	2.98	-0.58
	89	Overall	2.77	3.01	-0.24	2.88	3.20	-0.32
	90	Overall	2.67	2.99	-0.32	2.91	3.06	-0.15
	91	Overall	2.80	2.90	-0.10			
	92	Overall	2.54	2.72	-0.17	2.74	3.45	-0.71
	93	Overall				3.11	3.52	-0.41
	94	Overall	2.47	2.75	-0.28	3.21	3.56	-0.35
	95	Overall	2.55	2.72	-0.18	1.95	2.56	-0.61
	96	Overall	2.62	2.88	-0.27	2.20	2.63	-0.42
	97	Overall				3.01	3.55	-0.54
	98	Overall				2.18	2.60	-0.41
	99	Overall	2.51	2.83	-0.32	2.60	2.88	-0.28
	100	Overall	2.52	2.71	-0.18	2.55	3.18	-0.63
	101	Overall	2.55	2.78	-0.24	2.78	3.09	-0.31
	102	Overall	3.04	3.20	-0.16	2.63	3.12	-0.49

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	103	Overall	2.75	2.95	-0.20	1.93	2.15	-0.22
	104	Overall	2.00	2.28	-0.28	2.80	3.27	-0.47
	105	Overall	2.52	2.80	-0.27	2.53	2.92	-0.39
	106	Overall	2.18	2.38	-0.20	2.84	3.18	-0.35
	107	Overall	3.00	3.24	-0.24	2.53	2.89	-0.36
	108	Overall	2.50	2.70	-0.20	3.04	3.23	-0.19
	109	Overall	2.46	2.63	-0.17	2.70	3.11	-0.41
	110	Overall	2.64	2.93	-0.29	2.72	2.98	-0.27
	111	Overall	2.36	2.58	-0.22	2.18	2.64	-0.46
	112	Overall	2.47	2.81	-0.34	2.13	2.64	-0.51
	113	Overall	2.55	2.75	-0.21	2.35	2.75	-0.40
	114	Overall	2.41	2.76	-0.35	2.66	3.20	-0.54
	115	Overall				2.52	3.13	-0.60
	116	Overall	2.55	2.88	-0.33	1.85	2.06	-0.21
	117	Overall	2.60	2.80	-0.21			
	118	Overall	2.55	2.77	-0.22	2.85	3.31	-0.46
	119	Overall	2.70	3.10	-0.40	1.96	2.38	-0.42
	120	Overall	2.52	2.96	-0.44	2.50	2.71	-0.21
	121	Overall	2.57	2.79	-0.21	2.98	3.23	-0.25
	122	Overall	2.44	2.68	-0.25	2.57	3.02	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	123	Overall	2.61	2.99	-0.38	3.20	3.48	-0.28
	124	Overall	2.62	2.90	-0.28	2.45	2.95	-0.50
	125	Overall	2.58	2.95	-0.36	2.80	3.38	-0.58
	126	Overall	2.70	2.93	-0.23	2.59	3.28	-0.68
	127	Overall	2.37	2.65	-0.28	2.45	2.75	-0.31
	128	Overall	2.36	2.68	-0.32	2.17	2.52	-0.35
	129	Overall	2.59	2.79	-0.20	3.14	3.72	-0.58
	130	Overall	2.79	2.93	-0.14	2.13	2.38	-0.25
	131	Overall	2.63	2.98	-0.35	2.66	3.08	-0.42
	132	Overall	2.42	2.73	-0.31	2.53	2.77	-0.23
	133	Overall	2.70	2.98	-0.27	2.83	3.18	-0.34
	135	Overall	2.71	2.84	-0.12	2.09	2.54	-0.44
	136	Overall	2.45	2.84	-0.39	1.94	2.32	-0.38
	137	Overall	2.33	2.49	-0.17	2.42	2.80	-0.38
	138	Overall	2.53	2.82	-0.30			
	139	Overall	2.57	2.85	-0.28	2.53	2.89	-0.36
	140	Overall	2.80	3.03	-0.23			
	141	Overall	2.51	2.75	-0.24	2.46	2.78	-0.32
	142	Overall	2.70	2.94	-0.24	2.25	2.66	-0.41
	143	Overall	2.64	2.86	-0.22	3.01	3.20	-0.19

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	144	Overall	2.35	2.59	-0.24	2.20	2.61	-0.41
	145	Overall	2.48	2.70	-0.22	2.33	2.53	-0.20
	146	Overall	2.42	2.63	-0.21	2.84	3.27	-0.43
	147	Overall	2.64	2.94	-0.29	2.45	2.71	-0.26
	148	Overall	2.54	2.79	-0.25	2.13	2.73	-0.60
	149	Overall	2.59	2.93	-0.33	2.26	2.88	-0.62
	150	Overall	2.58	2.87	-0.29	4.01	4.49	-0.48
	151	Overall	2.52	2.83	-0.31	2.40	2.88	-0.48
	152	Overall	2.35	2.63	-0.28	2.35	2.69	-0.34
	153	Overall	2.87	3.03	-0.16	3.15	3.46	-0.31
	154	Overall	2.55	2.74	-0.19	2.46	2.79	-0.32
	155	Overall	2.45	2.74	-0.29	2.84	3.28	-0.44
	156	Overall	2.75	3.04	-0.28	3.15	3.47	-0.32
	157	Overall				2.41	2.89	-0.48
	158	Overall	2.57	2.88	-0.31	2.33	2.90	-0.56
	159	Overall	2.63	2.86	-0.23	2.25	2.50	-0.25
	160	Overall	2.75	2.93	-0.18	2.23	2.52	-0.29
	161	Overall	2.82	3.01	-0.20	2.60	2.87	-0.27
	162	Overall	2.67	2.97	-0.30	1.96	2.26	-0.30
	163	Overall	2.57	2.82	-0.25	2.76	3.20	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	164	Overall	2.82	3.08	-0.27	2.27	2.79	-0.51
	165	Overall	2.71	2.94	-0.23	2.64	2.94	-0.30
	166	Overall	2.57	2.81	-0.24	2.29	2.65	-0.36
	167	Overall	2.71	2.94	-0.23	3.43	3.81	-0.38
	168	Overall	2.56	2.81	-0.25			
	169	Overall	2.49	2.78	-0.29	2.35	2.70	-0.35
	170	Overall	2.37	2.65	-0.29	2.96	3.18	-0.22
	171	Overall	2.55	2.74	-0.19	2.66	2.81	-0.16
	172	Overall	2.27	2.42	-0.14	2.56	3.07	-0.51
	173	Overall	2.88	3.03	-0.16	2.28	2.70	-0.42
	174	Overall	2.39	2.62	-0.23	2.88	3.41	-0.53
	175	Overall	2.67	3.01	-0.34	2.41	2.65	-0.24
	176	Overall	2.63	2.89	-0.26	2.31	2.58	-0.26
	177	Overall	2.16	2.43	-0.26	2.75	3.03	-0.28
	178	Overall	2.54	2.72	-0.17	3.36	3.72	-0.35
	179	Overall	2.66	2.95	-0.29	2.62	2.85	-0.23
	180	Overall	2.51	2.82	-0.31	2.41	3.07	-0.66
	181	Overall	2.31	2.54	-0.23	3.10	3.45	-0.36
	182	Overall	2.71	2.92	-0.21	2.50	2.78	-0.28
	183	Overall	2.38	2.58	-0.20	2.70	3.08	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	184	Overall	2.53	2.82	-0.29	2.59	3.04	-0.45
	185	Overall	2.40	2.69	-0.29	2.15	2.34	-0.20
	186	Overall	2.50	2.66	-0.16	2.68	3.09	-0.41
	187	Overall	2.74	3.01	-0.28	2.67	3.11	-0.44
	188	Overall	2.54	2.74	-0.19	2.55	3.02	-0.47
	189	Overall	2.75	2.94	-0.20	1.87	2.44	-0.57
	190	Overall	2.42	2.68	-0.26	2.15	2.52	-0.37
	191	Overall	2.45	2.67	-0.21	2.38	2.99	-0.61
	192	Overall	2.48	2.77	-0.29	1.97	2.22	-0.25
	193	Overall	2.63	2.87	-0.24	2.20	2.68	-0.47
	194	Overall				1.93	2.21	-0.28
	195	Overall	2.81	2.97	-0.16	2.65	3.15	-0.50
	196	Overall	2.78	3.11	-0.33	2.54	3.15	-0.61
	197	Overall	2.59	2.81	-0.22	3.00	3.23	-0.23
	198	Overall	2.73	2.98	-0.25	2.19	2.75	-0.56
	199	Overall	2.55	2.78	-0.23	2.92	3.29	-0.37
	200	Overall	2.32	2.56	-0.24	2.85	3.19	-0.34
	201	Overall				1.73	2.20	-0.47
	202	Overall	2.63	2.93	-0.29	2.43	2.73	-0.31
	203	Overall	2.36	2.72	-0.37	2.31	2.78	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	204	Overall	2.65	2.95	-0.29	2.75	3.13	-0.37
	205	Overall	2.73	3.01	-0.28	2.10	2.56	-0.46
	206	Overall	2.37	2.60	-0.23	2.49	2.59	-0.10
	207	Overall	2.34	2.58	-0.24	2.43	2.92	-0.49
	208	Overall	2.50	2.76	-0.26	2.12	2.51	-0.39
	209	Overall	2.46	2.63	-0.17	2.70	2.98	-0.29
	210	Overall	2.79	3.09	-0.30	2.59	3.01	-0.43
	211	Overall	2.81	3.03	-0.22	3.08	3.30	-0.22
	212	Overall	2.45	2.72	-0.27	2.01	2.38	-0.37
	213	Overall	2.71	2.94	-0.22	2.55	2.85	-0.30
	214	Overall	2.38	2.60	-0.23	3.33	3.60	-0.27
	215	Overall	2.72	3.01	-0.29	2.17	2.30	-0.13
	216	Overall	2.47	2.65	-0.19	2.90	3.10	-0.19
	217	Overall	2.45	2.77	-0.32	2.53	2.73	-0.20
	218	Overall	2.71	2.93	-0.21	2.20	2.50	-0.29
	219	Overall	2.78	3.08	-0.30	2.29	2.68	-0.40
	220	Overall	2.71	3.01	-0.30	2.51	2.83	-0.32
	221	Overall	2.54	2.81	-0.27	3.05	3.39	-0.34
	222	Overall	2.69	2.96	-0.27	2.24	2.57	-0.33
	223	Overall				3.04	3.50	-0.46

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	224	Overall				2.75	3.20	-0.45
	225	Overall	2.21	2.60	-0.39	3.04	3.41	-0.37
	226	Overall	2.64	2.92	-0.28	3.60	4.31	-0.71
	227	Overall	2.43	2.76	-0.33	2.51	2.88	-0.37
	228	Overall	2.61	2.87	-0.26	1.82	2.42	-0.60
	229	Overall	2.66	2.89	-0.23	2.39	2.72	-0.33
	230	Overall	2.38	2.69	-0.31	2.41	2.93	-0.52
	231	Overall	2.78	3.17	-0.39	2.79	3.07	-0.28
	232	Overall	2.69	2.99	-0.30	2.19	2.33	-0.14
	233	Overall	2.25	2.60	-0.35	3.07	3.32	-0.26
	234	Overall	2.36	2.58	-0.21	2.40	2.81	-0.41
	235	Overall	2.74	3.03	-0.29	2.42	2.76	-0.34
	236	Overall	2.48	2.79	-0.31			
	237	Overall	2.32	2.56	-0.24	2.51	2.74	-0.22
	238	Overall	2.54	2.71	-0.17	2.81	3.24	-0.43
	239	Overall	2.68	3.08	-0.41	2.83	3.55	-0.72
	240	Overall	2.82	3.12	-0.30	2.53	2.86	-0.33
	241	Overall	2.68	2.97	-0.29	2.24	2.51	-0.27
	242	Overall	2.75	2.95	-0.20	2.05	2.21	-0.17
	243	Overall	2.66	2.92	-0.26	2.72	3.00	-0.28

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	244	Overall	2.68	2.80	-0.12	1.84	2.15	-0.31
	245	Overall	2.38	2.68	-0.30	3.22	3.57	-0.35
	246	Overall	2.47	2.66	-0.19	2.95	3.24	-0.29
	247	Overall	2.61	2.87	-0.26	2.48	2.83	-0.35
	248	Overall	2.34	2.62	-0.28	1.94	2.15	-0.21
	249	Overall	2.60	2.82	-0.22			
	250	Overall	2.50	2.75	-0.26	2.64	2.93	-0.30
	251	Overall	2.47	2.66	-0.19	2.46	2.86	-0.40
	252	Overall	2.67	2.99	-0.32	2.26	2.63	-0.37
	253	Overall	2.57	2.84	-0.26	2.49	2.85	-0.36
	254	Overall	2.82	3.06	-0.24	2.58	3.02	-0.45
	255	Overall	2.49	2.81	-0.32	2.65	2.96	-0.30
	256	Overall	2.48	2.76	-0.28	2.77	3.08	-0.30
	257	Overall	2.41	2.77	-0.36	2.56	2.66	-0.10
	258	Overall	2.48	2.73	-0.25	1.91	2.19	-0.28
	259	Overall	2.63	2.88	-0.26	2.84	3.46	-0.62
	260	Overall	2.58	2.75	-0.17	2.88	3.22	-0.34
	261	Overall	2.73	2.96	-0.24	2.04	2.38	-0.33
	262	Overall	2.60	2.88	-0.28	2.47	2.81	-0.34
	263	Overall	2.29	2.61	-0.32	2.34	2.61	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	264	Overall	2.45	2.72	-0.27	2.50	2.77	-0.27
	265	Overall	2.71	3.00	-0.29	2.59	2.83	-0.24
	266	Overall	2.45	2.76	-0.31	2.14	2.34	-0.20
	267	Overall	2.63	2.84	-0.21	3.20	3.57	-0.36
	268	Overall	2.73	3.02	-0.29	2.71	3.23	-0.52
	269	Overall	2.69	2.91	-0.23	2.58	2.88	-0.30
	270	Overall	2.31	2.53	-0.22	3.32	3.58	-0.25
	271	Overall	2.42	2.59	-0.16	2.10	2.31	-0.20
	272	Overall	2.57	2.88	-0.31	3.20	3.62	-0.41
	273	Overall	2.33	2.57	-0.24	2.27	2.66	-0.39
	274	Overall	2.53	2.83	-0.29	2.40	2.93	-0.54
	275	Overall				2.62	3.07	-0.46
	276	Overall	2.82	3.02	-0.20			
	277	Overall	2.47	2.75	-0.27	2.38	2.77	-0.39
	278	Overall	2.71	2.95	-0.23	2.40	2.85	-0.45
	279	Overall	2.48	2.85	-0.37	2.23	2.70	-0.46
	280	Overall	2.37	2.65	-0.28	2.73	3.18	-0.45
	281	Overall	2.74	2.93	-0.19	2.11	2.50	-0.39
	282	Overall	2.69	2.98	-0.29	3.15	3.55	-0.40
	283	Overall	2.71	3.00	-0.29	2.41	3.06	-0.64

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	284	Overall	2.37	2.66	-0.29	2.79	3.19	-0.40
	285	Overall	2.26	2.62	-0.36	2.69	3.13	-0.44
	286	Overall	2.66	2.86	-0.20	2.70	2.89	-0.19
	287	Overall	2.24	2.43	-0.19	2.25	2.70	-0.45
	288	Overall	2.50	2.77	-0.27	2.41	2.78	-0.37
	289	Overall	2.46	2.78	-0.32	2.26	2.73	-0.47
	290	Overall	2.30	2.61	-0.30	2.50	3.11	-0.60
	291	Overall	2.43	2.60	-0.17	2.48	2.68	-0.20
	292	Overall	2.53	2.72	-0.19	2.39	2.81	-0.42
	293	Overall	2.70	3.02	-0.31	2.54	2.87	-0.32
	294	Overall	2.81	3.03	-0.22	2.43	2.95	-0.52
	295	Overall	2.62	2.86	-0.24	2.03	2.37	-0.33
	296	Overall	2.68	2.83	-0.15	3.02	3.20	-0.18
	297	Overall	2.55	2.84	-0.29	3.01	3.58	-0.58
	298	Overall				2.60	2.91	-0.31
	299	Overall	2.71	2.91	-0.21	2.86	3.03	-0.16
	300	Overall	2.55	2.83	-0.28	2.69	3.19	-0.51
	301	Overall	2.64	2.89	-0.25	2.98	3.21	-0.23
	302	Overall	2.59	2.96	-0.37	2.43	2.97	-0.54
	303	Overall	2.59	2.81	-0.21			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	304	Overall	2.59	2.75	-0.16	2.34	2.63	-0.29
	305	Overall	2.75	3.03	-0.28	2.70	3.07	-0.37
	306	Overall	2.49	2.71	-0.22	2.97	3.54	-0.57
	307	Overall	2.51	2.73	-0.22	2.59	2.96	-0.36
	308	Overall	2.32	2.48	-0.16	2.90	3.38	-0.48
	309	Overall	2.37	2.68	-0.31	2.25	2.76	-0.51
	310	Overall	2.57	2.87	-0.30	2.48	2.63	-0.16
	311	Overall	2.37	2.59	-0.22	2.65	2.86	-0.20
	312	Overall	2.55	2.84	-0.29	1.95	2.13	-0.18
	313	Overall	2.39	2.76	-0.37	3.04	3.52	-0.49
	314	Overall	2.39	2.65	-0.25	2.19	2.53	-0.34
	315	Overall	2.64	2.77	-0.13	2.96	3.31	-0.35
	316	Overall				2.30	2.53	-0.23
	317	Overall	3.04	3.25	-0.21	2.32	2.50	-0.18
	318	Overall	2.45	2.74	-0.29	2.47	2.97	-0.50
	319	Overall	2.61	2.89	-0.27	2.46	2.95	-0.49
	320	Overall	2.67	2.91	-0.24	3.34	3.90	-0.56
	321	Overall	2.50	2.77	-0.27	2.95	3.13	-0.18
	322	Overall	2.77	2.94	-0.17	2.83	3.04	-0.21
	323	Overall	2.31	2.50	-0.20	2.32	2.62	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	324	Overall	2.57	2.77	-0.20	2.60	3.22	-0.62
	325	Overall	2.60	2.86	-0.25	2.63	3.24	-0.61
	326	Overall	2.30	2.38	-0.09	3.14	3.48	-0.34
	327	Overall	2.64	2.82	-0.17	2.57	3.03	-0.46
	328	Overall	2.44	2.76	-0.32	2.03	2.33	-0.30
	329	Overall	2.47	2.78	-0.31	2.57	3.14	-0.58
	330	Overall	2.40	2.65	-0.26	3.03	3.34	-0.31
	331	Overall	2.74	3.05	-0.31	2.67	3.14	-0.47
	332	Overall	2.46	2.78	-0.31	1.74	2.12	-0.37
	333	Overall	2.56	2.79	-0.23	2.45	2.78	-0.33
	334	Overall	2.37	2.56	-0.19	2.42	2.77	-0.34
	335	Overall	2.56	2.73	-0.17	2.59	2.96	-0.37
	336	Overall	2.82	3.06	-0.23	2.74	3.01	-0.27
	337	Overall	2.48	2.71	-0.23	2.32	2.76	-0.43
	338	Overall	2.72	2.92	-0.20	2.92	3.18	-0.26
	339	Overall	2.57	2.88	-0.31	2.69	3.21	-0.52
	340	Overall	2.43	2.65	-0.21	2.37	3.05	-0.68
	341	Overall	2.71	2.99	-0.28	2.39	2.78	-0.38
	342	Overall	2.64	2.81	-0.17	2.28	2.72	-0.44
	343	Overall	2.52	2.69	-0.16	3.27	3.81	-0.54

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	344	Overall	2.36	2.53	-0.17	2.42	2.68	-0.27
	345	Overall	2.66	2.92	-0.26	2.36	2.78	-0.41
	346	Overall	2.36	2.73	-0.38	2.41	2.74	-0.32
	347	Overall	2.91	3.06	-0.16	2.59	3.13	-0.54
	348	Overall	2.41	2.64	-0.23	2.80	3.30	-0.50
	349	Overall	2.25	2.54	-0.30	2.49	2.98	-0.49
	350	Overall	2.30	2.61	-0.31	2.10	2.22	-0.12
	351	Overall	2.59	2.77	-0.18	2.95	3.58	-0.63
	352	Overall	2.27	2.45	-0.18	2.63	3.35	-0.72
	353	Overall	2.86	3.04	-0.19	2.39	2.80	-0.40
	354	Overall	2.57	2.98	-0.42	2.70	3.13	-0.43
	355	Overall	2.58	2.97	-0.39	2.44	3.05	-0.61
	356	Overall	2.62	2.85	-0.23	2.88	3.15	-0.27
	357	Overall	2.72	2.96	-0.24	2.85	3.05	-0.20
	358	Overall	2.33	2.57	-0.24	2.62	2.74	-0.13
	359	Overall				3.27	3.55	-0.28
	360	Overall	2.70	2.91	-0.20	2.49	2.92	-0.44
	361	Overall	2.56	2.74	-0.19			
	362	Overall	2.56	2.94	-0.38	2.54	2.93	-0.39
	363	Overall	2.41	2.60	-0.19	2.08	2.48	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	364	Overall	2.27	2.43	-0.16	2.17	2.43	-0.26
	365	Overall	2.63	2.93	-0.30	3.25	3.95	-0.70
	366	Overall	2.63	2.89	-0.26	2.85	3.05	-0.20
	367	Overall	2.83	3.08	-0.25	2.79	3.05	-0.26
	368	Overall	2.47	2.68	-0.21	2.45	3.19	-0.73
	369	Overall	2.55	2.85	-0.30	2.24	2.35	-0.11
	370	Overall	2.31	2.65	-0.34	2.65	3.13	-0.49
	371	Overall				2.60	2.92	-0.32
	372	Overall	2.53	2.81	-0.28	2.78	3.21	-0.43
	373	Overall	2.57	2.77	-0.20	2.56	3.00	-0.44
	374	Overall	2.57	2.84	-0.27	2.41	2.90	-0.50
	375	Overall	2.79	2.98	-0.19	2.75	3.11	-0.35
	376	Overall	2.35	2.69	-0.34			
	377	Overall	2.51	2.83	-0.32	2.61	2.92	-0.31
	378	Overall	2.74	2.91	-0.17	3.02	3.33	-0.31
	379	Overall	2.67	2.90	-0.23	2.35	2.97	-0.63
	380	Overall	2.78	3.04	-0.26	2.33	2.47	-0.14
	381	Overall	2.46	2.74	-0.28	3.55	3.93	-0.37
	382	Overall	2.48	2.64	-0.16	2.74	2.94	-0.21
	383	Overall	2.44	2.71	-0.28			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	384	Overall	2.40	2.64	-0.24	2.64	3.03	-0.39
	385	Overall	2.71	2.95	-0.24	2.68	3.22	-0.54
	386	Overall	2.74	2.99	-0.25	2.60	2.98	-0.38
	387	Overall	2.67	3.12	-0.45	2.42	2.79	-0.37
	388	Overall	2.25	2.55	-0.30	2.59	2.96	-0.36
	389	Overall	2.65	2.91	-0.26	2.51	2.79	-0.28
	390	Overall	2.63	2.77	-0.14	3.35	3.81	-0.46
	391	Overall	2.63	2.98	-0.35	2.44	2.79	-0.34
	392	Overall	2.32	2.58	-0.26	3.07	3.50	-0.43
	393	Overall	2.66	2.86	-0.19	2.45	3.16	-0.70
	394	Overall	2.62	2.82	-0.20	2.84	3.19	-0.35
	395	Overall	2.68	2.95	-0.26	2.84	3.57	-0.73
	396	Overall	2.53	2.76	-0.23	2.60	3.11	-0.51
	397	Overall	2.35	2.70	-0.35	2.30	2.73	-0.43
	398	Overall	2.55	2.87	-0.32	2.85	3.18	-0.33
	399	Overall	2.49	2.71	-0.22	2.52	2.99	-0.47
	400	Overall	2.44	2.77	-0.32	3.16	3.62	-0.46
	401	Overall	2.52	2.90	-0.37	2.43	2.87	-0.44
	402	Overall				2.79	3.03	-0.25
	403	Overall	2.66	2.93	-0.27	2.26	2.68	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	404	Overall	2.78	3.04	-0.26	3.02	3.34	-0.33
	405	Overall	2.60	2.82	-0.21	2.18	2.59	-0.41
	406	Overall	2.67	2.98	-0.31	2.73	3.31	-0.58
	407	Overall	2.53	2.76	-0.23	2.16	2.50	-0.33
	408	Overall				2.78	3.23	-0.46
	409	Overall				2.73	3.14	-0.41
	410	Overall	2.99	3.21	-0.22	2.25	2.60	-0.34
	411	Overall	2.47	2.70	-0.23	2.31	2.76	-0.45
	412	Overall				2.86	3.10	-0.24
	413	Overall	2.54	2.90	-0.36	2.16	2.39	-0.23
	414	Overall	2.40	2.56	-0.15	2.80	3.16	-0.36
	415	Overall	2.40	2.76	-0.36	2.35	2.84	-0.49
	416	Overall	2.54	2.74	-0.21	2.46	2.83	-0.37
	417	Overall	2.47	2.65	-0.17	2.58	2.89	-0.31
	418	Overall	2.52	2.83	-0.30	2.44	2.71	-0.27
	419	Overall	2.31	2.54	-0.23			
	420	Overall	2.48	2.62	-0.14	3.11	3.43	-0.33
	421	Overall	2.49	2.74	-0.25	2.51	3.01	-0.50
	422	Overall	2.98	3.27	-0.28	2.57	2.95	-0.38
	423	Overall	2.46	2.84	-0.38	2.77	3.31	-0.54

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	424	Overall	2.80	3.14	-0.34			
	425	Overall	2.35	2.57	-0.21	2.61	3.05	-0.43
	426	Overall	2.18	2.42	-0.24	2.85	3.25	-0.40
	427	Overall	2.68	3.04	-0.36	2.63	3.04	-0.41
	428	Overall	2.53	2.83	-0.30	1.87	2.25	-0.38
	429	Overall	2.56	2.90	-0.34	2.20	2.35	-0.15
	430	Overall	2.42	2.67	-0.25	2.35	2.68	-0.33
	431	Overall	2.35	2.62	-0.27	2.14	2.49	-0.34
	432	Overall	2.27	2.61	-0.34	2.71	3.12	-0.40
	433	Overall	2.79	3.01	-0.22	1.93	2.22	-0.29
	434	Overall	2.52	2.88	-0.36	2.15	2.42	-0.27
	435	Overall	2.63	2.94	-0.31	1.81	2.24	-0.43
	436	Overall	2.59	2.82	-0.23	2.43	2.82	-0.39
	437	Overall	2.50	2.75	-0.25	2.60	3.02	-0.42
	438	Overall	2.57	2.76	-0.19	3.23	3.80	-0.58
	439	Overall	2.30	2.62	-0.33	2.81	3.19	-0.38
	440	Overall	2.56	2.82	-0.26	3.10	3.45	-0.36
	441	Overall	2.77	3.01	-0.24	2.87	3.39	-0.52
	442	Overall	2.17	2.45	-0.27	2.65	2.89	-0.24
	443	Overall	2.52	2.90	-0.38	2.81	3.23	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	444	Overall	2.61	2.91	-0.30	2.26	2.53	-0.27
	445	Overall	2.78	3.15	-0.37	3.16	3.57	-0.41
	446	Overall	2.72	2.98	-0.26	1.97	2.61	-0.63
	447	Overall	2.58	2.70	-0.12	1.97	2.21	-0.24
	448	Overall	2.56	2.77	-0.21	2.74	3.11	-0.37
	449	Overall	2.39	2.64	-0.25	2.56	2.87	-0.31
	450	Overall				2.46	2.68	-0.22
	451	Overall	2.38	2.74	-0.36	2.77	2.89	-0.12
	452	Overall	2.45	2.79	-0.35	1.92	2.24	-0.32
	453	Overall	2.59	2.82	-0.23	2.58	3.10	-0.52
	454	Overall	2.95	3.17	-0.22	2.67	3.04	-0.37
	455	Overall	2.39	2.66	-0.27	2.97	3.23	-0.27
	456	Overall	2.61	2.92	-0.31	2.94	3.21	-0.27
	457	Overall	2.67	2.80	-0.13	2.56	2.98	-0.42
	458	Overall	2.64	2.88	-0.24	3.12	3.42	-0.30
	459	Overall	2.93	3.08	-0.15	2.72	3.15	-0.43
	460	Overall	2.67	2.86	-0.19	2.82	3.42	-0.60
	461	Overall	2.54	2.86	-0.32	2.12	2.61	-0.48
	462	Overall	2.42	2.70	-0.27	2.41	2.76	-0.34
	463	Overall				2.66	3.13	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	464	Overall	2.44	2.73	-0.29	2.55	2.92	-0.37
	465	Overall				3.32	3.67	-0.35
	466	Overall	2.52	2.77	-0.25	2.45	2.96	-0.51
	467	Overall	2.53	2.82	-0.29	2.08	2.28	-0.20
	468	Overall	2.45	2.67	-0.23	2.56	2.91	-0.35
	469	Overall	2.46	2.73	-0.26	2.61	3.01	-0.40
	470	Overall	2.39	2.76	-0.37	2.92	3.34	-0.42
	471	Overall	2.71	3.00	-0.29	2.88	3.16	-0.28
	472	Overall	2.61	2.86	-0.25	2.57	3.06	-0.49
	473	Overall	2.72	2.94	-0.23	2.75	3.15	-0.40
	474	Overall	2.32	2.56	-0.24	2.64	3.00	-0.36
	475	Overall	2.45	2.70	-0.25	1.98	2.15	-0.16
	476	Overall	2.54	2.80	-0.27	2.53	3.04	-0.51
	477	Overall	2.39	2.62	-0.23	2.61	2.90	-0.29
	478	Overall	2.69	2.92	-0.24	1.94	2.35	-0.41
	479	Overall	2.60	2.75	-0.14	2.39	2.70	-0.30
	480	Overall	2.56	2.83	-0.27	2.16	2.59	-0.44
	481	Overall	2.49	2.82	-0.33	2.41	2.95	-0.53
	482	Overall	2.71	3.00	-0.29	2.65	3.07	-0.42
	483	Overall	2.47	2.67	-0.20	2.37	2.83	-0.46

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	484	Overall	2.62	2.88	-0.26	2.29	2.69	-0.40
	485	Overall	2.39	2.61	-0.22	2.27	2.84	-0.58
	486	Overall	2.55	2.87	-0.32	2.18	2.47	-0.29
	487	Overall				2.15	2.84	-0.70
	488	Overall	2.49	2.68	-0.19	2.39	2.76	-0.38
	489	Overall	2.73	2.90	-0.17	2.36	2.70	-0.34
	490	Overall	2.53	2.76	-0.23	3.60	3.83	-0.23
	491	Overall	2.54	2.82	-0.27	2.10	2.67	-0.57
	492	Overall	2.19	2.48	-0.29	2.62	3.07	-0.45
	493	Overall	2.71	3.00	-0.29	2.46	2.81	-0.34
	494	Overall				2.75	3.21	-0.46
	495	Overall	2.59	2.92	-0.33	2.18	2.47	-0.29
	496	Overall	2.70	2.88	-0.17	2.61	2.92	-0.31
	497	Overall	2.42	2.60	-0.18			
	498	Overall	2.11	2.39	-0.28			
	499	Overall	2.25	2.56	-0.31	1.96	2.24	-0.28
	500	Overall	2.81	2.97	-0.16	3.38	3.64	-0.26
	501	Overall	2.77	2.97	-0.21	2.72	3.18	-0.46
	502	Overall	2.79	2.97	-0.18	2.09	2.38	-0.29
	503	Overall	2.37	2.60	-0.23	2.23	2.74	-0.52

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	504	Overall	2.57	2.96	-0.39	2.39	2.79	-0.40
	505	Overall	2.42	2.64	-0.23	3.17	3.55	-0.38
	506	Overall	2.56	2.82	-0.26	2.58	3.11	-0.54
	507	Overall				3.09	3.43	-0.35
	508	Overall	2.59	2.76	-0.17	2.61	2.76	-0.15
	509	Overall	2.61	2.82	-0.21	2.06	2.59	-0.53
	510	Overall	2.46	2.84	-0.38	1.81	2.18	-0.36
	511	Overall	2.37	2.66	-0.28			
	512	Overall	2.47	2.82	-0.36	2.38	2.96	-0.58
	513	Overall	2.50	2.73	-0.23	2.76	3.35	-0.59
	514	Overall	2.77	3.12	-0.36	2.60	3.00	-0.39
	515	Overall	2.64	2.82	-0.18	2.47	2.80	-0.33
	516	Overall	2.51	2.92	-0.41	2.56	3.16	-0.60
	517	Overall	2.98	3.12	-0.13	2.31	2.63	-0.31
	518	Overall	2.48	2.73	-0.25	2.80	3.09	-0.29
	519	Overall	2.39	2.59	-0.20	2.38	2.82	-0.44
	520	Overall	2.52	2.83	-0.31	2.84	3.20	-0.35
	521	Overall	2.53	2.78	-0.25	2.00	2.34	-0.33
	522	Overall	2.59	2.91	-0.32	3.83	4.36	-0.53
	523	Overall	2.49	2.68	-0.19	3.10	3.40	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	524	Overall	2.46	2.70	-0.24	2.49	2.95	-0.46
	525	Overall	2.46	2.64	-0.18	2.84	3.15	-0.31
	526	Overall	2.58	2.91	-0.33	3.26	3.62	-0.37
	527	Overall	2.44	2.59	-0.14	2.59	3.14	-0.56
	528	Overall	2.83	3.02	-0.19	2.21	2.57	-0.36
	529	Overall				3.16	3.57	-0.40
	530	Overall	2.61	2.89	-0.27	2.72	3.08	-0.36
	531	Overall	2.33	2.52	-0.19			
	532	Overall	2.47	2.76	-0.30	2.83	3.18	-0.35
	533	Overall	2.72	2.95	-0.23	3.38	4.06	-0.68
	534	Overall	2.34	2.45	-0.12			
	535	Overall	2.26	2.57	-0.31	2.41	2.76	-0.34
	536	Overall	2.55	2.96	-0.41	2.06	2.23	-0.18
	537	Overall	2.49	2.75	-0.26	3.13	3.54	-0.41
	538	Overall	2.64	2.97	-0.33	3.11	3.53	-0.41
	539	Overall	2.76	2.89	-0.12	2.35	2.90	-0.55
	540	Overall	2.62	2.88	-0.26	1.94	2.07	-0.12
	541	Overall	2.59	2.95	-0.36	2.58	3.14	-0.56
	542	Overall	2.80	2.96	-0.16	2.54	2.96	-0.41
	543	Overall	2.30	2.59	-0.30	2.30	2.72	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	544	Overall	2.31	2.56	-0.25	2.71	3.02	-0.32
	545	Overall	2.57	2.73	-0.16	3.15	3.55	-0.41
	546	Overall	2.53	2.70	-0.18	2.57	3.12	-0.55
	547	Overall	2.82	3.06	-0.24	2.76	3.09	-0.33
	548	Overall	2.44	2.72	-0.28	2.53	2.96	-0.43
	549	Overall	2.78	3.03	-0.25	2.98	3.42	-0.44
	550	Overall	2.42	2.68	-0.26	2.48	3.01	-0.52
	551	Overall	2.68	2.92	-0.24	2.88	3.18	-0.30
	552	Overall				2.88	3.15	-0.26
	553	Overall	2.32	2.53	-0.22	2.38	2.55	-0.17
	554	Overall	2.53	2.72	-0.19	2.72	2.98	-0.26
	555	Overall	2.50	2.72	-0.22	2.98	3.17	-0.19
	556	Overall	2.55	2.86	-0.30	2.67	3.01	-0.34
	557	Overall	2.78	3.03	-0.25	2.96	3.27	-0.30
	558	Overall	2.23	2.51	-0.28	2.87	3.20	-0.33
	559	Overall	2.48	2.76	-0.28	2.45	2.83	-0.38
	560	Overall	2.63	2.95	-0.33	2.46	2.93	-0.48
	561	Overall	2.47	2.68	-0.21			
	562	Overall	2.39	2.67	-0.28	1.67	2.08	-0.41
	563	Overall				1.71	1.88	-0.16

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	564	Overall				2.59	3.12	-0.54
	565	Overall	2.54	2.91	-0.37			
	566	Overall	2.62	2.94	-0.31	3.25	3.40	-0.15
	567	Overall	2.51	2.68	-0.17	2.52	2.97	-0.45
	568	Overall	2.73	2.97	-0.24			
	569	Overall	2.58	2.72	-0.15	3.06	3.50	-0.44
	570	Overall	2.36	2.54	-0.18			
	571	Overall				2.73	3.03	-0.30
	572	Overall	2.66	2.88	-0.21	2.91	3.64	-0.73
	574	Overall	2.48	2.71	-0.24	1.70	2.06	-0.36
	575	Overall	2.89	3.02	-0.13	2.63	3.08	-0.45
	576	Overall	2.81	3.02	-0.21	2.41	2.81	-0.41
	577	Overall	2.54	2.81	-0.27	2.08	2.40	-0.32
	578	Overall	2.61	2.91	-0.30	2.47	2.66	-0.19
	579	Overall	2.32	2.70	-0.38	2.33	2.72	-0.39
	580	Overall	2.70	2.88	-0.18	2.16	2.31	-0.15
	581	Overall	2.56	2.77	-0.20	2.68	2.95	-0.28
	582	Overall				2.56	2.92	-0.36
	583	Overall				1.98	2.41	-0.43
	584	Overall	2.78	3.07	-0.29	2.80	3.28	-0.48

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	585	Overall	2.44	2.78	-0.33	2.50	2.90	-0.40
	586	Overall	2.92	3.11	-0.19	3.36	3.81	-0.45
	587	Overall	2.58	2.85	-0.27	2.37	2.70	-0.34
	588	Overall	2.57	2.84	-0.27	2.27	2.51	-0.25
	589	Overall	2.84	3.14	-0.30	1.99	2.47	-0.48
	590	Overall	2.66	2.87	-0.21	3.25	3.58	-0.33
	591	Overall	2.94	3.21	-0.28	2.67	3.21	-0.55
	592	Overall				2.43	2.86	-0.43
	593	Overall				2.19	2.67	-0.48
	594	Overall				2.64	3.22	-0.58
	595	Overall	2.28	2.58	-0.30	2.71	3.02	-0.31
	596	Overall	2.37	2.69	-0.32	2.52	2.96	-0.43
	597	Overall	2.38	2.65	-0.27	2.87	3.21	-0.35
	598	Overall	2.21	2.45	-0.24	3.23	3.52	-0.29
	599	Overall	2.56	2.68	-0.12	2.48	2.88	-0.40
	600	Overall	2.50	2.65	-0.15	2.88	3.53	-0.65
	601	Overall	2.65	2.88	-0.23	2.24	2.55	-0.31
	602	Overall	2.58	2.73	-0.15	3.14	3.69	-0.54
	603	Overall	2.59	2.74	-0.15	2.24	2.61	-0.37
	604	Overall	2.42	2.72	-0.29	2.51	2.92	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	605	Overall	2.34	2.63	-0.29	2.30	2.60	-0.31
	606	Overall	2.59	2.82	-0.23	2.63	3.08	-0.45
	607	Overall	2.41	2.68	-0.27	2.73	3.14	-0.41
	608	Overall	2.54	2.80	-0.26	1.99	2.68	-0.69
	609	Overall				2.19	2.61	-0.42
	610	Overall	2.61	2.86	-0.25	2.86	3.37	-0.51
	611	Overall	2.53	2.84	-0.31			
	612	Overall	2.49	2.90	-0.40	3.10	3.56	-0.46
	613	Overall	2.66	2.89	-0.23	2.57	2.90	-0.33
	614	Overall	2.66	2.85	-0.19	1.67	2.04	-0.38
	615	Overall	2.46	2.91	-0.44	2.89	3.36	-0.46
	616	Overall	2.39	2.61	-0.22	3.42	3.98	-0.56
	617	Overall	2.73	2.92	-0.20	2.65	3.10	-0.44
	618	Overall	2.50	2.67	-0.17	2.22	2.73	-0.51
	619	Overall	2.37	2.63	-0.26	2.54	2.85	-0.30
	620	Overall	2.43	2.63	-0.21	1.89	2.42	-0.53
	621	Overall	2.41	2.59	-0.17	1.94	2.23	-0.29
	622	Overall	2.56	2.76	-0.20	2.60	2.85	-0.25
	623	Overall	2.70	2.93	-0.23	1.48	1.69	-0.21
	624	Overall	2.72	2.95	-0.22	2.75	3.10	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	625	Overall	2.67	2.98	-0.31	2.50	2.96	-0.46
	626	Overall	2.47	2.65	-0.18	3.21	3.63	-0.42
	627	Overall	2.56	2.81	-0.25	3.04	3.44	-0.40
	628	Overall	2.50	2.76	-0.26	2.91	3.16	-0.25
	629	Overall	2.74	2.90	-0.16	1.93	2.43	-0.50
	630	Overall	2.64	2.83	-0.19	2.35	2.80	-0.45
	631	Overall	2.52	2.76	-0.24	2.82	3.34	-0.52
	632	Overall	2.75	3.03	-0.28	2.22	2.65	-0.43
	633	Overall				2.81	3.06	-0.26
	634	Overall	2.22	2.50	-0.28	1.84	2.26	-0.42
	635	Overall	3.06	3.38	-0.32	2.82	3.20	-0.38
	636	Overall	2.43	2.75	-0.31	2.75	2.95	-0.20
	637	Overall				2.82	3.05	-0.23
	638	Overall	2.84	2.98	-0.14	2.94	3.40	-0.46
	639	Overall	2.48	2.89	-0.41			
	640	Overall				2.45	2.85	-0.40
	641	Overall	2.57	2.88	-0.31	2.85	3.44	-0.59
	642	Overall	2.58	2.76	-0.18	2.74	3.02	-0.28
	643	Overall	2.60	2.88	-0.28	3.58	3.78	-0.20
	644	Overall	2.52	2.71	-0.19	2.95	3.04	-0.09

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	645	Overall	2.29	2.53	-0.24	2.47	2.72	-0.25
	646	Overall	2.57	2.75	-0.19	2.21	2.48	-0.27
	647	Overall	2.74	2.96	-0.22	3.14	3.43	-0.28
	648	Overall	2.82	2.95	-0.13	1.99	2.21	-0.22
	649	Overall	2.71	2.91	-0.20	2.30	2.65	-0.35
	650	Overall	2.44	2.59	-0.15	2.66	3.14	-0.48
	651	Overall	2.47	2.71	-0.24	2.25	2.61	-0.36
	652	Overall	2.59	2.84	-0.25	2.50	2.88	-0.37
	653	Overall	2.61	2.82	-0.20	2.14	2.54	-0.40
	654	Overall	2.71	2.96	-0.25	1.81	2.15	-0.34
	655	Overall	2.78	2.97	-0.19	2.44	2.72	-0.28
	656	Overall	2.63	2.79	-0.16	2.39	2.83	-0.44
	657	Overall	2.57	2.89	-0.32	2.98	3.17	-0.19
	658	Overall	2.71	2.98	-0.27	3.27	3.72	-0.46
	659	Overall	2.50	2.72	-0.22	2.96	3.39	-0.43
	660	Overall	2.70	2.83	-0.13	1.85	2.20	-0.35
	661	Overall	2.82	3.06	-0.23			
	662	Overall	2.57	2.77	-0.20	2.30	2.44	-0.15
	663	Overall	2.48	2.77	-0.29	3.21	3.51	-0.30
	664	Overall	2.66	2.96	-0.31	2.49	2.83	-0.34

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	665	Overall	2.67	2.82	-0.15	2.81	3.40	-0.60
	666	Overall	2.69	2.94	-0.25	2.55	2.92	-0.37
	667	Overall	2.47	2.70	-0.23	2.88	3.04	-0.16
	668	Overall	2.53	2.69	-0.16			
	669	Overall	2.19	2.43	-0.25	3.24	3.42	-0.18
	670	Overall	2.71	2.99	-0.28	1.93	2.38	-0.44
	671	Overall	2.55	2.72	-0.17	1.57	1.78	-0.20
	672	Overall	2.40	2.58	-0.18	1.91	2.21	-0.30
	673	Overall	2.58	2.91	-0.33	2.31	2.70	-0.39
	674	Overall	2.27	2.60	-0.33	2.19	2.45	-0.25
	675	Overall	2.74	2.96	-0.22	1.78	1.91	-0.13
	676	Overall	2.60	2.90	-0.29	2.89	3.04	-0.15
	677	Overall	2.28	2.63	-0.35	2.85	3.19	-0.33
	678	Overall	2.57	2.95	-0.38	1.98	2.08	-0.10
	679	Overall				2.28	2.69	-0.41
	680	Overall	2.31	2.57	-0.26	2.61	2.88	-0.26
	681	Overall	2.31	2.57	-0.26	2.21	2.44	-0.23
	682	Overall	2.54	2.76	-0.22	2.98	3.41	-0.43
	683	Overall	2.99	3.08	-0.09	2.85	3.34	-0.49
	684	Overall	2.84	3.06	-0.22	1.96	2.35	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	686	Overall	2.73	2.91	-0.18	2.26	2.74	-0.48
	687	Overall	2.25	2.50	-0.24	2.93	3.40	-0.47
	688	Overall	2.27	2.59	-0.32	2.38	2.65	-0.27
	689	Overall	2.37	2.65	-0.28	2.46	2.60	-0.14
	690	Overall	2.66	2.96	-0.29	2.20	2.73	-0.53
	691	Overall	2.80	2.90	-0.09	2.27	2.54	-0.27
	692	Overall	2.38	2.62	-0.24	2.44	2.71	-0.27
	693	Overall	2.30	2.55	-0.25	2.95	3.08	-0.13
	694	Overall	2.64	2.88	-0.24	2.51	3.13	-0.62
	695	Overall	2.25	2.50	-0.25	2.54	2.80	-0.26
	696	Overall	2.62	2.90	-0.28	2.12	2.50	-0.38
	697	Overall	2.75	3.03	-0.28	1.94	2.32	-0.38
	698	Overall	2.43	2.72	-0.29	2.48	2.89	-0.41
	699	Overall	2.59	2.86	-0.27	2.18	2.53	-0.35
	700	Overall	2.96	3.26	-0.30	2.80	3.27	-0.47
	701	Overall	2.39	2.68	-0.29	2.53	2.79	-0.27
	702	Overall	2.56	2.82	-0.26	2.84	2.99	-0.16
	703	Overall	2.42	2.63	-0.21	2.40	2.93	-0.53
	704	Overall	2.83	3.10	-0.27	2.80	3.11	-0.31
	705	Overall	2.50	2.84	-0.34	3.04	3.22	-0.18

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	706	Overall	2.74	2.92	-0.19	2.83	3.23	-0.39
	707	Overall	2.69	2.86	-0.16	3.05	3.33	-0.27
	708	Overall	2.55	2.92	-0.37	2.61	3.09	-0.48
	709	Overall	2.48	2.72	-0.24	2.60	2.97	-0.36
	710	Overall	2.47	2.70	-0.23	3.09	3.73	-0.64
	711	Overall	2.50	2.83	-0.33			
	712	Overall	2.49	2.70	-0.21	2.69	2.92	-0.23
	713	Overall	2.76	3.02	-0.27	2.82	3.34	-0.52
	714	Overall	2.58	2.76	-0.18	2.31	2.72	-0.40
	715	Overall	2.82	3.02	-0.20	2.81	3.38	-0.56
	716	Overall	2.42	2.67	-0.26	2.70	2.84	-0.15
	717	Overall				2.45	3.27	-0.82
	718	Overall	2.56	2.82	-0.26			
	719	Overall	2.75	2.96	-0.21	1.98	2.32	-0.34
	720	Overall	2.40	2.53	-0.14	2.11	2.54	-0.43
	721	Overall	2.28	2.57	-0.29	2.67	2.99	-0.32
	722	Overall	2.80	3.02	-0.22	2.47	2.91	-0.44
	723	Overall	2.31	2.62	-0.31	2.61	2.80	-0.19
	724	Overall	2.67	2.99	-0.32	3.05	3.42	-0.37
	725	Overall	2.45	2.71	-0.27	2.78	3.26	-0.48

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	726	Overall	2.97	3.17	-0.19	2.50	3.00	-0.50
	727	Overall	2.95	3.27	-0.32	2.45	2.77	-0.31
	728	Overall	2.54	2.77	-0.23	2.57	2.78	-0.21
	729	Overall				2.41	2.79	-0.38
	730	Overall	2.66	2.91	-0.25	3.09	3.50	-0.41
	731	Overall	2.48	2.78	-0.30			
	732	Overall	2.72	3.00	-0.28	2.30	2.54	-0.24
	733	Overall				2.94	3.31	-0.37
	734	Overall	2.66	2.98	-0.32	2.12	2.47	-0.35
	735	Overall	2.68	3.02	-0.34	2.65	3.01	-0.36
	736	Overall	2.73	3.00	-0.26	1.91	2.18	-0.27
	737	Overall	2.28	2.40	-0.13	2.49	2.91	-0.43
	738	Overall	2.42	2.60	-0.18	2.38	2.72	-0.33
	739	Overall	2.56	2.78	-0.22	2.00	2.47	-0.47
	740	Overall	2.53	2.83	-0.30	2.52	2.82	-0.31
	741	Overall	2.28	2.51	-0.23	3.05	3.50	-0.45
	742	Overall	2.61	2.84	-0.24	2.75	3.41	-0.66
	743	Overall	2.41	2.70	-0.29	2.66	3.07	-0.41
	744	Overall	2.63	2.77	-0.14	2.29	2.81	-0.52
	745	Overall	2.42	2.62	-0.20	2.81	3.31	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	746	Overall	2.56	2.76	-0.20	2.12	2.67	-0.55
	747	Overall				2.23	2.66	-0.43
	748	Overall	2.59	2.86	-0.26	2.93	3.34	-0.40
	749	Overall	2.68	2.98	-0.29	1.88	2.33	-0.45
	750	Overall	2.50	2.69	-0.20	2.28	2.54	-0.26
	751	Overall	2.53	2.83	-0.30	3.41	3.78	-0.37
	752	Overall	2.35	2.67	-0.32	2.04	2.37	-0.32
	753	Overall	2.36	2.63	-0.26	2.49	2.80	-0.31
	754	Overall	2.55	2.85	-0.30	2.09	2.56	-0.47
	755	Overall				2.22	2.90	-0.68
	756	Overall	2.34	2.66	-0.32	2.47	2.87	-0.40
	757	Overall	2.41	2.69	-0.28	2.04	2.33	-0.29
	758	Overall	2.56	2.89	-0.33	2.80	2.92	-0.12
	759	Overall	2.51	2.72	-0.22	3.52	3.91	-0.38
	760	Overall				2.46	2.86	-0.40
	761	Overall	2.41	2.68	-0.27	2.40	2.76	-0.36
	762	Overall	2.43	2.74	-0.32	2.28	2.64	-0.36
	763	Overall	2.30	2.68	-0.38	2.30	2.98	-0.68
	764	Overall	2.39	2.69	-0.30	2.20	2.49	-0.29
	765	Overall	2.60	2.88	-0.28	2.85	3.29	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	766	Overall	2.73	2.97	-0.23	2.32	2.80	-0.48
	767	Overall	2.62	2.94	-0.32	2.23	2.49	-0.26
	768	Overall	2.66	2.96	-0.30	2.54	3.10	-0.56
	769	Overall	2.52	2.86	-0.33	2.66	2.93	-0.27
	770	Overall	2.45	2.61	-0.16	2.52	2.88	-0.36
	771	Overall	2.60	2.86	-0.26			
	772	Overall				2.94	3.44	-0.50
	773	Overall	2.74	2.96	-0.22	2.42	2.82	-0.40
	774	Overall	2.68	2.99	-0.31	3.28	3.67	-0.39
	775	Overall	2.60	2.80	-0.20	2.86	3.20	-0.34
	776	Overall	2.63	2.80	-0.17	2.35	2.61	-0.27
	777	Overall	2.63	2.87	-0.23	2.89	3.27	-0.37
	778	Overall	2.43	2.69	-0.26	2.51	2.83	-0.32
	779	Overall	2.52	2.74	-0.23			
	780	Overall	2.39	2.63	-0.25	3.25	3.71	-0.46
	781	Overall	2.53	2.89	-0.36	2.72	3.14	-0.42
	782	Overall	2.80	2.92	-0.13	2.50	2.71	-0.21
	783	Overall	2.37	2.60	-0.24	2.44	2.96	-0.51
	784	Overall	2.45	2.68	-0.24	2.36	2.66	-0.30
	785	Overall	2.69	2.92	-0.24	2.77	2.97	-0.20

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	786	Overall	2.74	2.90	-0.16			
	787	Overall	2.59	2.72	-0.12	2.91	3.40	-0.49
	788	Overall	2.55	2.83	-0.28	1.99	2.53	-0.54
	789	Overall	2.56	2.87	-0.30	2.58	2.92	-0.34
	790	Overall	2.47	2.69	-0.22	2.29	2.63	-0.34
	791	Overall	2.62	2.78	-0.16	1.98	2.39	-0.41
	792	Overall	2.49	2.78	-0.29	2.98	3.52	-0.55
	793	Overall	2.43	2.69	-0.25	2.58	2.90	-0.32
	794	Overall	2.59	2.82	-0.23	2.25	2.74	-0.49
	795	Overall	2.35	2.65	-0.30			
	796	Overall				2.66	3.19	-0.53
	797	Overall	2.52	2.73	-0.21	2.65	2.96	-0.31
	798	Overall	2.84	3.07	-0.23	3.30	3.77	-0.46
	799	Overall	2.60	2.80	-0.20	2.91	3.32	-0.41
	800	Overall				2.54	2.87	-0.33
	801	Overall	3.00	3.21	-0.21	3.00	3.41	-0.40
	802	Overall	2.49	2.73	-0.24	2.55	2.91	-0.36
	803	Overall	2.75	3.02	-0.27	3.25	3.67	-0.41
	804	Overall	2.63	2.84	-0.21	2.25	2.60	-0.35
	805	Overall	2.48	2.85	-0.37	2.00	2.44	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	806	Overall	2.44	2.63	-0.19	2.74	3.28	-0.54
	807	Overall	2.63	2.99	-0.36	2.12	2.31	-0.20
	808	Overall	2.52	2.66	-0.14	2.77	2.96	-0.19
	809	Overall	2.65	2.89	-0.25	2.72	2.99	-0.27
	810	Overall	2.46	2.60	-0.14	2.47	2.79	-0.32
	811	Overall	2.67	2.87	-0.20	2.50	2.92	-0.42
	812	Overall	2.44	2.66	-0.22	2.55	3.06	-0.51
	813	Overall	2.37	2.65	-0.28	2.50	2.80	-0.30
	814	Overall	2.42	2.74	-0.32	2.60	3.08	-0.49
	815	Overall	2.48	2.78	-0.29	2.16	2.72	-0.55
	816	Overall	2.62	2.87	-0.26	2.32	2.58	-0.27
	817	Overall				2.74	3.17	-0.43
	818	Overall	2.45	2.74	-0.30	2.82	3.10	-0.28
	819	Overall	2.56	2.80	-0.25	2.71	3.28	-0.57
	820	Overall	2.53	2.72	-0.19	2.22	2.85	-0.63
	821	Overall	3.03	3.30	-0.27	2.46	2.80	-0.33
	822	Overall	2.64	2.95	-0.30	3.13	3.40	-0.26
	823	Overall	2.60	2.80	-0.20	2.59	2.90	-0.31
	824	Overall	2.51	2.70	-0.19	1.88	2.13	-0.25
	825	Overall	2.17	2.38	-0.21	2.90	3.21	-0.31

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	826	Overall	2.40	2.67	-0.27	2.86	3.53	-0.68
	827	Overall	2.61	2.93	-0.32	2.41	2.68	-0.26
	828	Overall	2.72	2.80	-0.08	2.67	3.26	-0.59
	829	Overall	2.71	2.86	-0.14	3.07	3.48	-0.40
	830	Overall	2.31	2.47	-0.17	2.27	2.58	-0.31
	831	Overall	2.45	2.61	-0.16	2.42	2.77	-0.35
	832	Overall	2.36	2.60	-0.24	3.02	3.47	-0.45
	833	Overall	2.55	2.81	-0.26	2.11	2.45	-0.34
	834	Overall	2.40	2.61	-0.21	2.28	2.49	-0.21
	835	Overall	2.49	2.76	-0.28	2.53	2.73	-0.20
	836	Overall	2.36	2.64	-0.27	1.85	2.35	-0.50
	837	Overall	2.73	2.92	-0.19	2.14	2.30	-0.16
	838	Overall	2.46	2.68	-0.22	1.95	2.49	-0.54
	839	Overall	2.58	2.89	-0.31	2.43	2.51	-0.08
	840	Overall	2.53	2.79	-0.26	2.62	3.05	-0.42
	841	Overall	2.70	3.00	-0.30	2.42	2.83	-0.41
	842	Overall	2.61	2.88	-0.27	2.30	2.70	-0.41
	843	Overall	2.70	2.90	-0.20	2.99	3.10	-0.12
	844	Overall	2.50	2.73	-0.23	2.34	2.78	-0.44
	845	Overall	2.49	2.77	-0.28	2.44	2.71	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	846	Overall	2.69	2.94	-0.26	3.06	3.56	-0.50
	847	Overall	2.46	2.71	-0.25	2.67	2.99	-0.32
	848	Overall	2.59	2.72	-0.13	2.67	3.09	-0.42
	849	Overall				3.18	3.49	-0.31
	850	Overall	2.66	2.86	-0.20	2.44	3.00	-0.56
	851	Overall	2.30	2.68	-0.38	3.41	3.63	-0.22
	852	Overall	2.42	2.80	-0.38	2.75	3.15	-0.40
	853	Overall	2.31	2.51	-0.20	2.91	3.19	-0.28
	854	Overall				2.79	2.93	-0.14
	855	Overall	2.43	2.72	-0.29	2.30	2.60	-0.30
	856	Overall	2.64	2.94	-0.30	2.11	2.69	-0.58
	857	Overall	2.49	2.60	-0.12	2.77	3.24	-0.47
	858	Overall	2.45	2.69	-0.23	2.74	2.99	-0.25
	859	Overall	2.46	2.82	-0.35	2.36	2.72	-0.36
	860	Overall	2.34	2.55	-0.20	2.30	2.57	-0.28
	861	Overall	2.66	2.90	-0.24	1.85	1.95	-0.10
	862	Overall	2.78	2.99	-0.21	2.95	3.32	-0.37
	863	Overall	2.83	3.04	-0.21	2.44	2.65	-0.21
	864	Overall	2.51	2.68	-0.16			
	865	Overall				2.40	2.66	-0.26

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	866	Overall	2.48	2.79	-0.30	2.42	2.80	-0.38
	867	Overall	2.50	2.76	-0.26	3.50	3.90	-0.40
	868	Overall	2.70	2.86	-0.17	2.12	2.42	-0.30
	869	Overall	2.79	3.09	-0.29	2.75	3.10	-0.35
	870	Overall				2.55	2.78	-0.23
	871	Overall	2.41	2.58	-0.17	2.11	2.59	-0.48
	872	Overall	2.39	2.62	-0.23	2.16	2.40	-0.24
	873	Overall	2.16	2.35	-0.19	3.09	3.42	-0.34
	874	Overall	2.74	3.06	-0.32	2.66	2.93	-0.28
	875	Overall	2.70	2.95	-0.25	2.14	2.78	-0.64
	876	Overall	2.34	2.59	-0.24	2.22	2.30	-0.08
	877	Overall	2.66	2.96	-0.30	1.82	2.08	-0.25
	878	Overall	2.69	2.79	-0.10	2.46	2.57	-0.11
	879	Overall	2.36	2.48	-0.12	2.54	2.88	-0.34
	880	Overall	2.69	3.04	-0.35	1.79	2.02	-0.24
	881	Overall	2.24	2.53	-0.29	3.02	3.61	-0.59
	882	Overall	2.80	3.04	-0.25			
	883	Overall	2.65	2.82	-0.17	2.86	3.38	-0.52
	884	Overall	2.55	2.81	-0.26	2.71	3.01	-0.30
	885	Overall	2.62	2.85	-0.23	2.67	2.88	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	886	Overall	2.38	2.70	-0.32	2.60	3.31	-0.70
	887	Overall	2.49	2.74	-0.25	3.56	3.85	-0.29
	888	Overall	2.50	2.71	-0.21	2.37	2.74	-0.37
	889	Overall	2.28	2.58	-0.30	1.87	2.18	-0.31
	890	Overall	2.56	2.85	-0.29	2.36	2.56	-0.20
	891	Overall				2.69	2.96	-0.28
	892	Overall	2.69	2.92	-0.23	2.33	2.68	-0.34
	893	Overall	2.59	2.84	-0.25	2.67	2.85	-0.18
	894	Overall	2.64	2.89	-0.25	2.70	3.26	-0.56
	895	Overall	2.89	3.00	-0.11	3.22	3.44	-0.22
	896	Overall	2.62	2.88	-0.25	2.10	2.57	-0.46
	897	Overall	2.84	3.04	-0.20	2.89	3.25	-0.36
	898	Overall	2.56	2.79	-0.24	2.54	2.82	-0.28
	899	Overall	2.55	2.89	-0.34	1.90	2.22	-0.32
	900	Overall	2.76	3.03	-0.28	2.75	3.09	-0.34
	901	Overall	2.59	2.89	-0.31			
	902	Overall	2.53	2.76	-0.24	2.13	2.64	-0.52
	903	Overall	2.74	2.92	-0.18	3.25	3.65	-0.41
	904	Overall	3.01	3.17	-0.16			
	905	Overall	2.64	2.96	-0.32	3.03	3.43	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	906	Overall	2.74	2.88	-0.13	2.93	3.20	-0.27
	907	Overall	2.71	3.04	-0.33			
	908	Overall	2.80	2.99	-0.19	2.99	3.25	-0.27
	909	Overall	2.46	2.76	-0.29	2.31	2.86	-0.55
	910	Overall	2.57	2.83	-0.26	2.22	2.71	-0.49
	911	Overall	2.58	2.85	-0.27	1.89	2.21	-0.32
	912	Overall	2.71	2.93	-0.22	2.87	3.31	-0.44
	913	Overall	2.32	2.66	-0.35	2.91	3.41	-0.50
	914	Overall	2.35	2.65	-0.30	2.94	3.45	-0.51
	915	Overall	2.51	2.58	-0.07	2.13	2.63	-0.50
	916	Overall	2.43	2.64	-0.21	2.82	3.35	-0.53
	917	Overall	3.07	3.25	-0.18	3.46	4.04	-0.58
	918	Overall	2.84	3.08	-0.24	2.39	2.76	-0.38
	919	Overall	2.53	2.74	-0.21	2.00	2.20	-0.21
	921	Overall	2.66	2.97	-0.31	2.86	3.40	-0.53
	922	Overall	2.42	2.72	-0.31	2.05	2.21	-0.16
	923	Overall	2.61	2.76	-0.15	2.54	2.68	-0.14
	924	Overall	2.74	3.01	-0.27	2.53	2.66	-0.13
	925	Overall	2.47	2.70	-0.23	2.19	2.42	-0.23
	926	Overall				2.25	2.43	-0.18

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	927	Overall	2.58	2.78	-0.20	2.34	2.61	-0.27
	928	Overall	2.63	2.95	-0.32	2.67	3.10	-0.43
	929	Overall	2.85	3.09	-0.25	2.33	2.69	-0.36
	930	Overall	2.22	2.45	-0.23	2.80	3.24	-0.44
	931	Overall	2.32	2.61	-0.30	2.71	2.97	-0.26
	932	Overall	2.55	2.79	-0.25	2.36	2.83	-0.47
	933	Overall	2.35	2.65	-0.30	2.03	2.25	-0.22
	934	Overall	2.27	2.60	-0.33	2.20	2.51	-0.31
	935	Overall	2.70	2.91	-0.21	2.12	2.39	-0.27
	936	Overall	2.54	2.69	-0.15	2.21	2.86	-0.65
	937	Overall				2.65	2.84	-0.20
	938	Overall	2.53	2.86	-0.33	2.53	3.09	-0.57
	939	Overall				1.95	2.29	-0.34
	940	Overall	2.71	3.00	-0.30	2.24	2.39	-0.15
	941	Overall	2.50	2.75	-0.25	2.65	3.06	-0.41
	942	Overall	2.55	2.83	-0.29	2.32	2.81	-0.49
	943	Overall	2.62	2.90	-0.28	2.66	3.47	-0.81
	944	Overall	2.85	3.07	-0.22	2.75	3.00	-0.24
	945	Overall	2.54	2.84	-0.30	2.37	2.68	-0.31
	946	Overall	2.33	2.60	-0.27			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	947	Overall	2.75	3.04	-0.29	2.83	2.96	-0.14
	948	Overall	2.54	2.82	-0.28	2.21	2.56	-0.35
	949	Overall	2.91	3.04	-0.13	2.58	2.78	-0.20
	950	Overall	2.91	3.20	-0.29	2.05	2.38	-0.33
	951	Overall	3.03	3.27	-0.25	1.97	2.25	-0.29
	952	Overall	2.61	2.87	-0.26	3.17	3.77	-0.61
	953	Overall	2.55	2.82	-0.27	2.22	2.62	-0.40
	954	Overall				2.03	2.34	-0.30
	955	Overall	2.43	2.77	-0.34	2.47	2.82	-0.35
	956	Overall	2.66	3.00	-0.33	2.27	2.89	-0.62
	957	Overall	2.49	2.78	-0.29	2.19	2.49	-0.30
	958	Overall	2.62	2.89	-0.27	2.63	3.06	-0.43
	959	Overall	2.74	2.96	-0.22	2.47	2.81	-0.34
	960	Overall	2.53	2.73	-0.20	2.86	3.48	-0.62
	961	Overall	2.72	2.95	-0.23	2.99	3.41	-0.41
	962	Overall	2.19	2.50	-0.30	2.14	2.58	-0.43
	963	Overall	2.45	2.73	-0.28	2.44	2.71	-0.26
	964	Overall	2.52	2.78	-0.26	1.86	2.27	-0.41
	965	Overall				2.80	3.16	-0.36
	966	Overall				3.13	3.60	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	967	Overall	2.62	2.98	-0.35	2.43	2.91	-0.48
	968	Overall	2.82	3.06	-0.24	2.19	2.69	-0.50
	969	Overall	2.61	2.79	-0.18	2.47	2.97	-0.51
	970	Overall	2.36	2.73	-0.37	2.24	2.76	-0.52
	971	Overall	2.93	3.17	-0.25	2.78	3.06	-0.27
	972	Overall	2.68	2.90	-0.22	3.23	3.45	-0.21
	973	Overall	2.55	2.74	-0.19	2.62	3.12	-0.50
	974	Overall	2.64	2.84	-0.21	3.11	3.25	-0.14
	976	Overall	2.69	2.94	-0.25	1.86	2.14	-0.28
	977	Overall	2.71	2.99	-0.27	2.93	3.34	-0.40
	978	Overall	2.64	2.91	-0.26	3.24	3.73	-0.49
	979	Overall	2.39	2.59	-0.19	2.09	2.45	-0.36
	980	Overall	2.82	3.14	-0.32	2.25	2.45	-0.20
	981	Overall	2.38	2.63	-0.25	3.47	3.83	-0.36
	982	Overall	2.67	2.81	-0.14	3.06	3.33	-0.26
	983	Overall	2.44	2.68	-0.24	2.38	2.77	-0.39
	984	Overall	2.54	2.83	-0.29	2.44	2.90	-0.46
	985	Overall	2.59	2.73	-0.14	2.09	2.50	-0.41
	986	Overall	2.62	2.84	-0.22	2.56	3.17	-0.61
	987	Overall				2.70	3.19	-0.49

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	988	Overall	2.42	2.60	-0.18	2.67	2.85	-0.18
	989	Overall	2.41	2.66	-0.25	2.46	2.80	-0.34
	990	Overall	2.52	2.78	-0.26	2.92	3.35	-0.43
	991	Overall				1.89	2.43	-0.54
	992	Overall	2.51	2.68	-0.17	2.74	3.23	-0.49
	993	Overall	2.84	3.07	-0.23	2.35	3.03	-0.68
	994	Overall	2.38	2.63	-0.26	2.44	3.07	-0.64
	995	Overall	2.43	2.75	-0.32	2.49	2.88	-0.39
	996	Overall	2.78	3.03	-0.25	2.48	2.96	-0.48
	997	Overall	2.74	3.01	-0.27	2.23	2.47	-0.24
	998	Overall	2.20	2.48	-0.28	1.77	2.02	-0.25
	999	Overall	2.47	2.71	-0.24	3.11	3.28	-0.17
	1000	Overall	2.81	3.16	-0.35	2.98	3.26	-0.29
	1001	Overall	2.38	2.57	-0.19	2.44	2.75	-0.32
	1002	Overall				2.64	3.21	-0.57
	1003	Overall	2.74	3.06	-0.32	3.30	3.82	-0.52
	1004	Overall	2.49	2.76	-0.27	2.26	2.60	-0.35
	1005	Overall				2.44	2.96	-0.51
	1006	Overall	2.34	2.67	-0.33	3.13	3.53	-0.40
	1007	Overall	2.55	2.81	-0.26	2.49	2.99	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1008	Overall				2.24	2.37	-0.13
	1009	Overall	2.60	2.82	-0.22			
	1010	Overall	2.68	3.11	-0.44	2.87	3.57	-0.70
	1011	Overall	2.65	2.91	-0.26	2.42	2.88	-0.46
	1012	Overall	2.37	2.63	-0.26	1.95	2.19	-0.24
	1013	Overall	2.49	2.61	-0.13	2.89	3.27	-0.38
	1015	Overall	2.61	2.88	-0.27	2.83	3.12	-0.30
	1016	Overall	2.84	3.04	-0.20			
	1017	Overall	2.36	2.51	-0.16	2.53	3.18	-0.66
	1018	Overall	2.50	2.80	-0.30	2.17	2.48	-0.31
	1019	Overall	2.64	2.85	-0.21	2.45	2.88	-0.43
	1020	Overall	2.67	2.98	-0.31	2.05	2.23	-0.19
	1021	Overall				2.34	2.87	-0.53
	1022	Overall	2.61	2.86	-0.25	2.14	2.53	-0.39
	1023	Overall	2.56	2.78	-0.22	2.36	2.54	-0.19
	1024	Overall				2.79	3.07	-0.28
	1025	Overall	2.43	2.70	-0.27	2.33	2.57	-0.24
	1026	Overall	2.32	2.68	-0.36	2.37	2.89	-0.52
	1027	Overall	2.75	2.95	-0.20	2.71	3.00	-0.29
	1028	Overall	2.54	2.71	-0.17	2.22	2.60	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1029	Overall	2.63	2.94	-0.32	2.39	2.55	-0.16
	1030	Overall	2.46	2.77	-0.31	1.52	1.86	-0.33
	1031	Overall	2.74	3.05	-0.31	2.39	2.81	-0.42
	1032	Overall	2.66	2.87	-0.21	2.40	2.71	-0.31
	1033	Overall	2.52	2.69	-0.16	2.33	2.56	-0.23
	1034	Overall	2.60	2.83	-0.24	2.65	3.17	-0.51
	1035	Overall	2.85	3.13	-0.27	2.34	2.72	-0.38
	1036	Overall	2.79	2.92	-0.14	2.30	2.87	-0.57
	1037	Overall	2.36	2.62	-0.25	2.44	2.64	-0.20
	1038	Overall	2.54	2.83	-0.29	2.71	2.91	-0.20
	1039	Overall	2.28	2.50	-0.23	1.50	1.69	-0.20
	1040	Overall	2.68	2.86	-0.18	2.26	2.83	-0.57
	1041	Overall	2.71	3.00	-0.29	1.88	2.13	-0.25
	1042	Overall	2.71	2.94	-0.23	2.21	2.56	-0.35
	1043	Overall	2.58	2.83	-0.25	2.87	3.16	-0.29
	1044	Overall	2.65	2.96	-0.31	2.89	3.14	-0.25
	1045	Overall				1.92	2.20	-0.28
	1046	Overall	2.29	2.60	-0.31	2.74	3.26	-0.52
	1047	Overall	2.30	2.58	-0.27	2.31	2.55	-0.24
	1048	Overall	2.67	2.95	-0.27	2.35	2.90	-0.55

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1049	Overall	2.50	2.75	-0.25	2.90	3.53	-0.63
	1050	Overall	2.51	2.56	-0.05	2.19	2.43	-0.24
	1051	Overall	2.47	2.82	-0.35	2.85	3.24	-0.39
	1052	Overall				2.75	3.04	-0.29
	1053	Overall	2.20	2.38	-0.18	2.27	2.79	-0.52
	1054	Overall	2.58	2.76	-0.18	2.48	2.68	-0.20
	1055	Overall	2.44	2.70	-0.26	2.25	2.52	-0.27
	1056	Overall	2.42	2.70	-0.28	2.64	3.11	-0.48
	1057	Overall	2.85	3.26	-0.41	2.51	3.10	-0.59
	1058	Overall	2.37	2.76	-0.39	2.45	2.71	-0.25
	1059	Overall				3.25	3.88	-0.64
	1060	Overall	2.88	3.02	-0.14			
	1061	Overall	2.43	2.66	-0.23	2.51	2.91	-0.40
	1062	Overall	2.58	2.84	-0.26	2.86	3.37	-0.51
	1063	Overall	2.60	2.92	-0.32	2.29	2.69	-0.40
	1064	Overall	2.75	2.99	-0.24	2.62	2.88	-0.26
	1065	Overall	2.63	2.90	-0.27	2.98	3.49	-0.51
	1066	Overall	2.46	2.77	-0.31	2.52	2.90	-0.38
	1067	Overall	2.71	2.88	-0.17	3.54	4.04	-0.50
	1068	Overall	2.53	2.90	-0.37	3.83	4.28	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1069	Overall	2.68	2.96	-0.28	2.80	3.41	-0.61
	1070	Overall	2.59	2.84	-0.25	2.20	2.48	-0.27
	1071	Overall	2.70	2.97	-0.26			
	1072	Overall	2.79	3.09	-0.30	2.15	2.49	-0.33
	1073	Overall	2.51	2.68	-0.17	2.66	3.12	-0.46
	1074	Overall	2.47	2.75	-0.28	2.72	3.10	-0.39
	1075	Overall	2.45	2.77	-0.32	2.41	2.90	-0.49
	1076	Overall	2.48	2.74	-0.26	1.70	1.91	-0.21
	1077	Overall	2.69	2.94	-0.25	2.88	3.21	-0.34
	1078	Overall	2.73	2.90	-0.17	2.22	2.63	-0.41
	1079	Overall	2.72	2.86	-0.14	2.43	2.71	-0.27
	1080	Overall	2.45	2.70	-0.25	2.55	2.93	-0.38
	1081	Overall	2.46	2.76	-0.29	2.70	3.15	-0.45
	1082	Overall	2.74	2.96	-0.22	2.29	3.04	-0.75
	1083	Overall	2.66	2.83	-0.17	3.01	3.36	-0.35
	1084	Overall	2.63	2.87	-0.24	2.71	3.16	-0.44
	1085	Overall	2.66	2.81	-0.15	2.10	2.23	-0.13
	1086	Overall	2.58	2.72	-0.14	1.89	2.30	-0.42
	1087	Overall	2.37	2.67	-0.30	2.67	2.88	-0.22
	1088	Overall	2.90	3.18	-0.28	2.20	2.58	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1089	Overall	2.49	2.70	-0.21	2.32	2.65	-0.33
	1090	Overall	2.48	2.66	-0.18	2.61	3.10	-0.50
	1091	Overall				2.56	2.87	-0.31
	1092	Overall	2.53	2.71	-0.18	2.28	2.68	-0.40
	1093	Overall	2.49	2.81	-0.32	3.03	3.43	-0.40
	1094	Overall	2.91	3.14	-0.23	2.24	2.56	-0.32
	1095	Overall	2.46	2.72	-0.25	2.57	2.95	-0.38
	1096	Overall				2.74	3.10	-0.35
	1097	Overall	2.49	2.69	-0.20	1.97	2.40	-0.43
	1098	Overall	2.58	2.79	-0.21	3.21	3.70	-0.49
	1099	Overall	2.67	2.76	-0.09	2.52	2.75	-0.23
	1100	Overall	2.64	2.95	-0.31	2.45	2.85	-0.40
	1101	Overall	2.47	2.69	-0.21	2.91	3.29	-0.37
	1102	Overall	2.78	3.13	-0.35	2.59	3.07	-0.47
	1103	Overall	2.34	2.66	-0.32	2.06	2.82	-0.76
	1104	Overall	2.43	2.72	-0.29	2.98	3.57	-0.59
	1105	Overall	2.49	2.71	-0.22	2.28	2.38	-0.09
	1106	Overall	2.33	2.59	-0.25	2.00	2.28	-0.28
	1107	Overall	2.30	2.59	-0.30	2.40	2.64	-0.25
	1108	Overall	2.66	2.83	-0.17	2.67	3.04	-0.37

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1109	Overall	2.66	2.97	-0.30	2.92	3.36	-0.43
	1110	Overall	2.74	2.91	-0.17	2.35	2.66	-0.31
	1111	Overall	2.42	2.63	-0.21	3.01	3.31	-0.30
	1112	Overall	2.69	2.89	-0.20	2.77	3.16	-0.40
	1113	Overall	2.55	2.79	-0.23	3.33	3.68	-0.35
	1114	Overall	2.69	2.95	-0.27	2.31	2.88	-0.56
	1115	Overall	2.62	2.81	-0.20	2.54	2.81	-0.27
	1116	Overall	2.48	2.76	-0.28	1.86	2.28	-0.43
	1117	Overall	2.57	2.82	-0.25	2.70	3.03	-0.33
	1118	Overall	2.45	2.59	-0.13	2.76	3.04	-0.27
	1119	Overall	2.47	2.60	-0.12			
	1120	Overall	2.62	2.92	-0.30	2.24	2.48	-0.25
	1121	Overall	2.71	3.05	-0.34	2.32	2.90	-0.58
	1122	Overall	2.57	2.80	-0.23	2.21	2.60	-0.38
	1123	Overall				1.71	2.28	-0.57
	1124	Overall	2.74	2.90	-0.16	2.32	2.57	-0.24
	1125	Overall	2.46	2.76	-0.29	2.55	2.91	-0.37
	1126	Overall	2.50	2.84	-0.34	2.06	2.42	-0.35
	1127	Overall	2.50	2.85	-0.35	2.60	3.09	-0.50
	1128	Overall	2.45	2.79	-0.34	2.61	2.97	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1129	Overall	2.86	3.07	-0.21	2.28	2.67	-0.40
	1130	Overall	2.45	2.60	-0.15	2.69	3.16	-0.47
	1131	Overall	2.55	2.68	-0.14	2.47	2.92	-0.45
	1132	Overall	2.35	2.50	-0.15	2.72	3.11	-0.39
	1133	Overall	2.46	2.84	-0.38	2.49	3.15	-0.66
	1134	Overall	2.52	2.82	-0.30	2.48	2.79	-0.31
	1135	Overall	2.57	2.72	-0.15	2.18	2.61	-0.44
	1136	Overall	2.54	2.71	-0.17			
	1137	Overall	2.48	2.81	-0.33	2.16	2.40	-0.25
	1138	Overall	2.31	2.55	-0.23	2.50	2.77	-0.27
	1139	Overall				2.36	2.94	-0.58
	1140	Overall				2.57	3.09	-0.52
	1141	Overall	2.45	2.75	-0.30	1.97	2.33	-0.36
	1142	Overall				2.09	2.32	-0.24
	1143	Overall				2.38	2.87	-0.49
	1144	Overall	2.76	2.87	-0.11	3.23	3.95	-0.71
	1145	Overall	2.44	2.81	-0.37	2.84	3.15	-0.31
	1146	Overall	2.81	3.07	-0.26	2.46	2.75	-0.29
	1147	Overall	2.89	3.22	-0.33	2.28	2.54	-0.26
	1148	Overall	2.65	3.05	-0.40	2.96	3.32	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1149	Overall	2.43	2.62	-0.19	2.37	2.76	-0.40
	1150	Overall	2.78	2.97	-0.19	2.71	3.10	-0.39
	1151	Overall	2.37	2.49	-0.12	2.62	2.98	-0.35
	1152	Overall	2.68	2.93	-0.25	2.90	3.28	-0.38
	1153	Overall	2.67	2.89	-0.22	2.18	2.36	-0.18
	1154	Overall	2.30	2.65	-0.35	2.62	3.11	-0.49
	1155	Overall	2.40	2.69	-0.29	2.17	2.57	-0.40
	1156	Overall				2.44	2.93	-0.48
	1157	Overall	2.60	2.82	-0.21	2.85	3.14	-0.29
	1158	Overall	2.60	2.92	-0.32	2.73	3.04	-0.31
	1159	Overall	2.92	3.12	-0.20	2.71	3.15	-0.44
	1160	Overall	2.26	2.56	-0.30	2.92	3.31	-0.40
	1161	Overall	2.42	2.63	-0.20	3.21	3.49	-0.28
	1162	Overall	2.49	2.81	-0.31	1.82	2.14	-0.32
	1163	Overall	2.82	2.98	-0.16			
	1164	Overall	2.63	2.82	-0.19	2.43	2.80	-0.36
	1165	Overall	2.83	3.13	-0.30	2.89	3.33	-0.44
	1166	Overall	2.89	3.20	-0.31	2.89	3.32	-0.43
	1167	Overall				2.44	2.66	-0.22
	1168	Overall	2.41	2.56	-0.15	2.68	3.18	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1169	Overall	2.52	2.77	-0.25	1.98	2.30	-0.32
	1170	Overall	2.63	2.96	-0.33	2.31	2.79	-0.48
	1171	Overall	2.59	2.81	-0.22	2.46	3.06	-0.60
	1172	Overall	2.39	2.79	-0.40	3.54	4.04	-0.50
	1173	Overall	2.66	2.86	-0.20	2.45	2.75	-0.30
	1174	Overall	2.69	2.86	-0.17	2.03	2.47	-0.44
	1175	Overall	2.49	2.83	-0.34	2.47	2.88	-0.40
	1176	Overall	2.59	2.83	-0.24	2.84	3.28	-0.44
	1177	Overall	2.40	2.63	-0.22	2.29	2.73	-0.45
	1178	Overall	2.82	3.04	-0.22	2.76	3.24	-0.48
	1179	Overall	2.97	3.32	-0.35	2.30	2.57	-0.26
	1180	Overall	2.56	2.75	-0.20	2.15	2.51	-0.36
	1181	Overall	2.50	2.73	-0.23	2.80	3.04	-0.24
	1182	Overall	2.64	2.93	-0.29	2.97	3.29	-0.32
	1183	Overall	2.50	2.77	-0.26	2.29	2.62	-0.33
	1184	Overall	2.61	2.89	-0.28	2.29	2.61	-0.33
	1185	Overall	2.47	2.70	-0.23	2.45	2.91	-0.45
	1186	Overall	2.47	2.81	-0.34	2.47	2.62	-0.15
	1187	Overall	2.88	3.15	-0.26			
	1188	Overall	2.34	2.62	-0.28	2.86	3.08	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1189	Overall	2.16	2.35	-0.19	2.60	2.81	-0.20
	1190	Overall	2.78	3.09	-0.31	2.32	2.76	-0.44
	1191	Overall	2.60	2.78	-0.17	2.61	2.85	-0.24
	1192	Overall	2.64	2.94	-0.30	2.62	3.03	-0.41
	1193	Overall	2.35	2.67	-0.32	2.83	3.20	-0.37
	1194	Overall	2.39	2.67	-0.28	2.87	3.47	-0.60
	1195	Overall	2.80	3.07	-0.26	2.36	3.03	-0.67
	1196	Overall	2.57	2.79	-0.22	2.34	2.80	-0.45
	1197	Overall	2.44	2.71	-0.27	2.02	2.30	-0.28
	1198	Overall	2.43	2.82	-0.39	2.87	3.38	-0.51
	1199	Overall	2.66	2.99	-0.33	2.61	2.89	-0.28
	1200	Overall	2.80	3.08	-0.28	2.77	3.08	-0.31
	1201	Overall	2.46	2.66	-0.20	2.43	2.83	-0.40
	1202	Overall	2.57	2.97	-0.41	3.10	3.48	-0.37
	1203	Overall				3.00	3.25	-0.25
	1204	Overall	2.46	2.64	-0.18	3.28	3.59	-0.31
	1205	Overall	2.63	2.84	-0.21	2.73	2.97	-0.24
	1206	Overall	2.50	2.81	-0.31	2.89	3.10	-0.21
	1207	Overall	2.26	2.54	-0.28	3.13	3.34	-0.21
	1208	Overall	2.48	2.73	-0.25	1.90	2.25	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1209	Overall	2.37	2.57	-0.20	2.22	2.70	-0.47
	1210	Overall	2.70	3.01	-0.31	2.26	2.58	-0.31
	1211	Overall	2.94	3.13	-0.19	3.24	3.54	-0.30
	1212	Overall	2.48	2.74	-0.26	2.46	2.72	-0.26
	1213	Overall	2.63	2.77	-0.15	2.77	3.11	-0.34
	1214	Overall	2.52	2.83	-0.30	2.55	2.76	-0.21
	1215	Overall	2.72	2.99	-0.27	2.43	2.80	-0.36
	1216	Overall	2.29	2.55	-0.26			
	1217	Overall	2.38	2.67	-0.29	1.96	2.14	-0.19
	1218	Overall				2.64	3.13	-0.49
	1219	Overall				2.88	3.39	-0.51
	1220	Overall	2.41	2.51	-0.11	1.84	2.14	-0.30
	1221	Overall	2.87	2.98	-0.12	3.01	3.43	-0.42
	1222	Overall	2.34	2.56	-0.22	2.68	2.95	-0.28
	1223	Overall	2.81	2.98	-0.17	3.17	3.68	-0.51
	1224	Overall	2.56	2.82	-0.25	2.34	2.87	-0.53
	1225	Overall	2.52	2.79	-0.27	2.73	3.16	-0.43
	1226	Overall	2.92	3.11	-0.19	2.66	2.97	-0.31
	1227	Overall				2.59	2.75	-0.16
	1228	Overall	2.55	2.85	-0.30	2.50	2.94	-0.43

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1229	Overall	2.66	2.89	-0.23	2.57	2.83	-0.26
	1230	Overall	2.54	2.64	-0.10	2.85	3.18	-0.33
	1231	Overall	2.67	2.84	-0.17	2.55	2.92	-0.37
	1233	Overall	2.55	2.76	-0.21	2.49	2.96	-0.47
	1234	Overall	2.36	2.58	-0.22	2.64	3.03	-0.39
	1235	Overall	2.14	2.38	-0.24	2.32	2.70	-0.38
	1236	Overall	2.79	3.08	-0.28	2.28	2.69	-0.41
	1237	Overall	2.50	2.83	-0.32	2.89	3.33	-0.44
	1238	Overall	2.35	2.74	-0.39	2.45	2.77	-0.32
	1239	Overall	2.92	3.14	-0.22	2.24	2.70	-0.45
	1240	Overall	2.63	2.82	-0.20	2.49	2.75	-0.26
	1241	Overall	2.42	2.69	-0.27	2.73	3.15	-0.42
	1242	Overall	2.97	3.22	-0.25	2.48	2.72	-0.25
	1243	Overall	2.54	2.79	-0.25	2.86	3.13	-0.28
	1244	Overall	2.52	2.70	-0.18	1.90	2.09	-0.19
	1245	Overall	2.50	2.82	-0.33	1.98	2.14	-0.16
	1246	Overall	2.68	2.95	-0.27	3.34	3.46	-0.12
	1247	Overall	2.59	2.82	-0.24	2.76	3.04	-0.28
	1248	Overall	2.50	2.77	-0.28	2.39	2.80	-0.41
	1249	Overall	2.47	2.63	-0.15	2.76	3.29	-0.53

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1250	Overall	2.41	2.68	-0.27	2.09	2.43	-0.34
	1251	Overall	2.62	2.78	-0.17	2.48	2.74	-0.26
	1252	Overall	2.92	3.21	-0.30	2.22	2.44	-0.22
	1253	Overall	2.76	3.01	-0.25	3.39	3.87	-0.49
	1254	Overall				1.69	1.95	-0.27
	1255	Overall	2.61	2.94	-0.33	2.07	2.36	-0.29
	1256	Overall	2.52	2.62	-0.11	2.46	2.73	-0.27
	1257	Overall	2.77	3.08	-0.31	2.47	2.97	-0.50
	1258	Overall	2.62	2.91	-0.29	2.23	2.66	-0.43
	1259	Overall	2.61	2.99	-0.38	2.52	2.96	-0.44
	1260	Overall	2.72	2.93	-0.20	2.50	3.02	-0.51
	1261	Overall	2.57	2.95	-0.38	2.11	2.51	-0.40
	1262	Overall	2.59	2.73	-0.15	2.90	3.40	-0.49
	1263	Overall	2.47	2.74	-0.28	2.39	2.78	-0.39
	1264	Overall	2.66	2.93	-0.28			
	1265	Overall	2.70	2.97	-0.26			
	1266	Overall	2.40	2.72	-0.32	1.81	2.28	-0.47
	1267	Overall	2.34	2.58	-0.25	2.61	2.92	-0.31
	1268	Overall	2.63	2.78	-0.15	2.65	2.83	-0.19
	1269	Overall				2.89	3.25	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1270	Overall				3.09	3.20	-0.11
	1271	Overall	2.51	2.69	-0.18	2.64	3.26	-0.62
	1272	Overall	2.45	2.64	-0.19	2.08	2.70	-0.62
	1273	Overall				2.36	2.77	-0.41
	1274	Overall	2.33	2.58	-0.25	2.94	3.54	-0.61
	1275	Overall	2.42	2.67	-0.26	2.73	3.15	-0.42
	1276	Overall	2.45	2.74	-0.30			
	1277	Overall				2.15	2.52	-0.37
	1278	Overall	2.52	2.72	-0.20	2.31	2.54	-0.22
	1279	Overall	2.17	2.52	-0.35	2.03	2.47	-0.45
	1280	Overall	2.38	2.61	-0.23	2.41	2.98	-0.57
	1281	Overall	2.38	2.72	-0.33			
	1282	Overall	2.48	2.74	-0.27	2.56	3.13	-0.57
	1283	Overall	2.61	2.73	-0.11	2.65	2.96	-0.31
	1284	Overall	2.42	2.74	-0.32	2.01	2.50	-0.49
	1285	Overall	2.46	2.78	-0.32	2.88	3.34	-0.46
	1286	Overall	2.58	2.85	-0.27	2.70	3.22	-0.52
	1287	Overall	2.80	2.91	-0.11	2.38	2.67	-0.29
	1288	Overall	2.65	3.01	-0.36	2.78	3.28	-0.50
	1289	Overall	2.43	2.65	-0.22	2.53	2.73	-0.20

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1290	Overall				3.10	3.59	-0.50
	1291	Overall	2.64	2.99	-0.35	2.83	2.98	-0.15
	1292	Overall	2.47	2.71	-0.24	2.79	3.42	-0.62
	1293	Overall	2.45	2.56	-0.10	3.05	3.72	-0.67
	1294	Overall	2.45	2.59	-0.15	2.86	3.45	-0.59
	1295	Overall	2.32	2.58	-0.26	2.70	3.34	-0.64
	1296	Overall	2.75	3.12	-0.37	3.47	3.89	-0.42
	1297	Overall	2.24	2.50	-0.26	3.07	3.64	-0.57
	1298	Overall	2.53	2.80	-0.28	2.71	2.92	-0.21
	1299	Overall	2.83	3.08	-0.25	2.41	2.69	-0.28
	1300	Overall	2.47	2.70	-0.22	2.77	2.97	-0.20
	1301	Overall	2.67	2.89	-0.22	2.46	2.86	-0.40
	1302	Overall	2.51	2.86	-0.35	2.42	2.87	-0.46
	1303	Overall	2.54	2.63	-0.09	2.66	3.00	-0.34
	1304	Overall	2.64	3.01	-0.37	1.93	2.31	-0.38
	1305	Overall	2.82	3.24	-0.42	3.01	3.36	-0.35
	1306	Overall	2.35	2.52	-0.17	2.53	3.06	-0.53
	1307	Overall	2.78	3.03	-0.25	2.86	3.43	-0.57
	1308	Overall	2.89	3.15	-0.27	2.93	3.34	-0.41
	1309	Overall	2.07	2.30	-0.23	2.31	2.78	-0.47

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1310	Overall	2.73	3.01	-0.28	2.70	3.06	-0.36
	1311	Overall	2.57	2.82	-0.25	2.33	2.70	-0.37
	1312	Overall	2.54	2.88	-0.34			
	1313	Overall	2.31	2.54	-0.23	1.76	1.90	-0.14
	1314	Overall	2.85	3.21	-0.36	2.81	3.31	-0.51
	1315	Overall	2.82	3.08	-0.25	3.05	3.50	-0.45
	1316	Overall	2.49	2.77	-0.28	2.99	3.40	-0.42
	1317	Overall	2.38	2.60	-0.22	2.55	2.85	-0.30
	1318	Overall	2.68	2.86	-0.17	2.85	3.40	-0.55
	1319	Overall	2.60	2.82	-0.22			
	1320	Overall	2.41	2.70	-0.29	3.17	3.56	-0.39
	1321	Overall	2.56	2.77	-0.21	2.75	3.12	-0.37
	1322	Overall	2.72	2.94	-0.22	2.24	2.72	-0.48
	1323	Overall	2.42	2.72	-0.30	3.41	3.86	-0.44
	1324	Overall	2.87	3.13	-0.26	2.56	3.16	-0.59
	1325	Overall	2.69	2.89	-0.20	2.57	2.82	-0.25
	1326	Overall	2.38	2.54	-0.16	2.47	3.00	-0.53
	1327	Overall	2.68	2.82	-0.14	2.30	2.80	-0.50
	1328	Overall	2.83	2.97	-0.14	2.51	2.68	-0.18
	1329	Overall	2.51	2.69	-0.18	2.94	3.55	-0.61

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1330	Overall	2.70	2.94	-0.24	2.39	2.92	-0.53
	1331	Overall	2.92	3.10	-0.18	2.14	2.34	-0.20
	1332	Overall	2.65	2.94	-0.30	2.65	3.00	-0.35
	1333	Overall	2.31	2.57	-0.26	2.20	2.34	-0.14
	1334	Overall	2.17	2.49	-0.32	1.71	2.05	-0.34
	1335	Overall	2.56	2.80	-0.24	2.29	2.90	-0.61
	1336	Overall	2.48	2.68	-0.19	3.00	3.26	-0.25
	1337	Overall	2.65	2.85	-0.20	2.33	2.85	-0.52
	1338	Overall	2.41	2.60	-0.19	3.25	3.50	-0.25
	1339	Overall	2.89	3.08	-0.19	3.70	3.96	-0.27
	1340	Overall	2.77	2.92	-0.15	2.59	2.88	-0.29
	1341	Overall				2.40	2.90	-0.50
	1342	Overall				3.02	3.40	-0.39
	1343	Overall	2.59	2.88	-0.28	2.85	3.40	-0.55
	1344	Overall	2.51	2.79	-0.28	2.80	3.28	-0.48
	1345	Overall	2.27	2.60	-0.33	3.48	3.82	-0.34
	1346	Overall	2.45	2.78	-0.33	2.59	2.87	-0.28
	1347	Overall	2.27	2.51	-0.24	2.79	3.29	-0.50
	1348	Overall	2.61	2.81	-0.20	2.39	2.72	-0.33
	1349	Overall	2.48	2.67	-0.19			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1350	Overall	2.53	2.69	-0.16	2.75	3.12	-0.37
	1351	Overall	2.64	2.87	-0.22	2.98	3.38	-0.40
	1352	Overall	2.74	2.98	-0.24	2.55	2.89	-0.34
	1353	Overall	2.65	2.90	-0.25	2.47	3.04	-0.57
	1354	Overall	2.67	2.91	-0.24			
	1355	Overall	2.56	2.88	-0.32	2.78	3.19	-0.41
	1356	Overall				3.17	3.82	-0.66
	1357	Overall	2.59	2.80	-0.21	2.96	3.50	-0.53
	1358	Overall	2.26	2.61	-0.36	2.55	3.00	-0.44
	1359	Overall	2.68	3.07	-0.39	2.92	3.13	-0.22
	1360	Overall	2.23	2.40	-0.17	2.50	2.88	-0.38
	1361	Overall	2.52	2.84	-0.32	2.54	3.01	-0.47
	1362	Overall	2.56	2.77	-0.21	3.04	3.42	-0.38
	1363	Overall	2.36	2.53	-0.16	3.11	3.60	-0.49
	1364	Overall	2.58	2.94	-0.36	2.40	2.70	-0.30
	1365	Overall	2.48	2.73	-0.25	2.96	3.29	-0.33
	1366	Overall	2.64	2.93	-0.29	2.31	2.87	-0.56
	1367	Overall	2.31	2.61	-0.29	2.68	3.14	-0.46
	1368	Overall	2.51	2.82	-0.31	2.01	2.34	-0.33
	1369	Overall	2.32	2.55	-0.23			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1370	Overall	2.70	2.92	-0.22	2.83	3.16	-0.33
	1371	Overall	2.81	3.06	-0.25	1.92	2.43	-0.50
	1372	Overall	2.51	2.63	-0.12			
	1373	Overall	2.47	2.69	-0.21	2.17	2.51	-0.34
	1374	Overall	2.70	2.86	-0.17	2.85	3.23	-0.38
	1375	Overall	2.61	2.87	-0.26	1.88	2.22	-0.34
	1376	Overall	2.72	3.11	-0.39	2.36	2.82	-0.46
	1378	Overall	2.86	3.15	-0.29	2.18	2.56	-0.38
	1379	Overall	2.58	2.88	-0.31	2.71	2.95	-0.24
	1380	Overall	2.67	2.98	-0.31	2.73	3.08	-0.36
	1381	Overall				2.52	2.95	-0.43
	1382	Overall	2.52	2.81	-0.29	2.56	2.74	-0.18
	1383	Overall	2.56	2.73	-0.17	2.09	2.39	-0.30
	1384	Overall				2.27	2.69	-0.42
	1385	Overall	2.44	2.64	-0.19			
	1386	Overall	2.50	2.84	-0.35	2.85	3.20	-0.35
	1387	Overall	2.50	2.67	-0.17	2.70	3.16	-0.46
	1388	Overall	2.44	2.66	-0.22	2.41	3.00	-0.59
	1389	Overall				2.13	2.55	-0.41
	1390	Overall	2.61	2.91	-0.31	2.69	3.09	-0.40

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1391	Overall	2.71	2.90	-0.18	2.37	2.68	-0.31
	1392	Overall				2.99	3.43	-0.44
	1393	Overall	2.29	2.63	-0.34	2.55	3.14	-0.59
	1394	Overall	3.01	3.22	-0.20	2.47	2.79	-0.32
	1395	Overall	2.43	2.77	-0.34	2.10	2.45	-0.35
	1396	Overall				2.48	2.76	-0.28
	1397	Overall	2.40	2.69	-0.29	3.00	3.33	-0.32
	1398	Overall	2.61	2.88	-0.28	2.80	3.11	-0.31
	1399	Overall	2.48	2.76	-0.28	2.05	2.49	-0.44
	1400	Overall	2.58	2.77	-0.20	2.36	2.69	-0.33
	1401	Overall	2.33	2.55	-0.23	2.61	2.97	-0.35
	1402	Overall	2.52	2.82	-0.30			
	1403	Overall	2.41	2.67	-0.27	2.64	3.30	-0.66
	1404	Overall	2.62	2.82	-0.19	1.95	2.17	-0.22
	1405	Overall	2.32	2.59	-0.27	2.24	2.51	-0.27
	1406	Overall	2.84	3.07	-0.23	2.69	3.20	-0.51
	1407	Overall	2.49	2.81	-0.32	1.87	2.21	-0.34
	1408	Overall				2.89	3.48	-0.59
	1409	Overall	2.48	2.80	-0.32	2.97	3.45	-0.48
	1410	Overall	2.45	2.73	-0.27	2.00	2.44	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1411	Overall	2.67	2.91	-0.24	2.85	3.26	-0.41
	1412	Overall	2.49	2.75	-0.26	2.54	3.02	-0.48
	1413	Overall	2.32	2.53	-0.20	2.96	3.32	-0.36
	1414	Overall	2.66	2.96	-0.30	3.41	3.76	-0.35
	1415	Overall	2.60	2.79	-0.19			
	1416	Overall	2.44	2.67	-0.23	3.06	3.52	-0.47
	1417	Overall	2.60	2.82	-0.21	2.26	2.61	-0.35
	1418	Overall	2.63	2.79	-0.16	1.99	2.24	-0.25
	1419	Overall	2.46	2.68	-0.22	2.63	2.96	-0.33
	1421	Overall	2.77	3.12	-0.35	2.72	3.03	-0.31
	1422	Overall	2.60	2.76	-0.16	3.48	3.75	-0.28
	1423	Overall	2.64	3.07	-0.43	1.81	2.20	-0.39
	1424	Overall	2.69	2.92	-0.23	2.46	2.72	-0.27
	1425	Overall	2.82	3.13	-0.31	2.43	2.96	-0.53
	1426	Overall	2.39	2.64	-0.25	2.71	2.88	-0.17
	1427	Overall	2.34	2.51	-0.17	2.93	3.43	-0.51
	1428	Overall	2.52	2.88	-0.36	2.74	3.09	-0.35
	1429	Overall	2.50	2.82	-0.32	2.56	2.79	-0.22
	1430	Overall	2.46	2.83	-0.37	2.28	2.59	-0.31
	1431	Overall	2.39	2.67	-0.28	3.06	3.32	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1432	Overall	2.43	2.61	-0.18	2.37	2.71	-0.34
	1433	Overall	2.83	3.00	-0.16	2.73	3.00	-0.27
	1434	Overall	2.48	2.69	-0.21	2.54	2.94	-0.40
	1435	Overall	2.53	2.81	-0.28	2.82	3.14	-0.32
	1436	Overall	2.53	2.78	-0.25	2.83	3.28	-0.44
	1437	Overall	2.67	2.92	-0.25	2.68	3.17	-0.49
	1438	Overall	2.31	2.55	-0.24	3.53	3.86	-0.33
	1439	Overall	2.23	2.58	-0.35	2.58	2.84	-0.26
	1440	Overall	2.41	2.72	-0.31	2.78	3.24	-0.47
	1441	Overall	2.43	2.72	-0.29	2.27	2.57	-0.30
	1442	Overall	2.68	2.86	-0.17	1.94	2.35	-0.41
	1443	Overall	2.35	2.64	-0.29	2.30	2.53	-0.23
	1444	Overall	2.74	2.99	-0.25	2.59	2.77	-0.19
	1445	Overall	2.50	2.71	-0.20	2.32	2.84	-0.52
	1446	Overall	2.39	2.77	-0.38	2.71	3.09	-0.38
	1447	Overall	2.66	2.79	-0.12	2.16	2.66	-0.50
	1448	Overall	2.84	3.16	-0.33	2.92	3.36	-0.45
	1449	Overall	2.68	2.87	-0.19	3.05	3.34	-0.30
	1450	Overall	2.54	2.83	-0.30	2.69	3.23	-0.54
	1451	Overall	2.39	2.60	-0.21	2.58	2.77	-0.19

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1452	Overall	2.69	3.06	-0.37	3.09	3.44	-0.35
	1453	Overall	2.82	3.06	-0.24	2.37	2.74	-0.37
	1454	Overall	2.47	2.67	-0.19	2.56	2.57	-0.01
	1455	Overall	2.42	2.71	-0.30	3.10	3.19	-0.10
	1456	Overall	2.81	3.01	-0.21	2.73	3.29	-0.56
	1457	Overall	2.54	2.68	-0.14	3.08	3.39	-0.30
	1458	Overall	2.35	2.61	-0.26	2.30	2.73	-0.43
	1459	Overall	2.49	2.74	-0.25	3.10	3.70	-0.60
	1460	Overall	2.93	3.27	-0.33	2.40	2.75	-0.35
	1461	Overall	2.65	2.88	-0.23	2.10	2.34	-0.24
	1462	Overall				2.31	2.66	-0.35
	1463	Overall	2.43	2.75	-0.32	2.51	2.84	-0.32
	1464	Overall	2.85	3.13	-0.28	2.40	2.75	-0.35
	1465	Overall	2.55	2.83	-0.28	3.51	3.98	-0.46
	1466	Overall	2.76	2.96	-0.20	2.77	3.25	-0.48
	1467	Overall	2.59	2.79	-0.19	3.36	3.71	-0.35
	1468	Overall	2.59	2.86	-0.27	2.35	2.89	-0.54
	1469	Overall	2.45	2.69	-0.23	2.66	3.10	-0.44
	1470	Overall				2.19	2.62	-0.43
	1471	Overall	2.68	2.96	-0.28	2.88	3.15	-0.27

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1472	Overall	2.59	2.84	-0.25	2.98	3.34	-0.35
	1473	Overall	2.70	2.89	-0.19	2.98	3.34	-0.36
	1474	Overall	2.63	2.89	-0.26	2.21	2.77	-0.56
	1475	Overall	2.44	2.81	-0.37	2.63	2.94	-0.30
	1476	Overall	2.68	2.93	-0.24	1.97	2.35	-0.38
	1477	Overall	2.17	2.46	-0.29	2.84	3.17	-0.33
	1478	Overall	2.64	2.91	-0.27	1.66	1.87	-0.20
	1479	Overall	2.50	2.76	-0.26	2.98	3.56	-0.58
	1480	Overall	2.59	2.87	-0.28	3.47	3.99	-0.52
	1481	Overall	2.67	2.90	-0.23	2.12	2.41	-0.29
	1482	Overall	2.90	3.11	-0.21	2.26	2.81	-0.54
	1483	Overall	2.59	2.70	-0.12	2.27	2.58	-0.31
	1484	Overall	2.65	2.84	-0.20	2.21	2.58	-0.37
	1485	Overall	2.47	2.57	-0.10	2.27	2.66	-0.39
	1486	Overall	2.47	2.76	-0.29	2.54	2.93	-0.39
	1487	Overall	2.62	2.83	-0.21			
	1488	Overall	2.37	2.57	-0.19	2.27	2.69	-0.42
	1489	Overall	2.38	2.45	-0.07	2.12	2.55	-0.43
	1490	Overall	2.37	2.66	-0.29	2.95	3.40	-0.45
	1491	Overall	2.52	2.71	-0.19	3.46	3.70	-0.24

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1492	Overall				2.87	3.12	-0.25
	1493	Overall	2.64	2.90	-0.26	2.84	3.21	-0.37
	1494	Overall	2.77	2.95	-0.18	3.23	3.69	-0.46
	1495	Overall	2.45	2.65	-0.20	1.88	2.27	-0.39
	1496	Overall	2.68	2.93	-0.26	3.12	3.37	-0.25
	1497	Overall	2.76	3.05	-0.30	2.39	2.44	-0.05
	1498	Overall	2.38	2.61	-0.23	2.59	2.77	-0.18
	1499	Overall	2.68	2.91	-0.22	2.57	2.90	-0.32
	1500	Overall	2.70	2.99	-0.30	2.09	2.39	-0.30
	1501	Overall	2.76	3.08	-0.32	2.85	3.35	-0.51
	1502	Overall	2.50	2.67	-0.17			
	1503	Overall				2.47	2.69	-0.22
	1504	Overall	2.44	2.72	-0.28	2.57	2.95	-0.38
	1505	Overall				1.95	2.36	-0.41
	1506	Overall	2.40	2.65	-0.25	2.35	2.97	-0.62
	1507	Overall	2.64	2.87	-0.23	3.15	3.56	-0.41
	1508	Overall	2.69	2.88	-0.19	2.74	3.09	-0.35
	1509	Overall	2.56	2.78	-0.22	2.91	3.35	-0.44
	1510	Overall	2.64	2.84	-0.20	2.45	2.81	-0.36
	1511	Overall	2.73	3.14	-0.40	2.21	2.50	-0.30

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1512	Overall	2.43	2.70	-0.28	3.20	3.65	-0.44
	1513	Overall	2.78	3.06	-0.28	2.55	3.30	-0.75
	1514	Overall	2.46	2.68	-0.22	2.01	2.54	-0.53
	1515	Overall	2.53	2.76	-0.23			
	1516	Overall	2.63	2.78	-0.15	3.43	3.94	-0.52
	1517	Overall	2.28	2.58	-0.30	3.40	3.76	-0.36
	1518	Overall	2.53	2.79	-0.26	3.08	3.47	-0.39
	1519	Overall	2.34	2.45	-0.11	2.80	3.15	-0.35
	1520	Overall	2.69	2.83	-0.14			
	1521	Overall	2.59	2.85	-0.26	2.44	2.82	-0.38
	1522	Overall	2.94	3.13	-0.19	2.89	3.29	-0.40
	1523	Overall	2.44	2.63	-0.19	2.29	2.68	-0.39
	1524	Overall	2.52	2.80	-0.28	2.40	2.69	-0.29
	1525	Overall	2.49	2.77	-0.28	2.46	2.99	-0.53
	1526	Overall	2.73	3.04	-0.31	2.44	2.58	-0.15
	1527	Overall	2.58	2.82	-0.24	2.39	2.77	-0.39
	1528	Overall	2.50	2.75	-0.25	3.20	3.57	-0.37
	1529	Overall	2.30	2.60	-0.30	2.03	2.19	-0.16
	1530	Overall	2.35	2.60	-0.24	2.56	2.90	-0.34
	1531	Overall	2.52	2.83	-0.31	2.35	2.70	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1532	Overall	2.80	3.13	-0.33	2.72	3.35	-0.63
	1533	Overall	2.73	2.90	-0.17	2.92	3.33	-0.40
	1534	Overall	2.81	2.96	-0.16	2.81	3.22	-0.41
	1535	Overall				2.56	3.07	-0.51
	1536	Overall	2.51	2.72	-0.21	3.65	4.00	-0.35
	1537	Overall	2.65	2.89	-0.24	2.92	3.27	-0.35
	1538	Overall	2.61	2.88	-0.26	2.74	3.13	-0.39
	1539	Overall	2.45	2.77	-0.32	3.10	3.62	-0.52
	1540	Overall	2.39	2.66	-0.27	2.56	2.89	-0.33
	1541	Overall	2.80	3.18	-0.37	2.73	3.12	-0.40
	1542	Overall	2.78	2.94	-0.16	2.70	2.98	-0.28
	1543	Overall	2.30	2.54	-0.23	2.93	3.22	-0.28
	1544	Overall	2.60	2.87	-0.27	2.51	2.93	-0.41
	1545	Overall	2.54	2.84	-0.30	1.89	2.12	-0.22
	1546	Overall	2.30	2.52	-0.23	2.74	3.14	-0.40
	1547	Overall	2.41	2.51	-0.10	1.90	2.13	-0.23
	1548	Overall	2.84	3.03	-0.19	1.58	1.69	-0.11
	1549	Overall	2.36	2.51	-0.15	2.42	3.02	-0.59
	1550	Overall				2.14	2.45	-0.31
	1551	Overall	2.46	2.72	-0.25	2.21	2.54	-0.33

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1552	Overall	2.41	2.66	-0.25	2.56	2.74	-0.19
	1553	Overall	2.49	2.71	-0.22	2.60	2.80	-0.19
	1554	Overall	2.25	2.52	-0.28	3.09	3.52	-0.44
	1555	Overall	2.65	2.93	-0.28	2.68	3.33	-0.65
	1556	Overall	2.71	2.96	-0.25	2.76	3.16	-0.41
	1557	Overall	2.32	2.50	-0.18	2.60	3.12	-0.52
	1558	Overall	2.59	2.76	-0.17	2.63	2.98	-0.35
	1559	Overall	2.57	2.96	-0.39	2.74	3.09	-0.35
	1560	Overall	2.39	2.74	-0.36	2.28	2.73	-0.45
	1561	Overall	2.43	2.78	-0.35	2.53	3.06	-0.53
	1562	Overall	2.72	2.87	-0.15	2.04	2.33	-0.29
	1563	Overall	2.71	2.90	-0.19	2.49	2.74	-0.25
	1564	Overall	2.74	3.08	-0.34			
	1565	Overall	2.76	2.91	-0.15	1.77	2.25	-0.48
	1566	Overall	2.36	2.51	-0.16	2.32	2.59	-0.27
	1567	Overall	2.37	2.60	-0.23	2.65	3.11	-0.46
	1568	Overall	2.62	2.89	-0.27	2.73	3.17	-0.44
	1569	Overall	2.64	2.84	-0.20	2.57	2.96	-0.39
	1570	Overall	2.32	2.58	-0.26	2.13	2.36	-0.23
	1571	Overall	2.74	3.09	-0.36	2.63	3.13	-0.50

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1572	Overall	2.48	2.79	-0.31	2.78	3.31	-0.53
	1573	Overall	2.78	3.13	-0.35	2.17	2.83	-0.67
	1574	Overall	2.55	2.76	-0.21	2.82	2.97	-0.15
	1575	Overall	2.60	2.89	-0.29	2.88	3.05	-0.18
	1576	Overall	2.31	2.58	-0.27	2.92	3.33	-0.41
	1577	Overall	2.62	2.86	-0.25	2.99	3.50	-0.51
	1578	Overall				2.68	3.08	-0.40
	1579	Overall				2.34	2.70	-0.36
	1580	Overall	2.41	2.79	-0.39	2.70	2.91	-0.21
	1581	Overall	2.38	2.62	-0.23	3.00	3.36	-0.36
	1582	Overall	2.39	2.68	-0.29	2.06	2.42	-0.36
	1583	Overall	2.50	2.64	-0.13	2.56	2.58	-0.02
	1584	Overall	2.79	2.97	-0.18			
	1585	Overall	2.86	3.04	-0.18	2.19	2.54	-0.35
	1586	Overall	2.41	2.78	-0.37	2.49	2.92	-0.43
	1587	Overall	2.61	2.95	-0.34	2.05	2.50	-0.45
	1588	Overall	2.38	2.62	-0.24	3.17	3.71	-0.54
	1589	Overall	2.57	3.01	-0.44	2.91	3.26	-0.36
	1590	Overall	2.44	2.73	-0.28	2.60	3.09	-0.49
	1591	Overall	2.59	2.79	-0.19	3.14	3.46	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1592	Overall	2.49	2.77	-0.27	2.34	2.87	-0.53
	1593	Overall	2.41	2.78	-0.37	1.86	2.52	-0.67
	1594	Overall	2.51	2.79	-0.28			
	1595	Overall	2.31	2.54	-0.22	2.44	3.08	-0.64
	1596	Overall	2.55	2.80	-0.25	2.33	2.46	-0.13
	1597	Overall	2.50	2.72	-0.23	3.04	3.53	-0.49
	1598	Overall				2.78	3.23	-0.45
	1599	Overall				2.30	2.63	-0.33
	1600	Overall	2.37	2.59	-0.22	2.41	2.94	-0.52
	1601	Overall				2.30	2.64	-0.35
	1602	Overall	2.50	2.80	-0.30	2.58	3.10	-0.52
	1603	Overall	2.58	2.70	-0.12	2.50	2.83	-0.34
	1604	Overall	2.46	2.80	-0.34	2.40	2.72	-0.32
	1605	Overall	2.52	2.68	-0.17	2.73	3.02	-0.29
	1606	Overall	2.53	2.76	-0.23	2.84	3.20	-0.36
	1607	Overall	2.71	2.93	-0.22	3.02	3.27	-0.25
	1608	Overall	2.66	2.91	-0.25	2.95	3.34	-0.39
	1609	Overall	2.60	2.79	-0.19	3.09	3.51	-0.42
	1610	Overall	2.55	2.86	-0.32	1.78	2.17	-0.39
	1611	Overall	2.66	2.80	-0.14	3.16	3.51	-0.35

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1612	Overall	2.57	2.80	-0.22	2.49	2.70	-0.21
	1613	Overall	2.70	2.99	-0.28	3.56	3.96	-0.40
	1614	Overall	2.59	2.82	-0.23	2.12	2.50	-0.37
	1615	Overall	2.66	3.03	-0.37	2.89	3.29	-0.40
	1616	Overall	2.93	3.09	-0.16	2.44	2.74	-0.30
	1617	Overall	2.59	2.97	-0.38	2.74	3.44	-0.70
	1618	Overall	2.71	2.92	-0.20	2.14	2.60	-0.46
	1619	Overall				2.69	2.94	-0.25
	1620	Overall	2.48	2.73	-0.25	2.38	2.71	-0.34
	1621	Overall	2.50	2.76	-0.26	2.89	3.27	-0.38
	1622	Overall	2.61	2.81	-0.20	3.04	3.58	-0.54
	1623	Overall	2.61	2.92	-0.31	3.53	3.99	-0.46
	1624	Overall	2.60	2.85	-0.24	2.44	2.81	-0.38
	1625	Overall	2.79	2.89	-0.11	2.50	2.95	-0.45
	1626	Overall	2.55	2.66	-0.11	2.33	2.79	-0.46
	1627	Overall	2.59	2.80	-0.22	2.71	2.92	-0.21
	1628	Overall	2.43	2.86	-0.43	2.77	3.16	-0.39
	1629	Overall	2.60	2.83	-0.23	2.33	2.91	-0.58
	1630	Overall	2.71	3.06	-0.36	2.23	2.62	-0.39
	1631	Overall	2.51	2.73	-0.21	2.11	2.72	-0.61

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1632	Overall	2.75	2.96	-0.21	2.07	2.26	-0.19
	1633	Overall	2.80	3.06	-0.26	2.64	3.22	-0.58
	1634	Overall	2.50	2.63	-0.13	2.47	3.03	-0.56
	1635	Overall	2.74	3.02	-0.28	2.67	2.96	-0.29
	1636	Overall	2.54	2.72	-0.18	2.42	3.07	-0.65
	1637	Overall	2.47	2.75	-0.28			
	1638	Overall	2.70	3.01	-0.31	2.93	3.16	-0.23
	1639	Overall	2.66	2.95	-0.30	2.11	2.49	-0.37
	1640	Overall	2.36	2.65	-0.29	2.44	2.80	-0.36
	1641	Overall	2.38	2.65	-0.27	2.40	2.99	-0.60
	1642	Overall	2.32	2.65	-0.33	3.02	3.38	-0.35
	1643	Overall	2.41	2.75	-0.34	2.41	2.81	-0.40
	1644	Overall	2.55	2.81	-0.26	2.71	3.15	-0.44
	1645	Overall	2.49	2.66	-0.17	1.99	2.27	-0.28
	1646	Overall	2.76	3.01	-0.24	2.72	3.24	-0.52
	1647	Overall	2.31	2.64	-0.34	2.50	2.95	-0.44
	1648	Overall	2.57	2.86	-0.29	2.57	3.10	-0.53
	1649	Overall	2.47	2.72	-0.25	2.64	3.15	-0.51
	1650	Overall	2.33	2.63	-0.29	2.31	2.56	-0.25
	1651	Overall	2.87	3.24	-0.38	2.55	3.08	-0.53

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1652	Overall	2.68	2.97	-0.29	2.07	2.32	-0.25
	1653	Overall	2.74	2.96	-0.22	2.09	2.66	-0.57
	1654	Overall	2.66	2.80	-0.14	3.06	3.49	-0.43
	1655	Overall	3.00	3.14	-0.15	3.34	3.60	-0.26
	1656	Overall	2.38	2.61	-0.23			
	1657	Overall	2.29	2.59	-0.30	3.41	3.81	-0.40
	1658	Overall	2.41	2.67	-0.26	3.01	3.38	-0.37
	1659	Overall	2.43	2.58	-0.15	2.18	2.52	-0.34
	1660	Overall	2.71	2.86	-0.15	2.53	3.03	-0.50
	1661	Overall	2.44	2.79	-0.35	2.42	2.87	-0.45
	1662	Overall	2.24	2.44	-0.20	2.46	2.89	-0.43
	1663	Overall	2.56	2.74	-0.18	2.43	2.92	-0.49
	1664	Overall	2.60	2.89	-0.29	1.99	2.46	-0.47
	1665	Overall	2.48	2.71	-0.22	3.06	3.61	-0.55
	1666	Overall	2.42	2.65	-0.23	2.55	2.93	-0.37
	1667	Overall	2.39	2.60	-0.21	3.03	3.33	-0.30
	1668	Overall	2.69	3.05	-0.35	1.87	2.26	-0.38
	1669	Overall	2.82	3.00	-0.18	2.60	3.08	-0.48
	1670	Overall	2.49	2.92	-0.42	2.30	2.66	-0.37
	1671	Overall	2.53	2.79	-0.26	1.72	1.93	-0.21

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1672	Overall	2.42	2.52	-0.10	2.11	2.46	-0.34
	1673	Overall	2.61	2.80	-0.18	2.09	2.39	-0.31
	1674	Overall	2.30	2.54	-0.24	2.17	2.57	-0.40
	1675	Overall	2.48	2.82	-0.34	2.40	2.62	-0.22
	1676	Overall	2.79	3.01	-0.22	3.14	3.39	-0.25
	1677	Overall	2.34	2.60	-0.26	3.08	3.49	-0.41
	1678	Overall	2.57	2.83	-0.26	2.45	2.96	-0.51
	1679	Overall				2.83	3.36	-0.53
	1680	Overall	2.68	2.97	-0.29	2.12	2.45	-0.33
	1681	Overall	2.41	2.71	-0.30	3.18	3.72	-0.54
	1682	Overall	2.52	2.72	-0.20	2.41	2.92	-0.51
	1683	Overall	2.69	2.96	-0.28	2.24	2.60	-0.36
	1684	Overall	2.65	2.85	-0.20	2.57	2.89	-0.32
	1685	Overall	2.58	2.87	-0.29	2.16	2.51	-0.36
	1686	Overall	2.71	2.83	-0.11	2.11	2.28	-0.17
	1687	Overall	2.78	2.91	-0.13	3.58	3.96	-0.38
	1688	Overall	2.47	2.73	-0.26	2.78	3.29	-0.51
	1689	Overall	2.40	2.59	-0.18	2.73	3.06	-0.32
	1690	Overall	2.40	2.69	-0.29	2.56	3.10	-0.54
	1691	Overall	2.71	2.98	-0.27	2.50	2.82	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1692	Overall	2.57	2.81	-0.25	2.94	3.19	-0.25
	1693	Overall	2.63	2.81	-0.18	2.02	2.37	-0.36
	1694	Overall	2.80	3.19	-0.40	2.72	3.36	-0.65
	1695	Overall	2.66	2.90	-0.24	2.72	2.91	-0.19
	1696	Overall	2.73	3.00	-0.27	2.68	3.04	-0.36
	1697	Overall	2.58	2.97	-0.39	2.12	2.61	-0.49
	1698	Overall	2.56	2.90	-0.35	2.01	2.46	-0.45
	1699	Overall	2.26	2.47	-0.21	3.12	3.49	-0.38
	1700	Overall	2.84	3.03	-0.19	3.16	3.30	-0.14
	1701	Overall	2.76	3.01	-0.25	2.27	2.59	-0.32
	1702	Overall	2.54	2.70	-0.17	2.63	3.06	-0.42
	1703	Overall	2.46	2.82	-0.36	2.81	3.10	-0.29
	1704	Overall	2.45	2.74	-0.29	2.52	2.88	-0.37
	1705	Overall	2.17	2.52	-0.35	2.77	3.33	-0.56
	1706	Overall	2.61	2.76	-0.15	2.74	2.99	-0.25
	1707	Overall	2.59	2.91	-0.32	2.81	3.28	-0.46
	1708	Overall	2.38	2.53	-0.14	2.82	3.42	-0.60
	1709	Overall	2.53	2.80	-0.27	2.70	2.90	-0.20
	1710	Overall	2.64	2.97	-0.34	2.25	2.51	-0.26
	1711	Overall	2.93	3.25	-0.32	2.58	3.03	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1712	Overall				2.67	3.12	-0.45
	1713	Overall	2.69	3.00	-0.31	2.93	3.09	-0.16
	1714	Overall	2.41	2.65	-0.24	1.78	2.42	-0.64
	1715	Overall	2.56	2.81	-0.25			
	1716	Overall	2.81	3.02	-0.22	2.38	2.65	-0.27
	1717	Overall	2.65	2.83	-0.17	2.12	2.45	-0.33
	1718	Overall	2.47	2.70	-0.23	2.54	2.72	-0.18
	1719	Overall	2.49	2.76	-0.27	2.58	2.99	-0.41
	1720	Overall	2.63	2.79	-0.16	2.03	2.20	-0.17
	1721	Overall	2.51	2.79	-0.29			
	1722	Overall	2.48	2.70	-0.22	2.72	3.09	-0.36
	1723	Overall	2.59	2.77	-0.18	2.31	2.71	-0.40
	1724	Overall	2.59	2.86	-0.27	2.92	3.28	-0.36
	1725	Overall	2.37	2.59	-0.21	2.89	3.31	-0.42
	1726	Overall	2.38	2.69	-0.31	2.89	3.22	-0.33
	1727	Overall				2.04	2.38	-0.34
	1728	Overall	2.30	2.52	-0.22	2.67	3.13	-0.46
	1729	Overall	2.47	2.85	-0.38	2.85	3.12	-0.27
	1730	Overall	2.70	2.86	-0.16	2.45	2.72	-0.27
	1731	Overall	2.88	3.05	-0.16	2.41	2.77	-0.36

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1732	Overall	2.55	2.92	-0.37	3.17	3.45	-0.28
	1733	Overall	2.83	3.05	-0.22	2.20	2.56	-0.36
	1734	Overall	2.67	2.95	-0.28	2.84	3.23	-0.39
	1735	Overall	2.81	3.07	-0.26			
	1736	Overall	2.61	2.86	-0.25	2.43	2.69	-0.26
	1737	Overall				2.17	2.58	-0.41
	1738	Overall	2.45	2.64	-0.19	2.66	3.04	-0.38
	1739	Overall	2.79	3.08	-0.29	2.11	2.55	-0.44
	1740	Overall	2.82	3.04	-0.22	2.33	2.90	-0.57
	1741	Overall	2.57	2.84	-0.28	2.29	2.70	-0.41
	1742	Overall	2.43	2.71	-0.28	2.11	2.18	-0.06
	1743	Overall	2.55	2.78	-0.24	3.05	3.22	-0.18
	1744	Overall	2.71	2.90	-0.19	2.79	3.29	-0.50
	1745	Overall	2.71	2.95	-0.24	2.95	3.30	-0.35
	1746	Overall				2.42	2.95	-0.53
	1747	Overall	2.70	2.95	-0.25	3.36	3.83	-0.47
	1748	Overall	2.71	2.93	-0.22	2.31	2.67	-0.36
	1749	Overall	2.49	2.75	-0.27	2.49	2.93	-0.44
	1750	Overall	2.65	2.94	-0.29	2.97	3.05	-0.08
	1751	Overall	2.60	2.81	-0.21			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1752	Overall	2.64	2.89	-0.25	2.13	2.69	-0.56
	1753	Overall	2.79	2.92	-0.13	2.52	2.89	-0.37
	1754	Overall	2.58	2.79	-0.21	3.11	3.52	-0.41
	1755	Overall	2.65	2.98	-0.32	2.81	3.10	-0.28
	1756	Overall	2.70	3.05	-0.35	2.62	2.62	0.00
	1757	Overall	2.62	2.86	-0.25	2.76	3.10	-0.34
	1758	Overall	2.61	2.88	-0.28	2.09	2.41	-0.32
	1759	Overall	2.64	3.00	-0.36	3.02	3.40	-0.38
	1760	Overall	2.42	2.62	-0.20	2.48	3.06	-0.58
	1761	Overall	2.55	2.72	-0.17	1.73	2.06	-0.33
	1762	Overall	2.55	2.81	-0.25	2.72	3.13	-0.41
	1763	Overall	2.42	2.52	-0.10	2.28	2.82	-0.54
	1764	Overall	2.27	2.51	-0.24	2.76	3.42	-0.66
	1765	Overall	2.47	2.73	-0.25	2.21	2.44	-0.23
	1766	Overall	2.63	2.98	-0.34	3.58	3.97	-0.38
	1767	Overall	2.61	2.78	-0.18	2.54	2.86	-0.32
	1768	Overall	2.61	2.89	-0.28	2.55	2.98	-0.43
	1769	Overall	2.49	2.73	-0.24	2.29	2.74	-0.45
	1770	Overall	2.29	2.56	-0.27	2.33	2.64	-0.31
	1771	Overall	2.68	2.81	-0.13	1.71	2.03	-0.32

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1772	Overall	2.47	2.78	-0.32	2.73	2.98	-0.25
	1773	Overall	2.30	2.55	-0.25	2.29	2.70	-0.41
	1774	Overall	2.50	2.73	-0.23	2.39	2.91	-0.52
	1775	Overall	2.69	2.97	-0.28	2.69	3.08	-0.39
	1776	Overall	2.65	3.15	-0.50	1.99	2.21	-0.22
	1777	Overall	2.32	2.69	-0.36	2.39	2.79	-0.40
	1778	Overall	2.64	2.95	-0.32	2.07	2.28	-0.21
	1779	Overall	2.39	2.61	-0.22	2.16	2.64	-0.49
	1780	Overall	2.45	2.66	-0.22	2.34	2.82	-0.48
	1781	Overall	2.60	2.97	-0.38	2.69	2.96	-0.27
	1782	Overall	2.41	2.68	-0.27	2.08	2.50	-0.43
	1783	Overall	2.37	2.67	-0.31	2.33	2.52	-0.19
	1784	Overall	2.24	2.51	-0.27	2.42	3.00	-0.58
	1785	Overall	2.45	2.66	-0.21	2.51	2.88	-0.37
	1786	Overall	2.61	2.95	-0.33	2.15	2.66	-0.51
	1787	Overall	2.74	2.98	-0.24	2.93	3.06	-0.13
	1788	Overall	2.54	2.83	-0.28	2.76	3.22	-0.46
	1789	Overall	2.64	2.87	-0.23	2.43	2.80	-0.38
	1790	Overall	2.52	2.77	-0.25	2.65	2.89	-0.23
	1791	Overall	2.50	2.71	-0.20	3.15	3.53	-0.38

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1792	Overall	2.85	3.01	-0.16	2.16	2.44	-0.28
	1793	Overall	2.36	2.72	-0.36	2.41	2.64	-0.23
	1794	Overall				2.13	2.48	-0.35
	1795	Overall	2.73	3.10	-0.38	2.22	2.50	-0.27
	1796	Overall	2.69	2.93	-0.24	2.24	2.63	-0.40
	1797	Overall	2.59	2.79	-0.20	2.43	2.92	-0.49
	1798	Overall	2.72	2.94	-0.22			
	1799	Overall	2.42	2.70	-0.27	2.84	3.27	-0.43
	1800	Overall	2.64	2.95	-0.31	2.78	3.18	-0.40
	1801	Overall	2.54	2.85	-0.31	2.17	2.69	-0.51
	1802	Overall	2.65	2.84	-0.19	2.31	2.64	-0.33
	1803	Overall	2.55	2.76	-0.21	2.74	3.01	-0.27
	1804	Overall	2.46	2.69	-0.23			
	1805	Overall				2.60	2.96	-0.36
	1806	Overall				2.59	3.05	-0.46
	1807	Overall	2.46	2.81	-0.34	2.60	2.83	-0.23
	1808	Overall	2.68	2.86	-0.18			
	1809	Overall	2.56	2.88	-0.32	3.02	3.46	-0.44
	1810	Overall	2.30	2.54	-0.24	2.66	2.94	-0.28
	1811	Overall				2.91	3.33	-0.42

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1812	Overall	2.63	2.98	-0.35	2.48	3.10	-0.61
	1813	Overall				2.46	2.82	-0.37
	1814	Overall	2.35	2.51	-0.16	3.46	3.79	-0.33
	1815	Overall	2.67	2.95	-0.28	3.22	3.60	-0.38
	1816	Overall	2.58	2.87	-0.29	2.53	3.00	-0.47
	1817	Overall	2.51	2.73	-0.22	2.69	2.81	-0.11
	1818	Overall	2.57	2.85	-0.28	2.58	3.01	-0.42
	1819	Overall	2.52	2.71	-0.19	2.39	3.03	-0.64
	1820	Overall	2.41	2.70	-0.29	3.29	3.71	-0.42
	1821	Overall	2.49	2.71	-0.21	3.24	3.89	-0.65
	1822	Overall	2.99	3.23	-0.24	2.94	3.46	-0.52
	1823	Overall	2.32	2.62	-0.30	2.21	2.47	-0.27
	1824	Overall	2.83	3.06	-0.23	2.80	3.06	-0.26
	1825	Overall	2.88	3.07	-0.20	2.58	2.93	-0.35
	1826	Overall	2.74	2.97	-0.23	1.97	2.42	-0.45
	1827	Overall	2.79	3.08	-0.29	2.17	2.81	-0.64
	1828	Overall	2.78	2.98	-0.20	2.67	3.18	-0.51
	1829	Overall	2.64	2.84	-0.19	2.10	2.45	-0.35
	1830	Overall				2.90	3.14	-0.24
	1831	Overall	2.36	2.51	-0.16	2.64	3.08	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1832	Overall	2.47	2.65	-0.17	2.71	2.88	-0.17
	1833	Overall	2.57	2.83	-0.27	2.31	2.87	-0.56
	1834	Overall	2.29	2.55	-0.26	2.85	3.18	-0.34
	1835	Overall	2.47	2.70	-0.24	2.34	2.74	-0.40
	1836	Overall	2.30	2.63	-0.33	2.55	2.81	-0.26
	1837	Overall				2.45	2.91	-0.47
	1838	Overall	2.34	2.58	-0.23	2.45	2.82	-0.37
	1839	Overall	2.99	3.29	-0.30	2.81	3.12	-0.31
	1840	Overall	2.45	2.69	-0.24	3.16	3.54	-0.38
	1841	Overall	2.41	2.80	-0.38	2.71	3.14	-0.42
	1842	Overall	2.75	3.00	-0.25	2.47	3.08	-0.61
	1843	Overall				2.10	2.33	-0.23
	1844	Overall				2.92	3.27	-0.35
	1845	Overall				2.38	2.69	-0.30
	1846	Overall	2.48	2.81	-0.33	2.45	2.92	-0.47
	1847	Overall	2.77	3.04	-0.27	2.71	3.06	-0.35
	1848	Overall	2.26	2.48	-0.22	2.74	3.25	-0.52
	1849	Overall	2.66	2.90	-0.23	2.69	3.12	-0.43
	1850	Overall	2.79	3.05	-0.26	2.30	2.79	-0.49
	1851	Overall	2.70	2.97	-0.27	2.34	2.74	-0.39

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1852	Overall	2.59	2.77	-0.18	2.82	3.45	-0.63
	1853	Overall				3.04	3.29	-0.25
	1854	Overall	2.45	2.70	-0.24	2.66	3.07	-0.41
	1855	Overall	2.35	2.66	-0.31	2.42	2.77	-0.35
	1856	Overall	2.38	2.63	-0.25	2.70	3.11	-0.41
	1857	Overall	2.40	2.60	-0.21	2.66	2.94	-0.28
	1858	Overall	2.57	2.82	-0.25	2.44	2.92	-0.48
	1859	Overall	2.72	2.76	-0.04	3.16	3.42	-0.26
	1860	Overall	2.52	2.76	-0.24	3.02	3.66	-0.64
	1861	Overall	2.68	2.93	-0.25	2.41	2.80	-0.38
	1862	Overall	2.53	2.77	-0.25	2.49	2.84	-0.35
	1863	Overall	2.07	2.30	-0.24	2.38	2.85	-0.48
	1864	Overall	2.45	2.70	-0.26	2.44	2.75	-0.30
	1865	Overall	2.58	2.81	-0.22	2.70	3.11	-0.40
	1866	Overall	2.42	2.68	-0.26	2.58	3.00	-0.42
	1867	Overall	2.79	3.14	-0.35	2.91	3.44	-0.52
	1868	Overall	2.80	3.01	-0.22	2.38	2.79	-0.42
	1869	Overall	2.45	2.68	-0.23	2.94	3.25	-0.31
	1870	Overall	2.60	2.81	-0.20	2.00	2.55	-0.55
	1871	Overall	2.60	2.81	-0.22	2.71	3.12	-0.41

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1872	Overall	2.70	3.00	-0.30	2.22	2.58	-0.36
	1873	Overall	2.54	2.82	-0.27	2.51	2.81	-0.30
	1874	Overall	2.67	2.94	-0.27	2.69	2.94	-0.25
	1875	Overall	2.82	2.97	-0.15	3.58	3.81	-0.23
	1876	Overall	2.55	2.72	-0.17	1.61	1.88	-0.27
	1877	Overall	2.58	2.85	-0.26			
	1878	Overall	2.61	2.79	-0.18	2.53	2.95	-0.42
	1879	Overall	2.49	2.74	-0.25	2.32	2.65	-0.33
	1880	Overall	2.64	2.89	-0.25	1.70	2.00	-0.29
	1881	Overall	2.64	2.91	-0.27	2.59	2.90	-0.32
	1882	Overall				2.40	2.88	-0.48
	1883	Overall	2.27	2.43	-0.16	2.67	3.15	-0.48
	1884	Overall				2.32	2.83	-0.51
	1885	Overall	2.41	2.76	-0.35	2.56	3.11	-0.55
	1886	Overall	2.53	2.79	-0.26	2.99	3.42	-0.43
	1887	Overall	2.43	2.69	-0.25	2.46	2.71	-0.25
	1888	Overall	2.88	3.13	-0.25	2.83	3.04	-0.20
	1889	Overall	2.59	2.87	-0.27	2.10	2.70	-0.60
	1890	Overall	2.37	2.59	-0.23	2.63	2.87	-0.24
	1891	Overall	2.70	2.90	-0.20	2.27	2.69	-0.43

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1892	Overall	2.61	2.78	-0.17			
	1893	Overall	2.52	2.59	-0.07	2.46	2.88	-0.43
	1894	Overall	2.48	2.69	-0.21			
	1895	Overall	2.97	3.05	-0.08	2.59	2.82	-0.22
	1896	Overall	2.54	2.82	-0.28	2.83	3.13	-0.30
	1897	Overall	2.41	2.73	-0.33	2.22	2.65	-0.42
	1898	Overall	2.91	3.15	-0.24	2.71	3.20	-0.49
	1899	Overall	2.38	2.64	-0.26	2.05	2.26	-0.21
	1900	Overall	2.45	2.73	-0.27	2.56	2.95	-0.39
	1901	Overall	2.56	2.84	-0.27	2.42	2.68	-0.25
	1902	Overall	2.71	2.92	-0.21	2.49	2.77	-0.28
	1903	Overall	2.69	2.94	-0.24	2.75	3.02	-0.27
	1904	Overall	2.94	3.31	-0.37	2.42	2.73	-0.30
	1905	Overall	2.39	2.67	-0.28	2.30	2.52	-0.21
	1906	Overall	2.55	2.70	-0.15	2.45	2.88	-0.43
	1907	Overall	2.67	2.99	-0.32	2.19	2.68	-0.50
	1908	Overall	2.62	2.88	-0.25	3.29	3.54	-0.25
	1909	Overall				2.69	2.96	-0.28
	1910	Overall	2.37	2.70	-0.32	2.35	2.99	-0.65
	1911	Overall	2.94	3.10	-0.16			

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1912	Overall	2.55	2.83	-0.28	2.63	3.00	-0.38
	1913	Overall	2.31	2.45	-0.14			
	1914	Overall	2.74	2.93	-0.19	3.19	3.66	-0.47
	1915	Overall	2.26	2.62	-0.37	2.72	3.41	-0.69
	1916	Overall	3.04	3.25	-0.21	2.08	2.26	-0.18
	1917	Overall	2.42	2.58	-0.16	3.18	3.89	-0.71
	1918	Overall	2.81	3.11	-0.30	2.02	2.17	-0.15
	1919	Overall	2.25	2.43	-0.18	2.51	2.90	-0.39
	1920	Overall	2.39	2.64	-0.26	2.50	3.03	-0.53
	1921	Overall	2.77	3.12	-0.35	2.39	2.64	-0.26
	1922	Overall	2.72	2.94	-0.22	2.20	2.40	-0.20
	1923	Overall	2.72	2.98	-0.26	2.70	3.30	-0.60
	1924	Overall	2.80	3.02	-0.22	2.12	2.60	-0.48
	1925	Overall	2.58	2.82	-0.24	2.73	3.39	-0.66
	1926	Overall	2.57	2.64	-0.08	1.87	2.16	-0.29
	1927	Overall	2.21	2.39	-0.19	2.80	3.16	-0.36
	1928	Overall	2.28	2.53	-0.25	2.50	2.69	-0.19
	1929	Overall	2.85	3.09	-0.24	2.51	2.99	-0.48
	1930	Overall	2.69	2.93	-0.23	2.27	2.45	-0.18
	1931	Overall	2.77	3.00	-0.22	1.83	2.29	-0.45

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1932	Overall	2.61	2.96	-0.35	2.92	3.00	-0.09
	1933	Overall	2.59	2.83	-0.23	2.84	3.28	-0.44
	1934	Overall	2.53	2.86	-0.33	3.46	3.80	-0.34
	1935	Overall	2.58	2.74	-0.16	2.96	3.33	-0.37
	1936	Overall	2.64	2.93	-0.29	2.38	2.69	-0.30
	1937	Overall	2.43	2.64	-0.21	2.02	2.38	-0.36
	1938	Overall	2.57	2.72	-0.15	3.12	3.45	-0.32
	1939	Overall	2.67	2.86	-0.19	2.02	2.74	-0.72
	1940	Overall	2.42	2.75	-0.33	2.32	2.60	-0.29
	1941	Overall	2.71	3.03	-0.32	1.91	2.28	-0.37
	1942	Overall	2.58	2.82	-0.24	2.27	2.65	-0.38
	1943	Overall	2.88	3.09	-0.21	2.64	3.08	-0.44
	1944	Overall	2.59	2.86	-0.27	2.32	2.63	-0.31
	1945	Overall				1.79	2.25	-0.46
	1946	Overall	2.63	2.82	-0.19	2.26	2.74	-0.48
	1947	Overall	2.58	2.94	-0.36	2.31	2.49	-0.18
	1948	Overall	2.81	3.06	-0.25	2.60	2.87	-0.26
	1949	Overall	2.56	2.94	-0.39	2.78	3.20	-0.42
	1950	Overall	2.51	2.70	-0.19	2.69	3.13	-0.44
	1951	Overall	2.71	2.96	-0.24	3.14	3.34	-0.20

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1952	Overall	2.56	2.79	-0.23	2.59	2.97	-0.39
	1953	Overall	2.77	3.02	-0.25	2.74	2.82	-0.08
	1954	Overall				2.19	2.55	-0.36
	1955	Overall	2.34	2.54	-0.20	3.04	3.39	-0.35
	1956	Overall	2.46	2.67	-0.21	2.75	3.17	-0.42
	1957	Overall	2.81	3.02	-0.21	2.68	2.94	-0.26
	1958	Overall	2.52	2.87	-0.34	2.87	2.98	-0.11
	1959	Overall	2.51	2.76	-0.25			
	1960	Overall	2.46	2.55	-0.09	2.54	2.89	-0.35
	1961	Overall	2.57	2.84	-0.27	2.51	3.18	-0.67
	1962	Overall	2.39	2.71	-0.32	2.05	2.52	-0.47
	1963	Overall	2.47	2.74	-0.27	2.83	3.00	-0.17
	1964	Overall	2.49	2.68	-0.20	2.69	2.91	-0.22
	1965	Overall	2.37	2.66	-0.29	2.46	2.74	-0.28
	1966	Overall	2.49	2.69	-0.21	2.64	3.21	-0.57
	1967	Overall	2.35	2.59	-0.24	2.16	2.41	-0.26
	1968	Overall				2.99	3.54	-0.54
	1969	Overall	2.77	3.00	-0.23	2.36	2.82	-0.46
	1970	Overall				2.65	2.97	-0.32
	1971	Overall	2.38	2.71	-0.32	3.01	3.46	-0.44

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1972	Overall	2.21	2.50	-0.29	3.13	3.56	-0.42
	1973	Overall				2.39	2.80	-0.40
	1974	Overall	2.45	2.66	-0.22	2.74	3.06	-0.32
	1975	Overall	2.65	2.86	-0.21	2.93	3.34	-0.41
	1976	Overall	2.61	2.94	-0.32	2.64	2.96	-0.32
	1977	Overall	2.84	2.96	-0.12	2.26	2.63	-0.37
	1978	Overall	2.49	2.81	-0.32	2.63	3.17	-0.54
	1979	Overall	2.53	2.77	-0.24	1.83	2.24	-0.41
	1980	Overall				2.93	3.47	-0.54
	1981	Overall	2.51	2.76	-0.24	2.73	3.35	-0.63
	1982	Overall	2.38	2.64	-0.26	3.23	3.54	-0.30
	1983	Overall	2.72	3.02	-0.30	1.93	2.42	-0.48
	1984	Overall	2.63	2.79	-0.17	2.53	2.96	-0.43
	1985	Overall	2.49	2.68	-0.20	1.90	2.42	-0.52
	1986	Overall	2.64	2.84	-0.19	2.44	2.70	-0.26
	1987	Overall	2.60	2.73	-0.13	2.26	2.67	-0.40
	1988	Overall	2.38	2.59	-0.21	2.37	2.76	-0.39
	1989	Overall	2.66	3.04	-0.37	3.21	3.93	-0.73
	1990	Overall	2.74	2.98	-0.24	3.04	3.54	-0.50
	1991	Overall	3.06	3.21	-0.15	2.43	2.61	-0.19

**Listing 15.4.4.13 Analysis of QSU-brief Questionnaire Factors and Total Score by Bootstrapping Techniques - PK Population**

Variable	Replicate	Time point	Group-1 PK			Group-2 PK		
			THS 2.2 Menthol (N=43)	mCC (N=43)	THS 2.2 Menthol - mCC	THS 2.2 Menthol (N=18)	NRT gum (N=18)	THS 2.2 Menthol - NRT gum
			Lsmean estimate	Lsmean estimate	estimate	Lsmean estimate	Lsmean estimate	estimate
Factor 2 - Relief	1992	Overall	2.75	3.05	-0.30	2.43	2.75	-0.32
	1993	Overall	2.66	2.93	-0.28	2.66	3.03	-0.37
	1994	Overall	2.35	2.67	-0.32	2.70	2.92	-0.22
	1995	Overall	2.63	2.85	-0.22	1.59	2.10	-0.51
	1996	Overall	3.04	3.31	-0.27	2.75	3.40	-0.64
	1997	Overall	2.32	2.56	-0.24	2.46	2.78	-0.31
	1998	Overall	2.49	2.78	-0.29	3.13	3.38	-0.25
	1999	Overall	2.30	2.62	-0.32	2.02	2.30	-0.28
	2000	Overall	2.51	2.73	-0.22	2.51	2.98	-0.47

Note: mCC = menthol conventional cigarettes; NRT gum = Nicotine Replacement Therapy gum; THS = Tobacco Heating System.

Note: 796507 is the seed used to generate samples from the SAS procedure proc survey select

Note: Estimates are the adjusted least squares means from an ANOVA model.

Note: Where estimates are missing, the model did not converge for that sample

Path: /cvn/projects/prj/development/000000106326/dev/tables/tl_banlqsu.sas
Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	AVAL
Covariance Structure	Variance Components
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
APERIOD	2	1 2

Dimensions

Covariance Parameters	2
Columns in X	7
Columns in Z Per Subject	43
Subjects	43
Max Obs Per Subject	2

Number of Observations

Number of Observations Read	86
Number of Observations Used	86
Number of Observations Not Used	0

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	276.70225494	
1	1	276.33644554	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)	SUBJIDN	0.1364
Residual		1.3113

Fit Statistics

-2 Res Log Likelihood	276.3
AIC (smaller is better)	280.3

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Fit Statistics

AICC (smaller is better)	280.5
BIC (smaller is better)	283.9

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.01	0.9101
APERIOD	1	41	2.38	0.1302
TRTAN	1	41	0.15	0.7002

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
TRTAN	THS 2.2 Menthol	2.3653	0.1835	41	12.89	<.0001	0.05	1.9946	2.7359
TRTAN	mCC	2.4610	0.1835	41	13.41	<.0001	0.05	2.0904	2.8317

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol	mCC	-0.09578	0.2470	41	-0.39	0.7002	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Lower	Upper
TRTAN	THS 2.2 Menthol	mCC	-0.5947	0.4031

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	AVAL
Covariance Structure	Variance Components
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
APERIOD	2	1 2

Dimensions

Covariance Parameters	2
Columns in X	7
Columns in Z Per Subject	43
Subjects	43
Max Obs Per Subject	2

Number of Observations

Number of Observations Read	86
Number of Observations Used	86
Number of Observations Not Used	0

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	288.80114348	
1	1	276.34517801	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)	SUBJIDN	0.8588
Residual		0.8191

Fit Statistics

-2 Res Log Likelihood	276.3
AIC (smaller is better)	280.3

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Fit Statistics

AICC (smaller is better)	280.5
BIC (smaller is better)	283.9

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.03	0.8535
APERIOD	1	41	0.00	0.9868
TRTAN	1	41	0.51	0.4786

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
TRTAN	THS 2.2 Menthol	3.3030	0.1976	41	16.72	<.0001	0.05	2.9040	3.7021
TRTAN	mCC	3.4426	0.1976	41	17.42	<.0001	0.05	3.0436	3.8417

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol	mCC	-0.1396	0.1952	41	-0.72	0.4786	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Lower	Upper
TRTAN	THS 2.2 Menthol	mCC	-0.5339	0.2547

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	AVAL
Covariance Structure	Variance Components
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
APERIOD	2	1 2

Dimensions

Covariance Parameters	2
Columns in X	7
Columns in Z Per Subject	43
Subjects	43
Max Obs Per Subject	2

Number of Observations

Number of Observations Read	86
Number of Observations Used	86
Number of Observations Not Used	0

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	311.76919002	
1	1	298.89267351	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)	SUBJIDN	1.1527
Residual		1.0676

Fit Statistics

-2 Res Log Likelihood	298.9
AIC (smaller is better)	302.9

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Fit Statistics

AICC (smaller is better)	303.0
BIC (smaller is better)	306.4

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.01	0.9200
APERIOD	1	41	4.18	0.0474
TRTAN	1	41	7.05	0.0112

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
TRTAN	THS 2.2 Menthol	3.3431	0.2273	41	14.71	<.0001	0.05	2.8840	3.8021
TRTAN	mCC	3.9351	0.2273	41	17.31	<.0001	0.05	3.4760	4.3941

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol	mCC	-0.5920	0.2229	41	-2.66	0.0112	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Lower	Upper
TRTAN	THS 2.2 Menthol	mCC	-1.0421	-0.1418

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	AVAL
Covariance Structure	Variance Components
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
APERIOD	2	1 2

Dimensions

Covariance Parameters	2
Columns in X	7
Columns in Z Per Subject	43
Subjects	43
Max Obs Per Subject	2

Number of Observations

Number of Observations Read	86
Number of Observations Used	86
Number of Observations Not Used	0

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	229.06005855	
1	1	200.50001758	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)	SUBJIDN	0.5736
Residual		0.2362

Fit Statistics

-2 Res Log Likelihood	200.5
AIC (smaller is better)	204.5

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Fit Statistics

AICC (smaller is better)	204.7
BIC (smaller is better)	208.0

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	1.45	0.2356
APERIOD	1	41	2.83	0.1001
TRTAN	1	41	3.13	0.0843

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
TRTAN	THS 2.2 Menthol	2.7736	0.1373	41	20.21	<.0001	0.05	2.4964	3.0508
TRTAN	mCC	2.9591	0.1373	41	21.56	<.0001	0.05	2.6819	3.2363

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol	mCC	-0.1855	0.1048	41	-1.77	0.0843	0.05

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Lower	Upper
TRTAN	THS 2.2 Menthol	mCC	-0.3972	0.02623

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	AVAL
Covariance Structure	Variance Components
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information

Class	Levels	Values
SUBJIDN	43	2 5 10 13 24 25 27 31 39 40 43 45 49 50 52 54 66 67 70 71 73 74 75 76 82 84 89 90 93 97 102 105 113 128 129 134 135 136 139 140 142 148 152
TRTSEQAN	2	1 2
TRTAN	2	THS 2.2 Menthol mCC

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Class Level Information

Class	Levels	Values
APERIOD	2	1 2

Dimensions

Covariance Parameters	2
Columns in X	7
Columns in Z Per Subject	43
Subjects	43
Max Obs Per Subject	2

Number of Observations

Number of Observations Read	86
Number of Observations Used	86
Number of Observations Not Used	0

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	293.08335316	
1	1	279.87059458	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Estimate
SUBJIDN (TRTSEQAN)	SUBJIDN	0.9279
Residual		0.8399

Fit Statistics

-2 Res Log Likelihood	279.9
AIC (smaller is better)	283.9

**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Fit Statistics

AICC (smaller is better)	284.0
BIC (smaller is better)	287.4

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTSEQAN	1	41	0.33	0.5709
APERIOD	1	41	6.53	0.0144
TRTAN	1	41	32.29	<.0001

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
TRTAN	THS 2.2 Menthol	3.1871	0.2028	41	15.71	<.0001	0.05	2.7775	3.5967
TRTAN	mCC	4.3105	0.2028	41	21.25	<.0001	0.05	3.9009	4.7201

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: anl01fl = 'Y' and pprotfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr > t	Alpha
TRTAN	THS 2.2 Menthol	mCC	-1.1234	0.1977	41	-5.68	<.0001	0.05

Differences of Least Squares Means

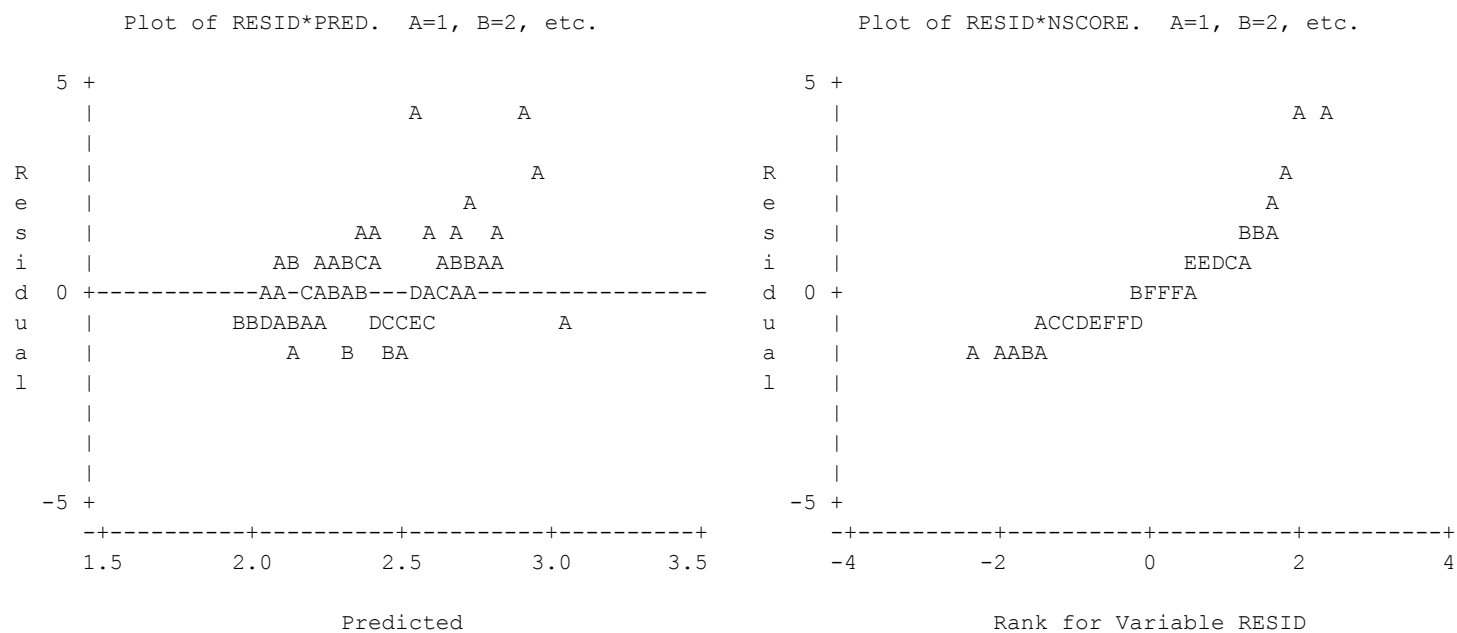
Effect	Actual Treatment (N)	Actual Treatment (N)	Lower	Upper
TRTAN	THS 2.2 Menthol	mCC	-1.5227	-0.7241

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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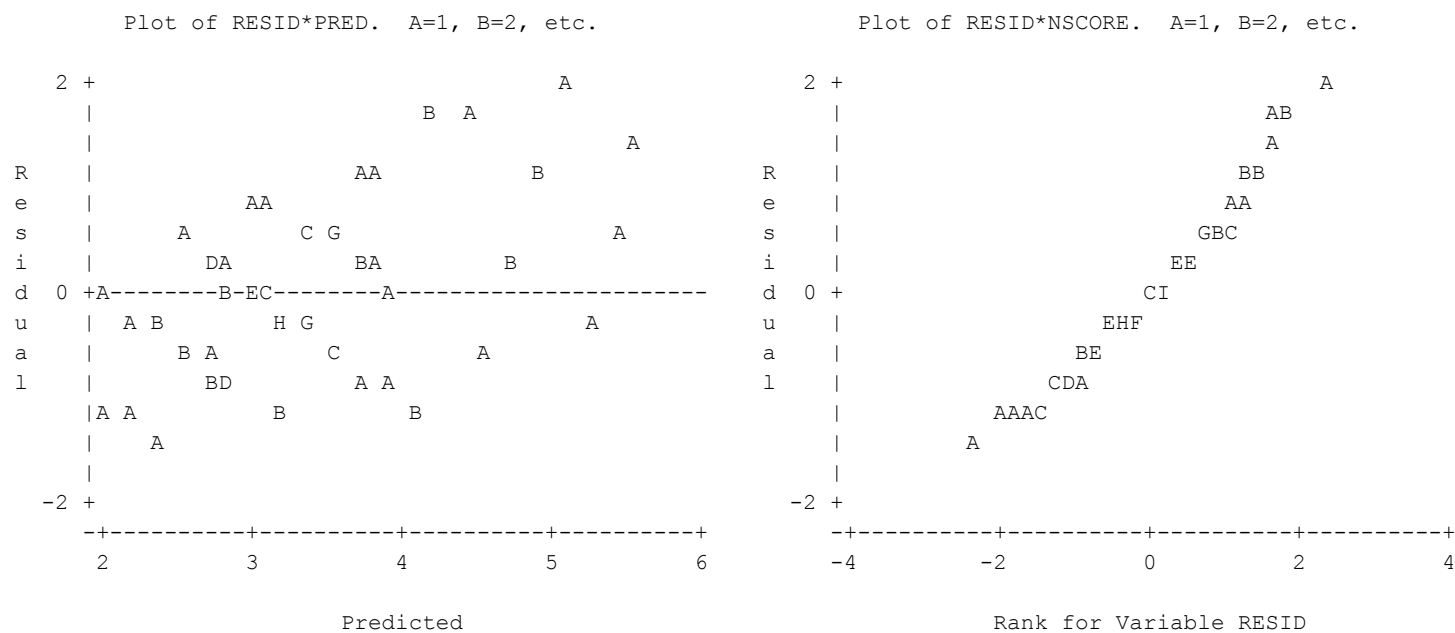
**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Aversion Subscale
Residual Plots



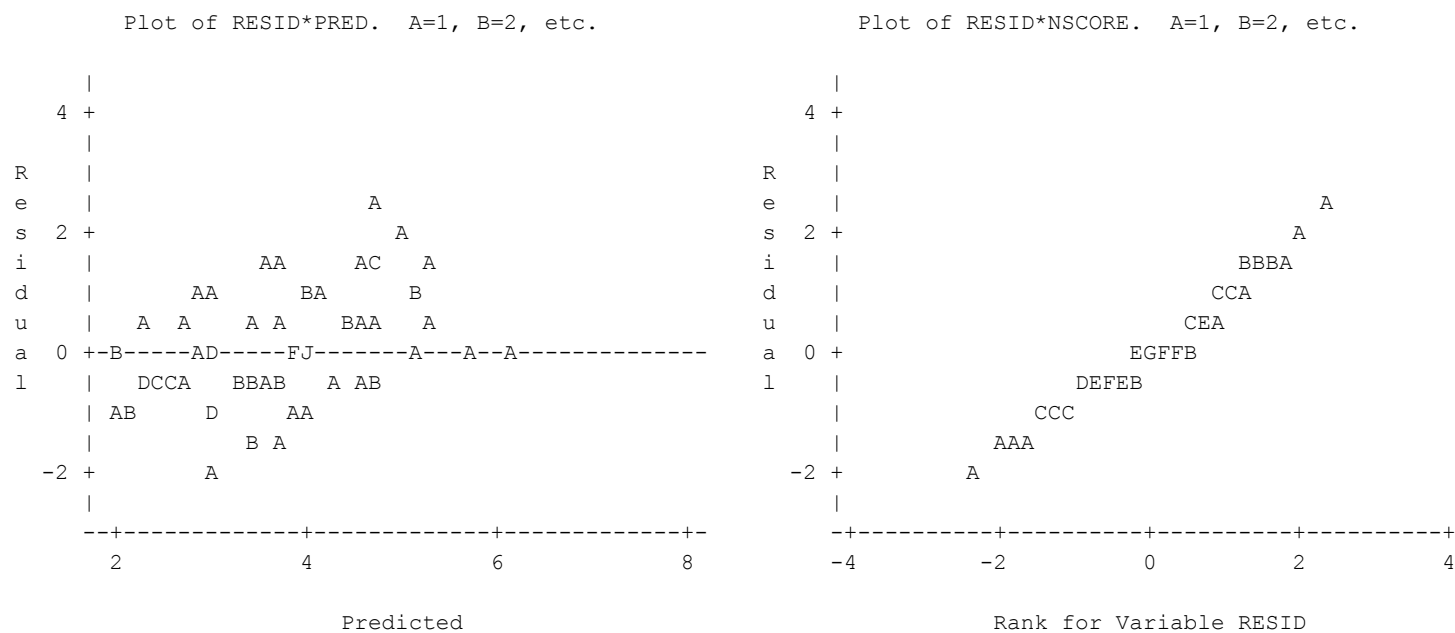
**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Craving Reduction Subscale
Residual Plots



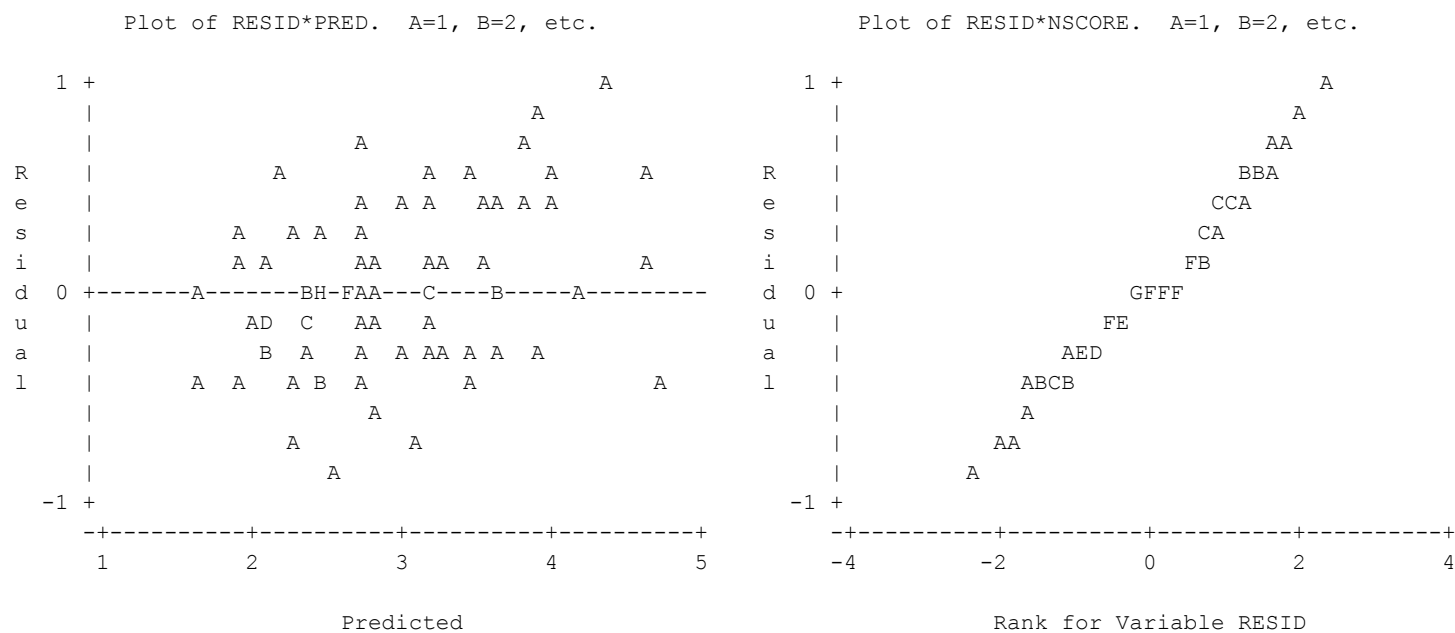
**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Enjoyment of Respiratory Tract Sensation Subscale
Residual Plots



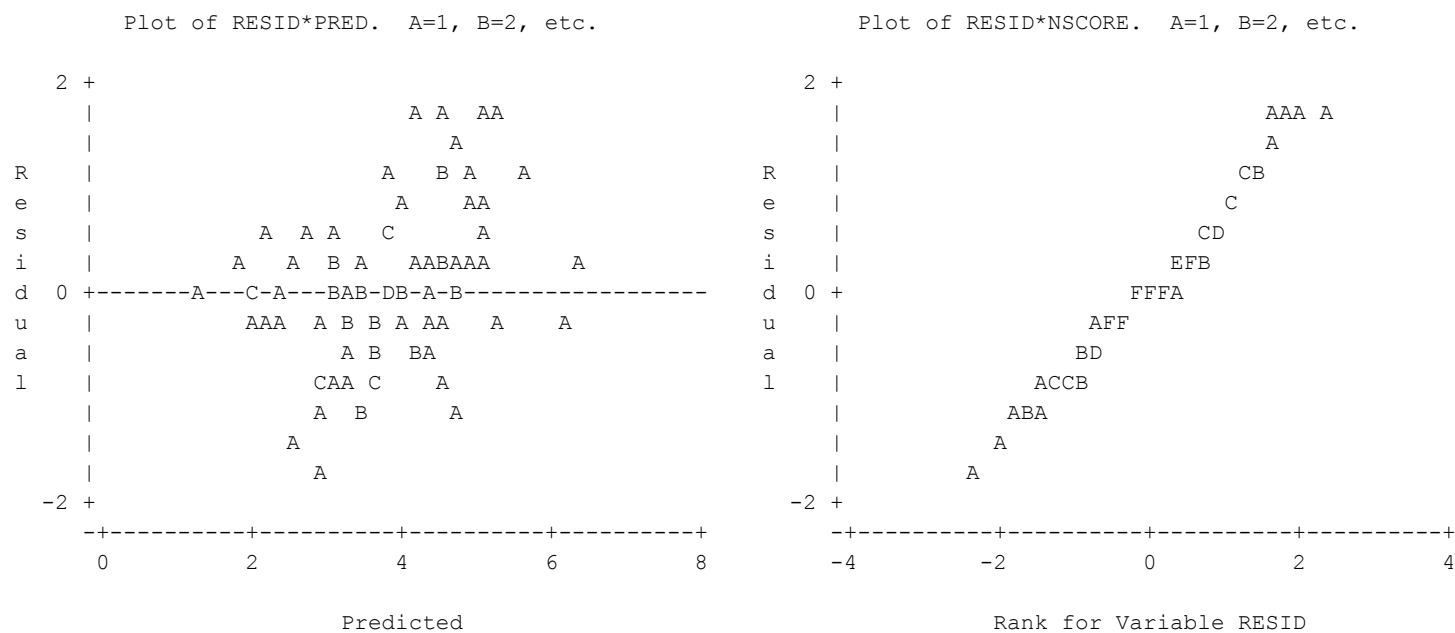
**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Psychological Reward Subscale
Residual Plots



**Listing 15.4.4.15 Analysis of MCEQ Subscales - PK Population**

Subscale: Smoking Satisfaction Subscale
Residual Plots



**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1	2.42	2.59	-0.17	0.261
	2	2.65	2.74	-0.09	0.309
	3	2.78	2.78	-0.00	0.305
	4	2.26	2.25	0.01	0.249
	5	2.66	2.57	0.09	0.270
	6	2.54	2.31	0.22	0.276
	7	2.27	2.60	-0.33	0.232
	8	2.33	2.32	0.01	0.229
	9	2.52	2.50	0.02	0.289
	10	2.09	2.45	-0.36	0.198
	11	2.51	2.76	-0.25	0.236
	12	2.68	2.56	0.11	0.264
	13	2.33	2.34	-0.01	0.218
	14	2.12	2.61	-0.49	0.252
	15	2.21	2.52	-0.31	0.212
	16	2.60	2.37	0.23	0.237
	17	2.38	2.73	-0.35	0.211
	18	2.68	2.59	0.09	0.183
	19	2.20	2.56	-0.36	0.199
	20	2.10	2.21	-0.11	0.209
	21	2.49	2.54	-0.05	0.280
	22	2.70	2.46	0.24	0.292
	23	2.95	2.67	0.27	0.322
	24	2.15	2.43	-0.29	0.156

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	25	2.36	2.53	-0.18	0.207
	26	2.21	2.25	-0.04	0.140
	27	2.25	2.64	-0.39	0.257
	28	2.44	2.49	-0.05	0.296
	29	2.35	2.50	-0.15	0.207
	30	2.50	2.93	-0.44	0.284
	31	2.26	2.37	-0.11	0.226
	32	2.26	2.60	-0.34	0.271
	33	2.53	2.40	0.13	0.191
	34	2.26	2.38	-0.12	0.234
	35	2.58	2.48	0.10	0.240
	36	2.45	2.65	-0.21	0.249
	37	2.03	2.55	-0.52	0.234
	38	1.84	2.45	-0.61	0.209
	39	2.41	2.70	-0.29	0.325
	40	2.50	2.46	0.04	0.297
	41	2.54	2.70	-0.15	0.253
	42	2.78	2.33	0.46	0.302
	43	2.46	2.63	-0.17	0.278
	44	2.15	2.38	-0.24	0.205
	45	2.51	2.68	-0.17	0.220
	46	2.35	2.56	-0.21	0.199
	47	2.38	2.71	-0.34	0.257
	48	2.42	2.59	-0.17	0.205

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	49	2.54	2.34	0.19	0.228
	50	2.43	2.39	0.04	0.246
	51	2.29	2.31	-0.01	0.241
	52	2.38	2.64	-0.25	0.162
	53	2.46	2.44	0.02	0.265
	54	2.41	2.33	0.08	0.220
	55	2.39	2.82	-0.42	0.267
	56	2.15	2.30	-0.15	0.188
	57	2.47	2.53	-0.06	0.273
	58	2.37	2.43	-0.06	0.176
	59	2.17	2.46	-0.29	0.214
	60	2.12	2.61	-0.49	0.195
	61	2.09	2.30	-0.21	0.197
	62	2.45	2.06	0.39	0.216
	63	2.29	2.34	-0.05	0.133
	64	2.23	2.56	-0.34	0.217
	65	2.33	2.34	-0.01	0.252
	66	2.50	2.44	0.06	0.182
	67	2.28	2.19	0.09	0.159
	68	2.34	2.33	0.01	0.251
	69	2.65	2.34	0.31	0.213
	70	2.62	2.35	0.27	0.255
	71	2.58	2.57	0.01	0.225
	72	2.34	2.31	0.02	0.178

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	73	2.13	2.34	-0.21	0.219
	74	2.29	2.51	-0.21	0.227
	75	2.11	2.65	-0.54	0.206
	76	2.36	2.57	-0.21	0.279
	77	2.32	2.56	-0.25	0.242
	78	2.42	2.70	-0.27	0.265
	79	2.38	2.71	-0.33	0.204
	80	2.75	2.63	0.12	0.322
	81	2.10	2.47	-0.37	0.188
	82	2.20	2.27	-0.07	0.216
	83	2.26	2.65	-0.39	0.231
	84	2.72	2.33	0.39	0.262
	85	2.44	2.42	0.02	0.229
	86	2.57	2.25	0.31	0.249
	87	2.33	2.75	-0.42	0.275
	88	2.27	2.39	-0.12	0.184
	89	2.17	2.45	-0.28	0.282
	90	2.44	2.35	0.08	0.205
	91	2.38	2.36	0.02	0.158
	92	2.61	2.50	0.11	0.244
	93	2.18	2.61	-0.43	0.199
	94	2.15	2.45	-0.30	0.196
	95	2.68	2.28	0.40	0.204
	96	2.08	2.31	-0.23	0.181

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	97	2.20	2.61	-0.41	0.256
	98	2.47	2.29	0.19	0.261
	99	2.49	2.78	-0.28	0.267
	100	2.47	2.45	0.02	0.243
	101	2.44	2.57	-0.14	0.267
	102	2.74	2.67	0.07	0.322
	103	2.14	1.95	0.19	0.181
	104	1.99	2.54	-0.55	0.235
	105	2.45	2.32	0.13	0.209
	106	2.26	2.15	0.11	0.178
	107	2.23	2.72	-0.49	0.302
	108	2.15	2.35	-0.20	0.235
	109	2.34	2.66	-0.32	0.292
	110	2.42	2.55	-0.13	0.212
	111	2.50	2.44	0.06	0.163
	112	2.37	2.31	0.06	0.225
	113	2.80	2.50	0.30	0.311
	114	2.34	2.36	-0.03	0.192
	115	2.48	2.41	0.06	0.256
	116	2.45	2.41	0.03	0.257
	117	2.40	2.34	0.06	0.176
	118	2.30	2.26	0.04	0.211
	119	2.33	2.35	-0.02	0.162
	120	2.43	2.60	-0.17	0.285

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	121	1.98	2.36	-0.38	0.182
	122	2.16	2.53	-0.37	0.209
	123	2.39	2.40	-0.01	0.174
	124	2.44	2.44	0.00	0.229
	125	1.92	2.40	-0.48	0.207
	126	2.57	2.60	-0.04	0.248
	127	2.54	2.47	0.06	0.206
	128	2.45	2.37	0.08	0.246
	129	2.23	2.51	-0.28	0.173
	130	2.40	2.44	-0.05	0.239
	131	2.14	2.37	-0.23	0.275
	132	2.38	2.54	-0.16	0.307
	133	2.21	2.52	-0.31	0.229
	134	2.20	2.56	-0.37	0.195
	135	2.27	2.30	-0.03	0.192
	136	2.11	2.52	-0.41	0.230
	137	2.28	2.42	-0.14	0.257
	138	2.27	2.64	-0.37	0.297
	139	2.60	2.80	-0.20	0.264
	140	2.40	2.40	0.00	0.221
	141	2.12	2.40	-0.28	0.242
	142	2.50	2.60	-0.09	0.262
	143	2.33	2.52	-0.20	0.235
	144	2.47	2.56	-0.08	0.227

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	145	2.77	2.55	0.22	0.271
	146	2.42	2.79	-0.37	0.286
	147	2.33	2.46	-0.12	0.151
	148	2.06	2.47	-0.41	0.287
	149	2.20	2.46	-0.27	0.200
	150	2.22	2.39	-0.16	0.210
	151	2.70	2.61	0.10	0.299
	152	2.54	2.29	0.25	0.218
	153	2.38	2.45	-0.07	0.244
	154	2.26	2.62	-0.36	0.217
	155	2.42	2.65	-0.23	0.288
	156	2.44	2.45	-0.01	0.228
	157	2.67	2.89	-0.21	0.316
	158	2.20	2.49	-0.30	0.245
	159	2.29	2.37	-0.07	0.183
	160	2.48	2.18	0.29	0.241
	161	2.23	2.34	-0.12	0.263
	162	2.38	2.34	0.03	0.247
	163	3.01	2.42	0.59	0.271
	164	2.38	2.44	-0.07	0.253
	165	2.30	2.36	-0.06	0.223
	166	2.12	2.29	-0.17	0.200
	167	2.66	2.34	0.32	0.212
	168	2.23	2.36	-0.13	0.141

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	169	2.35	2.44	-0.09	0.184
	170	2.22	2.59	-0.37	0.237
	171	2.58	2.28	0.30	0.256
	172	2.42	2.30	0.11	0.188
	173	2.46	2.90	-0.44	0.284
	174	2.58	2.61	-0.03	0.240
	175	2.54	2.74	-0.19	0.147
	176	2.20	2.27	-0.08	0.233
	177	2.50	2.22	0.28	0.210
	178	2.56	2.47	0.08	0.280
	179	2.54	2.50	0.04	0.248
	180	2.18	2.10	0.07	0.167
	181	2.26	2.57	-0.31	0.191
	182	2.12	2.63	-0.51	0.241
	183	2.26	2.32	-0.06	0.257
	184	2.57	2.52	0.05	0.225
	185	2.53	2.33	0.21	0.240
	186	2.59	2.41	0.18	0.206
	187	2.41	2.62	-0.22	0.287
	188	2.35	2.48	-0.14	0.284
	189	2.26	2.53	-0.27	0.245
	190	2.34	2.43	-0.08	0.238
	191	2.73	2.37	0.36	0.258
	192	2.66	2.23	0.42	0.223

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	193	2.27	2.19	0.08	0.207
	194	2.37	2.59	-0.23	0.233
	195	2.39	2.26	0.12	0.171
	196	2.25	2.39	-0.13	0.242
	197	2.39	2.51	-0.12	0.254
	198	2.11	2.47	-0.36	0.244
	199	2.44	2.49	-0.06	0.285
	200	2.68	2.66	0.03	0.312
	201	2.39	2.63	-0.24	0.138
	202	2.21	2.43	-0.22	0.192
	203	2.16	2.60	-0.45	0.215
	204	2.39	2.46	-0.06	0.246
	205	2.31	2.19	0.12	0.185
	206	2.36	2.49	-0.13	0.249
	207	2.16	2.27	-0.12	0.201
	208	2.35	2.63	-0.28	0.252
	209	2.53	2.52	0.01	0.246
	210	2.74	2.52	0.22	0.286
	211	2.51	2.92	-0.42	0.271
	212	2.55	2.20	0.35	0.240
	213	2.49	2.67	-0.18	0.310
	214	2.63	2.90	-0.27	0.328
	215	2.03	2.23	-0.20	0.131
	216	2.36	2.30	0.06	0.201

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	217	2.68	2.63	0.06	0.304
	218	2.16	2.17	-0.01	0.204
	219	2.35	2.71	-0.36	0.250
	220	2.22	2.49	-0.27	0.238
	221	2.21	2.40	-0.19	0.269
	222	2.44	2.42	0.02	0.230
	223	2.40	2.41	-0.01	0.260
	224	2.35	2.75	-0.39	0.273
	225	2.31	2.37	-0.06	0.245
	226	2.42	2.51	-0.09	0.250
	227	2.49	2.40	0.08	0.279
	228	2.91	2.40	0.52	0.282
	229	2.63	2.84	-0.21	0.309
	230	2.18	2.50	-0.32	0.224
	231	2.18	2.49	-0.31	0.257
	232	2.29	2.48	-0.19	0.227
	233	2.26	2.52	-0.26	0.240
	234	2.27	2.70	-0.42	0.234
	235	2.30	2.26	0.04	0.207
	236	2.54	2.32	0.21	0.269
	237	2.16	2.13	0.03	0.160
	238	2.42	2.22	0.19	0.292
	239	2.41	2.62	-0.21	0.277
	240	2.03	2.66	-0.63	0.221

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	241	2.46	2.16	0.30	0.202
	242	2.17	2.56	-0.39	0.284
	243	2.57	2.68	-0.11	0.285
	244	2.27	2.77	-0.50	0.232
	245	2.38	2.59	-0.21	0.234
	246	2.66	2.51	0.15	0.287
	247	2.38	2.43	-0.05	0.236
	248	2.56	2.46	0.11	0.262
	249	2.28	2.59	-0.31	0.254
	250	2.45	2.64	-0.20	0.280
	251	2.43	2.39	0.04	0.229
	252	2.35	2.37	-0.02	0.213
	253	2.38	2.53	-0.16	0.212
	254	2.53	2.61	-0.08	0.217
	255	2.78	2.57	0.21	0.341
	256	1.96	2.53	-0.56	0.236
	257	2.29	2.95	-0.66	0.300
	258	2.38	2.22	0.17	0.230
	259	2.39	2.46	-0.08	0.191
	260	2.31	2.63	-0.32	0.291
	261	2.17	2.57	-0.40	0.183
	262	2.46	2.31	0.14	0.214
	263	2.33	2.71	-0.38	0.210
	264	2.06	2.29	-0.23	0.152

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	265	2.23	2.63	-0.41	0.158
	266	2.59	2.57	0.01	0.244
	267	2.25	2.62	-0.37	0.213
	268	2.50	2.45	0.05	0.314
	269	2.20	2.51	-0.31	0.231
	270	2.55	2.62	-0.07	0.304
	271	2.42	2.40	0.02	0.233
	272	2.55	2.16	0.39	0.259
	273	2.17	2.23	-0.06	0.225
	274	2.28	2.44	-0.16	0.205
	275	2.36	2.43	-0.07	0.229
	276	2.21	2.46	-0.24	0.237
	277	2.19	2.34	-0.15	0.193
	278	2.62	2.40	0.22	0.298
	279	2.41	2.01	0.41	0.188
	280	1.99	2.58	-0.59	0.243
	281	2.27	2.38	-0.12	0.213
	282	2.49	2.39	0.11	0.236
	283	2.36	2.47	-0.11	0.250
	284	2.19	2.16	0.02	0.184
	285	2.26	2.31	-0.05	0.216
	286	2.12	2.29	-0.16	0.219
	287	2.36	2.40	-0.04	0.218
	288	2.43	2.86	-0.43	0.250

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	289	2.28	2.50	-0.22	0.240
	290	2.46	2.42	0.05	0.205
	291	2.24	2.37	-0.13	0.230
	292	2.29	2.77	-0.48	0.326
	293	2.20	2.45	-0.25	0.265
	294	2.19	2.61	-0.42	0.264
	295	2.53	2.43	0.10	0.225
	296	2.57	2.50	0.07	0.269
	297	2.21	2.36	-0.14	0.218
	298	2.66	2.51	0.15	0.247
	299	2.40	2.58	-0.18	0.275
	300	2.54	2.40	0.14	0.192
	301	2.28	2.35	-0.06	0.224
	302	2.41	2.38	0.03	0.224
	303	2.04	2.57	-0.53	0.225
	304	2.33	2.39	-0.06	0.210
	305	2.10	2.57	-0.47	0.262
	306	2.21	2.21	0.00	0.177
	307	2.66	2.38	0.29	0.193
	308	2.40	2.17	0.23	0.211
	309	2.40	2.54	-0.14	0.337
	310	2.20	2.50	-0.30	0.226
	311	2.42	2.44	-0.02	0.234
	312	2.56	2.68	-0.12	0.289

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	313	2.33	2.37	-0.04	0.217
	314	2.29	2.75	-0.46	0.289
	315	3.07	2.53	0.54	0.295
	316	2.51	2.26	0.25	0.294
	317	2.06	2.43	-0.36	0.220
	318	2.20	2.55	-0.35	0.200
	319	2.48	2.32	0.15	0.254
	320	2.02	2.41	-0.39	0.178
	321	2.38	2.44	-0.06	0.242
	322	2.06	2.63	-0.57	0.208
	323	2.51	2.61	-0.10	0.277
	324	2.63	2.43	0.20	0.243
	325	2.44	2.20	0.24	0.208
	326	2.39	2.38	0.01	0.183
	327	2.60	2.61	-0.01	0.317
	328	2.57	2.56	0.02	0.250
	329	2.14	2.53	-0.39	0.217
	330	2.27	2.34	-0.07	0.186
	331	2.36	2.60	-0.24	0.262
	332	2.27	2.34	-0.08	0.220
	333	2.36	2.48	-0.12	0.282
	334	2.62	2.27	0.36	0.253
	335	2.00	2.79	-0.79	0.277
	336	2.29	2.78	-0.50	0.267

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	337	2.36	2.32	0.04	0.225
	338	2.42	2.63	-0.21	0.267
	339	2.67	2.41	0.26	0.281
	340	1.78	2.38	-0.60	0.175
	341	2.37	2.51	-0.14	0.248
	342	2.15	2.58	-0.44	0.241
	343	2.43	2.57	-0.13	0.247
	344	2.49	2.30	0.20	0.258
	345	2.60	2.37	0.23	0.215
	346	2.66	2.50	0.15	0.285
	347	2.23	2.58	-0.34	0.276
	348	2.35	2.34	0.01	0.278
	349	2.49	2.62	-0.13	0.257
	350	2.39	2.38	0.01	0.245
	351	2.42	2.75	-0.33	0.254
	352	2.69	2.64	0.05	0.306
	353	2.26	2.50	-0.24	0.246
	354	2.25	2.76	-0.51	0.311
	355	2.49	2.29	0.20	0.187
	356	2.40	2.54	-0.14	0.212
	357	2.05	2.15	-0.10	0.172
	358	2.66	2.83	-0.17	0.270
	359	2.47	2.55	-0.07	0.194
	360	1.96	2.52	-0.56	0.233

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	361	2.39	2.65	-0.26	0.205
	362	2.40	2.31	0.08	0.194
	363	2.39	2.53	-0.13	0.258
	364	2.43	2.28	0.16	0.199
	365	2.42	2.45	-0.03	0.232
	366	2.18	2.42	-0.24	0.133
	367	2.64	2.34	0.30	0.241
	368	2.40	2.47	-0.07	0.237
	369	2.22	2.37	-0.15	0.214
	370	2.18	2.69	-0.50	0.236
	371	2.40	2.52	-0.12	0.240
	372	2.10	2.25	-0.15	0.210
	373	2.43	2.42	0.01	0.132
	374	2.33	2.69	-0.36	0.228
	375	2.66	2.53	0.13	0.270
	376	2.69	2.67	0.02	0.264
	377	2.34	2.66	-0.31	0.276
	378	2.26	2.66	-0.40	0.252
	379	2.16	2.60	-0.43	0.274
	380	2.20	2.36	-0.15	0.227
	381	2.47	2.33	0.14	0.249
	382	2.16	2.70	-0.54	0.265
	383	2.19	2.17	0.03	0.172
	384	2.57	2.81	-0.24	0.319

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	385	2.25	2.32	-0.07	0.202
	386	2.20	2.56	-0.36	0.146
	387	2.52	2.44	0.08	0.284
	388	2.06	2.51	-0.45	0.277
	389	2.44	2.22	0.22	0.250
	390	2.06	2.58	-0.51	0.197
	391	2.26	2.46	-0.20	0.215
	392	2.51	2.77	-0.26	0.319
	393	2.53	2.38	0.15	0.287
	394	2.57	2.35	0.22	0.222
	395	2.40	2.35	0.05	0.226
	396	2.13	2.29	-0.16	0.158
	397	2.30	2.26	0.04	0.233
	398	2.24	2.24	-0.01	0.183
	399	2.64	2.51	0.13	0.241
	400	2.54	2.43	0.11	0.231
	401	2.29	2.80	-0.52	0.240
	402	2.16	2.17	-0.01	0.152
	403	2.61	2.53	0.08	0.256
	404	2.15	2.62	-0.48	0.215
	405	2.33	2.44	-0.10	0.189
	406	2.30	2.54	-0.24	0.209
	407	2.27	2.28	-0.01	0.189
	408	2.12	2.38	-0.26	0.227

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	409	2.32	2.38	-0.06	0.138
	410	2.15	2.46	-0.30	0.266
	411	2.29	2.19	0.09	0.219
	412	1.99	2.49	-0.50	0.222
	413	2.33	2.58	-0.25	0.270
	414	2.17	2.31	-0.15	0.259
	415	2.19	2.49	-0.31	0.269
	416	2.13	2.31	-0.19	0.177
	417	2.46	2.40	0.06	0.239
	418	2.38	2.50	-0.12	0.160
	419	2.34	2.54	-0.20	0.251
	420	2.33	2.26	0.07	0.231
	421	2.31	2.49	-0.18	0.256
	422	1.97	2.69	-0.72	0.269
	423	2.59	2.30	0.29	0.208
	424	2.48	2.73	-0.25	0.283
	425	2.51	2.26	0.24	0.275
	426	2.02	2.83	-0.81	0.286
	427	2.26	2.32	-0.06	0.223
	428	2.20	2.68	-0.48	0.179
	429	2.57	2.57	-0.00	0.241
	430	2.44	2.54	-0.10	0.210
	431	2.09	2.36	-0.27	0.235
	432	2.33	2.60	-0.28	0.226

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	433	2.16	2.14	0.02	0.158
	434	2.50	2.40	0.10	0.217
	435	2.32	2.44	-0.12	0.250
	436	2.72	2.66	0.06	0.279
	437	2.63	2.36	0.27	0.256
	438	2.34	2.54	-0.20	0.207
	439	2.18	2.28	-0.10	0.159
	440	2.09	2.27	-0.19	0.151
	441	2.32	2.50	-0.17	0.252
	442	2.35	2.42	-0.07	0.280
	443	2.45	2.54	-0.09	0.232
	444	2.31	2.25	0.06	0.226
	445	2.42	2.32	0.10	0.230
	446	2.33	2.45	-0.12	0.229
	447	2.13	2.30	-0.18	0.168
	448	2.25	2.54	-0.30	0.143
	449	2.57	2.58	-0.00	0.289
	450	2.48	2.49	-0.01	0.209
	451	2.06	2.51	-0.45	0.227
	452	2.44	2.43	0.01	0.296
	453	2.59	2.21	0.38	0.236
	454	2.46	2.29	0.18	0.238
	455	2.37	2.73	-0.36	0.248
	456	2.08	2.55	-0.48	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	457	2.28	2.31	-0.03	0.227
	458	2.44	2.41	0.03	0.283
	459	2.34	2.23	0.11	0.198
	460	2.05	2.67	-0.61	0.267
	461	2.45	2.37	0.08	0.274
	462	2.55	2.17	0.37	0.256
	463	2.42	2.45	-0.03	0.243
	464	2.45	2.41	0.03	0.244
	465	2.32	2.27	0.05	0.168
	466	2.35	2.65	-0.30	0.256
	467	2.31	2.39	-0.08	0.212
	468	2.20	2.85	-0.64	0.257
	469	2.55	2.62	-0.07	0.291
	470	2.53	2.57	-0.04	0.204
	471	2.55	2.14	0.41	0.207
	472	2.04	2.30	-0.26	0.196
	473	2.30	2.49	-0.19	0.194
	474	2.44	2.47	-0.02	0.296
	475	2.51	2.59	-0.08	0.234
	476	2.57	2.42	0.15	0.270
	477	2.20	2.41	-0.21	0.226
	478	2.31	2.21	0.10	0.261
	479	2.51	2.53	-0.02	0.241
	480	2.49	2.53	-0.04	0.275

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	481	2.44	2.61	-0.17	0.227
	482	2.19	2.62	-0.43	0.269
	483	2.40	2.66	-0.26	0.251
	484	2.57	2.63	-0.06	0.328
	485	2.68	2.56	0.12	0.243
	486	2.07	2.17	-0.10	0.177
	487	2.05	2.54	-0.49	0.152
	488	2.35	2.48	-0.14	0.216
	489	2.58	2.16	0.42	0.233
	490	2.72	2.48	0.23	0.310
	491	2.16	2.76	-0.60	0.234
	492	2.35	2.32	0.03	0.230
	493	2.35	2.36	-0.02	0.159
	494	2.24	2.42	-0.17	0.248
	495	2.50	2.48	0.02	0.268
	496	2.54	2.67	-0.13	0.258
	497	2.05	2.47	-0.42	0.251
	498	2.75	2.48	0.27	0.261
	499	2.29	2.46	-0.17	0.258
	500	2.20	2.54	-0.34	0.198
	501	2.33	2.45	-0.12	0.185
	502	2.24	2.63	-0.39	0.264
	503	2.71	2.56	0.15	0.277
	504	1.90	2.64	-0.74	0.238

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	505	2.34	2.38	-0.04	0.199
	506	2.34	2.51	-0.17	0.263
	507	2.59	2.57	0.02	0.291
	508	2.33	2.38	-0.06	0.258
	509	2.21	2.53	-0.32	0.254
	510	2.30	2.43	-0.13	0.200
	511	2.17	2.22	-0.05	0.258
	512	2.52	2.59	-0.07	0.279
	513	2.28	2.18	0.09	0.194
	514	2.22	2.19	0.03	0.167
	515	2.15	2.46	-0.31	0.217
	516	2.06	2.55	-0.49	0.245
	517	2.22	2.58	-0.36	0.214
	518	2.34	1.90	0.44	0.196
	519	2.34	2.34	-0.01	0.189
	520	2.15	2.75	-0.60	0.280
	521	2.35	2.41	-0.05	0.213
	522	2.30	2.22	0.08	0.222
	523	2.67	2.50	0.17	0.280
	524	2.20	2.37	-0.17	0.160
	525	2.69	2.64	0.06	0.278
	526	2.27	2.27	-0.00	0.249
	527	2.05	2.39	-0.34	0.238
	528	2.19	2.86	-0.67	0.307

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	529	2.49	2.73	-0.24	0.252
	530	2.03	2.53	-0.50	0.158
	531	2.26	2.40	-0.14	0.242
	532	2.44	2.75	-0.31	0.234
	533	2.24	2.21	0.03	0.185
	534	2.25	2.21	0.04	0.252
	535	2.07	2.54	-0.47	0.207
	536	1.84	2.26	-0.42	0.132
	537	2.55	2.27	0.28	0.222
	538	2.46	2.42	0.04	0.314
	539	2.56	2.51	0.05	0.240
	540	2.71	2.51	0.19	0.272
	541	2.33	2.47	-0.14	0.202
	542	2.22	2.33	-0.11	0.200
	543	2.46	2.57	-0.11	0.315
	544	2.67	2.40	0.26	0.256
	545	2.26	2.27	-0.01	0.173
	546	2.34	2.53	-0.19	0.156
	547	2.79	2.44	0.35	0.222
	548	2.16	2.21	-0.05	0.234
	549	2.34	2.26	0.09	0.219
	550	2.14	2.40	-0.26	0.243
	551	2.59	2.30	0.29	0.273
	552	2.49	2.56	-0.06	0.229

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	553	2.43	2.77	-0.34	0.279
	554	2.60	2.49	0.11	0.251
	555	2.21	2.32	-0.10	0.233
	556	2.30	2.64	-0.35	0.297
	557	2.12	2.32	-0.20	0.147
	558	2.21	2.85	-0.64	0.300
	559	2.24	2.56	-0.32	0.272
	560	2.32	2.65	-0.32	0.301
	561	2.01	2.53	-0.52	0.219
	562	2.53	2.37	0.16	0.207
	563	2.27	2.42	-0.15	0.203
	564	2.45	2.58	-0.13	0.208
	565	2.49	2.45	0.04	0.289
	566	2.48	2.53	-0.05	0.227
	567	2.30	2.52	-0.22	0.213
	568	2.48	2.41	0.07	0.258
	569	2.53	2.90	-0.37	0.257
	570	2.37	2.32	0.06	0.188
	571	2.04	2.31	-0.26	0.279
	572	2.04	2.57	-0.54	0.225
	573	2.50	2.24	0.26	0.248
	574	2.72	2.44	0.28	0.229
	575	2.27	2.57	-0.30	0.180
	576	2.51	2.19	0.32	0.218

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	577	2.34	2.37	-0.03	0.155
	578	2.46	2.40	0.06	0.254
	579	2.40	2.34	0.06	0.199
	580	2.31	2.56	-0.25	0.231
	581	2.23	2.58	-0.35	0.181
	582	2.31	2.85	-0.54	0.279
	583	2.07	2.03	0.04	0.153
	584	2.21	2.26	-0.05	0.208
	585	2.23	2.22	0.02	0.198
	586	2.38	2.57	-0.20	0.218
	587	2.34	2.43	-0.09	0.268
	588	2.73	2.60	0.14	0.312
	589	2.39	2.32	0.07	0.231
	590	2.09	2.21	-0.11	0.230
	591	2.41	2.14	0.27	0.176
	592	2.54	2.34	0.21	0.204
	593	2.34	2.23	0.10	0.242
	594	2.35	2.85	-0.50	0.267
	595	2.52	2.40	0.12	0.218
	596	2.24	2.67	-0.43	0.238
	597	1.97	2.81	-0.83	0.284
	598	2.13	2.36	-0.23	0.230
	599	2.35	2.44	-0.09	0.178
	600	2.58	2.46	0.12	0.279

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	601	2.11	2.71	-0.59	0.257
	602	2.12	2.53	-0.41	0.208
	603	2.33	2.73	-0.40	0.287
	604	2.63	2.17	0.46	0.235
	605	2.14	2.50	-0.36	0.215
	606	2.27	2.40	-0.13	0.279
	607	2.31	2.17	0.13	0.204
	608	2.29	2.74	-0.45	0.249
	609	2.42	2.36	0.06	0.237
	610	2.40	2.49	-0.09	0.299
	611	2.59	2.54	0.05	0.260
	612	2.56	2.70	-0.14	0.322
	613	2.05	2.48	-0.43	0.236
	614	2.38	2.34	0.04	0.204
	615	2.54	2.33	0.21	0.211
	616	2.45	2.26	0.19	0.188
	617	2.60	2.57	0.02	0.241
	618	2.59	2.39	0.20	0.266
	619	2.22	2.39	-0.17	0.209
	620	2.46	2.54	-0.08	0.285
	621	2.55	2.44	0.11	0.248
	622	2.25	2.47	-0.23	0.155
	623	2.16	2.61	-0.45	0.238
	624	2.61	2.70	-0.09	0.253

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	625	2.34	2.39	-0.05	0.245
	626	2.30	2.52	-0.22	0.232
	627	2.24	2.12	0.12	0.204
	628	2.27	2.17	0.10	0.179
	629	2.22	2.29	-0.07	0.195
	630	2.32	2.51	-0.18	0.251
	631	2.48	2.36	0.11	0.266
	632	2.49	2.62	-0.13	0.278
	633	2.53	2.44	0.09	0.204
	634	2.47	2.60	-0.14	0.309
	635	2.33	2.55	-0.23	0.236
	636	2.34	2.29	0.05	0.270
	637	2.27	2.34	-0.06	0.230
	638	2.17	2.46	-0.29	0.267
	639	2.55	2.42	0.12	0.335
	640	2.22	2.24	-0.02	0.233
	641	2.44	2.51	-0.06	0.282
	642	2.27	2.32	-0.05	0.156
	643	2.38	2.52	-0.14	0.303
	644	2.96	2.71	0.25	0.299
	645	2.83	2.36	0.47	0.254
	646	2.59	2.57	0.02	0.241
	647	2.40	2.52	-0.11	0.246
	648	2.10	2.36	-0.26	0.217

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	649	2.21	2.63	-0.43	0.238
	650	2.58	2.65	-0.07	0.256
	651	2.38	2.43	-0.05	0.235
	652	2.23	2.37	-0.14	0.221
	653	2.52	2.48	0.03	0.263
	654	2.22	2.51	-0.30	0.155
	655	2.46	2.60	-0.14	0.268
	656	2.30	2.27	0.03	0.211
	657	2.41	2.46	-0.04	0.216
	658	1.95	2.27	-0.33	0.238
	659	2.46	2.35	0.11	0.213
	660	2.39	2.53	-0.14	0.323
	661	2.17	2.56	-0.39	0.199
	662	2.51	2.54	-0.03	0.237
	663	2.13	2.43	-0.30	0.138
	664	2.11	2.51	-0.39	0.216
	665	2.11	2.42	-0.31	0.201
	666	2.11	2.50	-0.39	0.241
	667	2.60	2.55	0.05	0.294
	668	2.33	2.72	-0.40	0.270
	669	2.31	2.53	-0.22	0.181
	670	2.05	2.44	-0.38	0.197
	671	2.16	2.26	-0.10	0.215
	672	2.32	2.40	-0.08	0.216

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	673	2.58	2.56	0.03	0.315
	674	2.58	2.58	-0.00	0.301
	675	2.37	2.60	-0.24	0.246
	676	2.27	2.62	-0.35	0.279
	677	2.00	2.49	-0.49	0.189
	678	2.14	2.50	-0.36	0.265
	679	2.45	2.75	-0.30	0.248
	680	2.38	2.51	-0.12	0.220
	681	2.80	2.28	0.52	0.264
	682	2.54	2.71	-0.16	0.301
	683	2.32	2.57	-0.25	0.274
	684	2.18	2.70	-0.52	0.272
	685	2.62	2.35	0.27	0.183
	686	2.52	2.36	0.17	0.181
	687	2.63	2.39	0.24	0.315
	688	2.17	2.55	-0.39	0.236
	689	2.41	2.94	-0.53	0.280
	690	2.19	2.36	-0.17	0.165
	691	2.31	2.35	-0.04	0.165
	692	2.25	2.38	-0.13	0.251
	693	1.88	2.54	-0.66	0.247
	694	2.37	2.34	0.02	0.251
	695	2.40	2.57	-0.17	0.258
	696	2.56	2.43	0.12	0.204

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	697	2.14	2.29	-0.15	0.199
	698	2.03	2.38	-0.35	0.204
	699	2.55	2.36	0.20	0.265
	700	2.02	2.56	-0.54	0.234
	701	2.24	2.58	-0.34	0.186
	702	2.47	2.55	-0.09	0.260
	703	2.64	2.56	0.08	0.200
	704	2.46	2.60	-0.14	0.219
	705	2.60	2.50	0.10	0.318
	706	2.16	2.30	-0.14	0.233
	707	2.37	2.52	-0.15	0.217
	708	2.17	2.26	-0.09	0.237
	709	2.39	2.43	-0.03	0.254
	710	2.36	2.66	-0.31	0.282
	711	2.54	2.63	-0.08	0.195
	712	2.59	2.49	0.11	0.204
	713	2.60	2.58	0.03	0.284
	714	2.42	2.24	0.18	0.167
	715	2.44	2.47	-0.02	0.252
	716	2.13	2.29	-0.17	0.176
	717	2.51	2.47	0.04	0.225
	718	2.56	2.50	0.06	0.264
	719	2.11	2.29	-0.18	0.181
	720	2.29	2.50	-0.20	0.222

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	721	2.28	2.41	-0.13	0.169
	722	2.39	2.64	-0.25	0.209
	723	2.51	2.45	0.06	0.278
	724	2.28	2.18	0.11	0.237
	725	2.29	2.43	-0.14	0.240
	726	2.61	2.50	0.10	0.293
	727	2.19	2.54	-0.35	0.224
	728	2.41	2.34	0.07	0.199
	729	2.53	2.54	-0.01	0.252
	730	2.50	2.48	0.02	0.269
	731	2.51	2.45	0.06	0.295
	732	2.52	2.39	0.13	0.317
	733	2.62	2.62	-0.01	0.178
	734	2.29	2.60	-0.32	0.189
	735	2.31	2.42	-0.11	0.162
	736	2.30	2.63	-0.33	0.263
	737	2.16	2.42	-0.26	0.269
	738	2.12	2.39	-0.27	0.186
	739	2.64	2.27	0.37	0.276
	740	2.25	2.37	-0.12	0.228
	741	2.11	2.57	-0.46	0.217
	742	2.51	2.19	0.32	0.231
	743	2.60	2.63	-0.03	0.315
	744	2.54	2.46	0.07	0.225

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	745	2.52	2.37	0.16	0.273
	746	2.15	2.17	-0.02	0.201
	747	2.53	2.58	-0.05	0.322
	748	2.67	2.69	-0.03	0.310
	749	2.41	2.37	0.04	0.273
	750	2.93	2.60	0.33	0.334
	751	2.29	2.40	-0.10	0.226
	752	2.44	2.56	-0.11	0.236
	753	2.27	2.61	-0.34	0.296
	754	2.79	2.45	0.34	0.302
	755	2.33	2.69	-0.36	0.299
	756	2.70	2.39	0.31	0.292
	757	2.35	2.47	-0.12	0.236
	758	2.30	2.59	-0.29	0.255
	759	2.47	2.67	-0.20	0.255
	760	2.15	2.55	-0.40	0.285
	761	2.11	2.61	-0.50	0.227
	762	2.68	2.43	0.26	0.294
	763	2.30	2.45	-0.15	0.215
	764	2.50	2.46	0.03	0.184
	765	2.33	2.60	-0.26	0.284
	766	2.64	2.27	0.38	0.245
	767	2.28	2.68	-0.39	0.262
	768	2.63	2.42	0.21	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	769	2.11	2.42	-0.31	0.208
	770	2.09	2.34	-0.26	0.212
	771	2.46	2.62	-0.16	0.254
	772	2.64	2.48	0.15	0.225
	773	2.21	2.58	-0.37	0.244
	774	2.30	2.42	-0.13	0.261
	775	2.47	2.65	-0.18	0.236
	776	2.38	2.42	-0.05	0.291
	777	2.18	2.56	-0.39	0.258
	778	2.05	2.42	-0.38	0.207
	779	2.62	2.38	0.24	0.250
	780	2.60	2.88	-0.27	0.261
	781	2.26	2.10	0.15	0.169
	782	2.16	2.54	-0.38	0.282
	783	2.23	2.55	-0.32	0.247
	784	2.53	2.25	0.28	0.259
	785	2.36	2.65	-0.29	0.247
	786	2.32	2.44	-0.12	0.145
	787	2.15	2.60	-0.45	0.264
	788	2.49	2.40	0.08	0.208
	789	2.15	2.48	-0.33	0.115
	790	2.43	2.41	0.03	0.213
	791	2.36	2.37	-0.01	0.163
	792	2.50	2.56	-0.06	0.250

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	793	2.52	2.32	0.20	0.221
	794	2.36	2.47	-0.11	0.234
	795	2.59	2.83	-0.25	0.261
	796	2.32	2.38	-0.06	0.264
	797	1.92	2.47	-0.55	0.182
	798	2.18	2.15	0.02	0.138
	799	2.37	2.43	-0.06	0.165
	800	2.40	2.43	-0.03	0.264
	801	2.72	2.55	0.17	0.291
	802	2.24	2.71	-0.47	0.297
	803	2.84	2.51	0.33	0.275
	804	2.53	2.45	0.08	0.206
	805	2.18	2.44	-0.27	0.283
	806	2.31	2.61	-0.30	0.276
	807	2.47	2.44	0.03	0.290
	808	2.47	2.76	-0.29	0.242
	809	2.28	2.48	-0.21	0.218
	810	2.51	2.61	-0.10	0.267
	811	2.81	2.58	0.23	0.243
	812	2.44	2.42	0.02	0.195
	813	2.33	2.47	-0.14	0.146
	814	2.66	2.52	0.14	0.317
	815	2.50	2.54	-0.04	0.255
	816	2.08	2.58	-0.49	0.231

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	817	2.44	2.33	0.11	0.218
	818	2.41	2.73	-0.32	0.239
	819	2.37	2.72	-0.35	0.290
	820	2.16	2.56	-0.40	0.225
	821	2.37	2.50	-0.13	0.242
	822	2.03	2.41	-0.37	0.171
	823	2.23	2.51	-0.28	0.206
	824	2.28	2.24	0.04	0.207
	825	2.72	2.58	0.15	0.263
	826	2.14	2.67	-0.53	0.229
	827	2.41	2.83	-0.42	0.303
	828	2.30	2.41	-0.11	0.185
	829	2.42	2.56	-0.14	0.246
	830	2.33	2.51	-0.18	0.249
	831	2.03	2.80	-0.77	0.251
	832	2.15	2.75	-0.60	0.265
	833	2.03	2.48	-0.45	0.239
	834	2.37	2.42	-0.05	0.246
	835	2.41	2.60	-0.18	0.264
	836	2.39	2.35	0.04	0.240
	837	2.44	2.38	0.06	0.235
	838	2.96	2.47	0.49	0.217
	839	2.25	2.42	-0.17	0.155
	840	2.25	2.45	-0.20	0.231

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	841	2.16	2.52	-0.36	0.277
	842	2.30	2.45	-0.15	0.143
	843	2.59	2.53	0.06	0.272
	844	2.30	2.75	-0.45	0.306
	845	2.10	2.53	-0.43	0.179
	846	2.47	2.55	-0.07	0.209
	847	2.28	2.82	-0.54	0.280
	848	2.37	2.49	-0.12	0.195
	849	2.23	2.10	0.13	0.178
	850	2.38	2.46	-0.08	0.247
	851	2.19	2.31	-0.11	0.226
	852	2.52	2.49	0.03	0.262
	853	2.34	2.21	0.13	0.158
	854	2.11	2.46	-0.35	0.196
	855	2.25	2.31	-0.06	0.228
	856	2.54	2.61	-0.07	0.290
	857	2.77	2.63	0.14	0.324
	858	2.29	2.56	-0.28	0.279
	859	2.46	2.60	-0.14	0.259
	860	2.38	2.61	-0.23	0.191
	861	2.40	2.69	-0.29	0.270
	862	2.03	2.10	-0.07	0.191
	863	2.10	2.72	-0.62	0.284
	864	2.60	2.56	0.04	0.224

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	865	2.23	2.48	-0.25	0.186
	866	2.35	2.41	-0.06	0.256
	867	2.06	2.38	-0.33	0.196
	868	2.42	2.48	-0.06	0.261
	869	2.32	2.39	-0.07	0.167
	870	2.33	2.33	0.00	0.211
	871	2.48	2.32	0.17	0.225
	872	2.62	2.51	0.12	0.268
	873	2.28	2.59	-0.31	0.267
	874	2.44	2.77	-0.33	0.291
	875	2.28	2.49	-0.20	0.260
	876	2.66	2.71	-0.05	0.304
	877	2.32	2.40	-0.08	0.217
	878	2.40	2.38	0.02	0.207
	879	2.46	2.21	0.25	0.197
	880	2.41	2.33	0.09	0.221
	881	2.64	2.60	0.03	0.323
	882	2.46	2.86	-0.40	0.308
	883	2.37	2.28	0.09	0.260
	884	2.34	2.27	0.07	0.204
	885	2.60	2.79	-0.19	0.242
	886	2.34	2.58	-0.23	0.271
	887	2.58	2.53	0.06	0.287
	888	2.08	2.77	-0.69	0.261

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	889	2.42	2.53	-0.11	0.189
	890	2.61	2.49	0.12	0.254
	891	2.21	2.38	-0.18	0.187
	892	2.47	2.39	0.08	0.298
	893	2.17	2.57	-0.40	0.232
	894	2.31	2.53	-0.22	0.203
	895	2.27	2.40	-0.12	0.187
	896	2.23	2.59	-0.36	0.249
	897	2.51	2.54	-0.03	0.293
	898	2.55	2.51	0.03	0.230
	899	2.63	2.50	0.13	0.255
	900	2.13	2.08	0.05	0.148
	901	2.00	2.35	-0.36	0.261
	902	2.36	2.62	-0.26	0.204
	903	2.63	2.29	0.34	0.227
	904	2.32	2.47	-0.15	0.247
	905	2.16	2.46	-0.29	0.270
	906	2.31	2.42	-0.12	0.245
	907	2.21	2.45	-0.24	0.228
	908	2.57	2.67	-0.10	0.176
	909	2.55	2.33	0.22	0.222
	910	2.03	2.66	-0.63	0.260
	911	2.36	2.30	0.05	0.207
	912	2.40	2.44	-0.04	0.212

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	913	2.17	2.38	-0.22	0.172
	914	2.66	2.26	0.40	0.221
	915	2.16	2.35	-0.19	0.243
	916	2.32	2.24	0.08	0.249
	917	2.42	2.75	-0.33	0.192
	918	2.43	2.45	-0.02	0.215
	919	2.37	2.56	-0.19	0.301
	920	2.37	2.52	-0.15	0.263
	921	2.51	2.32	0.19	0.217
	922	2.25	2.42	-0.16	0.282
	923	2.20	2.43	-0.23	0.202
	924	2.56	2.61	-0.05	0.270
	925	2.43	2.45	-0.02	0.256
	926	2.10	2.53	-0.42	0.272
	927	2.36	2.42	-0.06	0.229
	928	2.18	2.13	0.05	0.147
	929	2.69	2.68	0.00	0.242
	930	2.13	2.46	-0.33	0.222
	931	2.53	2.38	0.15	0.252
	932	2.15	2.47	-0.32	0.205
	933	2.54	2.28	0.26	0.215
	934	2.46	2.20	0.27	0.227
	935	2.29	2.33	-0.04	0.227
	936	2.18	2.23	-0.06	0.190

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	937	2.50	2.40	0.10	0.288
	938	2.44	2.50	-0.06	0.160
	939	2.21	2.50	-0.28	0.245
	940	1.98	2.10	-0.12	0.199
	941	2.52	2.35	0.17	0.214
	942	2.60	2.53	0.07	0.256
	943	2.58	2.68	-0.10	0.216
	944	2.29	2.40	-0.11	0.245
	945	2.39	2.36	0.03	0.231
	946	2.22	2.31	-0.09	0.178
	947	2.40	2.32	0.08	0.259
	948	2.59	2.48	0.11	0.256
	949	2.66	2.44	0.21	0.276
	950	2.42	2.62	-0.20	0.237
	951	2.51	2.46	0.05	0.241
	952	2.32	2.09	0.23	0.158
	953	2.57	2.63	-0.06	0.213
	954	2.44	2.55	-0.10	0.270
	955	2.21	2.42	-0.22	0.263
	956	2.53	2.56	-0.02	0.276
	957	2.39	2.44	-0.05	0.182
	958	2.56	2.47	0.09	0.237
	959	2.31	2.74	-0.42	0.227
	960	2.11	2.51	-0.39	0.230

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	961	2.24	2.16	0.07	0.191
	962	2.38	2.24	0.14	0.217
	963	2.38	2.47	-0.09	0.248
	964	2.44	2.58	-0.14	0.285
	965	2.24	2.50	-0.25	0.247
	966	2.34	2.45	-0.10	0.253
	967	2.64	2.06	0.58	0.243
	968	2.37	2.33	0.04	0.232
	969	1.99	2.30	-0.31	0.176
	970	2.33	2.37	-0.04	0.230
	971	2.19	2.14	0.05	0.227
	972	2.58	2.64	-0.06	0.346
	973	2.33	2.55	-0.22	0.287
	974	2.77	2.22	0.55	0.260
	975	2.29	2.36	-0.07	0.244
	976	2.48	2.40	0.08	0.276
	977	2.45	2.32	0.13	0.214
	978	2.58	2.62	-0.04	0.310
	979	2.78	2.44	0.35	0.243
	980	2.11	2.28	-0.17	0.218
	981	2.16	2.30	-0.14	0.202
	982	2.58	2.29	0.30	0.282
	983	2.63	2.54	0.09	0.242
	984	2.25	2.19	0.07	0.242

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	985	2.46	2.55	-0.09	0.255
	986	2.12	2.38	-0.26	0.259
	987	2.19	2.27	-0.08	0.207
	988	2.61	2.63	-0.03	0.223
	989	2.12	2.35	-0.23	0.194
	990	2.06	2.33	-0.27	0.175
	991	2.31	2.57	-0.26	0.178
	992	2.22	2.53	-0.31	0.209
	993	2.22	2.54	-0.32	0.144
	994	2.39	2.54	-0.15	0.275
	995	2.42	2.50	-0.08	0.215
	996	1.84	2.77	-0.92	0.281
	997	2.15	2.35	-0.20	0.153
	998	2.78	2.33	0.45	0.287
	999	2.33	2.49	-0.16	0.179
	1000	2.19	2.55	-0.37	0.120
	1001	2.46	2.59	-0.12	0.267
	1002	2.35	2.27	0.09	0.235
	1003	2.36	2.57	-0.22	0.264
	1004	2.33	2.71	-0.38	0.236
	1005	2.39	2.40	-0.02	0.232
	1006	2.40	2.21	0.18	0.215
	1007	2.15	2.15	-0.00	0.172
	1008	2.40	2.78	-0.39	0.306

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1009	2.44	2.43	0.01	0.188
	1010	2.57	2.51	0.06	0.163
	1011	2.50	2.74	-0.24	0.314
	1012	2.07	2.30	-0.23	0.223
	1013	2.27	2.46	-0.20	0.210
	1014	2.62	2.36	0.26	0.251
	1015	2.29	2.58	-0.29	0.229
	1016	2.23	2.56	-0.33	0.261
	1017	2.33	2.56	-0.22	0.211
	1018	2.68	2.44	0.24	0.226
	1019	2.45	2.26	0.19	0.205
	1020	2.36	2.39	-0.04	0.232
	1021	2.07	2.29	-0.22	0.172
	1022	2.43	2.32	0.11	0.213
	1023	2.45	2.49	-0.04	0.237
	1024	2.23	2.63	-0.40	0.200
	1025	2.21	2.53	-0.31	0.239
	1026	2.27	2.48	-0.21	0.193
	1027	2.37	2.57	-0.20	0.204
	1028	2.17	2.36	-0.20	0.204
	1029	2.43	2.57	-0.13	0.215
	1030	2.51	2.64	-0.14	0.259
	1031	1.90	2.15	-0.25	0.178
	1032	2.49	2.61	-0.12	0.304

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1033	2.41	2.93	-0.53	0.244
	1034	2.48	2.35	0.14	0.301
	1035	2.47	2.44	0.03	0.177
	1036	2.46	2.52	-0.07	0.190
	1037	2.57	2.66	-0.09	0.244
	1038	2.65	2.51	0.13	0.269
	1039	2.34	2.00	0.33	0.216
	1040	2.30	2.68	-0.37	0.269
	1041	2.35	2.40	-0.06	0.235
	1042	2.37	2.44	-0.08	0.200
	1043	2.42	2.52	-0.10	0.214
	1044	2.37	2.29	0.08	0.226
	1045	2.21	2.30	-0.08	0.202
	1046	2.17	2.64	-0.48	0.245
	1047	2.47	2.33	0.13	0.213
	1048	2.11	2.30	-0.19	0.226
	1049	2.27	2.42	-0.15	0.278
	1050	2.49	2.60	-0.11	0.202
	1051	2.54	2.25	0.29	0.266
	1052	2.69	2.49	0.20	0.222
	1053	2.50	2.59	-0.09	0.176
	1054	2.22	2.67	-0.45	0.192
	1055	2.44	2.26	0.18	0.249
	1056	2.46	2.38	0.09	0.271

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1057	2.34	2.34	-0.00	0.257
	1058	2.38	2.44	-0.06	0.276
	1059	2.05	2.39	-0.34	0.240
	1060	2.34	2.18	0.17	0.228
	1061	2.02	2.55	-0.54	0.252
	1062	2.26	2.55	-0.29	0.189
	1063	2.34	2.49	-0.15	0.244
	1064	2.66	2.75	-0.09	0.326
	1065	2.05	2.32	-0.26	0.235
	1066	2.26	2.38	-0.12	0.175
	1067	2.29	2.39	-0.10	0.172
	1068	2.20	2.66	-0.46	0.293
	1069	2.28	2.61	-0.33	0.305
	1070	2.21	2.37	-0.16	0.223
	1071	2.30	2.33	-0.04	0.238
	1072	2.60	2.66	-0.06	0.227
	1073	2.63	2.31	0.32	0.219
	1074	2.54	2.41	0.13	0.222
	1075	2.13	2.68	-0.55	0.186
	1076	2.50	3.05	-0.56	0.347
	1077	2.01	2.54	-0.52	0.253
	1078	2.32	2.42	-0.10	0.205
	1079	2.33	2.56	-0.23	0.167
	1080	2.28	2.75	-0.47	0.251

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1081	2.46	2.78	-0.32	0.336
	1082	2.97	2.43	0.54	0.303
	1083	2.48	2.61	-0.13	0.265
	1084	2.20	2.29	-0.09	0.206
	1085	2.32	2.60	-0.28	0.257
	1086	2.49	2.56	-0.06	0.179
	1087	2.63	2.37	0.26	0.211
	1088	2.70	2.76	-0.06	0.266
	1089	2.43	2.73	-0.30	0.295
	1090	2.12	2.58	-0.46	0.226
	1091	2.74	2.56	0.17	0.342
	1092	2.34	2.62	-0.28	0.292
	1093	2.23	2.37	-0.14	0.220
	1094	2.61	2.47	0.14	0.264
	1095	2.53	2.15	0.38	0.203
	1096	2.31	2.54	-0.24	0.193
	1097	2.32	2.41	-0.10	0.238
	1098	2.57	2.16	0.42	0.236
	1099	2.09	2.62	-0.53	0.178
	1100	2.76	2.59	0.18	0.325
	1101	2.38	2.47	-0.09	0.200
	1102	2.09	2.59	-0.50	0.241
	1103	2.62	2.30	0.32	0.221
	1104	2.27	2.38	-0.12	0.180

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1105	2.24	2.45	-0.21	0.237
	1106	2.24	2.41	-0.16	0.198
	1107	2.29	2.47	-0.18	0.240
	1108	2.64	2.24	0.41	0.215
	1109	2.31	2.05	0.25	0.205
	1110	2.32	2.63	-0.32	0.256
	1111	2.64	2.57	0.07	0.211
	1112	2.43	2.82	-0.39	0.284
	1113	2.50	2.41	0.09	0.230
	1114	1.95	2.48	-0.53	0.254
	1115	2.41	2.52	-0.11	0.259
	1116	2.23	2.47	-0.25	0.210
	1117	2.10	2.60	-0.50	0.260
	1118	2.52	2.66	-0.15	0.309
	1119	2.33	2.38	-0.05	0.223
	1120	2.40	2.29	0.11	0.170
	1121	2.38	2.23	0.14	0.224
	1122	2.27	2.42	-0.16	0.231
	1123	2.27	2.55	-0.28	0.222
	1124	2.69	2.49	0.20	0.219
	1125	2.12	2.47	-0.35	0.262
	1126	2.21	2.24	-0.02	0.170
	1127	2.15	2.53	-0.38	0.203
	1128	2.32	2.43	-0.10	0.237

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1129	2.27	2.60	-0.33	0.202
	1130	2.14	2.34	-0.20	0.304
	1131	2.42	2.31	0.11	0.250
	1132	2.64	2.46	0.19	0.307
	1133	2.21	2.27	-0.06	0.185
	1134	2.35	2.50	-0.15	0.265
	1135	2.64	2.27	0.37	0.219
	1136	2.46	2.61	-0.15	0.185
	1137	2.28	2.39	-0.11	0.223
	1138	2.64	2.62	0.02	0.287
	1139	2.50	2.40	0.10	0.218
	1140	2.11	2.61	-0.50	0.266
	1141	2.61	2.46	0.16	0.218
	1142	2.06	2.61	-0.55	0.229
	1143	2.23	2.36	-0.13	0.199
	1144	2.15	2.51	-0.36	0.208
	1145	2.49	2.46	0.03	0.247
	1146	2.24	2.38	-0.14	0.173
	1147	2.23	2.71	-0.49	0.257
	1148	2.36	2.57	-0.21	0.276
	1149	2.12	2.21	-0.09	0.176
	1150	2.24	2.55	-0.31	0.252
	1151	2.35	2.64	-0.29	0.204
	1152	2.43	2.57	-0.14	0.248

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1153	2.35	2.44	-0.09	0.183
	1154	2.22	2.60	-0.37	0.287
	1155	2.29	2.53	-0.25	0.173
	1156	2.53	2.39	0.15	0.253
	1157	2.33	2.57	-0.24	0.189
	1158	2.57	2.31	0.26	0.183
	1159	2.02	2.29	-0.26	0.205
	1160	2.51	2.56	-0.06	0.229
	1161	2.26	2.42	-0.15	0.179
	1162	2.58	2.18	0.41	0.218
	1163	2.17	2.40	-0.23	0.244
	1164	2.26	2.55	-0.29	0.289
	1165	2.01	2.30	-0.29	0.167
	1166	2.19	2.16	0.03	0.191
	1167	2.42	2.59	-0.17	0.263
	1168	2.50	2.47	0.04	0.220
	1169	2.24	2.56	-0.33	0.271
	1170	2.84	2.66	0.18	0.294
	1171	2.46	2.16	0.30	0.240
	1172	2.26	2.40	-0.14	0.188
	1173	2.26	2.41	-0.15	0.257
	1174	2.55	2.13	0.42	0.198
	1175	2.11	2.59	-0.48	0.203
	1176	2.56	2.24	0.32	0.199

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1177	2.55	2.48	0.07	0.270
	1178	2.47	2.41	0.06	0.239
	1179	2.40	2.59	-0.19	0.265
	1180	2.51	2.44	0.07	0.246
	1181	2.38	2.44	-0.06	0.238
	1182	2.25	2.29	-0.04	0.238
	1183	2.60	2.25	0.35	0.265
	1184	2.22	2.27	-0.06	0.233
	1185	2.23	2.70	-0.48	0.242
	1186	2.18	2.34	-0.16	0.272
	1187	2.27	2.38	-0.12	0.220
	1188	2.79	2.60	0.19	0.294
	1189	2.28	2.53	-0.25	0.308
	1190	2.49	2.43	0.06	0.289
	1191	2.35	2.63	-0.28	0.274
	1192	2.17	2.15	0.01	0.119
	1193	2.56	2.45	0.11	0.232
	1194	2.54	2.67	-0.13	0.239
	1195	2.20	2.58	-0.38	0.202
	1196	2.48	2.27	0.21	0.173
	1197	2.78	2.82	-0.05	0.284
	1198	2.49	2.57	-0.07	0.288
	1199	2.26	2.63	-0.37	0.328
	1200	2.33	2.22	0.11	0.194

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1201	2.38	2.42	-0.04	0.201
	1202	2.24	2.30	-0.06	0.229
	1203	2.33	2.60	-0.28	0.276
	1204	2.01	2.23	-0.23	0.152
	1205	2.38	2.53	-0.16	0.205
	1206	2.27	2.65	-0.38	0.260
	1207	2.52	2.79	-0.27	0.336
	1208	2.41	2.60	-0.19	0.185
	1209	2.45	2.47	-0.02	0.216
	1210	2.65	2.30	0.35	0.248
	1211	2.49	2.54	-0.05	0.272
	1212	2.11	2.51	-0.40	0.190
	1213	2.86	2.29	0.58	0.330
	1214	2.37	2.20	0.17	0.221
	1215	2.33	2.52	-0.18	0.304
	1216	2.38	2.35	0.04	0.213
	1217	2.24	2.26	-0.02	0.230
	1218	2.40	2.51	-0.11	0.277
	1219	2.55	2.32	0.23	0.255
	1220	2.17	2.38	-0.21	0.232
	1221	2.31	2.44	-0.13	0.243
	1222	2.82	2.30	0.52	0.257
	1223	2.55	2.46	0.08	0.253
	1224	2.07	2.52	-0.45	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1225	2.30	2.77	-0.47	0.288
	1226	2.27	2.62	-0.35	0.212
	1227	2.29	2.65	-0.36	0.215
	1228	2.24	2.44	-0.20	0.158
	1229	2.29	2.45	-0.16	0.254
	1230	2.09	2.36	-0.27	0.224
	1231	2.14	2.50	-0.36	0.221
	1232	2.53	2.63	-0.10	0.283
	1233	2.55	2.28	0.27	0.188
	1234	2.19	2.42	-0.22	0.190
	1235	2.26	2.40	-0.14	0.209
	1236	2.05	2.39	-0.33	0.223
	1237	2.34	2.64	-0.31	0.239
	1238	2.28	2.56	-0.28	0.213
	1239	2.22	2.20	0.02	0.141
	1240	2.46	2.54	-0.08	0.266
	1241	2.34	2.50	-0.16	0.275
	1242	2.30	2.15	0.15	0.214
	1243	2.22	2.16	0.06	0.181
	1244	2.42	2.68	-0.25	0.252
	1245	2.38	2.41	-0.03	0.192
	1246	2.36	2.41	-0.05	0.208
	1247	2.15	2.34	-0.19	0.161
	1248	2.48	2.71	-0.23	0.254

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1249	2.53	2.32	0.21	0.235
	1250	2.30	2.54	-0.25	0.239
	1251	2.36	2.57	-0.21	0.261
	1252	2.50	2.45	0.05	0.285
	1253	2.57	2.49	0.09	0.262
	1254	2.59	2.23	0.36	0.249
	1255	2.38	2.44	-0.06	0.265
	1256	2.46	2.41	0.05	0.169
	1257	2.13	2.64	-0.51	0.237
	1258	2.23	2.35	-0.12	0.252
	1259	2.15	2.78	-0.63	0.212
	1260	2.78	2.42	0.35	0.314
	1261	2.39	2.58	-0.19	0.270
	1262	1.91	2.29	-0.38	0.181
	1263	2.25	2.62	-0.37	0.238
	1264	2.34	2.24	0.10	0.189
	1265	2.28	2.36	-0.08	0.183
	1266	2.65	2.41	0.24	0.272
	1267	2.65	2.44	0.21	0.262
	1268	2.29	2.57	-0.29	0.267
	1269	2.41	2.36	0.05	0.244
	1270	2.14	2.33	-0.20	0.229
	1271	2.66	2.56	0.10	0.164
	1272	2.54	2.23	0.31	0.223

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1273	2.41	2.30	0.11	0.200
	1274	2.41	2.30	0.11	0.203
	1275	2.24	2.31	-0.08	0.167
	1276	2.40	2.48	-0.08	0.213
	1277	2.63	2.45	0.18	0.261
	1278	2.50	2.30	0.21	0.237
	1279	2.31	2.55	-0.24	0.253
	1280	2.51	2.47	0.04	0.300
	1281	2.30	2.30	0.00	0.194
	1282	2.25	2.35	-0.10	0.226
	1283	2.26	2.27	-0.01	0.184
	1284	2.16	2.38	-0.22	0.188
	1285	2.51	2.51	0.00	0.247
	1286	2.39	2.62	-0.22	0.196
	1287	2.48	2.54	-0.06	0.256
	1288	2.29	2.63	-0.33	0.243
	1289	2.61	2.52	0.09	0.188
	1290	2.31	2.53	-0.22	0.244
	1291	2.20	2.39	-0.19	0.182
	1292	2.46	2.56	-0.10	0.219
	1293	2.26	2.37	-0.11	0.231
	1294	2.10	2.54	-0.44	0.192
	1295	2.34	2.18	0.17	0.245
	1296	2.14	2.38	-0.23	0.167

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1297	2.23	2.48	-0.25	0.260
	1298	2.11	2.50	-0.40	0.290
	1299	2.58	2.69	-0.11	0.265
	1300	2.29	2.30	-0.01	0.251
	1301	2.41	2.59	-0.18	0.201
	1302	2.33	2.40	-0.06	0.203
	1303	2.26	2.47	-0.21	0.194
	1304	2.48	2.58	-0.10	0.230
	1305	2.53	2.58	-0.05	0.238
	1306	2.66	2.35	0.31	0.302
	1307	2.65	2.64	0.02	0.260
	1308	2.39	2.58	-0.19	0.239
	1309	2.39	2.53	-0.14	0.179
	1310	2.11	2.38	-0.27	0.216
	1311	2.17	2.41	-0.24	0.167
	1312	2.34	2.35	-0.01	0.188
	1313	2.43	2.57	-0.14	0.178
	1314	2.46	2.21	0.26	0.198
	1315	2.61	2.57	0.04	0.273
	1316	2.44	2.36	0.08	0.157
	1317	2.25	2.55	-0.30	0.294
	1318	2.38	2.64	-0.26	0.216
	1319	2.19	2.20	-0.01	0.217
	1320	2.27	2.72	-0.44	0.281

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1321	2.34	2.20	0.14	0.214
	1322	2.35	2.54	-0.18	0.220
	1323	2.50	2.55	-0.05	0.272
	1324	2.65	2.54	0.11	0.329
	1325	2.27	2.38	-0.11	0.232
	1326	2.29	2.54	-0.26	0.248
	1327	2.20	2.56	-0.36	0.240
	1328	2.54	2.40	0.14	0.246
	1329	2.45	2.56	-0.10	0.224
	1330	2.48	2.52	-0.04	0.276
	1331	2.18	2.98	-0.79	0.279
	1332	2.35	2.52	-0.17	0.233
	1333	2.52	2.30	0.22	0.269
	1334	2.37	2.32	0.05	0.184
	1335	2.37	2.28	0.10	0.171
	1336	2.18	2.37	-0.19	0.218
	1337	2.27	2.56	-0.30	0.231
	1338	2.10	2.21	-0.11	0.183
	1339	2.51	2.65	-0.15	0.241
	1340	2.43	2.78	-0.35	0.235
	1341	2.52	2.10	0.42	0.185
	1342	2.30	2.58	-0.28	0.233
	1343	2.67	2.67	0.01	0.289
	1344	2.25	2.47	-0.21	0.296

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1345	2.39	2.45	-0.07	0.163
	1346	2.57	2.55	0.02	0.270
	1347	2.29	2.70	-0.41	0.244
	1348	2.58	2.16	0.42	0.220
	1349	2.18	2.36	-0.18	0.183
	1350	2.27	2.41	-0.15	0.251
	1351	2.54	2.25	0.28	0.296
	1352	2.35	2.09	0.26	0.219
	1353	2.40	2.52	-0.12	0.225
	1354	2.34	2.38	-0.04	0.254
	1355	2.81	2.49	0.32	0.286
	1356	2.21	2.50	-0.28	0.235
	1357	2.52	2.42	0.11	0.220
	1358	2.15	2.55	-0.40	0.246
	1359	2.13	2.27	-0.13	0.178
	1360	2.19	2.14	0.06	0.123
	1361	2.23	2.57	-0.34	0.276
	1362	2.54	2.27	0.26	0.257
	1363	1.93	2.39	-0.45	0.246
	1364	2.12	2.70	-0.58	0.191
	1365	2.22	2.25	-0.03	0.185
	1366	2.40	2.64	-0.25	0.254
	1367	2.39	2.59	-0.20	0.240
	1368	2.59	2.50	0.09	0.277

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1369	2.44	2.56	-0.12	0.241
	1370	2.26	2.28	-0.02	0.240
	1371	2.27	2.53	-0.26	0.179
	1372	2.26	2.68	-0.42	0.227
	1373	2.43	2.38	0.04	0.256
	1374	2.40	2.32	0.08	0.200
	1375	2.28	2.29	-0.00	0.260
	1376	2.50	2.43	0.08	0.224
	1377	2.24	2.35	-0.11	0.170
	1378	2.34	2.52	-0.18	0.228
	1379	2.47	2.57	-0.10	0.330
	1380	2.17	2.81	-0.64	0.217
	1381	2.31	2.38	-0.07	0.245
	1382	1.92	2.26	-0.33	0.119
	1383	2.50	2.50	0.01	0.238
	1384	2.24	2.27	-0.03	0.151
	1385	2.47	2.50	-0.03	0.182
	1386	2.45	2.36	0.09	0.305
	1387	1.99	2.75	-0.76	0.246
	1388	2.52	2.62	-0.10	0.260
	1389	2.08	2.37	-0.29	0.142
	1390	2.16	2.62	-0.46	0.249
	1391	2.62	2.68	-0.05	0.239
	1392	2.09	2.38	-0.29	0.223

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1393	2.16	2.41	-0.24	0.226
	1394	2.47	2.52	-0.05	0.224
	1395	2.23	2.33	-0.10	0.154
	1396	2.49	2.40	0.09	0.241
	1397	2.56	2.27	0.29	0.200
	1398	2.64	2.36	0.29	0.248
	1399	2.20	2.62	-0.42	0.173
	1400	2.15	2.62	-0.47	0.236
	1401	2.54	2.38	0.16	0.258
	1402	2.37	2.47	-0.10	0.221
	1403	2.35	2.38	-0.03	0.241
	1404	2.46	2.52	-0.05	0.214
	1405	2.66	2.36	0.30	0.247
	1406	2.11	2.35	-0.24	0.205
	1407	2.43	2.28	0.15	0.226
	1408	2.38	2.39	-0.02	0.255
	1409	2.29	2.62	-0.33	0.219
	1410	2.41	2.50	-0.09	0.267
	1411	2.79	2.37	0.42	0.308
	1412	2.44	2.36	0.08	0.228
	1413	2.50	2.37	0.13	0.205
	1414	2.42	2.40	0.03	0.198
	1415	2.29	2.64	-0.35	0.274
	1416	2.21	2.32	-0.11	0.153

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1417	2.25	2.81	-0.56	0.235
	1418	2.35	2.42	-0.07	0.094
	1419	2.59	2.32	0.27	0.231
	1420	2.47	2.33	0.13	0.238
	1421	2.32	2.40	-0.08	0.286
	1422	2.78	2.46	0.32	0.196
	1423	2.91	2.37	0.54	0.301
	1424	2.41	2.61	-0.19	0.215
	1425	2.68	2.58	0.11	0.296
	1426	2.02	2.31	-0.29	0.201
	1427	2.34	2.60	-0.27	0.266
	1428	2.74	2.37	0.38	0.226
	1429	2.62	2.47	0.15	0.289
	1430	2.29	2.54	-0.25	0.260
	1431	2.62	2.44	0.18	0.247
	1432	2.37	2.82	-0.45	0.284
	1433	2.55	2.43	0.12	0.224
	1434	2.52	2.61	-0.10	0.263
	1435	2.08	2.30	-0.22	0.238
	1436	2.14	2.60	-0.46	0.232
	1437	2.08	2.21	-0.13	0.135
	1438	2.15	2.33	-0.19	0.245
	1439	2.43	2.33	0.10	0.240
	1440	2.50	2.62	-0.12	0.294

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1441	2.48	2.54	-0.06	0.248
	1442	2.52	2.58	-0.06	0.237
	1443	2.03	2.24	-0.21	0.147
	1444	2.41	2.74	-0.33	0.278
	1445	2.15	2.71	-0.56	0.267
	1446	2.34	2.50	-0.15	0.269
	1447	2.35	2.53	-0.18	0.170
	1448	2.15	2.60	-0.45	0.221
	1449	2.34	2.40	-0.06	0.164
	1450	2.61	2.48	0.13	0.284
	1451	2.38	2.35	0.03	0.279
	1452	2.30	2.58	-0.28	0.290
	1453	2.45	2.45	-0.00	0.180
	1454	2.52	2.57	-0.05	0.280
	1455	2.17	2.72	-0.55	0.320
	1456	2.16	2.37	-0.21	0.234
	1457	2.62	2.47	0.15	0.265
	1458	2.17	2.28	-0.11	0.249
	1459	2.35	2.54	-0.19	0.236
	1460	2.42	2.55	-0.13	0.270
	1461	2.51	2.61	-0.10	0.321
	1462	2.26	2.29	-0.03	0.178
	1463	2.44	2.23	0.22	0.200
	1464	2.07	2.68	-0.60	0.282

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1465	2.42	2.29	0.13	0.250
	1466	2.51	2.32	0.18	0.236
	1467	2.10	2.79	-0.69	0.290
	1468	2.18	2.21	-0.03	0.163
	1469	2.47	2.39	0.08	0.255
	1470	2.29	2.71	-0.43	0.242
	1471	2.51	2.71	-0.21	0.268
	1472	2.65	2.72	-0.07	0.287
	1473	2.58	2.44	0.15	0.250
	1474	2.53	2.59	-0.06	0.297
	1475	2.80	2.60	0.20	0.351
	1476	2.11	2.28	-0.17	0.217
	1477	2.47	2.48	-0.01	0.301
	1478	2.21	2.26	-0.05	0.180
	1479	2.67	2.29	0.38	0.300
	1480	2.24	2.06	0.18	0.179
	1481	2.39	2.54	-0.15	0.194
	1482	2.34	2.57	-0.23	0.190
	1483	2.75	2.27	0.49	0.235
	1484	2.47	2.29	0.18	0.267
	1485	2.25	2.33	-0.08	0.165
	1486	2.37	2.47	-0.10	0.269
	1487	2.62	2.68	-0.06	0.295
	1488	2.47	2.73	-0.26	0.325

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1489	2.49	2.43	0.07	0.286
	1490	2.23	2.37	-0.13	0.165
	1491	2.31	2.58	-0.27	0.215
	1492	2.69	2.77	-0.08	0.304
	1493	2.16	2.22	-0.06	0.196
	1494	2.18	2.29	-0.11	0.208
	1495	2.29	2.29	0.00	0.268
	1496	2.37	2.39	-0.02	0.224
	1497	2.33	2.48	-0.15	0.171
	1498	2.51	2.68	-0.17	0.274
	1499	2.60	2.54	0.06	0.274
	1500	2.48	2.56	-0.08	0.284
	1501	2.64	2.52	0.13	0.278
	1502	2.33	2.53	-0.20	0.292
	1503	2.38	2.41	-0.03	0.267
	1504	2.23	2.43	-0.20	0.207
	1505	2.24	2.56	-0.33	0.252
	1506	2.31	2.70	-0.39	0.272
	1507	2.22	2.70	-0.48	0.279
	1508	2.44	2.60	-0.16	0.290
	1509	2.39	2.44	-0.04	0.191
	1510	2.24	2.25	-0.01	0.234
	1511	2.36	2.89	-0.53	0.301
	1512	2.53	2.07	0.46	0.225

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1513	2.09	2.48	-0.40	0.207
	1514	2.51	2.45	0.06	0.185
	1515	2.63	2.36	0.27	0.230
	1516	2.29	2.55	-0.27	0.213
	1517	2.41	2.41	-0.00	0.217
	1518	2.51	2.59	-0.08	0.288
	1519	2.03	2.52	-0.49	0.243
	1520	2.53	2.35	0.18	0.163
	1521	2.84	2.39	0.45	0.217
	1522	2.15	2.40	-0.25	0.227
	1523	2.48	2.48	0.01	0.167
	1524	2.88	2.74	0.14	0.305
	1525	2.48	2.68	-0.20	0.228
	1526	2.29	2.53	-0.24	0.189
	1527	2.38	2.56	-0.18	0.242
	1528	2.23	2.50	-0.28	0.271
	1529	2.65	2.52	0.13	0.273
	1530	2.59	2.48	0.11	0.232
	1531	2.63	2.69	-0.06	0.267
	1532	2.66	2.57	0.09	0.300
	1533	2.61	2.54	0.08	0.227
	1534	2.62	2.44	0.19	0.286
	1535	2.55	2.38	0.18	0.200
	1536	2.47	2.65	-0.18	0.255

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1537	2.31	2.63	-0.32	0.252
	1538	2.32	2.39	-0.07	0.268
	1539	2.04	2.50	-0.46	0.189
	1540	2.39	2.44	-0.05	0.247
	1541	2.41	2.40	0.01	0.210
	1542	2.05	2.21	-0.16	0.170
	1543	2.51	2.44	0.08	0.262
	1544	2.13	2.40	-0.26	0.205
	1545	2.34	2.21	0.13	0.209
	1546	2.63	2.63	-0.00	0.335
	1547	2.21	2.65	-0.44	0.227
	1548	2.67	2.11	0.56	0.265
	1549	2.22	2.58	-0.36	0.297
	1550	1.99	2.47	-0.48	0.164
	1551	2.45	2.30	0.16	0.216
	1552	2.45	2.66	-0.21	0.279
	1553	2.46	2.45	0.01	0.226
	1554	2.35	2.61	-0.26	0.287
	1555	2.66	2.47	0.19	0.206
	1556	2.21	2.53	-0.32	0.197
	1557	2.15	2.79	-0.63	0.227
	1558	2.40	2.43	-0.03	0.295
	1559	2.57	2.41	0.16	0.223
	1560	2.42	2.03	0.39	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1561	2.42	2.46	-0.04	0.253
	1562	2.20	2.70	-0.50	0.304
	1563	2.45	2.33	0.12	0.291
	1564	2.25	2.27	-0.02	0.163
	1565	2.18	2.73	-0.55	0.270
	1566	2.64	2.48	0.16	0.241
	1567	2.40	2.43	-0.04	0.225
	1568	2.35	2.68	-0.33	0.252
	1569	2.49	2.56	-0.07	0.269
	1570	2.18	2.40	-0.23	0.163
	1571	2.64	2.30	0.34	0.234
	1572	2.84	2.48	0.36	0.239
	1573	2.09	2.75	-0.67	0.272
	1574	2.30	2.57	-0.27	0.244
	1575	2.15	2.65	-0.50	0.240
	1576	2.40	2.68	-0.28	0.244
	1577	1.95	2.48	-0.53	0.217
	1578	2.33	2.58	-0.24	0.204
	1579	2.22	2.37	-0.15	0.165
	1580	2.39	2.34	0.05	0.235
	1581	2.62	2.34	0.28	0.271
	1582	2.23	2.46	-0.22	0.280
	1583	2.20	2.36	-0.16	0.162
	1584	2.46	2.56	-0.10	0.187

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1585	2.31	2.39	-0.09	0.205
	1586	2.14	2.46	-0.32	0.196
	1587	2.33	2.56	-0.24	0.298
	1588	2.36	2.18	0.17	0.234
	1589	2.62	2.63	-0.01	0.268
	1590	2.17	2.36	-0.20	0.280
	1591	2.10	2.68	-0.58	0.249
	1592	2.20	2.43	-0.24	0.235
	1593	2.35	2.26	0.10	0.214
	1594	2.04	2.14	-0.10	0.160
	1595	2.41	2.51	-0.10	0.232
	1596	2.33	2.24	0.09	0.174
	1597	2.40	2.53	-0.13	0.268
	1598	2.13	2.50	-0.37	0.264
	1599	2.39	2.48	-0.10	0.285
	1600	2.49	2.43	0.07	0.275
	1601	2.51	2.28	0.23	0.284
	1602	2.38	2.59	-0.21	0.281
	1603	2.91	2.34	0.56	0.212
	1604	2.33	2.36	-0.03	0.178
	1605	2.36	2.41	-0.05	0.234
	1606	2.64	2.64	0.00	0.318
	1607	2.51	2.21	0.31	0.217
	1608	2.18	2.81	-0.63	0.258

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1609	2.40	2.97	-0.57	0.247
	1610	2.12	2.55	-0.43	0.211
	1611	2.28	2.42	-0.14	0.158
	1612	2.62	2.78	-0.17	0.306
	1613	2.55	2.56	-0.01	0.217
	1614	2.47	2.60	-0.13	0.265
	1615	2.32	2.27	0.05	0.289
	1616	2.55	2.76	-0.21	0.264
	1617	2.29	2.28	0.01	0.168
	1618	2.52	2.52	-0.00	0.246
	1619	2.85	2.58	0.27	0.281
	1620	3.31	2.57	0.74	0.306
	1621	2.29	2.56	-0.27	0.235
	1622	2.09	2.48	-0.40	0.245
	1623	2.90	2.57	0.33	0.306
	1624	2.55	2.47	0.08	0.260
	1625	2.30	2.89	-0.59	0.262
	1626	2.54	2.33	0.20	0.239
	1627	2.46	2.52	-0.06	0.203
	1628	2.16	2.44	-0.29	0.238
	1629	2.37	2.41	-0.03	0.178
	1630	2.21	2.13	0.09	0.134
	1631	2.56	2.45	0.10	0.201
	1632	2.76	2.62	0.14	0.279

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1633	2.51	2.71	-0.21	0.314
	1634	2.09	2.08	0.01	0.150
	1635	2.53	2.41	0.13	0.261
	1636	2.28	2.42	-0.14	0.199
	1637	2.39	2.62	-0.24	0.245
	1638	2.46	2.37	0.08	0.176
	1639	2.33	2.33	-0.01	0.178
	1640	2.37	2.45	-0.08	0.228
	1641	2.27	2.42	-0.15	0.174
	1642	2.31	2.52	-0.20	0.208
	1643	2.39	2.44	-0.05	0.190
	1644	2.21	2.51	-0.30	0.272
	1645	2.19	2.43	-0.24	0.198
	1646	2.11	2.69	-0.58	0.194
	1647	2.03	2.58	-0.55	0.264
	1648	2.34	2.44	-0.10	0.230
	1649	2.88	2.73	0.15	0.278
	1650	2.41	2.60	-0.19	0.262
	1651	2.04	2.32	-0.29	0.190
	1652	2.14	2.84	-0.69	0.253
	1653	2.49	2.48	0.00	0.241
	1654	2.40	2.65	-0.25	0.211
	1655	2.10	2.83	-0.73	0.292
	1656	1.91	2.43	-0.52	0.226

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Aversion Subscale	1657	2.40	2.71	-0.31	0.261
	1658	2.50	2.39	0.11	0.273
	1659	1.94	2.37	-0.43	0.198
	1660	2.38	2.55	-0.18	0.263
	1661	2.21	2.44	-0.23	0.172
	1662	2.07	2.23	-0.15	0.176
	1663	2.27	2.73	-0.47	0.244
	1664	2.89	2.55	0.34	0.281
	1665	2.38	2.78	-0.39	0.295
	1666	2.26	2.66	-0.40	0.211
	1667	2.35	2.27	0.08	0.150
	1668	2.45	2.38	0.07	0.267
	1669	2.19	2.24	-0.05	0.162
	1670	2.67	2.42	0.25	0.290
	1671	2.47	2.26	0.20	0.219
	1672	2.45	2.28	0.17	0.266
	1673	2.74	2.65	0.09	0.233
	1674	2.20	2.26	-0.05	0.191
	1675	2.14	2.36	-0.22	0.243
	1676	2.34	2.35	-0.01	0.187
	1677	2.07	2.49	-0.42	0.247
	1678	2.65	2.26	0.38	0.296
	1679	2.13	2.14	-0.01	0.183
	1680	2.14	2.54	-0.40	0.232

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1681	2.35	2.51	-0.16	0.212
	1682	2.18	2.36	-0.18	0.209
	1683	2.31	2.65	-0.34	0.242
	1684	2.31	2.45	-0.14	0.222
	1685	2.30	2.55	-0.24	0.288
	1686	2.41	2.46	-0.05	0.282
	1687	2.57	2.44	0.13	0.238
	1688	2.14	2.73	-0.59	0.252
	1689	2.16	2.47	-0.31	0.201
	1690	2.54	2.58	-0.04	0.261
	1691	2.26	2.39	-0.13	0.217
	1692	2.22	2.45	-0.23	0.233
	1693	2.57	2.53	0.04	0.203
	1694	2.24	2.24	0.01	0.245
	1695	2.34	2.47	-0.13	0.219
	1696	2.65	2.79	-0.15	0.341
	1697	2.41	2.70	-0.29	0.216
	1698	2.36	2.14	0.22	0.223
	1699	1.93	2.50	-0.56	0.149
	1700	2.35	2.51	-0.16	0.244
	1701	2.24	2.32	-0.08	0.265
	1702	2.03	2.48	-0.45	0.248
	1703	2.22	2.46	-0.24	0.261
	1704	2.50	2.76	-0.26	0.323

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1705	2.09	2.55	-0.45	0.279
	1706	2.71	2.42	0.29	0.220
	1707	2.04	2.16	-0.12	0.221
	1708	2.29	2.63	-0.34	0.221
	1709	2.62	2.34	0.28	0.272
	1710	2.45	2.38	0.07	0.239
	1711	2.40	2.63	-0.22	0.241
	1712	2.16	2.70	-0.54	0.256
	1713	2.48	2.32	0.17	0.299
	1714	2.25	2.11	0.14	0.255
	1715	2.27	2.44	-0.17	0.170
	1716	2.65	2.78	-0.13	0.312
	1717	2.24	2.36	-0.12	0.262
	1718	2.04	2.49	-0.45	0.239
	1719	2.25	2.23	0.02	0.180
	1720	2.83	2.43	0.40	0.311
	1721	2.33	2.53	-0.20	0.227
	1722	2.37	2.55	-0.19	0.281
	1723	2.43	2.46	-0.02	0.180
	1724	2.34	2.39	-0.05	0.159
	1725	2.26	2.51	-0.25	0.215
	1726	2.53	2.65	-0.13	0.320
	1727	2.23	2.58	-0.35	0.260
	1728	2.27	2.62	-0.35	0.298

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1729	2.50	2.45	0.05	0.190
	1730	2.22	2.42	-0.19	0.238
	1731	2.28	2.48	-0.20	0.269
	1732	2.13	2.37	-0.24	0.182
	1733	1.99	2.36	-0.38	0.219
	1734	2.20	2.21	-0.01	0.199
	1735	2.57	2.54	0.03	0.250
	1736	2.47	2.33	0.13	0.224
	1737	2.65	2.40	0.25	0.226
	1738	2.02	2.50	-0.48	0.215
	1739	2.62	2.49	0.13	0.222
	1740	2.23	2.85	-0.62	0.262
	1741	2.22	2.52	-0.29	0.284
	1742	2.51	2.42	0.08	0.259
	1743	2.48	2.54	-0.06	0.304
	1744	2.35	2.44	-0.09	0.223
	1745	2.46	2.34	0.12	0.220
	1746	2.48	3.00	-0.51	0.343
	1747	2.54	2.57	-0.03	0.192
	1748	2.31	2.40	-0.09	0.238
	1749	2.54	2.11	0.43	0.216
	1750	2.62	2.44	0.17	0.240
	1751	2.57	2.44	0.13	0.276
	1752	2.29	2.52	-0.23	0.198

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1753	2.28	2.48	-0.20	0.174
	1754	2.30	2.22	0.07	0.197
	1755	2.58	2.86	-0.27	0.273
	1756	2.45	2.53	-0.07	0.234
	1757	2.27	2.53	-0.26	0.239
	1758	2.45	2.43	0.03	0.187
	1759	2.33	2.23	0.11	0.214
	1760	2.52	2.46	0.06	0.263
	1761	2.20	2.37	-0.17	0.167
	1762	2.41	2.49	-0.08	0.193
	1763	2.40	2.37	0.04	0.224
	1764	2.36	2.55	-0.20	0.200
	1765	2.59	2.39	0.20	0.240
	1766	2.37	2.56	-0.19	0.227
	1767	2.57	2.47	0.09	0.247
	1768	2.32	2.40	-0.08	0.303
	1769	2.32	2.52	-0.20	0.240
	1770	2.24	2.26	-0.01	0.206
	1771	2.10	2.18	-0.08	0.227
	1772	2.23	2.57	-0.34	0.147
	1773	2.14	2.27	-0.13	0.134
	1774	2.57	2.65	-0.08	0.188
	1775	2.47	2.15	0.33	0.249
	1776	2.40	2.38	0.03	0.198

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1777	2.73	2.50	0.23	0.249
	1778	2.28	2.44	-0.16	0.224
	1779	2.21	2.35	-0.14	0.184
	1780	2.39	2.33	0.06	0.211
	1781	2.19	2.41	-0.23	0.154
	1782	2.53	2.72	-0.18	0.263
	1783	2.48	2.36	0.11	0.299
	1784	2.13	2.45	-0.32	0.238
	1785	2.04	2.32	-0.28	0.220
	1786	2.31	2.30	0.02	0.243
	1787	2.30	2.59	-0.29	0.291
	1788	2.37	2.29	0.08	0.210
	1789	2.41	2.24	0.18	0.166
	1790	2.30	2.69	-0.39	0.202
	1791	2.22	2.45	-0.23	0.206
	1792	2.29	2.47	-0.18	0.239
	1793	2.53	2.41	0.12	0.179
	1794	2.16	2.36	-0.20	0.243
	1795	2.65	2.55	0.11	0.298
	1796	2.89	2.35	0.54	0.243
	1797	2.38	2.65	-0.27	0.280
	1798	2.58	2.71	-0.13	0.285
	1799	1.95	2.42	-0.47	0.234
	1800	2.23	2.31	-0.08	0.209

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1801	2.87	2.54	0.33	0.283
	1802	2.26	2.47	-0.22	0.195
	1803	2.60	2.44	0.16	0.276
	1804	2.50	2.48	0.02	0.292
	1805	2.58	2.40	0.18	0.259
	1806	2.60	2.52	0.07	0.214
	1807	2.69	2.58	0.12	0.208
	1808	2.22	2.46	-0.24	0.240
	1809	2.40	2.56	-0.16	0.281
	1810	2.62	2.36	0.27	0.283
	1811	2.06	2.51	-0.45	0.145
	1812	2.24	2.32	-0.09	0.240
	1813	2.35	2.47	-0.13	0.245
	1814	2.83	2.50	0.33	0.304
	1815	2.02	2.50	-0.47	0.237
	1816	2.57	2.62	-0.05	0.232
	1817	2.04	2.54	-0.50	0.212
	1818	2.23	2.90	-0.67	0.314
	1819	2.23	2.47	-0.24	0.269
	1820	2.22	2.41	-0.19	0.257
	1821	2.09	2.40	-0.31	0.140
	1822	2.37	2.39	-0.02	0.251
	1823	2.28	2.30	-0.02	0.175
	1824	2.55	2.45	0.10	0.252

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1825	2.71	2.43	0.28	0.254
	1826	2.18	2.14	0.05	0.218
	1827	2.60	2.40	0.20	0.256
	1828	2.27	2.13	0.15	0.223
	1829	2.32	2.41	-0.10	0.255
	1830	2.10	2.65	-0.55	0.253
	1831	2.40	2.21	0.19	0.212
	1832	2.19	2.63	-0.44	0.266
	1833	2.32	2.35	-0.04	0.214
	1834	2.38	2.49	-0.12	0.203
	1835	2.25	2.65	-0.39	0.265
	1836	2.38	2.69	-0.31	0.280
	1837	2.33	2.40	-0.07	0.236
	1838	2.57	2.60	-0.03	0.249
	1839	2.09	2.27	-0.18	0.200
	1840	2.18	2.30	-0.12	0.190
	1841	2.53	2.60	-0.07	0.294
	1842	2.60	2.59	0.02	0.235
	1843	2.45	2.34	0.11	0.274
	1844	2.48	2.51	-0.03	0.263
	1845	2.42	2.34	0.08	0.241
	1846	2.56	2.43	0.13	0.228
	1847	2.13	2.51	-0.38	0.276
	1848	2.56	2.36	0.20	0.217

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1849	2.15	2.35	-0.20	0.217
	1850	2.27	2.31	-0.04	0.231
	1851	2.35	2.32	0.03	0.241
	1852	2.37	2.51	-0.14	0.222
	1853	2.19	2.62	-0.43	0.240
	1854	2.38	2.71	-0.33	0.285
	1855	2.74	2.30	0.43	0.282
	1856	2.23	2.43	-0.20	0.274
	1857	2.30	2.51	-0.21	0.234
	1858	2.35	2.31	0.04	0.272
	1859	2.29	2.93	-0.64	0.273
	1860	2.43	2.42	0.01	0.208
	1861	2.14	2.40	-0.26	0.210
	1862	2.46	2.52	-0.06	0.279
	1863	2.51	2.63	-0.12	0.272
	1864	2.52	2.63	-0.11	0.269
	1865	2.57	2.45	0.13	0.277
	1866	2.36	2.54	-0.17	0.262
	1867	2.61	2.74	-0.13	0.310
	1868	2.31	2.70	-0.38	0.229
	1869	2.74	2.36	0.38	0.241
	1870	2.51	2.54	-0.03	0.253
	1871	2.33	2.52	-0.19	0.155
	1872	2.75	2.39	0.35	0.281

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1873	2.26	2.30	-0.03	0.229
	1874	2.79	2.25	0.53	0.247
	1875	2.53	2.35	0.18	0.230
	1876	2.41	2.53	-0.12	0.271
	1877	2.52	2.80	-0.27	0.286
	1878	2.40	2.47	-0.07	0.233
	1879	2.46	2.53	-0.07	0.247
	1880	2.11	2.33	-0.21	0.173
	1881	2.44	2.68	-0.24	0.288
	1882	2.66	2.75	-0.09	0.335
	1883	2.07	2.33	-0.26	0.219
	1884	2.10	2.93	-0.83	0.246
	1885	2.36	2.47	-0.11	0.240
	1886	2.55	2.47	0.07	0.258
	1887	2.35	2.37	-0.02	0.152
	1888	2.56	2.57	-0.00	0.256
	1889	2.31	2.50	-0.18	0.233
	1890	2.09	2.76	-0.67	0.256
	1891	2.38	2.36	0.02	0.221
	1892	2.17	2.44	-0.27	0.277
	1893	2.26	2.64	-0.38	0.239
	1894	2.06	2.53	-0.47	0.244
	1895	2.05	2.21	-0.15	0.181
	1896	2.21	2.25	-0.05	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1897	2.29	2.56	-0.27	0.245
	1898	2.29	2.24	0.04	0.158
	1899	2.39	2.51	-0.12	0.257
	1900	2.04	2.48	-0.45	0.196
	1901	2.18	2.56	-0.38	0.183
	1902	2.66	2.39	0.27	0.234
	1903	2.38	2.58	-0.20	0.254
	1904	2.49	3.03	-0.54	0.275
	1905	2.51	2.42	0.09	0.238
	1906	2.62	2.43	0.19	0.307
	1907	2.35	2.33	0.02	0.250
	1908	2.02	2.41	-0.39	0.157
	1909	2.18	2.30	-0.12	0.227
	1910	2.70	2.50	0.20	0.264
	1911	2.63	2.86	-0.23	0.281
	1912	2.50	2.86	-0.37	0.264
	1913	2.55	2.53	0.02	0.265
	1914	2.20	2.17	0.03	0.244
	1915	2.39	2.74	-0.35	0.300
	1916	2.30	2.26	0.04	0.231
	1917	2.52	2.48	0.04	0.257
	1918	2.17	2.45	-0.28	0.193
	1919	2.51	2.23	0.28	0.236
	1920	2.36	2.69	-0.34	0.216

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1921	2.38	2.51	-0.13	0.204
	1922	1.98	2.25	-0.27	0.210
	1923	2.31	2.26	0.06	0.227
	1924	2.75	2.54	0.20	0.325
	1925	2.11	2.37	-0.26	0.176
	1926	2.42	2.46	-0.04	0.231
	1927	2.44	2.63	-0.19	0.244
	1928	2.20	2.87	-0.67	0.259
	1929	2.20	2.19	0.02	0.179
	1930	2.21	2.65	-0.44	0.275
	1931	2.56	2.35	0.21	0.244
	1932	2.94	2.58	0.37	0.339
	1933	2.26	2.83	-0.57	0.254
	1934	2.06	2.47	-0.41	0.228
	1935	2.39	2.41	-0.01	0.254
	1936	2.59	2.45	0.14	0.304
	1937	2.22	2.41	-0.19	0.146
	1938	2.68	2.52	0.16	0.284
	1939	2.17	2.65	-0.48	0.274
	1940	2.48	2.50	-0.01	0.183
	1941	2.52	2.49	0.03	0.241
	1942	2.27	2.46	-0.19	0.265
	1943	2.48	2.47	0.01	0.273
	1944	2.31	2.41	-0.10	0.236

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1945	2.28	2.54	-0.26	0.278
	1946	2.49	2.73	-0.24	0.240
	1947	2.50	2.63	-0.12	0.201
	1948	2.37	2.54	-0.17	0.291
	1949	2.30	2.37	-0.07	0.138
	1950	2.34	2.29	0.06	0.260
	1951	2.61	2.50	0.11	0.270
	1952	2.25	2.47	-0.22	0.164
	1953	2.09	2.46	-0.37	0.206
	1954	2.33	2.52	-0.19	0.240
	1955	2.47	2.24	0.23	0.215
	1956	2.21	2.31	-0.09	0.216
	1957	2.19	2.41	-0.22	0.226
	1958	2.20	2.39	-0.20	0.228
	1959	2.07	2.31	-0.24	0.144
	1960	1.99	2.21	-0.22	0.119
	1961	2.22	2.58	-0.36	0.260
	1962	2.18	2.27	-0.09	0.158
	1963	2.34	2.34	-0.00	0.145
	1964	2.52	2.31	0.21	0.198
	1965	2.26	2.61	-0.35	0.223
	1966	2.35	2.38	-0.03	0.211
	1967	2.64	2.61	0.03	0.247
	1968	2.10	2.28	-0.18	0.283

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1969	2.57	2.41	0.16	0.274
	1970	2.36	2.88	-0.52	0.307
	1971	2.81	2.48	0.33	0.305
	1972	2.14	2.83	-0.69	0.250
	1973	1.96	2.51	-0.55	0.206
	1974	2.40	2.58	-0.17	0.220
	1975	2.45	2.32	0.13	0.245
	1976	2.12	2.48	-0.36	0.254
	1977	2.11	2.33	-0.22	0.226
	1978	2.11	2.41	-0.30	0.217
	1979	2.38	2.43	-0.05	0.196
	1980	2.18	2.78	-0.60	0.244
	1981	2.23	2.37	-0.13	0.172
	1982	2.64	2.30	0.33	0.242
	1983	2.44	2.40	0.04	0.206
	1984	2.18	2.58	-0.40	0.270
	1985	2.14	2.46	-0.32	0.251
	1986	2.46	2.50	-0.03	0.223
	1987	2.65	2.52	0.14	0.251
	1988	2.43	2.24	0.19	0.264
	1989	2.17	2.17	0.01	0.179
	1990	2.10	2.52	-0.42	0.152
	1991	2.08	2.38	-0.30	0.134
	1992	2.44	2.66	-0.21	0.194

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Aversion Subscale	1993	2.47	2.47	-0.00	0.269
	1994	2.57	2.60	-0.03	0.312
	1995	2.14	2.72	-0.59	0.288
	1996	2.37	2.22	0.15	0.274
	1997	2.42	2.67	-0.25	0.276
	1998	2.21	2.30	-0.09	0.212
	1999	2.04	2.34	-0.30	0.228
	2000	2.63	2.40	0.22	0.328
Craving Reduction Subscale	1	3.21	3.49	-0.29	0.178
	2	3.37	3.68	-0.31	0.237
	3	3.07	3.10	-0.03	0.201
	4	3.37	3.48	-0.11	0.158
	5	3.23	3.45	-0.21	0.219
	6	3.19	3.38	-0.20	0.201
	7	3.47	3.47	0.00	0.190
	8	3.23	3.60	-0.37	0.189
	9	3.16	3.37	-0.21	0.198
	10	3.35	3.54	-0.19	0.211
	11	3.28	3.30	-0.02	0.194
	12	3.54	3.49	0.04	0.212
	13	3.35	3.48	-0.14	0.188
	14	3.40	3.51	-0.11	0.203
	15	3.37	3.61	-0.23	0.178
	16	3.33	3.44	-0.12	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	17	3.26	3.68	-0.42	0.220
	18	3.60	3.18	0.42	0.182
	19	3.30	3.60	-0.30	0.185
	20	3.31	3.33	-0.02	0.203
	21	3.44	3.91	-0.46	0.176
	22	3.35	2.98	0.37	0.193
	23	3.32	3.37	-0.05	0.207
	24	3.56	3.51	0.05	0.166
	25	3.54	3.67	-0.13	0.202
	26	3.45	3.59	-0.14	0.204
	27	3.33	3.28	0.05	0.168
	28	3.45	3.27	0.18	0.204
	29	3.23	3.26	-0.03	0.179
	30	3.42	3.52	-0.10	0.200
	31	3.19	3.35	-0.16	0.175
	32	3.04	3.37	-0.33	0.171
	33	2.93	3.68	-0.75	0.207
	34	3.18	3.37	-0.19	0.173
	35	3.14	3.39	-0.26	0.175
	36	3.27	3.46	-0.19	0.173
	37	3.18	3.46	-0.28	0.163
	38	3.56	3.53	0.03	0.200
	39	3.30	3.28	0.02	0.186
	40	3.52	3.59	-0.07	0.224

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	41	3.42	3.49	-0.07	0.206
	42	3.21	3.23	-0.02	0.192
	43	3.42	3.55	-0.14	0.202
	44	3.33	3.53	-0.20	0.192
	45	3.54	3.75	-0.21	0.216
	46	3.49	3.49	0.00	0.205
	47	3.52	3.54	-0.02	0.180
	48	3.30	3.63	-0.33	0.184
	49	3.65	3.59	0.06	0.210
	50	3.11	3.37	-0.26	0.162
	51	3.42	3.39	0.03	0.162
	52	3.49	3.67	-0.18	0.157
	53	3.21	3.40	-0.19	0.258
	54	2.95	3.26	-0.31	0.201
	55	3.82	3.66	0.16	0.204
	56	3.28	3.39	-0.11	0.188
	57	3.38	3.37	0.01	0.215
	58	3.47	3.40	0.07	0.190
	59	3.19	3.40	-0.21	0.204
	60	3.14	3.53	-0.40	0.181
	61	3.55	3.59	-0.05	0.236
	62	3.26	3.12	0.13	0.141
	63	3.05	3.09	-0.05	0.168
	64	3.11	3.46	-0.35	0.160

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	65	3.21	3.47	-0.25	0.185
	66	3.30	3.45	-0.16	0.164
	67	2.97	3.11	-0.14	0.180
	68	3.24	3.35	-0.12	0.166
	69	3.14	3.21	-0.07	0.191
	70	3.63	3.35	0.28	0.203
	71	3.26	3.42	-0.17	0.206
	72	3.35	3.46	-0.11	0.181
	73	3.30	3.21	0.10	0.176
	74	3.08	3.39	-0.31	0.149
	75	3.54	3.53	0.00	0.194
	76	3.47	3.48	-0.00	0.203
	77	3.35	3.67	-0.33	0.190
	78	3.25	3.40	-0.14	0.209
	79	3.30	3.84	-0.54	0.190
	80	2.98	3.09	-0.11	0.193
	81	3.31	3.30	0.00	0.181
	82	3.14	3.21	-0.07	0.181
	83	3.05	3.40	-0.35	0.166
	84	3.39	3.27	0.12	0.191
	85	3.31	3.47	-0.16	0.188
	86	3.08	3.42	-0.33	0.186
	87	3.45	3.30	0.15	0.187
	88	3.31	3.42	-0.11	0.195

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	89	3.06	3.14	-0.07	0.175
	90	3.19	3.36	-0.16	0.216
	91	3.03	3.49	-0.46	0.188
	92	3.33	3.50	-0.17	0.225
	93	3.52	3.63	-0.11	0.208
	94	3.23	3.37	-0.14	0.186
	95	3.19	3.49	-0.31	0.188
	96	3.10	3.19	-0.09	0.183
	97	3.20	3.65	-0.45	0.171
	98	3.27	3.47	-0.19	0.163
	99	3.56	3.65	-0.10	0.213
	100	3.40	3.38	0.02	0.180
	101	3.02	3.30	-0.28	0.205
	102	3.52	3.38	0.14	0.205
	103	3.23	3.07	0.16	0.170
	104	3.46	3.79	-0.32	0.193
	105	3.11	3.32	-0.21	0.170
	106	3.07	3.49	-0.42	0.222
	107	3.07	3.07	0.00	0.159
	108	3.17	3.05	0.12	0.187
	109	3.48	3.40	0.08	0.208
	110	3.00	3.16	-0.17	0.209
	111	3.56	3.49	0.08	0.213
	112	3.04	3.28	-0.24	0.176

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	113	3.33	3.05	0.28	0.200
	114	3.53	3.53	0.00	0.202
	115	3.23	3.81	-0.58	0.211
	116	3.13	3.52	-0.38	0.165
	117	3.30	3.61	-0.31	0.172
	118	3.42	3.55	-0.14	0.168
	119	3.30	3.70	-0.39	0.184
	120	3.47	3.58	-0.12	0.205
	121	3.10	3.47	-0.37	0.181
	122	3.44	3.65	-0.21	0.203
	123	3.42	3.60	-0.18	0.179
	124	3.44	3.75	-0.30	0.200
	125	3.05	3.39	-0.35	0.170
	126	3.23	3.44	-0.21	0.189
	127	3.02	3.62	-0.60	0.161
	128	3.14	3.33	-0.18	0.205
	129	3.31	3.35	-0.04	0.197
	130	3.38	3.35	0.02	0.192
	131	3.54	3.51	0.03	0.196
	132	3.55	3.54	0.01	0.194
	133	3.44	3.54	-0.10	0.195
	134	3.37	3.60	-0.23	0.163
	135	3.06	3.32	-0.26	0.150
	136	3.44	3.39	0.05	0.175

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	137	3.28	3.41	-0.14	0.170
	138	3.37	3.16	0.21	0.177
	139	3.78	3.45	0.33	0.217
	140	3.57	3.45	0.12	0.203
	141	3.30	3.15	0.16	0.158
	142	3.25	3.25	0.00	0.168
	143	3.21	3.63	-0.42	0.184
	144	3.56	3.61	-0.05	0.228
	145	3.91	3.70	0.21	0.195
	146	3.49	3.82	-0.33	0.228
	147	3.45	3.73	-0.28	0.196
	148	3.09	3.72	-0.63	0.199
	149	3.28	3.65	-0.38	0.188
	150	3.40	3.80	-0.40	0.217
	151	3.28	3.16	0.11	0.167
	152	3.37	3.48	-0.11	0.178
	153	3.42	3.30	0.12	0.166
	154	3.37	3.88	-0.51	0.216
	155	3.70	3.58	0.12	0.221
	156	3.30	3.53	-0.23	0.196
	157	3.23	3.49	-0.26	0.224
	158	3.26	3.32	-0.07	0.199
	159	3.44	3.65	-0.21	0.209
	160	2.98	3.31	-0.33	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	161	3.21	3.24	-0.03	0.221
	162	3.30	3.46	-0.16	0.154
	163	3.39	3.40	-0.00	0.211
	164	3.30	3.46	-0.16	0.207
	165	3.42	3.56	-0.14	0.205
	166	3.07	3.47	-0.40	0.177
	167	3.35	3.26	0.10	0.180
	168	3.58	3.65	-0.06	0.202
	169	3.06	3.37	-0.30	0.167
	170	3.33	3.28	0.05	0.178
	171	3.39	3.21	0.18	0.178
	172	3.21	3.72	-0.51	0.214
	173	3.28	3.52	-0.24	0.201
	174	3.10	3.16	-0.07	0.205
	175	3.37	3.44	-0.07	0.197
	176	3.14	3.42	-0.28	0.199
	177	3.21	3.07	0.14	0.177
	178	3.45	3.64	-0.19	0.204
	179	3.09	3.44	-0.35	0.193
	180	3.19	3.17	0.02	0.183
	181	3.38	3.30	0.08	0.216
	182	3.05	3.31	-0.26	0.155
	183	3.14	3.28	-0.14	0.152
	184	3.25	3.26	-0.00	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	185	3.23	3.27	-0.03	0.205
	186	3.23	3.23	0.00	0.188
	187	3.07	3.05	0.02	0.176
	188	2.95	3.21	-0.26	0.201
	189	3.19	3.54	-0.35	0.219
	190	3.00	3.24	-0.24	0.186
	191	3.28	3.56	-0.28	0.194
	192	3.10	3.31	-0.21	0.194
	193	3.11	3.37	-0.25	0.154
	194	3.29	3.26	0.02	0.198
	195	3.39	3.65	-0.26	0.169
	196	3.47	3.26	0.21	0.186
	197	3.30	3.49	-0.19	0.219
	198	3.21	3.25	-0.04	0.150
	199	3.37	3.61	-0.24	0.216
	200	3.30	3.58	-0.29	0.207
	201	3.38	3.56	-0.18	0.209
	202	3.11	3.32	-0.21	0.166
	203	3.33	3.44	-0.11	0.175
	204	3.21	3.51	-0.30	0.191
	205	3.47	3.48	-0.01	0.204
	206	3.34	3.40	-0.06	0.186
	207	3.45	3.35	0.09	0.178
	208	2.95	3.47	-0.52	0.169

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	209	3.35	3.47	-0.12	0.194
	210	3.32	3.39	-0.07	0.209
	211	3.54	3.72	-0.19	0.219
	212	3.00	3.17	-0.16	0.193
	213	3.26	3.72	-0.47	0.202
	214	3.07	3.35	-0.28	0.185
	215	3.47	3.41	0.05	0.167
	216	3.20	3.44	-0.24	0.187
	217	3.77	3.58	0.19	0.210
	218	2.98	3.51	-0.53	0.197
	219	3.21	3.34	-0.14	0.188
	220	3.56	3.58	-0.02	0.213
	221	3.21	3.07	0.14	0.154
	222	3.35	3.35	0.00	0.188
	223	3.42	3.25	0.16	0.178
	224	3.23	3.30	-0.07	0.176
	225	3.16	3.33	-0.17	0.222
	226	3.09	3.37	-0.28	0.214
	227	3.61	3.58	0.02	0.206
	228	3.51	3.38	0.13	0.224
	229	3.44	3.86	-0.42	0.205
	230	3.50	4.03	-0.53	0.214
	231	3.26	3.61	-0.35	0.199
	232	3.45	3.76	-0.31	0.204

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	233	3.05	3.46	-0.42	0.176
	234	3.24	3.47	-0.23	0.212
	235	3.02	3.07	-0.05	0.192
	236	3.32	3.46	-0.14	0.198
	237	3.59	3.86	-0.27	0.179
	238	3.49	3.28	0.21	0.198
	239	3.18	3.75	-0.57	0.206
	240	3.47	3.73	-0.26	0.209
	241	3.02	3.25	-0.23	0.178
	242	3.23	3.26	-0.02	0.189
	243	3.09	3.42	-0.32	0.218
	244	3.28	3.38	-0.10	0.196
	245	3.16	3.05	0.11	0.147
	246	3.35	3.44	-0.09	0.220
	247	3.28	3.24	0.05	0.193
	248	3.35	3.31	0.04	0.232
	249	3.17	3.37	-0.21	0.199
	250	3.49	3.77	-0.28	0.188
	251	3.04	3.56	-0.52	0.180
	252	3.07	3.33	-0.26	0.182
	253	3.24	3.35	-0.12	0.211
	254	3.82	3.53	0.29	0.165
	255	3.49	3.33	0.16	0.226
	256	3.17	3.43	-0.26	0.232

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	257	3.19	3.47	-0.28	0.159
	258	2.90	3.06	-0.16	0.151
	259	3.56	3.56	0.00	0.213
	260	3.16	3.71	-0.54	0.159
	261	3.52	3.38	0.14	0.180
	262	3.14	3.67	-0.53	0.212
	263	3.70	3.63	0.07	0.200
	264	3.38	3.58	-0.20	0.166
	265	3.60	3.71	-0.11	0.187
	266	3.35	3.46	-0.11	0.191
	267	3.30	3.63	-0.32	0.201
	268	3.28	3.21	0.07	0.169
	269	3.40	3.46	-0.07	0.179
	270	3.44	3.45	-0.00	0.185
	271	3.23	3.23	-0.00	0.168
	272	3.19	3.35	-0.17	0.209
	273	3.28	3.30	-0.02	0.156
	274	3.11	3.19	-0.08	0.187
	275	3.02	3.51	-0.49	0.165
	276	3.06	3.27	-0.21	0.183
	277	3.35	3.07	0.28	0.177
	278	3.43	3.43	-0.00	0.215
	279	3.24	3.53	-0.29	0.186
	280	3.37	3.44	-0.07	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	281	3.02	3.10	-0.08	0.190
	282	3.35	3.29	0.06	0.205
	283	3.10	3.07	0.03	0.172
	284	3.26	3.30	-0.04	0.178
	285	3.38	3.33	0.05	0.197
	286	3.26	3.26	0.00	0.172
	287	3.35	3.47	-0.12	0.182
	288	3.42	3.56	-0.14	0.222
	289	3.06	3.15	-0.09	0.209
	290	3.18	3.32	-0.14	0.198
	291	3.00	3.33	-0.32	0.196
	292	3.26	3.24	0.02	0.205
	293	3.58	3.30	0.28	0.180
	294	3.28	3.31	-0.02	0.195
	295	3.16	3.84	-0.67	0.201
	296	3.31	3.33	-0.02	0.197
	297	3.47	3.91	-0.44	0.200
	298	3.54	3.86	-0.32	0.220
	299	3.30	3.33	-0.03	0.217
	300	3.06	3.34	-0.28	0.144
	301	2.88	3.12	-0.23	0.161
	302	3.16	3.58	-0.42	0.171
	303	3.28	3.50	-0.22	0.169
	304	3.40	3.42	-0.03	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	305	3.40	3.42	-0.02	0.183
	306	3.35	3.66	-0.31	0.204
	307	3.28	3.86	-0.58	0.203
	308	3.28	3.30	-0.03	0.185
	309	3.32	3.80	-0.48	0.219
	310	2.88	3.35	-0.47	0.160
	311	3.12	3.68	-0.56	0.219
	312	3.54	3.73	-0.19	0.200
	313	3.42	3.49	-0.07	0.211
	314	3.54	3.41	0.12	0.193
	315	3.09	3.38	-0.29	0.216
	316	3.28	3.24	0.04	0.187
	317	3.89	4.12	-0.23	0.207
	318	3.45	3.31	0.14	0.201
	319	3.19	3.07	0.12	0.185
	320	3.56	3.77	-0.21	0.191
	321	3.21	3.25	-0.04	0.167
	322	3.47	3.72	-0.25	0.172
	323	3.33	3.41	-0.08	0.222
	324	3.04	3.67	-0.64	0.183
	325	3.19	3.28	-0.09	0.188
	326	3.34	3.27	0.07	0.186
	327	3.06	3.27	-0.21	0.188
	328	3.56	3.70	-0.14	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	329	3.12	3.56	-0.44	0.171
	330	3.51	3.71	-0.19	0.217
	331	3.40	3.38	0.02	0.205
	332	3.48	3.53	-0.05	0.161
	333	3.19	3.12	0.07	0.188
	334	3.24	3.37	-0.14	0.200
	335	3.06	3.46	-0.40	0.157
	336	3.16	3.58	-0.42	0.192
	337	3.49	3.79	-0.30	0.173
	338	3.16	3.44	-0.28	0.179
	339	3.26	3.61	-0.35	0.215
	340	3.07	3.47	-0.40	0.141
	341	3.44	3.46	-0.02	0.214
	342	3.33	3.37	-0.05	0.168
	343	3.63	3.44	0.19	0.194
	344	3.19	3.33	-0.14	0.182
	345	2.90	2.97	-0.07	0.137
	346	3.49	3.82	-0.32	0.190
	347	3.31	3.50	-0.19	0.192
	348	3.56	3.75	-0.18	0.235
	349	3.39	3.56	-0.17	0.183
	350	3.51	3.65	-0.14	0.203
	351	3.09	3.14	-0.05	0.165
	352	3.40	3.03	0.37	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	353	3.33	3.28	0.05	0.223
	354	3.44	3.59	-0.15	0.221
	355	3.21	3.38	-0.16	0.196
	356	3.10	3.41	-0.32	0.195
	357	3.33	3.26	0.07	0.159
	358	3.24	3.56	-0.32	0.218
	359	3.38	3.54	-0.16	0.215
	360	3.44	3.49	-0.05	0.168
	361	3.54	3.37	0.17	0.190
	362	3.58	3.50	0.09	0.179
	363	3.12	3.39	-0.28	0.175
	364	3.37	3.58	-0.21	0.176
	365	3.25	3.60	-0.35	0.183
	366	3.80	3.68	0.11	0.182
	367	3.41	3.54	-0.13	0.186
	368	3.18	3.30	-0.11	0.202
	369	3.19	3.56	-0.37	0.180
	370	3.23	3.70	-0.47	0.175
	371	3.23	3.42	-0.19	0.175
	372	2.82	3.33	-0.52	0.141
	373	3.40	3.27	0.13	0.181
	374	3.14	3.39	-0.25	0.146
	375	3.56	3.86	-0.31	0.211
	376	3.38	3.65	-0.28	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	377	3.14	3.37	-0.23	0.171
	378	3.36	3.26	0.10	0.197
	379	2.98	3.45	-0.47	0.178
	380	3.09	3.07	0.02	0.186
	381	3.42	3.47	-0.05	0.188
	382	3.16	3.32	-0.16	0.165
	383	3.24	3.54	-0.30	0.200
	384	3.70	3.80	-0.10	0.216
	385	3.16	3.81	-0.65	0.196
	386	3.34	3.66	-0.32	0.149
	387	3.23	3.16	0.07	0.179
	388	3.42	3.78	-0.36	0.236
	389	3.19	3.12	0.07	0.203
	390	3.47	3.63	-0.16	0.193
	391	3.19	3.35	-0.16	0.216
	392	2.96	3.21	-0.25	0.175
	393	3.47	3.20	0.27	0.185
	394	3.05	3.49	-0.45	0.204
	395	3.25	3.25	0.00	0.192
	396	3.41	3.45	-0.04	0.198
	397	3.33	3.54	-0.21	0.185
	398	3.10	3.24	-0.14	0.182
	399	3.44	3.63	-0.19	0.184
	400	3.16	3.30	-0.14	0.193

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	401	3.47	3.66	-0.19	0.245
	402	3.21	3.51	-0.30	0.193
	403	3.00	3.15	-0.15	0.192
	404	3.47	3.72	-0.25	0.209
	405	3.42	3.75	-0.33	0.189
	406	3.37	3.30	0.07	0.216
	407	3.49	3.51	-0.02	0.185
	408	3.38	3.82	-0.44	0.158
	409	3.24	3.24	-0.00	0.183
	410	3.12	3.17	-0.05	0.169
	411	3.37	3.27	0.09	0.174
	412	3.35	3.36	-0.01	0.204
	413	3.39	3.49	-0.09	0.187
	414	3.35	3.25	0.10	0.180
	415	3.51	3.51	0.00	0.187
	416	3.26	3.51	-0.25	0.191
	417	3.18	3.35	-0.17	0.186
	418	3.29	3.28	0.00	0.185
	419	3.02	3.72	-0.70	0.176
	420	3.29	3.49	-0.20	0.198
	421	3.25	3.58	-0.33	0.153
	422	3.28	3.33	-0.05	0.164
	423	3.06	3.44	-0.37	0.202
	424	3.28	3.43	-0.15	0.200

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	425	3.30	3.12	0.19	0.203
	426	3.07	3.54	-0.47	0.187
	427	3.55	3.71	-0.16	0.186
	428	3.54	3.60	-0.07	0.172
	429	3.09	3.65	-0.55	0.157
	430	3.44	3.54	-0.09	0.240
	431	2.93	3.10	-0.17	0.150
	432	3.14	3.33	-0.19	0.196
	433	3.05	3.50	-0.45	0.179
	434	3.07	3.49	-0.42	0.199
	435	3.26	3.54	-0.28	0.219
	436	3.40	3.77	-0.38	0.219
	437	3.30	3.61	-0.31	0.198
	438	2.93	3.28	-0.35	0.183
	439	3.63	3.77	-0.14	0.180
	440	3.35	3.59	-0.25	0.172
	441	3.38	3.53	-0.16	0.192
	442	3.31	3.19	0.12	0.189
	443	3.40	3.58	-0.18	0.173
	444	3.35	3.19	0.17	0.160
	445	3.19	3.09	0.09	0.174
	446	3.34	3.58	-0.23	0.174
	447	3.20	3.60	-0.40	0.174
	448	3.17	3.45	-0.28	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	449	3.47	3.47	-0.00	0.231
	450	3.16	3.49	-0.33	0.216
	451	3.18	3.21	-0.03	0.156
	452	3.58	3.51	0.07	0.219
	453	3.33	3.40	-0.07	0.200
	454	3.55	3.67	-0.11	0.178
	455	3.18	3.49	-0.31	0.216
	456	3.23	3.37	-0.15	0.176
	457	3.24	3.47	-0.23	0.172
	458	3.44	3.55	-0.11	0.159
	459	3.00	3.11	-0.11	0.171
	460	3.21	3.44	-0.23	0.159
	461	3.11	3.07	0.05	0.158
	462	2.99	3.19	-0.19	0.178
	463	3.12	3.21	-0.09	0.168
	464	3.11	3.42	-0.30	0.203
	465	3.38	3.49	-0.11	0.172
	466	3.54	3.31	0.23	0.195
	467	3.54	3.62	-0.08	0.158
	468	3.38	3.44	-0.06	0.177
	469	3.00	3.09	-0.10	0.180
	470	3.25	3.70	-0.45	0.205
	471	3.16	3.35	-0.19	0.183
	472	3.26	3.35	-0.09	0.179

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	473	3.63	3.74	-0.11	0.193
	474	3.11	3.30	-0.19	0.162
	475	3.16	3.56	-0.40	0.188
	476	3.09	3.07	0.02	0.163
	477	3.61	3.28	0.33	0.181
	478	3.17	3.33	-0.16	0.190
	479	3.24	3.45	-0.21	0.201
	480	2.88	3.54	-0.66	0.175
	481	3.31	3.86	-0.54	0.188
	482	3.12	3.28	-0.17	0.171
	483	2.90	2.75	0.16	0.169
	484	3.14	3.07	0.07	0.203
	485	3.49	3.77	-0.28	0.200
	486	3.23	2.96	0.27	0.192
	487	3.47	3.63	-0.16	0.219
	488	3.37	3.76	-0.39	0.182
	489	3.35	3.37	-0.03	0.189
	490	3.32	3.65	-0.33	0.181
	491	3.50	3.73	-0.24	0.209
	492	3.35	3.80	-0.44	0.179
	493	3.14	3.26	-0.12	0.185
	494	3.21	3.33	-0.12	0.176
	495	3.25	3.13	0.12	0.172
	496	3.28	3.58	-0.31	0.213

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	497	3.64	3.63	0.00	0.208
	498	3.02	3.53	-0.51	0.211
	499	3.66	3.58	0.08	0.205
	500	3.33	3.61	-0.28	0.228
	501	3.30	3.60	-0.31	0.170
	502	3.42	3.49	-0.07	0.191
	503	3.39	3.39	0.00	0.150
	504	3.21	3.66	-0.45	0.207
	505	3.12	3.47	-0.35	0.207
	506	3.36	3.50	-0.14	0.177
	507	3.37	3.37	-0.00	0.213
	508	3.60	3.61	-0.01	0.220
	509	3.16	3.55	-0.39	0.186
	510	3.19	3.61	-0.43	0.206
	511	3.19	3.24	-0.05	0.190
	512	3.44	3.47	-0.03	0.198
	513	3.65	3.57	0.08	0.162
	514	2.86	3.23	-0.37	0.143
	515	3.66	3.49	0.17	0.200
	516	3.21	3.42	-0.21	0.208
	517	3.00	3.40	-0.40	0.185
	518	3.28	3.15	0.13	0.156
	519	3.33	3.23	0.09	0.207
	520	3.30	3.49	-0.19	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	521	3.19	3.23	-0.04	0.179
	522	3.15	3.08	0.07	0.183
	523	3.19	3.40	-0.22	0.222
	524	3.27	3.48	-0.20	0.177
	525	3.13	3.84	-0.71	0.192
	526	3.23	3.21	0.03	0.162
	527	3.40	3.73	-0.33	0.189
	528	3.44	3.48	-0.04	0.197
	529	3.28	3.10	0.18	0.194
	530	3.61	3.81	-0.21	0.205
	531	2.94	3.44	-0.50	0.160
	532	3.20	3.55	-0.35	0.177
	533	3.00	3.44	-0.44	0.182
	534	3.16	3.28	-0.12	0.185
	535	3.00	3.07	-0.07	0.175
	536	3.35	3.53	-0.18	0.186
	537	3.40	3.58	-0.19	0.188
	538	3.54	3.35	0.18	0.197
	539	3.11	3.10	0.02	0.192
	540	3.23	3.49	-0.26	0.216
	541	3.49	3.57	-0.09	0.172
	542	3.35	3.53	-0.18	0.195
	543	3.13	3.40	-0.27	0.184
	544	3.37	3.42	-0.05	0.176

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	545	3.28	3.61	-0.32	0.184
	546	3.45	3.34	0.11	0.199
	547	3.49	3.60	-0.12	0.208
	548	3.12	3.28	-0.16	0.190
	549	3.30	3.35	-0.05	0.216
	550	3.19	3.26	-0.07	0.198
	551	3.21	3.28	-0.07	0.176
	552	3.37	3.48	-0.11	0.208
	553	3.21	3.61	-0.40	0.235
	554	3.25	3.54	-0.28	0.188
	555	3.28	3.48	-0.20	0.172
	556	2.88	2.97	-0.09	0.160
	557	3.35	3.47	-0.12	0.181
	558	3.47	3.52	-0.05	0.190
	559	2.77	3.40	-0.63	0.181
	560	3.05	3.58	-0.54	0.202
	561	3.33	3.76	-0.43	0.214
	562	3.28	3.47	-0.19	0.199
	563	3.40	3.63	-0.23	0.205
	564	3.25	3.42	-0.16	0.184
	565	3.17	3.47	-0.30	0.216
	566	3.61	3.81	-0.20	0.185
	567	3.40	3.44	-0.04	0.174
	568	3.04	3.23	-0.19	0.182

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	569	3.73	3.46	0.27	0.164
	570	3.49	3.80	-0.31	0.210
	571	3.09	3.31	-0.22	0.175
	572	3.56	3.68	-0.12	0.202
	573	3.40	3.28	0.12	0.205
	574	3.27	3.49	-0.22	0.179
	575	3.24	3.38	-0.14	0.207
	576	3.44	3.49	-0.05	0.193
	577	3.63	3.40	0.24	0.170
	578	3.40	3.47	-0.07	0.191
	579	3.45	3.58	-0.14	0.206
	580	3.59	3.44	0.15	0.186
	581	3.49	3.65	-0.16	0.218
	582	3.29	3.88	-0.59	0.176
	583	3.02	3.23	-0.21	0.149
	584	3.35	3.47	-0.12	0.182
	585	3.61	3.45	0.16	0.175
	586	3.22	3.53	-0.31	0.177
	587	3.03	3.31	-0.28	0.176
	588	3.00	3.19	-0.19	0.197
	589	3.56	3.96	-0.40	0.188
	590	3.24	3.16	0.07	0.151
	591	3.23	3.59	-0.35	0.204
	592	3.37	3.58	-0.21	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	593	3.19	3.19	-0.00	0.209
	594	3.44	3.61	-0.17	0.201
	595	3.32	3.58	-0.26	0.191
	596	3.53	3.70	-0.17	0.207
	597	3.13	3.58	-0.45	0.174
	598	3.23	3.51	-0.28	0.200
	599	3.18	3.05	0.14	0.159
	600	3.74	3.74	-0.00	0.198
	601	3.05	3.02	0.02	0.173
	602	3.12	3.28	-0.17	0.180
	603	3.14	3.60	-0.47	0.182
	604	3.21	2.81	0.40	0.168
	605	3.35	3.56	-0.20	0.177
	606	3.24	3.40	-0.16	0.186
	607	2.95	2.99	-0.05	0.181
	608	3.68	3.47	0.21	0.197
	609	3.66	3.52	0.14	0.217
	610	3.35	3.33	0.02	0.192
	611	3.54	3.59	-0.04	0.227
	612	3.65	3.70	-0.05	0.212
	613	3.52	3.64	-0.12	0.171
	614	3.42	3.67	-0.25	0.186
	615	3.28	3.49	-0.22	0.165
	616	3.44	3.72	-0.28	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	617	3.30	3.39	-0.09	0.192
	618	3.14	3.10	0.04	0.214
	619	3.52	3.56	-0.04	0.196
	620	3.81	3.98	-0.16	0.196
	621	3.56	3.12	0.44	0.194
	622	3.60	3.51	0.10	0.177
	623	3.61	3.82	-0.21	0.206
	624	3.52	3.40	0.11	0.229
	625	3.14	3.17	-0.03	0.188
	626	3.22	3.42	-0.21	0.177
	627	3.33	3.49	-0.16	0.215
	628	3.21	3.52	-0.31	0.186
	629	3.72	3.67	0.05	0.191
	630	3.59	3.80	-0.21	0.225
	631	3.25	3.42	-0.17	0.160
	632	3.14	3.33	-0.19	0.197
	633	3.19	3.35	-0.17	0.189
	634	3.42	3.45	-0.03	0.221
	635	3.44	3.81	-0.37	0.199
	636	3.33	3.45	-0.12	0.196
	637	3.49	3.65	-0.16	0.193
	638	3.42	3.63	-0.21	0.156
	639	3.11	3.16	-0.05	0.168
	640	3.33	3.38	-0.05	0.206

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	641	3.10	3.50	-0.40	0.201
	642	3.31	3.21	0.10	0.172
	643	3.26	3.54	-0.28	0.221
	644	3.49	3.40	0.09	0.222
	645	3.64	3.12	0.52	0.189
	646	3.41	3.88	-0.47	0.206
	647	2.95	3.49	-0.54	0.187
	648	3.15	3.45	-0.30	0.186
	649	3.26	3.25	0.01	0.187
	650	3.33	3.30	0.03	0.170
	651	3.09	3.33	-0.24	0.188
	652	3.31	3.58	-0.28	0.169
	653	3.44	3.42	0.02	0.198
	654	3.59	3.68	-0.09	0.212
	655	3.23	3.61	-0.38	0.194
	656	3.56	3.60	-0.05	0.213
	657	3.40	3.95	-0.55	0.192
	658	2.93	3.21	-0.28	0.166
	659	3.09	3.49	-0.40	0.205
	660	3.42	3.14	0.27	0.208
	661	3.62	3.78	-0.16	0.183
	662	3.14	3.23	-0.10	0.188
	663	3.23	3.51	-0.28	0.179
	664	3.59	3.52	0.07	0.194

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	665	3.34	3.65	-0.31	0.162
	666	3.14	3.28	-0.14	0.184
	667	3.17	3.52	-0.35	0.210
	668	3.32	3.18	0.14	0.186
	669	3.49	3.65	-0.16	0.196
	670	3.25	3.32	-0.06	0.160
	671	3.06	3.25	-0.19	0.166
	672	3.37	3.65	-0.28	0.161
	673	3.04	3.17	-0.12	0.187
	674	3.19	3.28	-0.09	0.177
	675	3.40	3.33	0.07	0.222
	676	3.40	3.40	-0.00	0.168
	677	3.40	3.37	0.03	0.189
	678	3.27	3.64	-0.37	0.154
	679	3.62	3.52	0.10	0.182
	680	3.37	3.38	-0.01	0.187
	681	3.09	3.14	-0.05	0.174
	682	3.31	3.51	-0.21	0.221
	683	3.07	3.26	-0.19	0.194
	684	3.20	3.40	-0.19	0.192
	685	3.51	3.60	-0.09	0.166
	686	3.11	3.51	-0.40	0.188
	687	3.23	3.31	-0.07	0.189
	688	3.24	3.07	0.17	0.198

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	689	3.30	3.56	-0.25	0.205
	690	3.34	3.65	-0.31	0.153
	691	3.42	3.62	-0.20	0.208
	692	3.12	3.35	-0.24	0.176
	693	3.03	3.33	-0.30	0.187
	694	3.18	3.41	-0.23	0.168
	695	3.09	3.78	-0.69	0.179
	696	3.33	3.33	-0.00	0.187
	697	3.44	3.58	-0.14	0.201
	698	3.11	3.28	-0.17	0.168
	699	3.21	3.26	-0.05	0.215
	700	3.52	3.57	-0.05	0.217
	701	3.40	3.30	0.10	0.185
	702	3.44	3.74	-0.30	0.195
	703	3.42	3.69	-0.28	0.224
	704	3.21	3.21	0.01	0.186
	705	3.42	3.61	-0.19	0.216
	706	3.31	3.33	-0.02	0.197
	707	3.52	3.47	0.05	0.199
	708	3.65	3.67	-0.02	0.176
	709	3.39	3.35	0.05	0.202
	710	3.32	3.30	0.03	0.166
	711	3.28	3.39	-0.12	0.194
	712	3.14	3.33	-0.19	0.189

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	713	2.93	3.12	-0.19	0.170
	714	3.30	3.60	-0.30	0.209
	715	3.42	3.31	0.12	0.179
	716	3.29	3.35	-0.06	0.174
	717	3.32	3.37	-0.05	0.198
	718	3.09	3.51	-0.42	0.185
	719	3.61	3.63	-0.03	0.219
	720	3.30	3.61	-0.31	0.169
	721	3.32	3.65	-0.32	0.174
	722	3.21	3.72	-0.52	0.207
	723	3.04	3.02	0.02	0.174
	724	3.36	3.23	0.14	0.176
	725	3.58	3.65	-0.07	0.214
	726	3.54	3.54	-0.00	0.233
	727	3.52	3.46	0.06	0.178
	728	3.43	3.49	-0.07	0.211
	729	2.88	2.86	0.02	0.167
	730	3.49	3.58	-0.09	0.207
	731	3.24	3.32	-0.09	0.194
	732	3.14	3.03	0.11	0.199
	733	3.16	3.60	-0.44	0.158
	734	3.61	3.58	0.02	0.234
	735	3.40	3.09	0.31	0.158
	736	3.12	3.22	-0.09	0.184

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	737	3.05	3.49	-0.44	0.182
	738	3.37	3.67	-0.30	0.188
	739	3.28	3.38	-0.10	0.198
	740	3.11	3.12	-0.00	0.183
	741	3.35	3.75	-0.40	0.218
	742	3.35	3.30	0.05	0.205
	743	3.23	3.30	-0.07	0.211
	744	3.49	3.72	-0.23	0.201
	745	3.43	3.31	0.11	0.185
	746	3.49	3.47	0.02	0.192
	747	3.00	3.56	-0.56	0.185
	748	3.39	3.59	-0.20	0.200
	749	3.63	3.79	-0.16	0.171
	750	3.31	3.40	-0.09	0.218
	751	3.38	3.59	-0.21	0.227
	752	3.45	3.42	0.04	0.203
	753	3.28	3.29	-0.01	0.194
	754	3.52	3.47	0.04	0.220
	755	3.00	3.11	-0.11	0.174
	756	2.90	3.10	-0.19	0.205
	757	3.34	3.60	-0.26	0.209
	758	3.42	3.61	-0.19	0.224
	759	3.54	3.63	-0.09	0.223
	760	3.15	3.21	-0.06	0.162

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	761	3.36	3.37	-0.02	0.180
	762	3.37	3.09	0.28	0.197
	763	3.49	3.54	-0.05	0.172
	764	3.30	3.55	-0.25	0.188
	765	3.28	3.64	-0.36	0.195
	766	3.32	3.87	-0.55	0.196
	767	3.18	3.27	-0.09	0.171
	768	3.35	3.34	0.00	0.184
	769	3.17	3.25	-0.09	0.182
	770	3.07	3.51	-0.44	0.163
	771	3.44	3.58	-0.14	0.192
	772	3.12	3.51	-0.40	0.178
	773	3.35	3.64	-0.29	0.206
	774	3.53	3.58	-0.05	0.196
	775	2.88	3.37	-0.49	0.162
	776	3.33	3.35	-0.02	0.186
	777	3.25	3.53	-0.28	0.188
	778	3.28	3.34	-0.05	0.159
	779	3.19	3.67	-0.49	0.186
	780	3.53	3.83	-0.30	0.200
	781	3.50	3.49	0.00	0.179
	782	2.97	3.72	-0.74	0.182
	783	3.32	3.63	-0.31	0.188
	784	3.16	3.35	-0.19	0.162

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	785	3.15	3.55	-0.40	0.168
	786	3.32	3.38	-0.05	0.184
	787	3.23	3.16	0.07	0.179
	788	3.28	3.35	-0.07	0.194
	789	3.61	3.28	0.33	0.163
	790	3.02	3.39	-0.36	0.184
	791	3.10	3.47	-0.37	0.218
	792	3.26	3.26	0.00	0.193
	793	3.42	3.77	-0.35	0.174
	794	3.11	2.98	0.14	0.159
	795	3.19	3.58	-0.39	0.186
	796	3.31	3.33	-0.03	0.179
	797	3.24	3.54	-0.30	0.173
	798	3.52	3.53	-0.02	0.202
	799	2.93	3.23	-0.31	0.187
	800	3.53	3.70	-0.16	0.187
	801	3.37	3.33	0.04	0.207
	802	3.28	3.73	-0.45	0.197
	803	3.51	3.61	-0.10	0.228
	804	3.34	3.34	-0.00	0.151
	805	3.27	3.51	-0.23	0.142
	806	3.11	3.35	-0.23	0.174
	807	3.34	3.67	-0.33	0.165
	808	3.47	3.70	-0.24	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	809	3.00	3.35	-0.35	0.189
	810	3.21	3.33	-0.11	0.207
	811	3.25	3.52	-0.27	0.202
	812	3.26	3.24	0.02	0.200
	813	3.30	3.51	-0.21	0.175
	814	3.49	3.40	0.09	0.223
	815	3.30	3.42	-0.13	0.204
	816	3.40	3.66	-0.25	0.194
	817	3.24	3.21	0.03	0.197
	818	3.42	3.39	0.03	0.172
	819	3.47	3.49	-0.02	0.195
	820	3.14	3.37	-0.23	0.129
	821	3.39	3.54	-0.14	0.190
	822	3.15	3.19	-0.04	0.190
	823	3.16	3.52	-0.35	0.196
	824	3.44	3.58	-0.14	0.183
	825	3.47	3.44	0.02	0.192
	826	3.31	3.46	-0.15	0.196
	827	3.08	3.14	-0.06	0.176
	828	3.58	3.53	0.05	0.171
	829	3.28	3.28	0.00	0.167
	830	3.30	3.63	-0.33	0.194
	831	3.44	3.61	-0.16	0.196
	832	3.07	3.15	-0.08	0.165

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	833	3.45	3.54	-0.09	0.179
	834	3.53	3.67	-0.14	0.170
	835	3.11	3.16	-0.05	0.146
	836	2.95	3.21	-0.26	0.195
	837	3.28	3.47	-0.19	0.189
	838	3.23	3.65	-0.42	0.194
	839	3.54	3.60	-0.06	0.189
	840	3.49	3.39	0.10	0.182
	841	3.09	3.30	-0.21	0.220
	842	3.14	3.30	-0.17	0.171
	843	3.33	3.42	-0.09	0.215
	844	3.30	3.52	-0.22	0.206
	845	3.46	3.77	-0.30	0.170
	846	3.27	3.69	-0.42	0.185
	847	3.40	3.61	-0.21	0.220
	848	3.28	3.39	-0.11	0.191
	849	3.26	3.35	-0.10	0.176
	850	3.44	3.40	0.04	0.196
	851	3.02	3.06	-0.04	0.152
	852	3.26	3.39	-0.13	0.193
	853	3.26	3.37	-0.11	0.188
	854	3.31	3.49	-0.18	0.180
	855	3.24	3.35	-0.11	0.175
	856	3.47	3.51	-0.04	0.204

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	857	3.27	3.35	-0.08	0.187
	858	3.33	3.60	-0.27	0.215
	859	3.35	3.70	-0.35	0.206
	860	3.39	3.65	-0.26	0.185
	861	3.62	3.57	0.05	0.224
	862	3.00	3.16	-0.16	0.196
	863	3.48	3.68	-0.21	0.206
	864	3.32	3.42	-0.10	0.195
	865	2.94	3.45	-0.51	0.200
	866	3.30	3.12	0.19	0.159
	867	3.35	3.53	-0.18	0.177
	868	3.12	3.28	-0.17	0.206
	869	3.27	3.25	0.02	0.179
	870	3.00	3.35	-0.35	0.190
	871	3.32	3.21	0.12	0.172
	872	3.23	3.30	-0.07	0.195
	873	3.14	3.44	-0.30	0.198
	874	3.23	3.98	-0.75	0.153
	875	3.12	3.30	-0.19	0.214
	876	3.51	4.10	-0.59	0.213
	877	3.42	3.79	-0.37	0.172
	878	3.17	3.26	-0.09	0.200
	879	3.54	3.50	0.03	0.165
	880	3.44	3.44	-0.00	0.210

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	881	3.07	3.19	-0.12	0.210
	882	3.14	3.26	-0.12	0.178
	883	3.55	3.55	-0.00	0.184
	884	3.30	3.30	0.00	0.196
	885	3.46	3.40	0.06	0.186
	886	3.38	3.48	-0.10	0.175
	887	3.38	3.40	-0.03	0.231
	888	3.52	3.46	0.06	0.175
	889	3.70	3.37	0.33	0.185
	890	3.16	3.42	-0.26	0.182
	891	3.45	3.37	0.08	0.178
	892	3.09	3.37	-0.28	0.198
	893	3.31	3.41	-0.10	0.221
	894	3.23	3.74	-0.51	0.200
	895	3.35	3.33	0.03	0.200
	896	3.28	3.60	-0.33	0.184
	897	3.23	3.42	-0.19	0.211
	898	3.18	3.51	-0.33	0.186
	899	3.38	3.51	-0.14	0.193
	900	3.14	3.23	-0.09	0.177
	901	3.28	3.73	-0.45	0.191
	902	3.37	3.62	-0.25	0.183
	903	3.53	3.27	0.26	0.160
	904	3.31	3.42	-0.11	0.184

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	905	3.12	3.56	-0.44	0.172
	906	3.32	3.46	-0.14	0.179
	907	3.21	3.44	-0.23	0.174
	908	3.22	3.65	-0.43	0.204
	909	3.29	3.04	0.25	0.154
	910	3.31	3.42	-0.11	0.185
	911	3.31	3.44	-0.14	0.195
	912	3.09	3.15	-0.06	0.134
	913	3.29	3.56	-0.28	0.224
	914	3.33	3.54	-0.21	0.244
	915	3.43	3.44	-0.01	0.188
	916	3.33	3.28	0.05	0.181
	917	3.68	3.62	0.05	0.194
	918	3.44	3.60	-0.16	0.199
	919	3.37	3.33	0.04	0.208
	920	3.21	3.45	-0.23	0.190
	921	3.14	3.19	-0.04	0.209
	922	3.38	3.54	-0.16	0.210
	923	3.03	3.26	-0.23	0.193
	924	3.40	3.70	-0.30	0.180
	925	3.26	3.51	-0.25	0.214
	926	3.44	3.61	-0.17	0.207
	927	3.31	3.49	-0.19	0.164
	928	3.22	3.30	-0.08	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	929	3.45	3.57	-0.12	0.198
	930	3.16	3.32	-0.16	0.157
	931	3.04	3.35	-0.31	0.176
	932	3.18	3.09	0.10	0.169
	933	3.47	3.58	-0.11	0.218
	934	3.47	3.51	-0.05	0.175
	935	3.14	3.26	-0.12	0.167
	936	3.26	3.42	-0.17	0.173
	937	3.14	3.09	0.05	0.190
	938	3.25	3.30	-0.05	0.181
	939	3.42	3.56	-0.14	0.209
	940	3.44	3.63	-0.18	0.188
	941	3.16	3.40	-0.24	0.209
	942	3.37	3.56	-0.19	0.204
	943	3.23	3.63	-0.40	0.185
	944	3.46	3.54	-0.07	0.165
	945	3.43	3.52	-0.10	0.215
	946	3.53	3.74	-0.20	0.187
	947	3.67	3.49	0.18	0.165
	948	3.09	3.42	-0.33	0.200
	949	3.20	3.15	0.05	0.183
	950	3.65	3.90	-0.25	0.211
	951	3.21	3.66	-0.45	0.178
	952	3.05	3.21	-0.16	0.195

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	953	3.51	3.58	-0.07	0.202
	954	3.32	3.91	-0.59	0.186
	955	3.19	3.34	-0.16	0.185
	956	3.59	3.38	0.21	0.198
	957	3.36	3.83	-0.47	0.159
	958	3.23	3.51	-0.27	0.160
	959	3.65	3.83	-0.18	0.182
	960	3.44	3.72	-0.28	0.194
	961	2.98	3.26	-0.28	0.182
	962	3.28	3.38	-0.10	0.212
	963	3.05	3.21	-0.17	0.200
	964	3.35	3.63	-0.28	0.211
	965	3.50	3.17	0.32	0.192
	966	3.21	3.52	-0.31	0.161
	967	3.51	3.32	0.19	0.178
	968	3.45	3.61	-0.16	0.178
	969	3.47	3.75	-0.27	0.201
	970	2.86	3.43	-0.57	0.179
	971	3.14	3.66	-0.51	0.213
	972	3.33	3.59	-0.26	0.221
	973	3.58	3.45	0.14	0.188
	974	3.53	3.40	0.14	0.221
	975	3.61	3.56	0.05	0.176
	976	3.37	3.56	-0.19	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	977	3.44	3.46	-0.02	0.183
	978	3.32	3.40	-0.07	0.195
	979	3.40	3.41	-0.02	0.192
	980	2.98	3.40	-0.42	0.179
	981	3.44	3.70	-0.25	0.194
	982	3.26	3.24	0.02	0.171
	983	3.40	3.72	-0.32	0.218
	984	3.73	3.61	0.11	0.211
	985	3.33	3.40	-0.07	0.200
	986	3.42	3.41	0.00	0.182
	987	3.10	3.24	-0.14	0.204
	988	3.25	3.56	-0.30	0.195
	989	3.14	3.18	-0.05	0.181
	990	3.24	3.44	-0.20	0.173
	991	3.12	3.56	-0.44	0.200
	992	3.49	3.30	0.19	0.197
	993	3.19	3.42	-0.23	0.217
	994	3.21	3.44	-0.23	0.183
	995	3.18	3.09	0.09	0.189
	996	3.35	3.79	-0.44	0.185
	997	3.28	3.54	-0.26	0.185
	998	3.63	3.56	0.07	0.179
	999	3.10	3.31	-0.21	0.229
	1000	3.51	3.58	-0.07	0.170

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1001	3.60	3.60	0.00	0.187
	1002	3.40	3.42	-0.02	0.195
	1003	3.31	3.45	-0.14	0.186
	1004	3.38	3.49	-0.11	0.200
	1005	3.36	3.33	0.03	0.211
	1006	3.19	3.47	-0.27	0.177
	1007	3.21	3.23	-0.02	0.161
	1008	3.61	3.61	-0.00	0.208
	1009	3.35	3.40	-0.05	0.190
	1010	3.11	3.58	-0.48	0.189
	1011	3.44	3.47	-0.03	0.181
	1012	3.04	3.46	-0.42	0.169
	1013	3.19	3.14	0.06	0.184
	1014	3.72	3.67	0.05	0.178
	1015	3.38	3.47	-0.09	0.225
	1016	2.81	2.99	-0.19	0.148
	1017	3.35	3.63	-0.28	0.192
	1018	3.40	3.40	0.00	0.220
	1019	3.16	3.46	-0.30	0.167
	1020	3.02	3.07	-0.05	0.174
	1021	3.16	3.51	-0.35	0.144
	1022	3.24	3.47	-0.23	0.202
	1023	3.51	3.58	-0.07	0.173
	1024	3.00	3.35	-0.35	0.215

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1025	3.26	3.21	0.05	0.181
	1026	3.26	3.30	-0.05	0.193
	1027	3.38	3.40	-0.02	0.184
	1028	3.56	3.51	0.05	0.171
	1029	3.47	3.49	-0.02	0.198
	1030	3.44	3.28	0.16	0.189
	1031	3.43	3.72	-0.30	0.214
	1032	3.23	3.26	-0.03	0.163
	1033	3.41	3.62	-0.21	0.195
	1034	3.42	3.35	0.07	0.191
	1035	3.33	3.37	-0.04	0.171
	1036	3.30	3.30	-0.00	0.184
	1037	3.22	3.42	-0.19	0.170
	1038	3.13	3.60	-0.47	0.186
	1039	3.02	2.93	0.10	0.164
	1040	3.09	3.26	-0.17	0.189
	1041	3.54	3.33	0.21	0.206
	1042	3.39	3.51	-0.12	0.208
	1043	3.24	3.42	-0.19	0.229
	1044	3.32	3.28	0.05	0.184
	1045	3.50	3.55	-0.04	0.157
	1046	3.11	3.72	-0.61	0.182
	1047	3.44	3.57	-0.13	0.181
	1048	3.44	3.47	-0.02	0.195

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1049	3.17	3.19	-0.02	0.177
	1050	3.49	3.26	0.23	0.196
	1051	3.32	3.24	0.08	0.170
	1052	3.28	3.70	-0.42	0.211
	1053	3.25	3.58	-0.33	0.190
	1054	3.19	3.54	-0.35	0.189
	1055	3.45	3.44	0.00	0.183
	1056	3.51	3.51	0.01	0.181
	1057	3.07	3.40	-0.33	0.200
	1058	3.10	3.36	-0.26	0.211
	1059	3.28	3.46	-0.18	0.202
	1060	3.04	3.19	-0.15	0.175
	1061	3.24	3.52	-0.28	0.179
	1062	3.33	3.52	-0.19	0.167
	1063	3.19	3.68	-0.49	0.212
	1064	3.72	3.75	-0.02	0.227
	1065	3.40	3.58	-0.18	0.177
	1066	3.44	3.74	-0.30	0.172
	1067	3.35	3.77	-0.42	0.215
	1068	3.11	3.34	-0.23	0.171
	1069	3.24	3.05	0.18	0.182
	1070	3.30	3.56	-0.25	0.199
	1071	3.46	3.64	-0.18	0.168
	1072	3.30	3.39	-0.09	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1073	3.72	3.76	-0.04	0.191
	1074	3.19	3.42	-0.22	0.233
	1075	3.58	3.42	0.17	0.168
	1076	3.25	3.26	-0.01	0.179
	1077	3.51	3.37	0.14	0.163
	1078	3.35	3.70	-0.35	0.212
	1079	3.60	3.46	0.14	0.177
	1080	3.37	3.56	-0.19	0.196
	1081	2.99	3.26	-0.27	0.168
	1082	3.27	3.18	0.10	0.198
	1083	3.28	3.39	-0.12	0.194
	1084	3.19	3.19	0.00	0.199
	1085	3.28	3.66	-0.38	0.225
	1086	3.33	3.45	-0.12	0.191
	1087	3.38	3.49	-0.11	0.183
	1088	3.12	3.42	-0.30	0.206
	1089	3.21	3.07	0.14	0.170
	1090	3.12	3.19	-0.07	0.154
	1091	3.42	3.42	-0.01	0.217
	1092	3.21	3.37	-0.16	0.196
	1093	3.24	3.36	-0.12	0.216
	1094	3.34	3.40	-0.05	0.191
	1095	2.95	3.16	-0.21	0.170
	1096	3.52	3.51	0.00	0.210

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1097	3.30	3.44	-0.14	0.190
	1098	2.96	3.03	-0.07	0.181
	1099	3.16	3.42	-0.26	0.175
	1100	2.98	3.43	-0.45	0.203
	1101	3.19	3.37	-0.18	0.165
	1102	3.42	3.95	-0.54	0.194
	1103	3.07	2.95	0.12	0.194
	1104	3.52	3.26	0.26	0.171
	1105	2.86	3.42	-0.57	0.187
	1106	3.10	3.12	-0.02	0.217
	1107	3.23	3.49	-0.26	0.195
	1108	3.25	3.56	-0.31	0.183
	1109	3.25	3.39	-0.14	0.170
	1110	3.51	3.61	-0.10	0.199
	1111	3.27	3.47	-0.19	0.205
	1112	3.07	3.56	-0.50	0.174
	1113	3.40	3.88	-0.49	0.200
	1114	3.44	3.81	-0.37	0.175
	1115	3.49	3.14	0.35	0.184
	1116	3.62	3.58	0.04	0.149
	1117	3.33	3.35	-0.02	0.198
	1118	3.22	3.03	0.19	0.185
	1119	2.98	3.21	-0.23	0.190
	1120	3.14	3.51	-0.37	0.190

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1121	3.32	3.58	-0.26	0.188
	1122	3.35	3.47	-0.12	0.182
	1123	3.36	3.51	-0.14	0.134
	1124	3.14	3.39	-0.26	0.188
	1125	3.14	3.44	-0.30	0.192
	1126	3.50	3.51	-0.01	0.176
	1127	3.58	3.72	-0.14	0.186
	1128	3.31	3.56	-0.25	0.193
	1129	3.38	3.26	0.12	0.162
	1130	3.19	3.45	-0.26	0.188
	1131	3.39	3.42	-0.03	0.168
	1132	3.26	3.41	-0.15	0.184
	1133	3.41	3.53	-0.11	0.179
	1134	3.28	3.35	-0.07	0.188
	1135	3.06	3.28	-0.21	0.181
	1136	3.30	3.53	-0.23	0.150
	1137	3.33	3.64	-0.30	0.222
	1138	3.60	3.28	0.33	0.203
	1139	3.23	3.41	-0.18	0.179
	1140	3.23	3.09	0.14	0.153
	1141	3.33	3.68	-0.34	0.229
	1142	3.12	3.66	-0.54	0.205
	1143	3.35	3.44	-0.09	0.184
	1144	3.50	3.42	0.08	0.178

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1145	3.11	3.59	-0.48	0.172
	1146	3.20	3.58	-0.38	0.155
	1147	3.10	3.21	-0.12	0.210
	1148	3.19	3.16	0.03	0.166
	1149	3.00	3.37	-0.37	0.157
	1150	3.28	3.45	-0.16	0.187
	1151	3.49	3.51	-0.03	0.161
	1152	2.88	3.54	-0.66	0.202
	1153	3.28	3.37	-0.10	0.183
	1154	3.28	3.33	-0.05	0.178
	1155	3.14	3.18	-0.04	0.189
	1156	3.23	3.34	-0.11	0.155
	1157	3.58	3.46	0.12	0.182
	1158	2.91	3.63	-0.72	0.194
	1159	3.18	3.51	-0.33	0.180
	1160	3.08	3.34	-0.25	0.165
	1161	3.26	3.56	-0.30	0.187
	1162	2.99	3.31	-0.32	0.182
	1163	3.00	3.10	-0.09	0.157
	1164	3.24	3.23	0.00	0.202
	1165	3.22	3.48	-0.26	0.168
	1166	3.12	3.12	-0.00	0.187
	1167	3.33	3.37	-0.04	0.169
	1168	3.33	3.65	-0.32	0.164

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1169	3.00	3.26	-0.26	0.205
	1170	3.35	3.40	-0.05	0.240
	1171	3.07	3.17	-0.10	0.165
	1172	3.10	3.35	-0.25	0.183
	1173	3.26	3.44	-0.19	0.197
	1174	3.33	3.21	0.12	0.176
	1175	3.12	3.32	-0.20	0.187
	1176	3.26	3.28	-0.02	0.176
	1177	3.40	3.19	0.21	0.167
	1178	3.35	3.47	-0.11	0.205
	1179	3.24	3.36	-0.11	0.213
	1180	3.21	3.31	-0.10	0.189
	1181	3.60	3.69	-0.09	0.192
	1182	3.12	3.28	-0.16	0.196
	1183	2.97	3.40	-0.42	0.186
	1184	3.45	3.50	-0.05	0.199
	1185	3.25	3.65	-0.40	0.229
	1186	3.31	3.30	0.00	0.162
	1187	2.98	3.08	-0.10	0.202
	1188	3.44	3.46	-0.02	0.202
	1189	3.09	3.23	-0.14	0.163
	1190	3.14	3.42	-0.28	0.219
	1191	3.68	3.77	-0.09	0.215
	1192	3.09	3.46	-0.37	0.130

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1193	2.90	3.35	-0.45	0.187
	1194	3.18	3.51	-0.33	0.183
	1195	3.32	3.36	-0.04	0.174
	1196	3.02	3.20	-0.18	0.131
	1197	3.42	3.39	0.03	0.191
	1198	3.26	3.24	0.02	0.229
	1199	3.33	3.43	-0.10	0.215
	1200	3.07	3.26	-0.19	0.184
	1201	3.19	3.71	-0.52	0.176
	1202	3.19	3.05	0.14	0.192
	1203	3.32	3.80	-0.48	0.214
	1204	3.28	3.23	0.05	0.171
	1205	3.35	3.65	-0.30	0.217
	1206	3.59	3.47	0.12	0.181
	1207	3.60	3.52	0.09	0.192
	1208	3.45	3.56	-0.11	0.185
	1209	2.99	3.14	-0.14	0.166
	1210	3.16	3.16	-0.00	0.198
	1211	3.05	3.01	0.04	0.181
	1212	3.45	3.26	0.19	0.209
	1213	3.58	3.24	0.35	0.174
	1214	3.35	3.47	-0.12	0.202
	1215	3.51	3.33	0.19	0.197
	1216	3.33	3.65	-0.33	0.217

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1217	3.40	3.29	0.11	0.196
	1218	3.56	3.43	0.14	0.215
	1219	3.23	3.28	-0.05	0.176
	1220	3.12	3.10	0.02	0.186
	1221	3.19	3.17	0.02	0.192
	1222	3.37	3.35	0.02	0.183
	1223	3.08	3.65	-0.57	0.176
	1224	3.59	3.35	0.24	0.172
	1225	3.45	3.42	0.02	0.195
	1226	3.21	3.59	-0.38	0.215
	1227	2.98	3.56	-0.59	0.209
	1228	3.37	3.35	0.02	0.192
	1229	3.21	3.46	-0.26	0.193
	1230	3.46	3.50	-0.04	0.189
	1231	3.32	3.81	-0.48	0.177
	1232	3.49	3.35	0.13	0.209
	1233	3.14	3.58	-0.45	0.179
	1234	3.30	3.42	-0.12	0.185
	1235	3.32	3.35	-0.03	0.181
	1236	3.37	3.69	-0.32	0.125
	1237	3.40	3.67	-0.27	0.189
	1238	3.14	3.23	-0.09	0.167
	1239	3.31	3.37	-0.06	0.186
	1240	3.22	3.22	-0.00	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1241	3.28	3.24	0.04	0.206
	1242	3.60	3.65	-0.04	0.204
	1243	3.45	3.49	-0.04	0.198
	1244	3.58	3.56	0.03	0.196
	1245	3.44	3.50	-0.07	0.185
	1246	3.19	3.56	-0.37	0.209
	1247	3.21	3.33	-0.11	0.191
	1248	3.91	3.91	0.00	0.218
	1249	3.07	3.43	-0.35	0.213
	1250	3.47	3.77	-0.30	0.222
	1251	3.59	3.68	-0.09	0.218
	1252	3.70	3.86	-0.17	0.205
	1253	3.09	3.28	-0.18	0.191
	1254	3.40	3.79	-0.40	0.179
	1255	3.37	3.35	0.03	0.181
	1256	3.12	3.51	-0.40	0.188
	1257	3.27	3.62	-0.35	0.179
	1258	2.79	3.21	-0.42	0.187
	1259	3.75	3.51	0.24	0.206
	1260	3.21	2.98	0.23	0.186
	1261	3.42	3.56	-0.14	0.217
	1262	3.37	3.53	-0.16	0.184
	1263	3.49	3.32	0.17	0.150
	1264	3.39	3.97	-0.59	0.156

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1265	3.54	3.56	-0.02	0.209
	1266	3.24	3.33	-0.10	0.198
	1267	3.18	3.58	-0.40	0.209
	1268	3.21	3.40	-0.19	0.158
	1269	3.42	3.56	-0.14	0.201
	1270	3.25	3.11	0.14	0.160
	1271	3.39	3.48	-0.09	0.187
	1272	3.09	3.30	-0.21	0.160
	1273	3.12	3.42	-0.30	0.213
	1274	3.05	3.32	-0.28	0.179
	1275	3.07	3.37	-0.30	0.212
	1276	3.39	3.57	-0.18	0.195
	1277	3.16	3.03	0.14	0.188
	1278	3.48	3.46	0.02	0.226
	1279	3.32	3.46	-0.13	0.189
	1280	3.26	3.35	-0.09	0.211
	1281	3.54	3.23	0.31	0.167
	1282	3.24	3.45	-0.22	0.191
	1283	3.23	3.41	-0.18	0.177
	1284	3.52	3.36	0.16	0.187
	1285	2.83	3.14	-0.30	0.183
	1286	3.21	3.28	-0.06	0.194
	1287	3.37	3.56	-0.19	0.203
	1288	3.16	3.54	-0.38	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1289	3.36	3.49	-0.14	0.222
	1290	3.43	3.26	0.17	0.178
	1291	3.14	3.21	-0.07	0.163
	1292	3.00	3.40	-0.40	0.157
	1293	3.31	3.37	-0.07	0.182
	1294	3.12	3.33	-0.20	0.180
	1295	3.53	3.74	-0.21	0.217
	1296	3.54	3.77	-0.23	0.220
	1297	3.33	3.73	-0.40	0.223
	1298	3.40	3.61	-0.21	0.174
	1299	3.30	3.40	-0.10	0.181
	1300	3.35	3.21	0.14	0.180
	1301	3.44	3.87	-0.42	0.193
	1302	3.19	3.84	-0.66	0.210
	1303	3.23	3.44	-0.21	0.208
	1304	3.21	3.23	-0.02	0.160
	1305	3.26	3.49	-0.23	0.210
	1306	3.21	3.46	-0.24	0.213
	1307	3.31	3.39	-0.09	0.192
	1308	3.07	3.23	-0.16	0.196
	1309	3.26	3.51	-0.25	0.192
	1310	3.38	3.64	-0.26	0.205
	1311	3.49	3.62	-0.12	0.189
	1312	3.47	3.75	-0.28	0.216

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1313	3.17	3.41	-0.25	0.191
	1314	3.21	3.65	-0.44	0.197
	1315	3.51	3.61	-0.10	0.214
	1316	3.00	3.82	-0.82	0.168
	1317	3.51	3.54	-0.02	0.198
	1318	3.23	3.84	-0.62	0.185
	1319	3.07	3.10	-0.03	0.182
	1320	3.49	3.42	0.08	0.168
	1321	3.16	3.39	-0.23	0.204
	1322	3.47	4.08	-0.61	0.225
	1323	3.28	3.33	-0.06	0.193
	1324	3.26	2.98	0.28	0.190
	1325	3.32	3.65	-0.33	0.175
	1326	2.90	3.16	-0.26	0.167
	1327	3.40	3.37	0.03	0.187
	1328	3.16	3.28	-0.12	0.169
	1329	3.54	3.66	-0.12	0.245
	1330	3.40	3.63	-0.23	0.212
	1331	3.33	3.60	-0.28	0.199
	1332	3.20	3.57	-0.38	0.200
	1333	3.23	3.30	-0.07	0.169
	1334	3.37	3.79	-0.42	0.188
	1335	3.17	3.37	-0.20	0.172
	1336	3.14	3.56	-0.41	0.177

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1337	3.54	3.67	-0.14	0.193
	1338	3.46	3.55	-0.09	0.162
	1339	3.31	3.65	-0.34	0.220
	1340	2.76	3.27	-0.51	0.163
	1341	3.21	3.42	-0.21	0.167
	1342	3.37	3.68	-0.30	0.212
	1343	3.16	3.23	-0.07	0.156
	1344	3.24	3.33	-0.10	0.177
	1345	3.51	3.60	-0.09	0.204
	1346	3.18	3.39	-0.21	0.185
	1347	3.53	3.74	-0.21	0.173
	1348	3.32	3.39	-0.07	0.203
	1349	3.00	3.23	-0.23	0.198
	1350	3.35	3.35	-0.00	0.187
	1351	3.28	3.49	-0.21	0.195
	1352	3.00	2.95	0.05	0.175
	1353	3.84	3.93	-0.09	0.198
	1354	3.28	3.59	-0.30	0.192
	1355	3.30	3.49	-0.19	0.224
	1356	3.24	3.26	-0.02	0.191
	1357	3.37	3.56	-0.19	0.199
	1358	3.47	3.60	-0.14	0.206
	1359	3.16	3.37	-0.21	0.183
	1360	3.47	3.21	0.26	0.155

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1361	3.32	3.55	-0.23	0.164
	1362	3.32	3.35	-0.02	0.180
	1363	3.16	3.44	-0.28	0.163
	1364	3.59	3.77	-0.18	0.230
	1365	3.30	3.81	-0.51	0.165
	1366	3.54	3.47	0.07	0.215
	1367	3.59	3.35	0.23	0.201
	1368	3.26	3.54	-0.29	0.201
	1369	3.40	3.52	-0.12	0.219
	1370	3.44	3.44	0.00	0.135
	1371	3.33	3.23	0.10	0.183
	1372	3.46	3.69	-0.23	0.164
	1373	3.13	3.27	-0.15	0.159
	1374	3.23	3.79	-0.56	0.214
	1375	3.28	3.54	-0.25	0.206
	1376	3.18	3.28	-0.10	0.202
	1377	3.35	3.47	-0.11	0.175
	1378	3.26	3.74	-0.48	0.192
	1379	3.45	3.52	-0.07	0.237
	1380	3.17	3.24	-0.07	0.185
	1381	3.47	3.75	-0.28	0.181
	1382	3.51	3.49	0.03	0.217
	1383	3.26	3.47	-0.21	0.188
	1384	3.40	3.65	-0.26	0.190

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1385	3.46	3.95	-0.49	0.185
	1386	3.15	2.98	0.16	0.196
	1387	3.47	3.59	-0.12	0.205
	1388	3.23	3.43	-0.21	0.192
	1389	3.19	3.26	-0.07	0.163
	1390	3.56	3.67	-0.11	0.184
	1391	3.41	3.42	-0.00	0.179
	1392	3.14	3.14	-0.00	0.160
	1393	3.28	3.75	-0.47	0.192
	1394	3.58	3.63	-0.04	0.207
	1395	3.26	3.35	-0.09	0.177
	1396	3.23	3.20	0.03	0.206
	1397	3.17	3.17	-0.00	0.190
	1398	3.37	3.33	0.04	0.212
	1399	3.37	3.25	0.12	0.180
	1400	3.14	3.59	-0.45	0.199
	1401	3.54	3.68	-0.14	0.206
	1402	3.50	3.71	-0.21	0.255
	1403	3.05	2.93	0.12	0.169
	1404	3.09	3.19	-0.10	0.192
	1405	3.02	3.28	-0.25	0.187
	1406	3.02	3.51	-0.49	0.178
	1407	2.99	3.17	-0.17	0.176
	1408	3.24	3.45	-0.21	0.192

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1409	3.14	3.25	-0.11	0.147
	1410	3.44	3.53	-0.09	0.163
	1411	3.27	3.20	0.07	0.179
	1412	3.14	3.54	-0.40	0.187
	1413	3.16	3.58	-0.42	0.194
	1414	3.05	3.14	-0.10	0.192
	1415	3.28	3.44	-0.16	0.174
	1416	3.49	3.51	-0.02	0.169
	1417	3.51	3.79	-0.27	0.184
	1418	3.32	3.60	-0.27	0.159
	1419	3.50	3.82	-0.32	0.214
	1420	3.42	3.47	-0.05	0.194
	1421	3.63	3.31	0.33	0.187
	1422	3.25	3.39	-0.14	0.198
	1423	3.27	3.30	-0.03	0.191
	1424	3.50	3.95	-0.46	0.187
	1425	3.45	3.61	-0.16	0.231
	1426	3.11	3.30	-0.19	0.180
	1427	3.32	3.44	-0.12	0.189
	1428	3.37	3.12	0.25	0.178
	1429	3.07	3.06	0.00	0.199
	1430	4.03	3.44	0.59	0.186
	1431	3.40	3.45	-0.05	0.209
	1432	3.52	3.91	-0.40	0.215

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1433	3.19	3.44	-0.26	0.200
	1434	3.13	3.42	-0.30	0.213
	1435	3.31	3.52	-0.21	0.219
	1436	3.55	3.96	-0.40	0.191
	1437	3.45	3.49	-0.04	0.194
	1438	3.33	3.28	0.05	0.180
	1439	3.16	3.07	0.09	0.178
	1440	3.62	3.86	-0.24	0.200
	1441	3.56	3.32	0.24	0.176
	1442	3.77	3.54	0.24	0.182
	1443	3.07	3.21	-0.13	0.195
	1444	3.42	3.32	0.10	0.168
	1445	3.66	3.77	-0.11	0.196
	1446	3.43	3.53	-0.11	0.187
	1447	3.49	3.51	-0.02	0.163
	1448	3.53	3.98	-0.44	0.206
	1449	3.47	3.42	0.05	0.185
	1450	3.23	3.36	-0.12	0.170
	1451	3.44	3.63	-0.19	0.199
	1452	3.33	3.21	0.12	0.166
	1453	3.71	3.56	0.14	0.200
	1454	3.42	3.61	-0.19	0.198
	1455	3.14	3.52	-0.38	0.165
	1456	3.49	3.51	-0.02	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1457	3.15	3.30	-0.15	0.165
	1458	3.25	3.63	-0.38	0.174
	1459	3.17	3.38	-0.21	0.176
	1460	3.25	3.44	-0.19	0.197
	1461	3.35	3.49	-0.14	0.224
	1462	3.42	3.47	-0.05	0.199
	1463	3.41	3.72	-0.31	0.204
	1464	3.52	3.56	-0.04	0.210
	1465	3.21	3.25	-0.04	0.202
	1466	3.09	3.21	-0.12	0.191
	1467	3.28	3.47	-0.19	0.183
	1468	3.41	3.33	0.07	0.204
	1469	3.38	3.40	-0.02	0.212
	1470	3.80	3.77	0.03	0.197
	1471	3.53	3.51	0.02	0.220
	1472	3.35	3.43	-0.08	0.227
	1473	3.44	3.42	0.02	0.176
	1474	3.28	3.25	0.02	0.206
	1475	3.23	3.52	-0.29	0.225
	1476	3.35	3.51	-0.16	0.202
	1477	3.10	3.28	-0.19	0.188
	1478	3.35	3.80	-0.45	0.215
	1479	3.19	3.10	0.09	0.190
	1480	3.21	2.92	0.29	0.166

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1481	3.40	3.49	-0.10	0.189
	1482	3.39	3.60	-0.21	0.195
	1483	3.25	3.58	-0.33	0.193
	1484	3.35	3.58	-0.23	0.218
	1485	3.39	3.76	-0.37	0.167
	1486	3.47	3.64	-0.17	0.177
	1487	3.04	3.32	-0.28	0.172
	1488	3.56	3.75	-0.19	0.229
	1489	3.31	3.07	0.24	0.213
	1490	3.26	3.50	-0.25	0.164
	1491	3.26	3.70	-0.44	0.206
	1492	3.63	3.98	-0.35	0.218
	1493	3.14	3.35	-0.21	0.164
	1494	3.18	3.44	-0.26	0.187
	1495	3.45	3.40	0.05	0.201
	1496	3.21	3.03	0.17	0.157
	1497	3.28	3.35	-0.07	0.190
	1498	3.39	3.39	-0.00	0.169
	1499	3.40	3.26	0.14	0.206
	1500	3.66	3.94	-0.28	0.241
	1501	3.30	3.18	0.12	0.197
	1502	3.46	3.58	-0.12	0.202
	1503	3.00	3.40	-0.40	0.194
	1504	3.38	3.09	0.29	0.161

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1505	3.30	3.53	-0.23	0.162
	1506	3.46	3.53	-0.06	0.180
	1507	3.65	3.83	-0.18	0.195
	1508	3.13	3.32	-0.19	0.163
	1509	3.40	3.84	-0.44	0.203
	1510	3.54	3.35	0.19	0.177
	1511	2.83	3.09	-0.26	0.169
	1512	3.52	3.24	0.28	0.176
	1513	3.14	3.35	-0.21	0.173
	1514	2.79	3.15	-0.37	0.186
	1515	3.47	3.61	-0.14	0.172
	1516	3.42	3.84	-0.42	0.200
	1517	3.09	3.27	-0.19	0.168
	1518	3.25	3.63	-0.37	0.210
	1519	3.40	3.31	0.09	0.182
	1520	3.14	3.35	-0.21	0.192
	1521	3.24	3.35	-0.12	0.208
	1522	3.35	3.26	0.09	0.186
	1523	3.51	3.46	0.05	0.178
	1524	3.42	3.61	-0.19	0.234
	1525	3.32	3.30	0.03	0.151
	1526	3.52	3.53	-0.02	0.192
	1527	3.31	3.22	0.10	0.195
	1528	3.23	3.53	-0.31	0.162

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1529	3.12	3.54	-0.42	0.182
	1530	3.38	2.98	0.39	0.187
	1531	3.13	3.48	-0.35	0.168
	1532	3.28	3.14	0.14	0.174
	1533	3.20	3.56	-0.35	0.227
	1534	3.16	3.42	-0.26	0.184
	1535	3.00	3.35	-0.35	0.200
	1536	3.61	3.68	-0.06	0.241
	1537	3.47	3.80	-0.32	0.229
	1538	3.25	3.28	-0.03	0.137
	1539	3.20	3.22	-0.02	0.218
	1540	3.17	3.42	-0.25	0.227
	1541	3.42	3.48	-0.06	0.197
	1542	3.28	3.30	-0.02	0.195
	1543	3.73	3.88	-0.16	0.215
	1544	3.19	3.63	-0.44	0.204
	1545	3.04	3.35	-0.31	0.195
	1546	3.35	3.19	0.16	0.187
	1547	3.54	3.54	-0.00	0.223
	1548	3.14	3.09	0.04	0.179
	1549	3.33	3.33	0.00	0.197
	1550	3.19	3.56	-0.38	0.194
	1551	3.33	3.60	-0.28	0.196
	1552	3.14	3.40	-0.26	0.223

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1553	3.21	3.44	-0.23	0.201
	1554	3.33	3.42	-0.09	0.215
	1555	3.60	3.55	0.05	0.186
	1556	3.57	3.61	-0.03	0.197
	1557	3.66	3.65	0.01	0.214
	1558	3.23	3.09	0.14	0.197
	1559	3.12	3.45	-0.33	0.209
	1560	3.25	3.32	-0.07	0.166
	1561	3.47	3.35	0.12	0.203
	1562	3.69	3.56	0.12	0.220
	1563	3.12	3.10	0.02	0.185
	1564	3.45	3.42	0.02	0.206
	1565	3.56	3.31	0.26	0.184
	1566	3.28	3.54	-0.26	0.202
	1567	3.39	3.63	-0.24	0.171
	1568	3.44	3.37	0.07	0.192
	1569	3.49	3.60	-0.11	0.189
	1570	3.22	3.87	-0.65	0.202
	1571	3.28	3.32	-0.04	0.190
	1572	3.37	3.61	-0.24	0.208
	1573	3.31	3.13	0.18	0.199
	1574	3.37	3.40	-0.03	0.165
	1575	3.80	4.02	-0.23	0.207
	1576	3.28	3.72	-0.44	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1577	3.35	3.16	0.19	0.199
	1578	3.18	3.58	-0.40	0.187
	1579	3.28	3.69	-0.42	0.178
	1580	3.30	3.52	-0.22	0.191
	1581	3.21	3.42	-0.21	0.180
	1582	3.28	3.36	-0.08	0.196
	1583	3.36	3.38	-0.02	0.180
	1584	3.54	3.52	0.02	0.224
	1585	2.98	3.32	-0.34	0.158
	1586	3.16	3.23	-0.07	0.170
	1587	3.23	3.75	-0.52	0.180
	1588	3.42	3.26	0.16	0.199
	1589	3.59	3.65	-0.06	0.203
	1590	3.21	3.28	-0.07	0.163
	1591	3.49	3.68	-0.19	0.219
	1592	3.24	3.44	-0.20	0.185
	1593	3.37	3.43	-0.06	0.175
	1594	3.30	3.46	-0.16	0.178
	1595	3.49	3.54	-0.04	0.195
	1596	3.17	3.59	-0.43	0.203
	1597	3.09	3.07	0.02	0.189
	1598	3.15	3.03	0.12	0.165
	1599	3.09	3.05	0.04	0.188
	1600	3.82	3.58	0.23	0.184

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1601	3.16	3.46	-0.30	0.194
	1602	3.14	3.49	-0.35	0.187
	1603	3.32	3.35	-0.03	0.188
	1604	3.14	3.54	-0.40	0.189
	1605	3.26	3.47	-0.21	0.197
	1606	3.54	3.56	-0.02	0.229
	1607	3.16	3.28	-0.12	0.193
	1608	3.40	3.70	-0.30	0.192
	1609	3.11	3.37	-0.26	0.190
	1610	3.61	3.02	0.59	0.151
	1611	3.14	3.21	-0.07	0.188
	1612	3.32	3.51	-0.19	0.214
	1613	3.33	3.47	-0.15	0.216
	1614	3.35	3.70	-0.35	0.215
	1615	3.30	3.48	-0.18	0.178
	1616	3.31	3.84	-0.54	0.216
	1617	3.45	3.26	0.19	0.161
	1618	3.33	3.49	-0.16	0.218
	1619	3.30	3.19	0.11	0.190
	1620	3.34	3.41	-0.07	0.200
	1621	3.16	3.35	-0.18	0.163
	1622	3.42	3.78	-0.37	0.173
	1623	3.25	3.24	0.02	0.205
	1624	3.26	3.52	-0.26	0.213

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1625	3.28	3.60	-0.32	0.204
	1626	3.31	3.51	-0.20	0.201
	1627	3.56	3.73	-0.17	0.202
	1628	3.21	3.68	-0.47	0.158
	1629	3.28	3.52	-0.24	0.198
	1630	3.14	3.32	-0.18	0.189
	1631	3.37	3.56	-0.19	0.208
	1632	3.42	3.65	-0.23	0.217
	1633	3.11	3.37	-0.26	0.226
	1634	3.49	3.28	0.22	0.155
	1635	3.15	3.65	-0.50	0.218
	1636	3.52	3.42	0.09	0.199
	1637	3.32	3.58	-0.26	0.181
	1638	3.50	3.54	-0.04	0.201
	1639	3.15	3.28	-0.14	0.183
	1640	3.21	3.49	-0.28	0.181
	1641	3.42	3.24	0.18	0.182
	1642	3.56	3.55	0.01	0.187
	1643	3.77	3.92	-0.16	0.174
	1644	3.14	3.23	-0.09	0.180
	1645	3.33	3.44	-0.11	0.187
	1646	3.28	3.49	-0.21	0.199
	1647	3.35	3.68	-0.33	0.168
	1648	3.72	3.60	0.12	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1649	3.25	3.61	-0.36	0.183
	1650	3.33	3.72	-0.39	0.213
	1651	3.44	3.63	-0.19	0.203
	1652	3.42	3.82	-0.39	0.165
	1653	3.23	3.38	-0.14	0.179
	1654	3.16	3.55	-0.39	0.185
	1655	3.40	3.35	0.05	0.210
	1656	3.30	3.44	-0.14	0.198
	1657	3.58	3.84	-0.26	0.223
	1658	3.16	3.22	-0.05	0.190
	1659	3.68	3.33	0.35	0.183
	1660	3.30	3.26	0.05	0.184
	1661	3.44	3.61	-0.16	0.184
	1662	2.86	3.21	-0.35	0.181
	1663	3.14	3.37	-0.23	0.168
	1664	3.43	3.49	-0.06	0.214
	1665	3.45	3.73	-0.28	0.222
	1666	3.27	3.23	0.03	0.193
	1667	3.38	3.47	-0.09	0.197
	1668	3.24	3.38	-0.14	0.209
	1669	3.28	3.54	-0.26	0.197
	1670	3.38	3.19	0.19	0.206
	1671	3.23	3.12	0.12	0.188
	1672	3.11	3.16	-0.05	0.179

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1673	3.53	3.64	-0.10	0.208
	1674	3.45	3.50	-0.05	0.205
	1675	3.27	3.45	-0.18	0.185
	1676	3.04	3.75	-0.70	0.166
	1677	3.07	3.56	-0.49	0.219
	1678	3.19	3.26	-0.07	0.200
	1679	3.33	3.33	-0.00	0.161
	1680	3.12	3.54	-0.43	0.190
	1681	3.79	3.69	0.10	0.186
	1682	3.04	3.54	-0.50	0.172
	1683	3.53	3.77	-0.24	0.198
	1684	3.40	3.75	-0.35	0.196
	1685	3.45	3.24	0.21	0.195
	1686	3.16	3.23	-0.07	0.173
	1687	3.29	3.74	-0.45	0.197
	1688	3.38	3.21	0.17	0.193
	1689	3.28	3.44	-0.16	0.181
	1690	3.23	3.37	-0.14	0.176
	1691	3.21	3.47	-0.26	0.195
	1692	2.90	3.14	-0.24	0.182
	1693	3.25	3.28	-0.02	0.167
	1694	3.07	3.26	-0.18	0.165
	1695	3.11	3.51	-0.40	0.181
	1696	3.18	3.51	-0.33	0.222

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1697	3.44	3.72	-0.28	0.194
	1698	3.60	3.88	-0.28	0.203
	1699	3.63	3.79	-0.16	0.180
	1700	3.30	3.55	-0.25	0.191
	1701	2.98	3.06	-0.09	0.166
	1702	3.40	3.42	-0.02	0.177
	1703	3.24	3.49	-0.26	0.211
	1704	3.25	3.59	-0.34	0.199
	1705	3.33	3.61	-0.28	0.155
	1706	3.42	3.49	-0.07	0.195
	1707	3.05	3.40	-0.35	0.192
	1708	2.95	3.41	-0.47	0.163
	1709	2.97	3.07	-0.10	0.149
	1710	3.28	3.60	-0.32	0.226
	1711	3.37	3.35	0.02	0.202
	1712	3.35	3.33	0.02	0.180
	1713	3.38	3.19	0.19	0.214
	1714	3.17	3.07	0.09	0.171
	1715	3.29	3.77	-0.48	0.203
	1716	3.13	3.16	-0.03	0.182
	1717	3.49	3.58	-0.09	0.194
	1718	3.24	3.28	-0.04	0.178
	1719	3.21	3.26	-0.05	0.168
	1720	3.43	3.45	-0.03	0.270

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1721	3.56	3.58	-0.02	0.166
	1722	3.27	3.53	-0.26	0.172
	1723	3.32	3.56	-0.24	0.207
	1724	3.42	3.58	-0.16	0.194
	1725	3.09	3.23	-0.14	0.186
	1726	3.49	3.17	0.32	0.202
	1727	3.70	3.68	0.03	0.186
	1728	3.30	3.82	-0.52	0.195
	1729	3.11	3.53	-0.42	0.179
	1730	3.32	3.25	0.07	0.200
	1731	3.43	3.77	-0.35	0.200
	1732	3.32	3.37	-0.05	0.184
	1733	3.07	3.14	-0.07	0.169
	1734	3.17	3.45	-0.28	0.200
	1735	3.35	3.48	-0.13	0.187
	1736	3.26	3.34	-0.08	0.143
	1737	3.09	3.65	-0.56	0.208
	1738	3.18	3.16	0.02	0.166
	1739	3.16	3.25	-0.09	0.202
	1740	3.18	3.30	-0.11	0.165
	1741	2.98	3.09	-0.11	0.179
	1742	3.09	3.20	-0.11	0.161
	1743	3.14	3.19	-0.06	0.193
	1744	3.45	3.38	0.07	0.189

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1745	3.18	3.44	-0.26	0.211
	1746	3.07	3.33	-0.26	0.215
	1747	3.37	3.46	-0.09	0.176
	1748	3.05	3.44	-0.39	0.185
	1749	3.10	3.45	-0.35	0.179
	1750	3.26	3.26	-0.00	0.207
	1751	2.81	3.11	-0.30	0.204
	1752	3.65	4.14	-0.49	0.225
	1753	3.23	3.46	-0.23	0.196
	1754	3.23	3.86	-0.63	0.194
	1755	3.52	3.32	0.19	0.191
	1756	3.19	3.16	0.02	0.192
	1757	3.15	3.21	-0.07	0.191
	1758	3.09	3.58	-0.49	0.182
	1759	2.91	3.28	-0.37	0.210
	1760	3.19	3.34	-0.14	0.207
	1761	3.46	3.65	-0.18	0.162
	1762	3.06	3.43	-0.37	0.231
	1763	3.35	3.32	0.03	0.153
	1764	3.56	3.47	0.10	0.172
	1765	3.25	3.34	-0.09	0.177
	1766	3.28	3.37	-0.09	0.184
	1767	3.27	3.45	-0.18	0.153
	1768	3.54	3.63	-0.09	0.210

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1769	3.47	3.57	-0.09	0.215
	1770	3.23	3.54	-0.31	0.175
	1771	3.58	3.42	0.17	0.168
	1772	3.26	3.51	-0.26	0.182
	1773	3.65	3.85	-0.20	0.169
	1774	3.68	4.00	-0.33	0.223
	1775	3.33	3.21	0.11	0.187
	1776	3.32	3.30	0.03	0.151
	1777	3.47	3.42	0.05	0.202
	1778	3.21	3.63	-0.42	0.169
	1779	3.33	3.51	-0.19	0.208
	1780	3.18	3.22	-0.04	0.195
	1781	3.39	3.18	0.21	0.148
	1782	3.75	3.89	-0.14	0.224
	1783	3.26	3.38	-0.12	0.198
	1784	2.93	3.37	-0.44	0.206
	1785	3.00	3.23	-0.24	0.175
	1786	3.52	3.77	-0.25	0.199
	1787	3.42	3.59	-0.17	0.204
	1788	3.19	3.35	-0.17	0.195
	1789	3.19	3.37	-0.18	0.198
	1790	3.65	3.85	-0.21	0.185
	1791	3.47	3.56	-0.09	0.187
	1792	3.45	3.10	0.35	0.174

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1793	3.16	3.42	-0.26	0.192
	1794	3.10	3.17	-0.07	0.173
	1795	3.16	3.10	0.06	0.170
	1796	3.28	3.33	-0.04	0.209
	1797	3.31	3.37	-0.07	0.219
	1798	3.44	3.64	-0.19	0.209
	1799	3.21	3.52	-0.31	0.195
	1800	3.44	3.65	-0.21	0.219
	1801	3.53	3.37	0.17	0.223
	1802	3.19	3.19	0.00	0.191
	1803	3.39	3.33	0.06	0.201
	1804	2.88	3.17	-0.28	0.191
	1805	3.32	3.51	-0.19	0.194
	1806	3.04	3.03	0.02	0.201
	1807	3.20	3.32	-0.12	0.174
	1808	3.49	3.51	-0.02	0.219
	1809	3.26	3.36	-0.10	0.200
	1810	3.21	3.40	-0.19	0.198
	1811	3.56	3.72	-0.17	0.215
	1812	3.44	3.73	-0.28	0.195
	1813	3.45	3.42	0.02	0.195
	1814	3.44	3.54	-0.10	0.204
	1815	3.44	3.53	-0.09	0.164
	1816	3.37	3.23	0.14	0.189

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1817	3.12	3.23	-0.11	0.160
	1818	3.40	3.35	0.05	0.196
	1819	3.30	3.58	-0.28	0.209
	1820	2.93	3.19	-0.26	0.187
	1821	3.46	3.60	-0.14	0.180
	1822	3.28	3.35	-0.07	0.191
	1823	3.56	3.70	-0.14	0.194
	1824	3.35	3.61	-0.26	0.208
	1825	3.56	3.63	-0.08	0.195
	1826	3.09	3.25	-0.16	0.162
	1827	3.16	3.24	-0.08	0.195
	1828	2.88	3.30	-0.42	0.155
	1829	3.16	3.27	-0.11	0.185
	1830	3.03	3.30	-0.27	0.174
	1831	3.23	3.65	-0.42	0.187
	1832	3.85	3.59	0.26	0.192
	1833	3.48	3.55	-0.06	0.171
	1834	3.35	3.44	-0.09	0.203
	1835	3.28	3.35	-0.07	0.197
	1836	3.51	3.72	-0.21	0.192
	1837	3.40	3.67	-0.27	0.163
	1838	3.28	3.42	-0.14	0.203
	1839	3.09	3.42	-0.33	0.173
	1840	3.35	3.30	0.05	0.174

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1841	3.30	2.98	0.32	0.187
	1842	3.23	3.61	-0.38	0.166
	1843	3.27	3.30	-0.03	0.155
	1844	3.28	3.28	0.00	0.169
	1845	3.07	3.66	-0.58	0.202
	1846	3.34	3.46	-0.12	0.208
	1847	3.15	3.45	-0.30	0.222
	1848	2.97	3.31	-0.33	0.187
	1849	3.35	3.49	-0.14	0.217
	1850	3.30	3.58	-0.28	0.202
	1851	3.07	3.23	-0.16	0.168
	1852	3.80	3.65	0.15	0.206
	1853	3.47	3.67	-0.20	0.160
	1854	3.09	3.16	-0.07	0.188
	1855	3.16	3.07	0.09	0.197
	1856	3.28	3.26	0.02	0.187
	1857	3.21	3.54	-0.33	0.226
	1858	3.21	3.23	-0.02	0.185
	1859	3.21	3.35	-0.14	0.161
	1860	3.19	3.52	-0.33	0.173
	1861	3.28	3.18	0.09	0.150
	1862	3.45	3.76	-0.30	0.217
	1863	2.98	3.30	-0.33	0.212
	1864	3.11	3.61	-0.50	0.201

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1865	3.31	3.68	-0.38	0.206
	1866	3.54	3.68	-0.14	0.189
	1867	3.45	3.26	0.19	0.206
	1868	3.37	3.56	-0.19	0.194
	1869	3.47	3.44	0.02	0.230
	1870	3.39	3.74	-0.35	0.188
	1871	3.32	3.67	-0.35	0.199
	1872	3.21	3.04	0.16	0.210
	1873	3.30	3.48	-0.18	0.180
	1874	3.23	3.48	-0.26	0.196
	1875	4.05	4.02	0.03	0.208
	1876	3.53	3.44	0.09	0.187
	1877	3.54	3.45	0.09	0.210
	1878	3.47	3.38	0.10	0.195
	1879	3.00	3.10	-0.09	0.190
	1880	3.14	3.51	-0.37	0.191
	1881	3.59	3.54	0.05	0.200
	1882	3.37	3.58	-0.21	0.227
	1883	3.35	3.41	-0.07	0.185
	1884	3.68	3.59	0.09	0.202
	1885	3.33	3.60	-0.28	0.182
	1886	3.44	3.53	-0.09	0.192
	1887	3.37	3.58	-0.21	0.156
	1888	3.39	3.35	0.04	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1889	2.95	3.21	-0.25	0.184
	1890	3.26	3.84	-0.58	0.205
	1891	3.33	3.40	-0.06	0.189
	1892	3.25	3.47	-0.22	0.163
	1893	3.40	3.81	-0.41	0.195
	1894	3.37	3.42	-0.04	0.199
	1895	2.91	3.07	-0.16	0.196
	1896	3.26	3.28	-0.02	0.179
	1897	3.00	3.40	-0.40	0.220
	1898	3.32	3.37	-0.05	0.170
	1899	3.24	3.40	-0.16	0.215
	1900	3.40	3.81	-0.41	0.164
	1901	3.29	3.40	-0.11	0.179
	1902	3.35	3.62	-0.27	0.214
	1903	3.66	3.46	0.19	0.161
	1904	3.26	3.25	0.01	0.171
	1905	3.32	3.46	-0.15	0.187
	1906	3.08	2.95	0.14	0.199
	1907	3.61	3.39	0.22	0.190
	1908	3.34	3.77	-0.42	0.187
	1909	3.09	3.21	-0.12	0.180
	1910	3.63	3.56	0.07	0.232
	1911	3.30	3.56	-0.27	0.189
	1912	2.95	3.23	-0.28	0.176

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1913	3.21	3.40	-0.19	0.176
	1914	2.97	2.93	0.04	0.162
	1915	3.56	3.28	0.28	0.219
	1916	3.35	3.56	-0.21	0.195
	1917	3.52	3.45	0.07	0.179
	1918	3.25	3.46	-0.21	0.173
	1919	3.44	3.42	0.03	0.180
	1920	3.63	3.68	-0.05	0.217
	1921	3.19	3.37	-0.19	0.172
	1922	3.02	3.19	-0.16	0.178
	1923	3.33	3.16	0.17	0.183
	1924	3.25	3.33	-0.08	0.182
	1925	3.06	3.32	-0.26	0.172
	1926	3.35	3.33	0.02	0.191
	1927	2.93	3.00	-0.07	0.170
	1928	3.26	3.65	-0.39	0.167
	1929	3.23	3.48	-0.25	0.160
	1930	3.31	3.61	-0.30	0.194
	1931	3.37	3.30	0.07	0.211
	1932	3.18	3.31	-0.12	0.199
	1933	3.26	3.63	-0.37	0.193
	1934	3.30	3.54	-0.24	0.176
	1935	3.14	3.21	-0.07	0.216
	1936	3.19	3.33	-0.14	0.189

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1937	3.23	3.42	-0.19	0.179
	1938	3.30	3.26	0.04	0.193
	1939	3.03	2.98	0.05	0.167
	1940	3.54	3.68	-0.14	0.209
	1941	2.93	3.14	-0.22	0.177
	1942	2.81	3.00	-0.19	0.162
	1943	3.36	3.33	0.03	0.187
	1944	3.37	3.53	-0.16	0.169
	1945	3.54	3.68	-0.14	0.219
	1946	3.51	3.76	-0.25	0.182
	1947	3.42	3.42	-0.00	0.200
	1948	3.07	3.23	-0.16	0.193
	1949	3.56	3.47	0.10	0.195
	1950	3.07	3.19	-0.12	0.155
	1951	3.36	3.57	-0.21	0.232
	1952	3.51	3.51	0.00	0.133
	1953	3.49	3.79	-0.30	0.227
	1954	3.50	3.49	0.01	0.185
	1955	3.45	3.62	-0.17	0.249
	1956	3.47	3.63	-0.16	0.173
	1957	3.59	3.31	0.28	0.189
	1958	3.09	3.52	-0.42	0.183
	1959	3.23	3.22	0.01	0.173
	1960	3.21	3.56	-0.34	0.175

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Craving Reduction Subscale	1961	3.47	3.72	-0.25	0.196
	1962	3.23	3.42	-0.19	0.192
	1963	3.14	3.28	-0.14	0.167
	1964	3.16	3.12	0.05	0.171
	1965	3.26	3.33	-0.06	0.220
	1966	2.95	3.17	-0.22	0.159
	1967	3.18	3.33	-0.14	0.208
	1968	3.30	3.63	-0.33	0.201
	1969	3.35	3.45	-0.10	0.186
	1970	2.98	3.18	-0.20	0.168
	1971	3.30	3.47	-0.17	0.224
	1972	3.11	3.29	-0.19	0.179
	1973	3.15	3.46	-0.31	0.191
	1974	3.25	3.41	-0.16	0.160
	1975	3.21	3.49	-0.28	0.175
	1976	3.16	3.60	-0.44	0.202
	1977	3.24	3.45	-0.21	0.160
	1978	3.15	3.27	-0.11	0.199
	1979	3.26	3.72	-0.47	0.213
	1980	3.25	3.27	-0.02	0.183
	1981	3.19	3.37	-0.18	0.192
	1982	3.32	3.42	-0.10	0.190
	1983	3.24	3.54	-0.30	0.214
	1984	3.54	3.58	-0.05	0.190

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Craving Reduction Subscale	1985	3.14	3.12	0.02	0.169
	1986	3.51	3.67	-0.16	0.197
	1987	3.50	3.27	0.23	0.218
	1988	3.35	3.59	-0.24	0.192
	1989	3.40	3.56	-0.16	0.190
	1990	3.24	3.74	-0.51	0.190
	1991	3.09	3.42	-0.33	0.166
	1992	3.32	3.44	-0.12	0.191
	1993	2.98	3.25	-0.27	0.185
	1994	3.35	3.47	-0.12	0.203
	1995	3.02	3.23	-0.21	0.162
	1996	3.44	3.63	-0.19	0.182
	1997	3.44	3.69	-0.25	0.226
	1998	3.58	3.51	0.07	0.176
	1999	3.27	3.48	-0.21	0.163
	2000	3.23	3.28	-0.05	0.187
Enjoyment of Respiratory Tract Sensation Subscale	1	3.46	4.07	-0.62	0.243
	2	3.55	4.48	-0.92	0.231
	3	2.81	3.70	-0.89	0.211
	4	3.36	4.12	-0.75	0.218
	5	3.39	3.94	-0.55	0.229
	6	3.37	3.87	-0.50	0.220
	7	3.67	4.15	-0.47	0.233
	8	3.11	3.64	-0.53	0.226

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	9	3.45	4.07	-0.61	0.223
	10	3.46	4.08	-0.62	0.244
	11	3.28	3.82	-0.54	0.208
	12	3.29	3.78	-0.49	0.226
	13	3.23	3.53	-0.30	0.163
	14	3.67	4.05	-0.37	0.226
	15	2.98	3.59	-0.61	0.171
	16	3.05	3.83	-0.78	0.216
	17	3.38	4.07	-0.69	0.206
	18	2.88	3.26	-0.38	0.135
	19	3.17	3.93	-0.76	0.207
	20	3.53	3.84	-0.31	0.246
	21	3.25	4.17	-0.92	0.234
	22	3.04	3.63	-0.59	0.226
	23	3.11	3.59	-0.47	0.210
	24	3.72	3.99	-0.27	0.229
	25	3.44	4.17	-0.73	0.223
	26	3.16	3.92	-0.76	0.185
	27	3.09	3.86	-0.77	0.239
	28	3.47	3.94	-0.48	0.246
	29	3.41	3.73	-0.31	0.219
	30	3.21	4.06	-0.85	0.217
	31	3.60	3.98	-0.38	0.219
	32	2.90	3.98	-1.08	0.213

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	33	3.15	4.14	-0.99	0.195
	34	3.40	3.92	-0.52	0.210
	35	3.49	4.10	-0.61	0.196
	36	3.39	3.51	-0.12	0.204
	37	3.25	3.93	-0.68	0.212
	38	3.43	4.44	-1.01	0.255
	39	2.90	3.94	-1.03	0.211
	40	3.72	4.33	-0.60	0.250
	41	3.51	4.03	-0.52	0.230
	42	3.19	3.71	-0.52	0.228
	43	3.62	4.21	-0.59	0.243
	44	3.20	3.82	-0.62	0.243
	45	3.42	4.18	-0.76	0.208
	46	3.13	3.87	-0.73	0.215
	47	3.63	4.08	-0.46	0.242
	48	3.39	3.83	-0.44	0.189
	49	3.34	4.23	-0.90	0.191
	50	3.30	3.73	-0.43	0.229
	51	3.65	3.93	-0.28	0.211
	52	3.35	3.57	-0.22	0.194
	53	2.91	3.74	-0.83	0.256
	54	3.39	3.89	-0.50	0.210
	55	3.42	4.17	-0.76	0.221
	56	3.38	3.84	-0.46	0.200

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	57	3.37	3.84	-0.47	0.194
	58	3.44	3.96	-0.53	0.218
	59	3.48	4.28	-0.81	0.209
	60	3.50	3.91	-0.41	0.207
	61	3.90	4.43	-0.53	0.247
	62	3.35	3.86	-0.51	0.227
	63	3.34	3.65	-0.31	0.155
	64	3.59	4.27	-0.68	0.260
	65	3.56	4.15	-0.59	0.219
	66	3.38	3.72	-0.34	0.193
	67	3.40	3.95	-0.55	0.150
	68	3.67	4.03	-0.36	0.242
	69	3.27	3.82	-0.55	0.208
	70	3.13	4.03	-0.90	0.214
	71	3.04	3.50	-0.46	0.202
	72	3.40	4.12	-0.71	0.191
	73	3.55	3.84	-0.29	0.192
	74	3.15	4.07	-0.92	0.216
	75	3.65	4.14	-0.49	0.240
	76	3.28	4.29	-1.02	0.255
	77	3.27	4.12	-0.85	0.210
	78	3.22	4.07	-0.85	0.209
	79	3.36	4.17	-0.80	0.192
	80	3.18	4.00	-0.82	0.255

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	81	3.16	3.92	-0.76	0.189
	82	3.25	3.88	-0.63	0.217
	83	3.60	3.93	-0.33	0.220
	84	2.85	3.49	-0.64	0.206
	85	3.30	3.73	-0.43	0.211
	86	3.24	3.89	-0.65	0.265
	87	3.25	3.70	-0.45	0.214
	88	3.48	3.51	-0.03	0.237
	89	3.27	4.07	-0.80	0.225
	90	3.39	3.69	-0.30	0.212
	91	3.50	3.84	-0.34	0.149
	92	3.29	4.24	-0.95	0.243
	93	3.84	4.06	-0.22	0.234
	94	3.26	3.91	-0.65	0.218
	95	3.39	4.14	-0.75	0.207
	96	3.39	3.70	-0.31	0.175
	97	3.15	4.18	-1.03	0.201
	98	3.27	4.11	-0.84	0.206
	99	3.29	4.28	-0.99	0.260
	100	3.42	4.22	-0.80	0.185
	101	2.65	3.08	-0.43	0.216
	102	3.16	4.02	-0.85	0.262
	103	3.19	4.04	-0.84	0.208
	104	3.34	4.02	-0.68	0.216

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	105	3.08	3.56	-0.47	0.162
	106	3.38	3.96	-0.57	0.222
	107	3.20	4.14	-0.93	0.227
	108	3.42	3.62	-0.20	0.233
	109	3.39	3.94	-0.55	0.225
	110	3.15	3.77	-0.62	0.211
	111	3.66	4.00	-0.34	0.183
	112	3.50	4.05	-0.55	0.193
	113	3.41	3.81	-0.40	0.200
	114	3.57	4.14	-0.57	0.170
	115	3.24	4.04	-0.80	0.251
	116	3.09	3.98	-0.89	0.226
	117	3.39	3.84	-0.45	0.210
	118	3.69	4.33	-0.64	0.227
	119	3.46	3.94	-0.48	0.195
	120	3.67	4.33	-0.66	0.220
	121	3.40	3.92	-0.52	0.255
	122	3.39	3.84	-0.45	0.228
	123	3.21	3.71	-0.50	0.178
	124	3.46	4.15	-0.69	0.219
	125	3.25	3.86	-0.61	0.191
	126	3.23	3.89	-0.66	0.236
	127	3.41	3.94	-0.52	0.217
	128	3.18	3.96	-0.78	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	129	3.39	3.92	-0.53	0.219
	130	3.28	3.77	-0.49	0.210
	131	3.54	4.24	-0.70	0.242
	132	3.43	4.62	-1.19	0.214
	133	3.42	4.06	-0.64	0.201
	134	3.72	3.92	-0.19	0.210
	135	3.36	3.77	-0.41	0.225
	136	3.54	3.95	-0.40	0.206
	137	3.23	3.96	-0.73	0.200
	138	3.20	4.07	-0.86	0.193
	139	3.43	3.71	-0.29	0.203
	140	3.33	3.85	-0.52	0.141
	141	3.35	3.59	-0.24	0.234
	142	3.39	4.07	-0.69	0.250
	143	3.22	3.93	-0.71	0.209
	144	3.43	4.43	-1.00	0.236
	145	3.44	4.08	-0.63	0.209
	146	3.81	4.14	-0.33	0.233
	147	3.33	3.67	-0.33	0.133
	148	3.25	4.35	-1.10	0.252
	149	3.50	4.15	-0.65	0.230
	150	3.32	4.57	-1.25	0.243
	151	3.21	3.45	-0.24	0.215
	152	3.17	3.92	-0.75	0.210

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	153	3.60	4.04	-0.44	0.216
	154	3.27	4.26	-0.99	0.228
	155	3.45	3.94	-0.49	0.212
	156	3.67	4.05	-0.38	0.186
	157	3.04	4.17	-1.13	0.240
	158	3.29	3.77	-0.48	0.244
	159	3.36	3.70	-0.34	0.217
	160	2.97	3.77	-0.80	0.237
	161	3.26	3.98	-0.72	0.261
	162	3.30	3.91	-0.61	0.201
	163	3.19	3.49	-0.31	0.161
	164	3.04	3.98	-0.94	0.257
	165	3.34	4.02	-0.68	0.171
	166	2.90	3.71	-0.81	0.240
	167	3.12	3.61	-0.50	0.197
	168	3.32	4.03	-0.71	0.212
	169	3.39	3.78	-0.39	0.172
	170	3.12	3.55	-0.43	0.221
	171	3.29	4.14	-0.85	0.190
	172	3.50	4.07	-0.57	0.222
	173	3.42	4.08	-0.66	0.213
	174	2.98	3.40	-0.43	0.197
	175	3.38	3.89	-0.51	0.184
	176	3.76	4.28	-0.52	0.258

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	177	3.23	3.80	-0.57	0.193
	178	3.53	4.03	-0.50	0.223
	179	3.15	3.79	-0.64	0.180
	180	3.30	3.44	-0.14	0.174
	181	3.07	3.83	-0.76	0.204
	182	3.56	3.91	-0.35	0.212
	183	3.18	3.73	-0.55	0.212
	184	3.18	4.05	-0.87	0.217
	185	3.39	4.03	-0.64	0.190
	186	3.05	3.66	-0.61	0.191
	187	2.97	3.84	-0.87	0.206
	188	3.08	4.08	-0.99	0.234
	189	3.02	3.92	-0.90	0.232
	190	3.40	4.18	-0.78	0.203
	191	3.46	4.10	-0.64	0.183
	192	3.35	3.64	-0.29	0.195
	193	3.41	3.91	-0.50	0.231
	194	3.32	4.12	-0.80	0.200
	195	3.34	4.19	-0.85	0.226
	196	3.72	4.12	-0.40	0.192
	197	3.13	3.91	-0.78	0.200
	198	3.34	3.70	-0.35	0.203
	199	3.33	4.06	-0.73	0.245
	200	3.06	3.77	-0.71	0.221

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	201	3.46	3.69	-0.23	0.212
	202	3.31	3.84	-0.52	0.179
	203	2.95	3.50	-0.55	0.223
	204	3.09	3.52	-0.43	0.208
	205	3.72	4.04	-0.32	0.226
	206	3.37	3.92	-0.55	0.256
	207	3.46	3.96	-0.50	0.223
	208	3.08	3.84	-0.76	0.212
	209	3.02	3.94	-0.92	0.200
	210	3.22	4.00	-0.78	0.253
	211	3.37	4.17	-0.80	0.236
	212	2.83	3.55	-0.72	0.226
	213	3.35	3.94	-0.59	0.242
	214	2.81	3.70	-0.89	0.190
	215	3.45	3.65	-0.20	0.174
	216	3.13	3.94	-0.81	0.214
	217	3.44	4.08	-0.63	0.212
	218	3.22	3.84	-0.62	0.239
	219	3.46	4.11	-0.65	0.204
	220	3.48	4.18	-0.71	0.194
	221	3.36	3.90	-0.54	0.220
	222	3.23	3.96	-0.73	0.201
	223	3.59	4.11	-0.52	0.236
	224	3.20	3.83	-0.63	0.205

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	225	2.99	3.84	-0.85	0.222
	226	3.04	3.86	-0.82	0.237
	227	3.49	4.20	-0.70	0.233
	228	3.47	3.94	-0.47	0.203
	229	3.25	4.07	-0.82	0.256
	230	3.55	4.43	-0.88	0.275
	231	3.09	4.07	-0.99	0.206
	232	3.72	4.22	-0.50	0.238
	233	3.19	3.43	-0.24	0.217
	234	3.09	3.82	-0.73	0.220
	235	3.26	3.67	-0.41	0.194
	236	3.47	4.04	-0.57	0.241
	237	3.90	4.24	-0.34	0.215
	238	3.23	3.73	-0.49	0.204
	239	3.17	4.38	-1.21	0.257
	240	3.60	4.04	-0.43	0.256
	241	3.48	4.00	-0.53	0.213
	242	3.34	3.61	-0.27	0.258
	243	2.97	3.75	-0.79	0.233
	244	3.69	4.33	-0.64	0.217
	245	3.30	3.96	-0.66	0.225
	246	3.35	4.03	-0.69	0.257
	247	3.72	3.93	-0.22	0.189
	248	3.48	3.96	-0.48	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	249	3.20	3.94	-0.73	0.215
	250	3.56	4.35	-0.80	0.215
	251	3.17	4.12	-0.95	0.212
	252	3.36	3.77	-0.40	0.148
	253	3.32	3.87	-0.55	0.209
	254	3.65	3.98	-0.33	0.214
	255	3.16	3.89	-0.73	0.222
	256	3.18	3.94	-0.77	0.275
	257	3.23	3.98	-0.75	0.216
	258	3.31	3.81	-0.50	0.199
	259	3.18	3.84	-0.66	0.210
	260	3.42	4.20	-0.78	0.244
	261	3.70	3.96	-0.26	0.243
	262	3.50	3.91	-0.41	0.229
	263	3.57	4.24	-0.66	0.231
	264	3.62	3.99	-0.37	0.199
	265	2.87	3.73	-0.85	0.185
	266	3.48	3.93	-0.45	0.200
	267	3.27	3.96	-0.69	0.258
	268	2.98	3.70	-0.73	0.229
	269	3.18	3.88	-0.70	0.236
	270	3.37	4.07	-0.70	0.225
	271	3.41	3.58	-0.17	0.207
	272	3.27	3.59	-0.32	0.229

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	273	3.41	3.79	-0.38	0.197
	274	3.23	3.60	-0.37	0.208
	275	3.55	3.67	-0.13	0.223
	276	3.41	3.79	-0.39	0.238
	277	3.39	3.79	-0.40	0.195
	278	3.51	4.03	-0.52	0.186
	279	3.44	4.01	-0.57	0.214
	280	3.27	4.03	-0.76	0.236
	281	2.92	3.73	-0.81	0.204
	282	3.50	4.16	-0.66	0.225
	283	3.35	3.83	-0.48	0.220
	284	3.23	3.84	-0.61	0.193
	285	3.58	4.01	-0.43	0.207
	286	3.30	3.98	-0.68	0.249
	287	3.09	3.77	-0.68	0.184
	288	3.21	3.84	-0.64	0.235
	289	3.48	4.04	-0.56	0.172
	290	3.08	3.67	-0.58	0.239
	291	3.31	3.98	-0.67	0.238
	292	2.99	3.89	-0.90	0.255
	293	3.44	3.91	-0.47	0.224
	294	3.34	3.89	-0.55	0.258
	295	3.15	4.25	-1.09	0.184
	296	3.53	4.01	-0.47	0.205

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	297	3.55	4.16	-0.61	0.231
	298	3.55	4.24	-0.69	0.211
	299	3.36	4.18	-0.81	0.257
	300	3.27	3.88	-0.61	0.191
	301	3.34	3.56	-0.22	0.165
	302	3.66	4.02	-0.35	0.206
	303	3.59	4.19	-0.60	0.248
	304	3.18	3.75	-0.57	0.211
	305	3.57	4.05	-0.48	0.217
	306	3.32	4.14	-0.82	0.209
	307	3.51	4.13	-0.62	0.187
	308	3.60	3.98	-0.38	0.175
	309	3.04	4.04	-0.99	0.277
	310	3.06	3.72	-0.66	0.202
	311	3.41	3.76	-0.34	0.215
	312	3.62	4.01	-0.38	0.216
	313	3.70	4.12	-0.42	0.204
	314	3.09	3.84	-0.75	0.228
	315	3.18	3.67	-0.49	0.216
	316	3.30	4.16	-0.87	0.225
	317	4.13	4.86	-0.73	0.258
	318	3.67	4.08	-0.40	0.206
	319	3.34	3.91	-0.57	0.195
	320	3.52	4.15	-0.62	0.270

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	321	3.19	3.58	-0.40	0.188
	322	3.56	3.86	-0.30	0.170
	323	3.37	4.03	-0.66	0.226
	324	3.19	3.89	-0.69	0.185
	325	3.24	3.64	-0.39	0.197
	326	3.09	3.44	-0.35	0.196
	327	2.88	3.75	-0.87	0.257
	328	3.33	3.87	-0.54	0.202
	329	3.39	3.86	-0.48	0.242
	330	3.36	4.20	-0.83	0.220
	331	3.41	4.19	-0.78	0.238
	332	3.28	3.87	-0.59	0.179
	333	3.16	3.61	-0.46	0.202
	334	3.35	3.92	-0.57	0.232
	335	3.29	4.13	-0.84	0.235
	336	3.58	4.06	-0.48	0.283
	337	3.41	3.77	-0.36	0.198
	338	3.35	3.84	-0.49	0.175
	339	3.32	4.24	-0.92	0.228
	340	3.34	3.63	-0.30	0.254
	341	3.20	3.89	-0.69	0.224
	342	3.39	4.09	-0.70	0.177
	343	3.57	4.21	-0.64	0.217
	344	3.34	3.87	-0.53	0.236

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	345	3.02	3.61	-0.59	0.159
	346	3.49	4.29	-0.80	0.205
	347	3.37	4.26	-0.89	0.239
	348	3.32	4.47	-1.15	0.275
	349	3.23	4.31	-1.08	0.185
	350	3.55	4.14	-0.59	0.235
	351	3.13	3.61	-0.48	0.231
	352	3.04	4.01	-0.96	0.232
	353	3.41	4.12	-0.71	0.260
	354	3.23	4.28	-1.06	0.261
	355	3.16	3.66	-0.50	0.196
	356	3.17	3.60	-0.43	0.170
	357	3.47	3.52	-0.05	0.185
	358	3.45	3.80	-0.35	0.217
	359	3.29	3.80	-0.51	0.187
	360	3.67	4.44	-0.77	0.250
	361	3.37	3.59	-0.23	0.204
	362	3.82	4.17	-0.35	0.226
	363	3.23	3.65	-0.43	0.237
	364	3.57	3.93	-0.36	0.183
	365	3.60	4.15	-0.55	0.226
	366	3.93	4.41	-0.48	0.214
	367	3.13	3.83	-0.71	0.165
	368	2.86	3.54	-0.69	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	369	3.09	3.84	-0.75	0.171
	370	3.05	3.82	-0.78	0.213
	371	3.62	4.09	-0.47	0.207
	372	3.16	3.68	-0.52	0.206
	373	3.50	4.16	-0.66	0.157
	374	3.08	3.60	-0.52	0.202
	375	3.53	4.47	-0.94	0.220
	376	3.60	4.43	-0.83	0.232
	377	3.19	4.01	-0.82	0.220
	378	3.33	3.77	-0.44	0.206
	379	3.32	4.17	-0.85	0.246
	380	3.23	3.63	-0.40	0.197
	381	3.51	3.99	-0.48	0.248
	382	3.40	3.95	-0.54	0.235
	383	3.86	4.00	-0.15	0.188
	384	3.51	4.40	-0.89	0.236
	385	3.52	4.24	-0.72	0.223
	386	3.45	4.07	-0.61	0.190
	387	3.05	3.56	-0.51	0.211
	388	3.25	4.29	-1.04	0.278
	389	2.99	3.77	-0.78	0.267
	390	3.51	4.06	-0.55	0.241
	391	3.11	3.80	-0.69	0.225
	392	2.98	3.85	-0.87	0.247

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	393	3.61	3.89	-0.28	0.188
	394	3.41	4.08	-0.67	0.230
	395	3.20	3.65	-0.45	0.205
	396	3.65	4.17	-0.53	0.218
	397	3.40	3.68	-0.28	0.217
	398	3.23	3.57	-0.34	0.203
	399	3.41	4.04	-0.63	0.181
	400	3.06	3.96	-0.90	0.165
	401	3.57	4.75	-1.18	0.264
	402	3.25	3.57	-0.32	0.202
	403	2.76	3.50	-0.74	0.195
	404	3.34	4.31	-0.96	0.220
	405	3.65	4.26	-0.61	0.174
	406	3.01	3.85	-0.83	0.199
	407	3.92	4.58	-0.66	0.172
	408	3.79	4.19	-0.40	0.208
	409	3.44	4.06	-0.62	0.149
	410	3.13	3.74	-0.61	0.238
	411	3.24	3.85	-0.61	0.206
	412	3.23	3.85	-0.62	0.252
	413	3.50	4.23	-0.73	0.213
	414	3.37	4.14	-0.78	0.218
	415	3.77	4.14	-0.38	0.231
	416	3.46	3.96	-0.50	0.199

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	417	2.87	3.47	-0.60	0.183
	418	3.28	3.67	-0.38	0.155
	419	3.36	4.00	-0.65	0.238
	420	3.18	4.01	-0.83	0.193
	421	3.53	4.30	-0.77	0.204
	422	3.28	4.30	-1.03	0.231
	423	3.31	3.98	-0.67	0.195
	424	3.23	4.22	-1.00	0.222
	425	2.99	3.60	-0.61	0.196
	426	3.18	4.00	-0.82	0.272
	427	3.46	4.28	-0.82	0.200
	428	3.63	4.03	-0.40	0.212
	429	3.51	4.17	-0.66	0.221
	430	3.30	4.06	-0.76	0.205
	431	3.08	3.54	-0.46	0.249
	432	3.09	3.98	-0.90	0.233
	433	3.27	4.20	-0.92	0.236
	434	3.57	3.96	-0.39	0.211
	435	3.61	4.01	-0.40	0.227
	436	3.41	4.17	-0.76	0.264
	437	3.60	3.92	-0.31	0.229
	438	3.07	3.36	-0.29	0.208
	439	3.63	4.23	-0.61	0.181
	440	3.47	4.00	-0.52	0.192

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	441	3.62	4.24	-0.62	0.214
	442	3.20	4.14	-0.94	0.186
	443	3.67	4.12	-0.45	0.212
	444	3.37	3.70	-0.33	0.192
	445	2.99	3.77	-0.78	0.178
	446	3.69	4.07	-0.38	0.233
	447	3.45	3.95	-0.50	0.210
	448	3.37	3.68	-0.32	0.226
	449	3.39	4.00	-0.61	0.246
	450	3.27	3.76	-0.49	0.202
	451	3.32	3.77	-0.45	0.284
	452	3.41	4.12	-0.71	0.258
	453	3.77	4.26	-0.50	0.222
	454	3.25	3.89	-0.64	0.195
	455	2.96	3.86	-0.90	0.229
	456	3.36	3.79	-0.43	0.260
	457	3.70	3.96	-0.27	0.212
	458	3.16	3.95	-0.79	0.197
	459	3.06	3.75	-0.69	0.205
	460	3.37	4.00	-0.63	0.228
	461	3.37	3.82	-0.45	0.204
	462	3.23	3.82	-0.60	0.230
	463	3.53	3.94	-0.41	0.269
	464	3.27	4.01	-0.73	0.233

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	465	3.77	4.17	-0.40	0.240
	466	3.23	3.96	-0.73	0.245
	467	3.71	4.00	-0.29	0.182
	468	3.00	3.83	-0.83	0.247
	469	2.99	3.40	-0.41	0.210
	470	3.54	4.04	-0.50	0.223
	471	3.67	4.35	-0.69	0.239
	472	3.85	3.93	-0.08	0.200
	473	3.39	4.05	-0.66	0.213
	474	3.11	3.71	-0.60	0.224
	475	3.30	3.98	-0.69	0.203
	476	2.93	3.31	-0.39	0.208
	477	3.58	4.01	-0.43	0.216
	478	3.01	3.73	-0.72	0.226
	479	3.50	3.91	-0.40	0.229
	480	3.27	3.96	-0.68	0.204
	481	3.43	4.29	-0.85	0.247
	482	3.28	3.75	-0.47	0.226
	483	3.16	3.68	-0.52	0.203
	484	3.07	3.88	-0.82	0.224
	485	3.58	4.06	-0.47	0.154
	486	3.40	3.86	-0.45	0.226
	487	3.62	3.86	-0.25	0.254
	488	3.36	4.17	-0.80	0.251

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	489	3.60	4.03	-0.43	0.189
	490	3.11	4.00	-0.89	0.229
	491	3.40	3.90	-0.50	0.223
	492	3.14	4.06	-0.92	0.185
	493	3.46	3.96	-0.50	0.187
	494	3.32	4.07	-0.75	0.196
	495	3.31	3.65	-0.34	0.190
	496	3.32	4.20	-0.87	0.210
	497	3.62	4.31	-0.69	0.246
	498	3.16	3.84	-0.68	0.174
	499	3.44	4.16	-0.72	0.219
	500	3.32	3.99	-0.67	0.235
	501	3.25	3.96	-0.71	0.214
	502	3.53	4.23	-0.70	0.227
	503	3.40	3.89	-0.49	0.238
	504	3.43	4.14	-0.71	0.274
	505	3.23	3.54	-0.31	0.208
	506	3.41	4.04	-0.63	0.199
	507	3.04	3.96	-0.92	0.238
	508	3.41	4.26	-0.85	0.247
	509	3.25	3.70	-0.45	0.232
	510	3.25	3.99	-0.75	0.231
	511	3.49	4.14	-0.66	0.229
	512	3.43	4.06	-0.63	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	513	3.46	4.10	-0.64	0.234
	514	3.37	3.56	-0.19	0.167
	515	3.58	3.94	-0.36	0.245
	516	3.20	3.84	-0.64	0.239
	517	3.18	3.59	-0.42	0.256
	518	3.44	4.00	-0.57	0.195
	519	3.04	3.63	-0.60	0.194
	520	3.04	4.07	-1.03	0.229
	521	3.28	3.52	-0.24	0.164
	522	3.53	3.84	-0.31	0.194
	523	3.30	4.19	-0.89	0.202
	524	3.38	3.95	-0.57	0.208
	525	3.15	3.89	-0.73	0.220
	526	3.48	3.58	-0.10	0.213
	527	3.44	4.11	-0.67	0.242
	528	3.34	4.18	-0.84	0.263
	529	3.16	3.75	-0.59	0.191
	530	3.93	4.52	-0.59	0.227
	531	3.48	4.31	-0.82	0.220
	532	3.37	4.04	-0.68	0.214
	533	3.11	3.59	-0.48	0.239
	534	2.95	3.75	-0.80	0.237
	535	3.11	3.73	-0.62	0.210
	536	3.38	3.54	-0.15	0.240

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	537	3.48	4.24	-0.76	0.216
	538	3.32	4.06	-0.73	0.230
	539	3.32	3.80	-0.48	0.201
	540	3.32	3.86	-0.54	0.198
	541	3.55	4.10	-0.55	0.236
	542	3.43	3.82	-0.39	0.248
	543	3.07	3.64	-0.57	0.232
	544	3.46	4.01	-0.56	0.216
	545	3.60	3.95	-0.36	0.222
	546	3.71	4.03	-0.31	0.159
	547	3.27	3.75	-0.48	0.219
	548	3.11	3.61	-0.50	0.213
	549	3.36	4.07	-0.71	0.240
	550	3.25	3.76	-0.51	0.233
	551	3.39	3.87	-0.48	0.203
	552	3.59	4.26	-0.67	0.217
	553	3.06	4.15	-1.09	0.233
	554	3.37	3.75	-0.38	0.243
	555	3.34	3.89	-0.55	0.239
	556	3.25	3.93	-0.67	0.201
	557	3.18	3.72	-0.55	0.213
	558	3.47	4.14	-0.67	0.211
	559	3.16	3.85	-0.69	0.252
	560	3.25	4.10	-0.85	0.253

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	561	3.57	4.29	-0.72	0.280
	562	3.11	3.89	-0.77	0.177
	563	3.67	4.22	-0.55	0.259
	564	2.93	3.40	-0.48	0.198
	565	3.07	3.82	-0.75	0.250
	566	3.44	4.01	-0.57	0.219
	567	3.71	3.80	-0.09	0.232
	568	3.24	3.97	-0.73	0.215
	569	3.25	4.28	-1.04	0.208
	570	3.55	4.38	-0.83	0.222
	571	3.11	3.94	-0.84	0.265
	572	3.39	4.43	-1.04	0.232
	573	3.38	3.61	-0.23	0.157
	574	3.36	3.77	-0.41	0.204
	575	3.46	4.27	-0.80	0.206
	576	3.55	4.04	-0.50	0.230
	577	3.74	4.22	-0.47	0.188
	578	3.51	3.85	-0.33	0.177
	579	3.37	4.24	-0.87	0.167
	580	3.53	3.96	-0.43	0.232
	581	3.41	4.05	-0.64	0.225
	582	3.31	4.19	-0.87	0.272
	583	3.09	3.68	-0.59	0.184
	584	3.36	3.98	-0.62	0.202

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	585	3.95	4.02	-0.07	0.187
	586	3.29	3.80	-0.51	0.215
	587	3.32	4.03	-0.71	0.246
	588	2.89	3.50	-0.61	0.216
	589	3.74	4.64	-0.90	0.224
	590	3.43	3.68	-0.24	0.241
	591	3.52	4.19	-0.66	0.187
	592	3.29	3.92	-0.62	0.189
	593	3.57	4.24	-0.66	0.252
	594	3.23	4.28	-1.05	0.233
	595	3.16	3.75	-0.59	0.181
	596	3.55	4.49	-0.94	0.240
	597	3.26	4.22	-0.96	0.234
	598	3.36	4.24	-0.87	0.235
	599	3.58	3.79	-0.22	0.174
	600	3.69	4.19	-0.49	0.227
	601	3.27	3.77	-0.50	0.219
	602	3.20	3.87	-0.67	0.231
	603	3.28	4.17	-0.89	0.238
	604	3.34	3.70	-0.36	0.194
	605	3.37	3.80	-0.43	0.243
	606	2.98	3.69	-0.71	0.225
	607	3.13	3.74	-0.62	0.200
	608	3.50	4.28	-0.77	0.180

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	609	3.81	4.26	-0.45	0.221
	610	3.35	3.68	-0.33	0.264
	611	3.44	4.22	-0.78	0.239
	612	3.52	4.10	-0.58	0.229
	613	3.54	4.31	-0.77	0.181
	614	3.44	3.89	-0.45	0.166
	615	3.32	3.87	-0.55	0.226
	616	3.51	4.03	-0.52	0.190
	617	3.30	3.86	-0.56	0.185
	618	3.04	3.68	-0.64	0.188
	619	3.71	4.19	-0.47	0.234
	620	3.49	3.95	-0.45	0.265
	621	3.52	4.39	-0.87	0.189
	622	3.50	3.77	-0.27	0.218
	623	3.45	3.97	-0.52	0.238
	624	3.11	3.96	-0.85	0.184
	625	3.44	3.70	-0.26	0.207
	626	3.42	3.90	-0.48	0.236
	627	3.72	4.22	-0.50	0.205
	628	3.39	3.89	-0.50	0.202
	629	3.42	3.98	-0.56	0.216
	630	3.44	4.15	-0.71	0.227
	631	3.34	3.84	-0.50	0.199
	632	3.29	3.74	-0.45	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	633	3.55	4.05	-0.50	0.202
	634	3.09	4.15	-1.06	0.246
	635	3.32	4.02	-0.71	0.232
	636	3.36	4.29	-0.93	0.233
	637	3.37	3.89	-0.52	0.230
	638	3.55	4.16	-0.61	0.228
	639	2.97	3.56	-0.59	0.224
	640	3.13	3.90	-0.77	0.260
	641	3.14	3.71	-0.57	0.258
	642	3.40	3.72	-0.32	0.191
	643	3.23	4.17	-0.94	0.252
	644	3.28	3.99	-0.71	0.173
	645	3.37	3.96	-0.59	0.204
	646	3.25	4.15	-0.89	0.193
	647	3.24	4.12	-0.88	0.259
	648	3.35	4.08	-0.73	0.258
	649	3.16	4.00	-0.84	0.177
	650	3.18	3.79	-0.61	0.193
	651	3.25	3.98	-0.73	0.198
	652	3.53	4.08	-0.55	0.240
	653	3.27	4.26	-0.98	0.238
	654	3.60	4.29	-0.69	0.220
	655	3.30	4.19	-0.90	0.213
	656	3.32	3.62	-0.29	0.219

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	657	3.47	3.80	-0.33	0.183
	658	3.24	3.97	-0.73	0.220
	659	3.27	3.77	-0.50	0.193
	660	2.99	4.07	-1.08	0.243
	661	3.63	3.95	-0.33	0.237
	662	3.23	3.69	-0.45	0.210
	663	3.20	3.86	-0.66	0.210
	664	3.38	4.20	-0.83	0.224
	665	3.69	4.14	-0.45	0.225
	666	3.25	3.74	-0.49	0.241
	667	3.05	3.59	-0.54	0.196
	668	3.43	3.91	-0.47	0.259
	669	3.48	3.75	-0.27	0.201
	670	3.28	3.68	-0.40	0.208
	671	2.98	3.65	-0.66	0.247
	672	3.39	4.21	-0.83	0.209
	673	2.97	3.67	-0.70	0.223
	674	3.51	3.89	-0.38	0.236
	675	3.20	4.08	-0.87	0.207
	676	3.23	4.03	-0.80	0.228
	677	3.57	3.98	-0.40	0.207
	678	3.24	4.20	-0.96	0.234
	679	3.02	3.72	-0.70	0.203
	680	3.67	4.28	-0.61	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	681	3.02	3.81	-0.80	0.179
	682	3.30	4.19	-0.89	0.211
	683	3.20	4.05	-0.85	0.238
	684	3.02	3.56	-0.54	0.253
	685	3.62	4.09	-0.47	0.175
	686	3.48	3.72	-0.24	0.161
	687	3.46	3.75	-0.29	0.244
	688	3.09	3.93	-0.84	0.215
	689	3.27	4.07	-0.80	0.222
	690	3.55	4.23	-0.68	0.225
	691	3.34	3.88	-0.55	0.184
	692	3.02	3.56	-0.54	0.184
	693	3.31	3.85	-0.54	0.237
	694	3.40	3.99	-0.59	0.212
	695	3.06	3.98	-0.91	0.217
	696	3.53	4.06	-0.53	0.214
	697	3.63	3.96	-0.33	0.238
	698	3.48	4.03	-0.54	0.258
	699	3.20	3.77	-0.56	0.226
	700	3.63	4.29	-0.66	0.250
	701	3.07	3.86	-0.80	0.191
	702	3.51	4.12	-0.61	0.216
	703	3.23	4.03	-0.81	0.217
	704	3.48	3.80	-0.31	0.236

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	705	3.09	3.96	-0.87	0.242
	706	3.64	4.38	-0.74	0.229
	707	3.49	4.10	-0.61	0.188
	708	3.43	4.30	-0.87	0.226
	709	3.29	4.02	-0.73	0.188
	710	3.18	4.32	-1.15	0.236
	711	3.23	3.57	-0.34	0.161
	712	3.34	3.89	-0.55	0.233
	713	2.95	3.63	-0.69	0.231
	714	3.34	3.88	-0.55	0.196
	715	3.63	3.81	-0.19	0.231
	716	3.54	3.76	-0.22	0.188
	717	3.04	3.87	-0.83	0.191
	718	3.57	4.19	-0.62	0.240
	719	3.74	4.21	-0.48	0.244
	720	3.37	3.91	-0.54	0.199
	721	3.67	3.90	-0.24	0.189
	722	3.53	4.03	-0.50	0.210
	723	2.97	3.66	-0.68	0.190
	724	3.45	4.25	-0.80	0.233
	725	3.36	4.14	-0.78	0.221
	726	3.46	3.94	-0.47	0.205
	727	3.79	4.21	-0.42	0.168
	728	3.92	3.86	0.06	0.224

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	729	3.22	3.72	-0.50	0.235
	730	3.36	3.70	-0.34	0.215
	731	3.35	4.05	-0.70	0.228
	732	2.88	3.63	-0.75	0.238
	733	3.46	3.68	-0.22	0.205
	734	3.69	4.50	-0.81	0.249
	735	3.60	3.80	-0.20	0.211
	736	3.02	3.63	-0.61	0.194
	737	3.20	3.94	-0.74	0.261
	738	3.29	4.02	-0.73	0.151
	739	2.85	3.52	-0.67	0.202
	740	3.02	3.56	-0.54	0.178
	741	3.45	4.19	-0.74	0.262
	742	3.30	3.56	-0.26	0.175
	743	3.27	4.21	-0.95	0.254
	744	3.32	3.85	-0.52	0.197
	745	3.37	3.84	-0.47	0.214
	746	3.21	3.77	-0.57	0.228
	747	2.79	3.94	-1.16	0.247
	748	3.37	4.23	-0.87	0.225
	749	3.69	4.28	-0.59	0.230
	750	3.02	3.71	-0.68	0.207
	751	3.32	3.89	-0.57	0.206
	752	3.47	4.15	-0.69	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	753	3.02	3.64	-0.62	0.241
	754	3.37	3.94	-0.57	0.249
	755	3.09	3.63	-0.54	0.235
	756	3.09	3.80	-0.71	0.220
	757	3.20	3.79	-0.60	0.232
	758	3.64	4.35	-0.71	0.232
	759	3.44	3.96	-0.52	0.227
	760	3.07	3.63	-0.56	0.219
	761	3.34	4.09	-0.75	0.191
	762	3.25	4.00	-0.76	0.213
	763	3.84	4.03	-0.20	0.211
	764	3.62	4.28	-0.66	0.189
	765	3.34	4.18	-0.83	0.260
	766	3.45	4.35	-0.90	0.236
	767	3.34	4.18	-0.85	0.215
	768	3.09	3.71	-0.62	0.204
	769	3.25	3.54	-0.29	0.219
	770	3.25	3.77	-0.52	0.195
	771	3.37	4.01	-0.64	0.217
	772	3.64	4.03	-0.39	0.233
	773	3.34	4.22	-0.88	0.250
	774	3.37	4.12	-0.75	0.231
	775	3.32	3.73	-0.41	0.216
	776	3.26	3.93	-0.67	0.228

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	777	3.02	3.86	-0.85	0.232
	778	3.62	3.83	-0.20	0.233
	779	3.44	3.81	-0.38	0.201
	780	3.30	4.01	-0.71	0.217
	781	3.58	3.89	-0.31	0.161
	782	3.13	3.89	-0.76	0.245
	783	3.35	4.16	-0.81	0.229
	784	3.32	3.96	-0.65	0.255
	785	3.20	3.72	-0.52	0.189
	786	3.22	3.78	-0.55	0.212
	787	3.34	3.65	-0.31	0.245
	788	3.78	4.31	-0.53	0.231
	789	3.41	4.31	-0.90	0.172
	790	3.20	3.65	-0.45	0.185
	791	3.32	3.73	-0.40	0.198
	792	3.44	3.80	-0.36	0.209
	793	3.50	3.98	-0.48	0.206
	794	3.16	3.72	-0.56	0.168
	795	3.27	3.79	-0.52	0.220
	796	3.10	3.68	-0.58	0.191
	797	3.53	3.86	-0.34	0.210
	798	3.55	4.29	-0.73	0.168
	799	2.97	3.47	-0.51	0.210
	800	3.25	3.80	-0.54	0.199

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	801	3.21	3.80	-0.59	0.195
	802	3.12	3.78	-0.66	0.297
	803	3.22	3.96	-0.74	0.221
	804	3.16	3.51	-0.36	0.188
	805	3.34	4.01	-0.67	0.211
	806	3.16	3.74	-0.58	0.228
	807	3.25	4.21	-0.96	0.222
	808	3.53	4.03	-0.50	0.204
	809	3.23	3.87	-0.64	0.245
	810	3.18	3.94	-0.76	0.218
	811	3.09	3.65	-0.55	0.190
	812	3.27	3.86	-0.59	0.157
	813	3.41	3.82	-0.40	0.189
	814	3.37	4.07	-0.71	0.257
	815	3.27	4.07	-0.80	0.242
	816	3.56	4.08	-0.52	0.236
	817	3.29	3.87	-0.58	0.206
	818	3.21	3.82	-0.61	0.210
	819	3.69	4.08	-0.38	0.221
	820	3.59	3.78	-0.19	0.235
	821	3.37	3.82	-0.46	0.252
	822	3.23	3.66	-0.43	0.197
	823	3.39	3.98	-0.60	0.212
	824	3.46	3.93	-0.47	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	825	3.62	3.84	-0.22	0.185
	826	3.18	3.84	-0.66	0.202
	827	3.11	4.05	-0.94	0.243
	828	3.50	4.12	-0.62	0.185
	829	3.34	3.75	-0.41	0.235
	830	3.62	4.40	-0.78	0.231
	831	3.51	3.80	-0.29	0.283
	832	3.18	4.04	-0.86	0.205
	833	3.95	4.17	-0.22	0.243
	834	3.41	4.03	-0.61	0.198
	835	3.07	3.61	-0.54	0.203
	836	3.22	3.72	-0.50	0.184
	837	3.34	4.19	-0.85	0.234
	838	3.17	3.89	-0.71	0.139
	839	3.90	4.07	-0.17	0.210
	840	3.18	3.82	-0.64	0.201
	841	3.22	3.72	-0.51	0.275
	842	3.74	3.87	-0.13	0.168
	843	3.46	4.08	-0.62	0.221
	844	2.78	4.17	-1.39	0.238
	845	3.37	4.16	-0.80	0.198
	846	3.43	4.00	-0.57	0.211
	847	3.29	4.19	-0.90	0.268
	848	3.41	3.63	-0.22	0.156

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	849	3.37	3.65	-0.29	0.206
	850	3.55	4.47	-0.92	0.194
	851	3.20	3.53	-0.33	0.231
	852	3.23	3.43	-0.19	0.178
	853	3.37	3.89	-0.53	0.155
	854	3.44	3.85	-0.42	0.238
	855	3.21	3.89	-0.68	0.197
	856	3.27	3.91	-0.64	0.234
	857	2.93	3.63	-0.70	0.205
	858	3.26	4.27	-1.02	0.236
	859	3.67	3.91	-0.24	0.239
	860	3.35	3.85	-0.50	0.218
	861	3.40	3.97	-0.57	0.246
	862	3.09	3.64	-0.55	0.213
	863	3.61	4.68	-1.07	0.242
	864	3.71	4.10	-0.39	0.226
	865	3.32	3.74	-0.42	0.215
	866	3.51	3.70	-0.19	0.211
	867	3.55	4.19	-0.64	0.217
	868	3.45	4.24	-0.79	0.244
	869	3.43	3.98	-0.55	0.236
	870	3.44	4.12	-0.68	0.202
	871	3.46	3.70	-0.25	0.210
	872	3.20	3.65	-0.45	0.220

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	873	3.11	3.61	-0.50	0.247
	874	3.46	4.33	-0.87	0.224
	875	3.34	4.19	-0.85	0.219
	876	3.39	4.47	-1.08	0.234
	877	3.55	4.26	-0.71	0.229
	878	3.25	3.75	-0.50	0.162
	879	3.60	3.98	-0.38	0.208
	880	3.20	3.98	-0.78	0.201
	881	2.86	3.73	-0.87	0.241
	882	3.25	4.17	-0.92	0.240
	883	3.25	3.72	-0.47	0.229
	884	3.37	3.74	-0.37	0.208
	885	3.23	3.63	-0.40	0.215
	886	3.37	4.16	-0.80	0.204
	887	3.12	4.08	-0.97	0.246
	888	3.44	4.05	-0.61	0.226
	889	3.67	3.91	-0.24	0.174
	890	3.41	3.61	-0.19	0.203
	891	3.72	3.66	0.06	0.195
	892	2.96	3.82	-0.86	0.221
	893	3.46	4.45	-0.99	0.282
	894	3.24	4.01	-0.76	0.219
	895	3.39	3.94	-0.55	0.214
	896	3.45	4.16	-0.71	0.263

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	897	3.04	3.84	-0.80	0.235
	898	2.95	3.61	-0.66	0.188
	899	3.58	4.15	-0.57	0.189
	900	3.01	3.63	-0.61	0.183
	901	3.47	4.32	-0.85	0.312
	902	3.55	3.70	-0.15	0.212
	903	3.04	3.58	-0.54	0.193
	904	2.95	3.61	-0.66	0.218
	905	3.36	4.12	-0.76	0.258
	906	3.07	3.89	-0.83	0.225
	907	3.44	3.77	-0.33	0.184
	908	3.19	4.12	-0.93	0.213
	909	3.36	3.55	-0.19	0.157
	910	3.24	3.92	-0.68	0.234
	911	3.19	3.71	-0.53	0.207
	912	3.48	3.78	-0.31	0.214
	913	3.44	3.94	-0.50	0.250
	914	3.46	4.17	-0.71	0.233
	915	3.34	3.87	-0.53	0.199
	916	3.51	4.09	-0.58	0.233
	917	3.25	4.20	-0.95	0.183
	918	3.51	3.89	-0.38	0.220
	919	2.95	3.72	-0.78	0.266
	920	3.50	4.12	-0.61	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	921	3.48	3.84	-0.36	0.206
	922	3.62	4.14	-0.52	0.232
	923	3.40	3.82	-0.42	0.234
	924	3.46	3.89	-0.43	0.211
	925	3.37	3.96	-0.59	0.252
	926	3.41	4.24	-0.83	0.271
	927	3.42	3.97	-0.54	0.210
	928	3.32	3.70	-0.38	0.191
	929	3.33	4.03	-0.70	0.174
	930	3.30	3.43	-0.13	0.224
	931	3.46	4.19	-0.73	0.223
	932	3.36	3.62	-0.26	0.184
	933	3.37	3.86	-0.50	0.197
	934	3.79	4.26	-0.46	0.194
	935	3.16	3.96	-0.80	0.192
	936	3.22	3.78	-0.56	0.250
	937	3.00	3.37	-0.37	0.154
	938	3.43	4.22	-0.78	0.191
	939	3.22	3.91	-0.70	0.217
	940	3.27	4.35	-1.08	0.207
	941	3.37	3.96	-0.59	0.254
	942	3.13	3.99	-0.85	0.228
	943	3.27	3.71	-0.43	0.179
	944	3.28	3.99	-0.70	0.265

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	945	3.33	3.66	-0.33	0.172
	946	3.52	4.05	-0.52	0.232
	947	3.32	4.05	-0.73	0.186
	948	3.23	3.82	-0.59	0.220
	949	2.99	3.67	-0.68	0.197
	950	3.41	4.29	-0.88	0.254
	951	3.81	4.21	-0.40	0.234
	952	3.27	3.86	-0.59	0.189
	953	3.27	3.94	-0.67	0.200
	954	3.28	4.29	-1.02	0.256
	955	3.22	3.73	-0.50	0.241
	956	3.46	4.03	-0.57	0.232
	957	3.64	4.16	-0.52	0.183
	958	3.35	3.73	-0.39	0.202
	959	3.74	4.38	-0.63	0.193
	960	3.52	4.35	-0.82	0.241
	961	3.15	3.66	-0.51	0.241
	962	3.25	3.87	-0.61	0.233
	963	3.24	3.98	-0.74	0.213
	964	3.67	4.45	-0.78	0.244
	965	3.51	4.06	-0.55	0.220
	966	3.27	3.85	-0.57	0.225
	967	3.41	3.83	-0.42	0.198
	968	3.44	4.03	-0.60	0.248

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	969	3.56	4.15	-0.59	0.256
	970	3.27	4.01	-0.75	0.256
	971	3.34	4.15	-0.81	0.255
	972	3.08	4.04	-0.96	0.227
	973	3.44	4.44	-1.01	0.217
	974	3.34	3.91	-0.57	0.213
	975	3.86	4.37	-0.51	0.202
	976	3.31	4.04	-0.73	0.195
	977	3.60	3.80	-0.20	0.198
	978	3.39	4.12	-0.73	0.238
	979	2.88	3.75	-0.87	0.142
	980	3.11	3.96	-0.85	0.223
	981	3.81	4.29	-0.48	0.214
	982	3.26	3.59	-0.33	0.190
	983	3.24	4.17	-0.92	0.234
	984	4.03	4.45	-0.42	0.245
	985	3.43	4.00	-0.57	0.229
	986	3.62	4.13	-0.51	0.244
	987	3.27	3.58	-0.31	0.177
	988	3.55	3.82	-0.27	0.174
	989	3.17	3.77	-0.59	0.199
	990	3.39	3.63	-0.24	0.170
	991	3.25	3.80	-0.55	0.194
	992	3.34	3.72	-0.38	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	993	3.56	3.91	-0.35	0.223
	994	3.15	4.23	-1.08	0.185
	995	3.09	3.65	-0.57	0.211
	996	3.42	4.19	-0.78	0.254
	997	3.16	3.75	-0.59	0.215
	998	3.48	4.00	-0.52	0.197
	999	3.20	3.76	-0.56	0.211
	1000	3.46	3.66	-0.20	0.208
	1001	3.55	3.89	-0.34	0.233
	1002	3.26	3.64	-0.38	0.177
	1003	3.65	3.95	-0.31	0.199
	1004	3.37	3.83	-0.45	0.250
	1005	3.44	3.72	-0.28	0.187
	1006	3.36	3.78	-0.41	0.221
	1007	3.20	3.57	-0.37	0.210
	1008	3.32	4.19	-0.87	0.252
	1009	3.62	3.82	-0.20	0.204
	1010	3.29	3.89	-0.60	0.173
	1011	3.56	4.35	-0.79	0.209
	1012	3.40	4.19	-0.78	0.208
	1013	3.16	3.52	-0.36	0.224
	1014	3.44	4.23	-0.79	0.169
	1015	3.30	4.12	-0.82	0.189
	1016	2.65	3.35	-0.71	0.202

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1017	3.48	4.19	-0.71	0.235
	1018	3.40	3.90	-0.50	0.204
	1019	3.22	3.79	-0.57	0.181
	1020	3.13	3.63	-0.50	0.178
	1021	3.44	4.05	-0.61	0.181
	1022	3.42	3.99	-0.57	0.197
	1023	3.28	3.70	-0.43	0.183
	1024	3.25	4.10	-0.85	0.226
	1025	3.23	3.66	-0.43	0.224
	1026	3.27	3.71	-0.43	0.238
	1027	3.51	4.01	-0.50	0.201
	1028	3.63	3.84	-0.22	0.256
	1029	3.47	4.27	-0.80	0.167
	1030	3.34	3.86	-0.52	0.229
	1031	3.55	4.12	-0.57	0.246
	1032	3.35	3.96	-0.61	0.238
	1033	3.06	3.88	-0.82	0.207
	1034	3.44	4.07	-0.64	0.223
	1035	3.39	3.87	-0.48	0.186
	1036	3.27	3.80	-0.53	0.207
	1037	3.22	3.89	-0.67	0.163
	1038	3.22	4.06	-0.83	0.237
	1039	3.35	3.33	0.02	0.190
	1040	3.29	3.97	-0.67	0.254

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1041	3.42	3.73	-0.31	0.201
	1042	3.18	3.94	-0.76	0.231
	1043	3.11	3.45	-0.34	0.221
	1044	3.37	3.72	-0.36	0.204
	1045	3.52	3.86	-0.33	0.222
	1046	3.41	4.17	-0.76	0.268
	1047	3.31	3.74	-0.43	0.170
	1048	3.31	4.15	-0.83	0.233
	1049	3.23	3.44	-0.21	0.247
	1050	3.72	3.98	-0.27	0.181
	1051	3.12	4.02	-0.89	0.236
	1052	3.53	3.89	-0.36	0.166
	1053	3.73	3.81	-0.08	0.197
	1054	3.60	3.80	-0.20	0.203
	1055	3.51	3.85	-0.33	0.207
	1056	3.35	3.95	-0.61	0.244
	1057	3.04	3.98	-0.94	0.221
	1058	3.51	4.03	-0.52	0.227
	1059	3.20	4.11	-0.91	0.268
	1060	3.43	4.01	-0.58	0.230
	1061	2.95	3.73	-0.78	0.241
	1062	3.44	3.71	-0.27	0.220
	1063	3.30	4.24	-0.94	0.223
	1064	3.52	4.08	-0.56	0.243

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1065	3.55	4.05	-0.50	0.255
	1066	3.67	4.12	-0.45	0.201
	1067	3.69	4.30	-0.62	0.240
	1068	3.50	4.18	-0.68	0.238
	1069	3.32	3.98	-0.66	0.216
	1070	3.46	3.95	-0.49	0.199
	1071	3.53	4.47	-0.94	0.202
	1072	3.29	3.95	-0.66	0.196
	1073	3.85	4.46	-0.61	0.186
	1074	3.50	4.03	-0.52	0.203
	1075	3.37	3.84	-0.47	0.171
	1076	2.89	4.06	-1.17	0.246
	1077	3.51	3.79	-0.28	0.229
	1078	3.53	4.09	-0.57	0.221
	1079	3.46	3.82	-0.36	0.186
	1080	3.50	4.06	-0.56	0.250
	1081	3.04	4.05	-1.01	0.226
	1082	2.70	3.45	-0.75	0.185
	1083	3.15	4.17	-1.02	0.208
	1084	3.15	3.87	-0.72	0.214
	1085	3.39	4.17	-0.78	0.236
	1086	3.62	3.62	0.01	0.161
	1087	3.62	3.91	-0.29	0.179
	1088	2.95	3.80	-0.85	0.219

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1089	2.99	3.77	-0.78	0.210
	1090	3.40	3.45	-0.05	0.260
	1091	2.92	3.94	-1.02	0.234
	1092	2.99	3.88	-0.89	0.214
	1093	3.57	4.03	-0.45	0.254
	1094	3.46	4.19	-0.73	0.223
	1095	3.36	3.70	-0.33	0.187
	1096	3.41	4.01	-0.60	0.189
	1097	3.50	3.84	-0.33	0.189
	1098	3.41	3.89	-0.48	0.206
	1099	3.04	3.80	-0.76	0.250
	1100	3.18	3.80	-0.62	0.224
	1101	3.56	3.87	-0.31	0.185
	1102	3.46	4.36	-0.90	0.262
	1103	3.11	3.72	-0.61	0.207
	1104	3.64	4.02	-0.38	0.208
	1105	3.15	4.15	-1.00	0.206
	1106	2.97	3.61	-0.64	0.201
	1107	3.18	3.73	-0.55	0.223
	1108	3.43	3.87	-0.44	0.230
	1109	3.45	3.93	-0.47	0.205
	1110	3.30	4.10	-0.80	0.237
	1111	3.16	3.75	-0.59	0.167
	1112	3.37	4.10	-0.73	0.262

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1113	3.48	3.80	-0.32	0.219
	1114	3.36	4.20	-0.84	0.242
	1115	3.39	3.98	-0.59	0.230
	1116	3.65	3.80	-0.15	0.213
	1117	3.38	4.00	-0.62	0.236
	1118	3.30	3.75	-0.44	0.231
	1119	3.11	3.56	-0.46	0.198
	1120	3.13	3.82	-0.69	0.171
	1121	3.04	3.82	-0.77	0.193
	1122	3.49	3.85	-0.36	0.264
	1123	3.39	4.21	-0.82	0.225
	1124	3.20	3.74	-0.55	0.187
	1125	3.11	3.70	-0.59	0.220
	1126	3.74	4.07	-0.33	0.189
	1127	3.46	4.19	-0.74	0.243
	1128	3.46	3.95	-0.49	0.199
	1129	3.56	3.98	-0.42	0.170
	1130	3.14	3.87	-0.73	0.240
	1131	3.49	4.00	-0.51	0.179
	1132	3.30	4.12	-0.82	0.248
	1133	3.33	4.25	-0.92	0.238
	1134	3.20	3.75	-0.55	0.236
	1135	3.52	4.21	-0.69	0.229
	1136	3.11	3.65	-0.54	0.161

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1137	3.34	4.27	-0.93	0.243
	1138	3.18	3.86	-0.68	0.186
	1139	3.16	3.68	-0.52	0.222
	1140	3.06	3.63	-0.56	0.221
	1141	3.37	3.91	-0.55	0.205
	1142	3.18	3.92	-0.74	0.230
	1143	3.62	4.19	-0.57	0.179
	1144	3.53	3.75	-0.22	0.173
	1145	3.36	4.09	-0.73	0.243
	1146	3.41	3.70	-0.29	0.183
	1147	2.90	3.70	-0.81	0.188
	1148	2.90	3.42	-0.51	0.200
	1149	3.18	3.60	-0.43	0.213
	1150	3.56	3.88	-0.32	0.242
	1151	3.50	4.02	-0.52	0.206
	1152	3.21	4.06	-0.85	0.221
	1153	3.23	3.82	-0.59	0.202
	1154	3.07	3.77	-0.71	0.213
	1155	3.41	3.73	-0.32	0.204
	1156	3.34	3.81	-0.48	0.239
	1157	3.64	4.25	-0.62	0.219
	1158	3.18	3.97	-0.79	0.170
	1159	3.20	4.09	-0.89	0.218
	1160	3.15	3.63	-0.47	0.172

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1161	3.39	3.80	-0.41	0.204
	1162	3.33	3.78	-0.45	0.168
	1163	3.27	3.77	-0.49	0.215
	1164	2.99	3.63	-0.64	0.266
	1165	3.31	3.86	-0.54	0.254
	1166	3.32	3.96	-0.64	0.217
	1167	3.55	3.81	-0.26	0.224
	1168	3.63	3.99	-0.36	0.219
	1169	3.04	4.07	-1.03	0.264
	1170	3.48	4.33	-0.85	0.207
	1171	3.03	3.45	-0.42	0.211
	1172	3.32	3.36	-0.04	0.213
	1173	3.23	3.98	-0.76	0.226
	1174	3.29	4.19	-0.90	0.182
	1175	3.39	3.70	-0.31	0.170
	1176	3.52	3.86	-0.34	0.207
	1177	3.52	3.82	-0.31	0.200
	1178	3.46	4.16	-0.70	0.200
	1179	3.28	3.73	-0.45	0.223
	1180	3.11	3.82	-0.71	0.185
	1181	3.64	4.30	-0.66	0.210
	1182	3.50	3.89	-0.39	0.266
	1183	3.43	3.96	-0.53	0.244
	1184	3.65	4.24	-0.60	0.192

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1185	3.31	4.23	-0.92	0.229
	1186	3.37	3.88	-0.52	0.231
	1187	3.22	3.86	-0.64	0.215
	1188	3.33	3.82	-0.49	0.200
	1189	3.29	3.90	-0.61	0.245
	1190	3.30	4.27	-0.97	0.244
	1191	3.81	4.55	-0.74	0.286
	1192	3.18	3.79	-0.61	0.174
	1193	3.01	3.73	-0.71	0.216
	1194	3.55	4.14	-0.59	0.223
	1195	3.10	3.65	-0.55	0.228
	1196	3.15	3.37	-0.22	0.191
	1197	3.32	3.86	-0.54	0.237
	1198	3.00	3.81	-0.81	0.250
	1199	3.30	3.89	-0.59	0.260
	1200	3.36	3.95	-0.59	0.202
	1201	3.37	3.80	-0.43	0.206
	1202	3.22	3.79	-0.57	0.206
	1203	3.57	4.33	-0.76	0.274
	1204	3.36	3.74	-0.38	0.179
	1205	3.46	3.95	-0.49	0.176
	1206	3.73	4.09	-0.36	0.207
	1207	3.42	4.21	-0.79	0.206
	1208	3.44	4.01	-0.56	0.177

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1209	3.06	3.75	-0.69	0.192
	1210	3.19	3.70	-0.51	0.230
	1211	3.18	3.75	-0.57	0.172
	1212	3.42	3.87	-0.45	0.218
	1213	3.17	3.87	-0.70	0.219
	1214	3.41	4.03	-0.62	0.223
	1215	3.14	3.87	-0.73	0.233
	1216	3.58	4.21	-0.63	0.208
	1217	3.62	4.02	-0.40	0.204
	1218	3.58	4.29	-0.71	0.244
	1219	3.22	3.77	-0.55	0.223
	1220	3.20	3.86	-0.67	0.189
	1221	3.15	3.79	-0.64	0.214
	1222	2.93	3.38	-0.45	0.196
	1223	3.27	4.00	-0.73	0.202
	1224	3.56	3.79	-0.24	0.194
	1225	3.23	3.89	-0.66	0.240
	1226	3.71	4.08	-0.37	0.301
	1227	3.10	3.97	-0.86	0.207
	1228	3.20	4.00	-0.80	0.190
	1229	3.17	4.02	-0.85	0.230
	1230	2.95	3.89	-0.94	0.224
	1231	3.32	3.82	-0.49	0.233
	1232	3.32	3.84	-0.52	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1233	3.34	3.98	-0.64	0.206
	1234	3.48	3.70	-0.22	0.179
	1235	3.30	3.63	-0.34	0.207
	1236	3.39	3.98	-0.59	0.252
	1237	3.30	4.12	-0.82	0.227
	1238	3.05	3.61	-0.57	0.219
	1239	3.18	3.87	-0.69	0.176
	1240	3.42	4.06	-0.64	0.209
	1241	3.20	3.73	-0.52	0.248
	1242	3.50	4.17	-0.67	0.233
	1243	3.70	3.84	-0.15	0.187
	1244	3.35	3.75	-0.40	0.226
	1245	3.51	4.21	-0.70	0.196
	1246	3.27	3.99	-0.71	0.176
	1247	3.09	3.73	-0.64	0.207
	1248	3.63	4.56	-0.93	0.231
	1249	3.25	3.93	-0.68	0.187
	1250	3.36	3.90	-0.53	0.288
	1251	3.79	4.29	-0.49	0.221
	1252	3.55	4.49	-0.93	0.231
	1253	2.91	3.34	-0.43	0.224
	1254	3.30	3.91	-0.61	0.208
	1255	3.14	3.88	-0.74	0.216
	1256	3.55	3.92	-0.37	0.228

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1257	3.57	3.98	-0.41	0.273
	1258	2.95	3.66	-0.71	0.240
	1259	3.48	4.10	-0.62	0.246
	1260	2.62	3.51	-0.88	0.229
	1261	3.46	4.29	-0.82	0.242
	1262	3.57	4.21	-0.64	0.211
	1263	3.39	3.77	-0.38	0.171
	1264	3.62	4.40	-0.78	0.197
	1265	3.67	3.82	-0.15	0.220
	1266	3.21	3.87	-0.66	0.195
	1267	3.22	3.93	-0.71	0.186
	1268	3.44	3.93	-0.49	0.223
	1269	3.57	4.04	-0.47	0.221
	1270	3.44	3.53	-0.10	0.209
	1271	3.43	4.00	-0.56	0.160
	1272	3.50	3.84	-0.34	0.199
	1273	3.45	3.54	-0.09	0.200
	1274	3.43	3.84	-0.41	0.197
	1275	3.49	3.88	-0.39	0.187
	1276	3.37	3.91	-0.54	0.202
	1277	2.98	3.68	-0.71	0.189
	1278	3.61	4.22	-0.61	0.224
	1279	3.58	3.89	-0.31	0.213
	1280	3.22	3.82	-0.59	0.240

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1281	3.56	3.96	-0.40	0.195
	1282	3.36	4.28	-0.92	0.155
	1283	3.45	4.00	-0.55	0.157
	1284	3.40	3.82	-0.43	0.191
	1285	3.50	3.81	-0.31	0.177
	1286	3.30	3.77	-0.47	0.183
	1287	3.57	4.28	-0.71	0.227
	1288	3.50	4.10	-0.59	0.249
	1289	3.44	3.83	-0.38	0.213
	1290	3.30	3.54	-0.24	0.195
	1291	3.30	3.84	-0.54	0.221
	1292	3.44	3.73	-0.30	0.239
	1293	3.23	3.54	-0.31	0.188
	1294	3.34	3.71	-0.36	0.162
	1295	3.38	4.37	-0.99	0.237
	1296	3.68	4.11	-0.43	0.257
	1297	3.18	4.04	-0.85	0.265
	1298	3.16	4.09	-0.93	0.222
	1299	3.16	3.82	-0.66	0.202
	1300	3.06	3.79	-0.73	0.220
	1301	3.63	4.21	-0.59	0.194
	1302	3.34	4.10	-0.77	0.223
	1303	3.08	3.79	-0.71	0.201
	1304	3.41	4.00	-0.59	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1305	3.20	4.22	-1.02	0.175
	1306	3.12	4.02	-0.90	0.224
	1307	3.44	3.92	-0.48	0.203
	1308	3.27	3.68	-0.41	0.223
	1309	3.52	4.01	-0.48	0.236
	1310	3.67	4.31	-0.64	0.256
	1311	3.42	4.01	-0.59	0.256
	1312	3.39	4.17	-0.78	0.223
	1313	3.42	3.61	-0.19	0.197
	1314	3.30	4.07	-0.77	0.200
	1315	3.40	3.94	-0.54	0.233
	1316	3.48	3.82	-0.35	0.183
	1317	3.30	3.89	-0.59	0.241
	1318	3.34	4.24	-0.90	0.223
	1319	3.27	4.03	-0.76	0.222
	1320	3.44	4.10	-0.66	0.247
	1321	3.41	3.91	-0.50	0.216
	1322	3.69	4.22	-0.53	0.244
	1323	3.18	3.89	-0.71	0.183
	1324	3.12	3.73	-0.61	0.207
	1325	3.35	3.89	-0.54	0.239
	1326	3.18	3.91	-0.73	0.225
	1327	3.30	3.82	-0.52	0.277
	1328	3.20	3.91	-0.71	0.239

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1329	3.32	4.22	-0.90	0.228
	1330	3.12	3.87	-0.75	0.213
	1331	3.49	4.10	-0.61	0.273
	1332	3.47	4.16	-0.69	0.223
	1333	3.27	4.06	-0.79	0.216
	1334	3.59	4.14	-0.55	0.225
	1335	3.48	3.73	-0.25	0.208
	1336	3.23	3.94	-0.71	0.206
	1337	3.42	4.03	-0.61	0.228
	1338	3.39	3.81	-0.43	0.234
	1339	3.52	3.98	-0.45	0.190
	1340	3.20	3.86	-0.66	0.218
	1341	3.39	3.70	-0.32	0.226
	1342	3.37	3.96	-0.59	0.249
	1343	3.23	3.81	-0.58	0.185
	1344	3.23	3.64	-0.40	0.248
	1345	3.80	4.18	-0.38	0.228
	1346	3.18	3.88	-0.70	0.179
	1347	3.76	4.30	-0.54	0.197
	1348	3.25	3.95	-0.71	0.197
	1349	3.41	3.86	-0.45	0.217
	1350	3.53	4.05	-0.51	0.246
	1351	2.94	3.64	-0.71	0.239
	1352	3.10	3.51	-0.40	0.182

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1353	3.85	4.41	-0.56	0.219
	1354	3.41	4.08	-0.66	0.223
	1355	3.17	3.98	-0.81	0.185
	1356	3.33	3.79	-0.46	0.217
	1357	3.43	3.84	-0.41	0.245
	1358	3.50	4.22	-0.71	0.266
	1359	3.35	3.92	-0.57	0.237
	1360	3.69	3.86	-0.18	0.179
	1361	3.29	3.90	-0.61	0.223
	1362	3.37	3.67	-0.30	0.170
	1363	3.15	4.41	-1.26	0.229
	1364	3.60	4.27	-0.67	0.269
	1365	3.36	4.19	-0.83	0.174
	1366	3.20	4.12	-0.92	0.216
	1367	3.58	4.21	-0.63	0.212
	1368	3.25	4.17	-0.92	0.191
	1369	3.41	4.17	-0.76	0.223
	1370	2.91	3.75	-0.84	0.207
	1371	3.48	3.59	-0.11	0.231
	1372	3.18	4.10	-0.91	0.234
	1373	3.04	3.58	-0.54	0.181
	1374	3.44	4.32	-0.88	0.230
	1375	3.53	4.28	-0.75	0.234
	1376	3.02	3.73	-0.71	0.192

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1377	3.65	3.81	-0.15	0.218
	1378	3.37	3.80	-0.43	0.204
	1379	3.37	4.21	-0.84	0.243
	1380	3.59	3.77	-0.19	0.199
	1381	3.77	4.33	-0.56	0.216
	1382	3.56	4.40	-0.83	0.231
	1383	3.60	4.09	-0.49	0.218
	1384	3.67	4.26	-0.59	0.215
	1385	3.29	4.08	-0.79	0.221
	1386	2.95	3.63	-0.68	0.254
	1387	3.32	4.36	-1.04	0.288
	1388	3.02	3.45	-0.43	0.200
	1389	3.41	3.66	-0.25	0.208
	1390	3.46	4.23	-0.77	0.207
	1391	3.25	3.66	-0.40	0.180
	1392	3.60	4.04	-0.44	0.172
	1393	3.39	4.31	-0.92	0.265
	1394	3.16	3.96	-0.80	0.229
	1395	3.46	3.80	-0.34	0.195
	1396	3.10	3.52	-0.41	0.202
	1397	3.48	4.05	-0.57	0.213
	1398	3.23	4.03	-0.80	0.181
	1399	3.34	4.02	-0.68	0.192
	1400	3.45	4.15	-0.70	0.251

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1401	3.60	3.99	-0.38	0.203
	1402	3.37	4.36	-1.00	0.232
	1403	3.15	3.65	-0.50	0.218
	1404	3.13	3.75	-0.61	0.190
	1405	3.20	3.72	-0.52	0.179
	1406	3.30	4.05	-0.75	0.201
	1407	3.23	3.89	-0.66	0.216
	1408	3.46	4.13	-0.66	0.235
	1409	3.30	3.29	0.02	0.183
	1410	3.32	3.91	-0.59	0.227
	1411	2.85	3.65	-0.80	0.199
	1412	3.52	3.85	-0.33	0.193
	1413	3.39	3.98	-0.59	0.174
	1414	3.44	3.86	-0.43	0.169
	1415	3.19	3.71	-0.52	0.235
	1416	3.30	3.89	-0.59	0.235
	1417	3.32	3.85	-0.53	0.236
	1418	3.25	3.75	-0.50	0.139
	1419	3.67	4.13	-0.45	0.196
	1420	3.19	3.89	-0.71	0.194
	1421	3.60	4.14	-0.55	0.223
	1422	3.57	4.00	-0.42	0.170
	1423	3.15	4.00	-0.85	0.238
	1424	3.86	4.34	-0.48	0.194

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1425	3.14	3.88	-0.74	0.219
	1426	3.05	3.84	-0.78	0.236
	1427	3.38	4.12	-0.74	0.245
	1428	3.39	3.77	-0.38	0.216
	1429	2.83	3.61	-0.77	0.211
	1430	3.79	4.05	-0.26	0.193
	1431	3.46	3.81	-0.35	0.240
	1432	3.44	4.26	-0.83	0.256
	1433	3.30	3.68	-0.38	0.188
	1434	2.89	3.36	-0.48	0.179
	1435	3.20	3.91	-0.71	0.239
	1436	3.60	4.47	-0.88	0.256
	1437	3.69	4.18	-0.49	0.164
	1438	3.46	3.56	-0.10	0.195
	1439	3.29	3.72	-0.43	0.265
	1440	3.51	4.35	-0.84	0.238
	1441	3.56	3.86	-0.30	0.183
	1442	3.69	3.80	-0.10	0.210
	1443	3.22	3.79	-0.57	0.176
	1444	2.95	3.49	-0.54	0.198
	1445	3.70	4.17	-0.47	0.230
	1446	3.09	3.92	-0.82	0.220
	1447	3.58	4.01	-0.43	0.190
	1448	3.51	4.29	-0.78	0.268

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1449	3.67	4.09	-0.42	0.183
	1450	3.37	3.78	-0.41	0.238
	1451	3.46	4.05	-0.59	0.240
	1452	3.41	4.28	-0.87	0.217
	1453	3.78	4.24	-0.46	0.195
	1454	3.30	4.36	-1.06	0.214
	1455	2.88	4.10	-1.22	0.267
	1456	3.37	4.33	-0.96	0.239
	1457	3.32	3.77	-0.45	0.193
	1458	3.11	3.89	-0.78	0.178
	1459	3.35	3.82	-0.47	0.199
	1460	2.99	3.85	-0.85	0.280
	1461	3.14	3.80	-0.66	0.230
	1462	3.69	4.10	-0.41	0.220
	1463	3.49	4.23	-0.73	0.183
	1464	3.48	4.19	-0.71	0.260
	1465	2.97	3.79	-0.82	0.186
	1466	3.13	3.91	-0.78	0.232
	1467	3.37	4.01	-0.64	0.241
	1468	3.51	4.19	-0.67	0.180
	1469	3.07	3.90	-0.83	0.204
	1470	3.86	4.34	-0.48	0.255
	1471	3.15	4.16	-1.01	0.186
	1472	3.37	3.59	-0.22	0.221

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1473	3.25	3.96	-0.72	0.151
	1474	3.32	3.86	-0.54	0.264
	1475	2.91	3.92	-1.01	0.257
	1476	3.52	4.37	-0.85	0.218
	1477	3.17	3.82	-0.65	0.220
	1478	3.87	4.49	-0.63	0.202
	1479	3.11	3.45	-0.34	0.199
	1480	2.98	3.53	-0.54	0.168
	1481	3.65	4.26	-0.62	0.241
	1482	3.30	3.75	-0.46	0.233
	1483	3.39	4.09	-0.70	0.243
	1484	3.38	4.05	-0.67	0.235
	1485	3.53	4.22	-0.69	0.212
	1486	3.38	3.81	-0.43	0.222
	1487	3.04	3.59	-0.54	0.242
	1488	3.39	4.37	-0.99	0.248
	1489	3.16	3.63	-0.47	0.212
	1490	3.57	3.84	-0.27	0.225
	1491	3.37	3.98	-0.61	0.195
	1492	3.60	4.07	-0.47	0.241
	1493	3.51	3.94	-0.44	0.244
	1494	3.28	3.79	-0.52	0.214
	1495	3.53	4.21	-0.69	0.236
	1496	3.34	3.69	-0.35	0.206

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1497	3.41	3.80	-0.39	0.181
	1498	3.34	3.92	-0.59	0.232
	1499	3.40	4.01	-0.61	0.229
	1500	3.54	4.32	-0.78	0.221
	1501	3.20	3.82	-0.62	0.205
	1502	3.53	4.16	-0.63	0.244
	1503	3.02	3.75	-0.73	0.204
	1504	3.48	3.85	-0.37	0.184
	1505	3.35	3.72	-0.37	0.213
	1506	3.50	3.84	-0.33	0.221
	1507	3.32	4.30	-0.98	0.206
	1508	3.04	3.69	-0.64	0.215
	1509	3.45	4.10	-0.65	0.222
	1510	3.51	4.12	-0.61	0.243
	1511	3.13	3.81	-0.68	0.236
	1512	3.44	3.84	-0.40	0.186
	1513	3.07	3.40	-0.33	0.230
	1514	3.20	3.72	-0.52	0.186
	1515	3.62	3.98	-0.36	0.203
	1516	3.29	3.94	-0.65	0.237
	1517	3.45	3.95	-0.50	0.202
	1518	3.11	3.96	-0.85	0.215
	1519	3.60	4.12	-0.52	0.241
	1520	3.32	3.90	-0.59	0.180

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1521	3.35	4.06	-0.72	0.205
	1522	3.15	4.12	-0.97	0.185
	1523	3.62	4.00	-0.38	0.161
	1524	3.21	3.67	-0.45	0.216
	1525	3.22	3.44	-0.22	0.188
	1526	3.37	3.87	-0.50	0.194
	1527	3.02	3.61	-0.59	0.220
	1528	3.13	3.96	-0.83	0.268
	1529	3.35	3.98	-0.64	0.180
	1530	3.30	3.80	-0.50	0.185
	1531	3.29	3.82	-0.52	0.244
	1532	3.46	4.07	-0.61	0.225
	1533	3.06	4.12	-1.06	0.206
	1534	3.37	3.96	-0.59	0.226
	1535	3.39	3.75	-0.36	0.183
	1536	3.53	3.89	-0.36	0.253
	1537	3.62	4.31	-0.69	0.258
	1538	3.16	3.72	-0.56	0.233
	1539	3.16	3.64	-0.48	0.206
	1540	3.39	3.89	-0.50	0.223
	1541	3.23	3.57	-0.34	0.207
	1542	3.45	4.03	-0.57	0.228
	1543	3.62	4.42	-0.80	0.204
	1544	3.36	4.19	-0.82	0.219

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1545	3.02	3.66	-0.64	0.223
	1546	3.32	3.93	-0.60	0.255
	1547	3.54	3.90	-0.36	0.244
	1548	3.02	3.86	-0.85	0.209
	1549	3.40	4.00	-0.61	0.248
	1550	3.18	3.87	-0.69	0.234
	1551	3.37	3.68	-0.31	0.182
	1552	3.16	3.71	-0.55	0.248
	1553	3.59	4.28	-0.69	0.197
	1554	3.32	3.84	-0.52	0.271
	1555	3.20	3.91	-0.71	0.156
	1556	3.68	4.08	-0.40	0.192
	1557	3.32	4.19	-0.87	0.223
	1558	3.01	3.58	-0.57	0.266
	1559	3.16	3.94	-0.78	0.225
	1560	3.48	3.98	-0.50	0.220
	1561	3.65	4.05	-0.40	0.211
	1562	3.63	4.01	-0.37	0.233
	1563	3.11	3.63	-0.52	0.212
	1564	3.62	4.08	-0.46	0.166
	1565	3.30	3.80	-0.50	0.253
	1566	3.34	3.99	-0.65	0.244
	1567	3.25	4.07	-0.83	0.235
	1568	3.40	4.18	-0.78	0.218

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1569	3.62	4.02	-0.40	0.219
	1570	3.39	4.06	-0.67	0.198
	1571	3.36	4.22	-0.85	0.228
	1572	3.49	3.98	-0.50	0.184
	1573	3.25	3.79	-0.54	0.249
	1574	3.49	4.10	-0.61	0.207
	1575	3.70	4.55	-0.85	0.265
	1576	3.55	4.16	-0.61	0.235
	1577	3.51	3.93	-0.42	0.208
	1578	3.38	3.95	-0.57	0.206
	1579	3.55	4.14	-0.60	0.245
	1580	3.46	4.10	-0.64	0.227
	1581	3.34	3.92	-0.58	0.231
	1582	3.32	4.01	-0.68	0.263
	1583	3.42	3.87	-0.45	0.214
	1584	3.36	3.89	-0.52	0.169
	1585	2.83	3.72	-0.89	0.154
	1586	3.17	3.77	-0.60	0.186
	1587	3.34	4.37	-1.03	0.239
	1588	3.36	3.70	-0.34	0.185
	1589	3.74	4.08	-0.33	0.219
	1590	3.41	4.19	-0.78	0.216
	1591	3.07	4.22	-1.15	0.223
	1592	3.32	3.66	-0.34	0.257

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1593	3.06	3.69	-0.63	0.210
	1594	3.62	3.98	-0.36	0.206
	1595	3.49	4.12	-0.64	0.227
	1596	3.94	4.15	-0.20	0.241
	1597	3.27	3.79	-0.52	0.209
	1598	3.18	3.76	-0.58	0.213
	1599	2.99	3.93	-0.94	0.239
	1600	3.84	4.40	-0.56	0.232
	1601	3.21	4.08	-0.87	0.254
	1602	3.32	4.10	-0.78	0.214
	1603	3.27	3.98	-0.71	0.188
	1604	3.39	4.16	-0.78	0.200
	1605	3.32	3.87	-0.55	0.219
	1606	3.19	3.87	-0.68	0.256
	1607	3.14	3.45	-0.31	0.196
	1608	3.51	4.24	-0.73	0.234
	1609	3.39	3.77	-0.38	0.212
	1610	3.53	3.95	-0.42	0.202
	1611	3.55	3.85	-0.29	0.188
	1612	3.11	4.19	-1.07	0.209
	1613	3.90	4.33	-0.43	0.226
	1614	3.27	4.17	-0.90	0.214
	1615	3.43	3.95	-0.51	0.214
	1616	3.25	4.12	-0.87	0.218

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1617	3.55	3.77	-0.22	0.216
	1618	3.37	3.93	-0.57	0.184
	1619	3.03	3.15	-0.12	0.168
	1620	2.88	3.94	-1.06	0.166
	1621	3.02	3.82	-0.80	0.206
	1622	3.44	4.07	-0.64	0.232
	1623	2.89	3.85	-0.97	0.181
	1624	3.30	3.96	-0.66	0.215
	1625	3.29	4.01	-0.72	0.259
	1626	3.78	4.05	-0.26	0.224
	1627	3.94	4.32	-0.38	0.198
	1628	3.18	3.94	-0.76	0.216
	1629	3.62	4.24	-0.61	0.165
	1630	3.06	3.52	-0.46	0.206
	1631	3.47	4.10	-0.63	0.210
	1632	3.30	4.05	-0.75	0.210
	1633	2.87	4.00	-1.13	0.223
	1634	3.34	3.72	-0.38	0.221
	1635	3.48	4.23	-0.74	0.261
	1636	3.67	4.07	-0.40	0.205
	1637	3.19	3.93	-0.74	0.211
	1638	3.56	3.94	-0.38	0.168
	1639	3.58	3.98	-0.41	0.196
	1640	3.58	3.91	-0.34	0.250

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1641	3.55	4.07	-0.52	0.173
	1642	3.38	3.89	-0.50	0.228
	1643	3.53	4.19	-0.66	0.217
	1644	3.11	3.77	-0.66	0.237
	1645	3.48	4.06	-0.57	0.259
	1646	3.39	3.75	-0.36	0.220
	1647	3.33	4.01	-0.68	0.221
	1648	3.50	4.32	-0.83	0.216
	1649	3.48	3.89	-0.41	0.194
	1650	3.11	3.92	-0.81	0.247
	1651	3.76	4.28	-0.52	0.205
	1652	3.61	4.10	-0.49	0.204
	1653	3.22	3.68	-0.46	0.216
	1654	3.20	3.72	-0.52	0.223
	1655	3.44	4.26	-0.82	0.281
	1656	3.08	3.80	-0.72	0.268
	1657	3.16	4.27	-1.11	0.258
	1658	3.30	3.61	-0.31	0.241
	1659	3.52	4.21	-0.69	0.194
	1660	3.39	4.09	-0.70	0.217
	1661	3.88	4.21	-0.34	0.171
	1662	3.15	3.75	-0.60	0.189
	1663	3.23	3.80	-0.57	0.191
	1664	3.21	3.85	-0.64	0.212

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1665	3.11	3.96	-0.85	0.261
	1666	3.46	3.82	-0.36	0.217
	1667	3.73	3.98	-0.24	0.202
	1668	3.32	3.64	-0.31	0.239
	1669	3.33	4.07	-0.73	0.223
	1670	3.37	4.19	-0.82	0.236
	1671	3.17	3.65	-0.48	0.199
	1672	2.95	3.61	-0.66	0.230
	1673	3.46	4.39	-0.93	0.186
	1674	3.59	4.25	-0.66	0.226
	1675	3.70	4.27	-0.56	0.232
	1676	3.16	3.92	-0.76	0.205
	1677	3.13	4.17	-1.04	0.251
	1678	3.23	3.87	-0.64	0.215
	1679	3.57	3.89	-0.32	0.226
	1680	2.95	3.82	-0.87	0.235
	1681	3.62	4.07	-0.45	0.210
	1682	3.38	4.07	-0.69	0.237
	1683	3.58	4.19	-0.61	0.214
	1684	3.67	4.19	-0.52	0.222
	1685	3.42	4.06	-0.64	0.226
	1686	3.11	3.69	-0.58	0.179
	1687	3.17	4.19	-1.02	0.230
	1688	3.37	3.82	-0.45	0.215

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1689	3.27	4.00	-0.73	0.206
	1690	3.31	3.87	-0.56	0.188
	1691	3.48	4.13	-0.65	0.210
	1692	3.40	3.90	-0.50	0.218
	1693	3.55	3.64	-0.08	0.194
	1694	3.20	3.40	-0.20	0.196
	1695	3.09	3.84	-0.75	0.185
	1696	2.81	3.87	-1.06	0.253
	1697	3.46	4.15	-0.69	0.236
	1698	3.44	4.07	-0.63	0.203
	1699	3.55	4.30	-0.76	0.241
	1700	3.30	3.87	-0.57	0.211
	1701	3.15	3.60	-0.45	0.202
	1702	2.88	3.86	-0.98	0.185
	1703	3.23	3.97	-0.73	0.240
	1704	3.05	3.92	-0.87	0.280
	1705	3.46	4.07	-0.61	0.223
	1706	3.16	3.68	-0.52	0.159
	1707	3.27	3.93	-0.67	0.247
	1708	3.36	4.05	-0.69	0.202
	1709	3.14	3.73	-0.59	0.215
	1710	3.11	3.70	-0.59	0.223
	1711	3.17	4.12	-0.95	0.208
	1712	3.18	3.66	-0.48	0.232

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1713	3.11	3.63	-0.52	0.243
	1714	3.05	3.74	-0.70	0.189
	1715	3.37	3.87	-0.50	0.227
	1716	2.84	3.50	-0.66	0.220
	1717	3.46	4.14	-0.68	0.240
	1718	3.53	3.77	-0.24	0.245
	1719	3.48	3.97	-0.49	0.236
	1720	3.28	3.87	-0.59	0.254
	1721	3.77	4.28	-0.52	0.201
	1722	3.46	4.11	-0.66	0.217
	1723	3.50	4.43	-0.93	0.215
	1724	3.35	3.57	-0.22	0.195
	1725	3.69	4.14	-0.45	0.176
	1726	3.26	3.84	-0.58	0.181
	1727	3.56	4.12	-0.56	0.227
	1728	3.06	4.24	-1.18	0.272
	1729	3.25	3.78	-0.53	0.192
	1730	3.30	3.65	-0.35	0.181
	1731	3.40	4.02	-0.62	0.244
	1732	3.36	3.92	-0.56	0.213
	1733	2.90	3.56	-0.66	0.210
	1734	3.32	4.21	-0.89	0.205
	1735	3.64	3.91	-0.27	0.217
	1736	3.58	3.80	-0.22	0.239

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1737	3.31	3.80	-0.48	0.243
	1738	3.31	3.84	-0.52	0.227
	1739	3.21	3.61	-0.41	0.187
	1740	3.18	3.94	-0.75	0.204
	1741	3.04	3.58	-0.54	0.230
	1742	3.28	3.75	-0.47	0.206
	1743	2.95	3.91	-0.96	0.237
	1744	3.52	3.46	0.06	0.234
	1745	3.30	3.96	-0.66	0.202
	1746	2.90	3.91	-1.00	0.262
	1747	3.44	3.74	-0.31	0.182
	1748	3.14	3.73	-0.59	0.204
	1749	3.53	3.99	-0.46	0.209
	1750	3.26	3.71	-0.45	0.223
	1751	2.94	3.64	-0.69	0.221
	1752	3.37	4.43	-1.06	0.227
	1753	3.16	3.63	-0.48	0.177
	1754	3.09	3.90	-0.81	0.193
	1755	3.41	4.00	-0.59	0.217
	1756	3.70	4.12	-0.42	0.222
	1757	3.42	3.73	-0.31	0.226
	1758	3.35	3.73	-0.38	0.208
	1759	3.08	3.64	-0.56	0.208
	1760	2.93	3.87	-0.94	0.166

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1761	3.39	3.93	-0.54	0.158
	1762	3.00	3.65	-0.65	0.215
	1763	3.39	3.77	-0.38	0.203
	1764	3.29	3.89	-0.59	0.199
	1765	3.17	3.74	-0.57	0.219
	1766	3.50	4.45	-0.95	0.242
	1767	3.48	3.90	-0.42	0.206
	1768	3.17	4.06	-0.89	0.284
	1769	3.53	4.29	-0.76	0.217
	1770	3.31	3.98	-0.67	0.218
	1771	3.46	3.96	-0.50	0.218
	1772	3.43	3.84	-0.40	0.192
	1773	3.32	4.19	-0.88	0.178
	1774	3.74	4.26	-0.52	0.179
	1775	3.30	3.73	-0.42	0.230
	1776	3.65	3.91	-0.26	0.213
	1777	3.19	3.87	-0.68	0.183
	1778	3.20	4.07	-0.87	0.213
	1779	3.45	3.95	-0.50	0.226
	1780	3.13	3.60	-0.48	0.195
	1781	3.31	3.40	-0.08	0.200
	1782	3.47	4.27	-0.80	0.209
	1783	3.57	4.44	-0.87	0.252
	1784	3.32	3.98	-0.67	0.277

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1785	3.25	3.98	-0.73	0.217
	1786	3.74	4.16	-0.42	0.200
	1787	3.39	3.96	-0.57	0.229
	1788	3.23	3.53	-0.29	0.236
	1789	3.64	3.75	-0.11	0.199
	1790	3.50	4.33	-0.83	0.216
	1791	3.62	4.00	-0.38	0.249
	1792	3.59	3.43	0.16	0.166
	1793	3.41	4.05	-0.64	0.139
	1794	3.39	3.91	-0.52	0.230
	1795	3.16	3.91	-0.76	0.224
	1796	3.51	3.82	-0.31	0.182
	1797	2.91	3.77	-0.86	0.196
	1798	3.42	4.31	-0.89	0.236
	1799	3.34	4.03	-0.69	0.249
	1800	3.61	4.23	-0.61	0.250
	1801	3.27	3.98	-0.71	0.216
	1802	3.13	3.47	-0.34	0.206
	1803	3.46	3.98	-0.52	0.199
	1804	3.06	3.96	-0.90	0.230
	1805	2.99	3.75	-0.76	0.226
	1806	3.18	3.75	-0.58	0.201
	1807	3.39	3.88	-0.49	0.194
	1808	3.48	4.07	-0.59	0.217

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1809	3.43	3.92	-0.49	0.250
	1810	3.42	4.10	-0.68	0.230
	1811	3.65	4.31	-0.66	0.247
	1812	3.34	4.35	-1.01	0.203
	1813	3.51	3.91	-0.40	0.234
	1814	3.32	3.92	-0.59	0.233
	1815	3.39	4.03	-0.64	0.250
	1816	3.37	3.70	-0.33	0.195
	1817	3.23	3.56	-0.33	0.185
	1818	3.06	4.00	-0.94	0.227
	1819	3.20	4.05	-0.85	0.249
	1820	3.00	4.05	-1.06	0.203
	1821	3.62	4.10	-0.47	0.216
	1822	3.35	3.82	-0.47	0.226
	1823	3.55	4.24	-0.69	0.219
	1824	3.21	3.96	-0.75	0.190
	1825	3.65	4.12	-0.47	0.208
	1826	3.49	3.84	-0.35	0.212
	1827	3.11	3.78	-0.67	0.197
	1828	2.92	3.71	-0.78	0.215
	1829	3.13	3.86	-0.73	0.196
	1830	3.01	3.65	-0.64	0.214
	1831	3.71	4.33	-0.62	0.237
	1832	3.87	4.17	-0.30	0.227

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1833	3.24	3.90	-0.66	0.183
	1834	3.20	3.92	-0.72	0.208
	1835	3.34	4.08	-0.74	0.232
	1836	3.67	4.59	-0.92	0.234
	1837	3.51	3.84	-0.33	0.235
	1838	3.44	3.80	-0.36	0.220
	1839	3.31	3.77	-0.45	0.238
	1840	3.13	3.76	-0.63	0.201
	1841	3.13	3.93	-0.80	0.183
	1842	2.99	3.87	-0.87	0.168
	1843	3.42	3.91	-0.49	0.179
	1844	3.41	4.03	-0.62	0.221
	1845	3.24	3.91	-0.67	0.232
	1846	3.31	3.86	-0.55	0.232
	1847	3.04	3.75	-0.71	0.262
	1848	2.74	3.40	-0.66	0.171
	1849	3.60	4.07	-0.48	0.255
	1850	3.15	3.98	-0.83	0.260
	1851	3.27	3.82	-0.55	0.230
	1852	3.52	4.06	-0.54	0.185
	1853	3.85	4.00	-0.15	0.256
	1854	3.30	3.98	-0.68	0.224
	1855	3.09	3.54	-0.45	0.233
	1856	3.35	4.10	-0.75	0.259

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1857	3.30	4.10	-0.81	0.256
	1858	3.41	3.77	-0.36	0.221
	1859	3.25	3.81	-0.56	0.216
	1860	3.63	3.92	-0.29	0.195
	1861	3.64	3.90	-0.26	0.217
	1862	3.45	4.16	-0.71	0.243
	1863	2.99	3.84	-0.85	0.180
	1864	3.18	4.29	-1.11	0.243
	1865	3.28	3.88	-0.60	0.234
	1866	3.51	4.24	-0.73	0.209
	1867	3.35	4.35	-1.00	0.215
	1868	3.25	4.10	-0.85	0.232
	1869	3.48	4.10	-0.61	0.216
	1870	3.25	4.30	-1.05	0.174
	1871	3.10	3.99	-0.88	0.208
	1872	3.25	3.72	-0.47	0.177
	1873	3.78	4.09	-0.31	0.202
	1874	3.32	3.98	-0.66	0.183
	1875	3.42	4.36	-0.94	0.207
	1876	3.41	3.91	-0.50	0.218
	1877	3.24	4.04	-0.80	0.223
	1878	3.40	3.80	-0.41	0.218
	1879	3.23	3.80	-0.57	0.175
	1880	3.40	4.03	-0.63	0.223

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1881	3.37	4.05	-0.68	0.217
	1882	3.21	4.10	-0.89	0.232
	1883	3.25	3.93	-0.68	0.258
	1884	3.42	4.21	-0.80	0.225
	1885	3.56	4.12	-0.56	0.199
	1886	3.48	3.84	-0.35	0.179
	1887	3.37	3.82	-0.46	0.204
	1888	3.46	4.10	-0.63	0.180
	1889	2.92	3.70	-0.78	0.202
	1890	3.48	4.10	-0.62	0.255
	1891	3.53	4.23	-0.71	0.229
	1892	3.34	3.79	-0.45	0.229
	1893	3.29	4.00	-0.70	0.204
	1894	3.11	3.96	-0.85	0.236
	1895	3.27	3.66	-0.39	0.208
	1896	3.57	3.82	-0.25	0.214
	1897	3.06	4.10	-1.05	0.286
	1898	3.66	4.02	-0.36	0.211
	1899	2.91	3.50	-0.60	0.211
	1900	3.51	4.19	-0.69	0.208
	1901	3.41	3.78	-0.37	0.201
	1902	3.23	4.00	-0.78	0.161
	1903	3.21	3.78	-0.56	0.220
	1904	2.98	4.15	-1.17	0.210

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1905	3.25	4.10	-0.85	0.260
	1906	2.56	3.33	-0.77	0.235
	1907	3.27	3.86	-0.59	0.195
	1908	3.78	4.26	-0.48	0.258
	1909	3.49	4.07	-0.58	0.222
	1910	3.23	4.15	-0.91	0.227
	1911	3.09	3.91	-0.82	0.220
	1912	3.16	3.85	-0.69	0.182
	1913	3.06	3.89	-0.83	0.195
	1914	3.15	3.63	-0.48	0.177
	1915	3.34	3.89	-0.54	0.214
	1916	3.46	4.10	-0.64	0.230
	1917	3.37	4.29	-0.92	0.205
	1918	3.29	3.70	-0.40	0.195
	1919	3.57	3.85	-0.27	0.242
	1920	3.56	4.31	-0.76	0.248
	1921	3.57	3.77	-0.20	0.222
	1922	3.18	4.04	-0.85	0.224
	1923	2.99	3.65	-0.66	0.216
	1924	3.11	3.96	-0.84	0.220
	1925	3.48	3.77	-0.29	0.195
	1926	3.63	4.14	-0.52	0.213
	1927	2.90	3.56	-0.66	0.196
	1928	3.60	4.05	-0.45	0.243

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1929	3.16	3.79	-0.63	0.217
	1930	3.46	4.26	-0.80	0.253
	1931	3.52	4.09	-0.57	0.231
	1932	3.12	3.85	-0.73	0.232
	1933	3.32	3.98	-0.66	0.239
	1934	3.38	4.07	-0.69	0.236
	1935	3.11	3.64	-0.53	0.225
	1936	3.37	3.79	-0.42	0.211
	1937	3.62	3.81	-0.20	0.177
	1938	3.04	3.48	-0.43	0.233
	1939	3.11	3.86	-0.75	0.245
	1940	3.26	3.92	-0.66	0.247
	1941	2.99	3.45	-0.45	0.213
	1942	3.25	3.93	-0.68	0.191
	1943	3.21	3.81	-0.59	0.184
	1944	3.44	3.81	-0.37	0.223
	1945	3.72	4.44	-0.73	0.258
	1946	3.33	3.87	-0.54	0.211
	1947	3.53	3.91	-0.38	0.205
	1948	3.08	3.70	-0.62	0.241
	1949	3.60	4.08	-0.48	0.200
	1950	3.53	4.09	-0.56	0.208
	1951	3.35	3.92	-0.57	0.229
	1952	3.30	3.87	-0.57	0.209

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1953	3.43	4.27	-0.84	0.233
	1954	3.41	3.96	-0.54	0.256
	1955	3.48	4.31	-0.82	0.258
	1956	3.37	3.94	-0.57	0.243
	1957	3.70	4.38	-0.68	0.220
	1958	3.13	3.98	-0.85	0.209
	1959	3.32	3.53	-0.22	0.167
	1960	3.72	3.79	-0.07	0.144
	1961	3.23	4.01	-0.77	0.247
	1962	3.31	3.79	-0.48	0.186
	1963	3.45	3.83	-0.38	0.200
	1964	3.16	3.24	-0.08	0.169
	1965	3.13	3.59	-0.46	0.240
	1966	3.16	3.96	-0.80	0.219
	1967	3.04	3.54	-0.50	0.207
	1968	3.39	4.07	-0.68	0.250
	1969	3.37	3.82	-0.45	0.212
	1970	2.95	3.86	-0.91	0.181
	1971	3.21	3.92	-0.71	0.235
	1972	3.25	4.02	-0.77	0.242
	1973	3.50	4.06	-0.55	0.279
	1974	3.56	4.02	-0.47	0.208
	1975	3.41	3.84	-0.43	0.234
	1976	3.17	4.09	-0.92	0.243

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Enjoyment of Respiratory Tract Sensation Subscale	1977	3.40	3.84	-0.45	0.190
	1978	3.26	3.67	-0.41	0.188
	1979	3.43	4.14	-0.71	0.201
	1980	2.92	3.72	-0.80	0.181
	1981	3.17	3.77	-0.60	0.220
	1982	3.29	4.07	-0.78	0.172
	1983	3.49	4.10	-0.62	0.227
	1984	3.40	3.84	-0.44	0.250
	1985	3.18	3.61	-0.43	0.234
	1986	3.69	4.00	-0.31	0.180
	1987	3.55	3.97	-0.41	0.194
	1988	3.33	3.82	-0.49	0.206
	1989	3.21	3.91	-0.71	0.233
	1990	3.47	3.83	-0.36	0.198
	1991	3.17	3.89	-0.72	0.220
	1992	3.55	3.84	-0.29	0.179
	1993	3.04	3.80	-0.76	0.241
	1994	3.48	4.14	-0.65	0.198
	1995	2.88	3.63	-0.75	0.200
	1996	3.42	3.83	-0.41	0.247
	1997	3.25	4.05	-0.80	0.225
	1998	3.71	4.25	-0.54	0.232
	1999	3.36	3.70	-0.33	0.254
	2000	2.91	3.66	-0.75	0.221

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1	2.76	2.99	-0.22	0.108
	2	2.85	3.10	-0.24	0.101
	3	2.40	2.76	-0.36	0.091
	4	2.90	3.25	-0.35	0.089
	5	2.80	3.05	-0.25	0.106
	6	2.72	2.89	-0.17	0.098
	7	2.85	2.98	-0.12	0.102
	8	2.86	2.92	-0.06	0.102
	9	2.61	2.79	-0.19	0.107
	10	2.89	2.89	-0.00	0.108
	11	2.75	2.82	-0.08	0.089
	12	2.67	2.96	-0.30	0.092
	13	2.74	2.93	-0.19	0.106
	14	2.92	2.96	-0.04	0.124
	15	2.58	2.88	-0.30	0.093
	16	2.80	2.96	-0.16	0.101
	17	2.70	3.12	-0.42	0.079
	18	2.55	2.70	-0.14	0.074
	19	2.68	3.12	-0.44	0.076
	20	2.75	2.83	-0.08	0.095
	21	2.92	3.19	-0.27	0.109
	22	2.53	2.75	-0.21	0.083
	23	2.71	2.91	-0.21	0.108
	24	2.96	3.07	-0.11	0.110

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	25	2.87	2.97	-0.10	0.107
	26	2.85	3.04	-0.20	0.082
	27	2.55	2.79	-0.24	0.110
	28	2.79	3.03	-0.25	0.103
	29	2.62	2.74	-0.12	0.097
	30	2.72	3.11	-0.39	0.094
	31	2.84	2.92	-0.08	0.102
	32	2.73	3.06	-0.33	0.104
	33	2.52	3.03	-0.51	0.110
	34	2.79	2.97	-0.18	0.116
	35	2.70	2.91	-0.21	0.103
	36	2.68	2.71	-0.03	0.104
	37	2.81	3.03	-0.22	0.087
	38	2.91	3.02	-0.11	0.105
	39	2.64	2.94	-0.30	0.104
	40	2.89	3.06	-0.18	0.112
	41	2.78	2.99	-0.21	0.097
	42	2.78	2.93	-0.15	0.110
	43	2.78	3.02	-0.24	0.094
	44	2.74	2.85	-0.11	0.094
	45	2.80	3.05	-0.25	0.113
	46	2.83	2.93	-0.10	0.086
	47	2.90	3.04	-0.13	0.121
	48	2.90	3.10	-0.19	0.116

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	49	2.84	3.10	-0.26	0.106
	50	2.79	2.95	-0.16	0.115
	51	2.84	2.89	-0.04	0.107
	52	2.92	2.96	-0.04	0.101
	53	2.65	2.90	-0.25	0.095
	54	2.54	2.84	-0.30	0.080
	55	3.04	3.31	-0.28	0.116
	56	2.68	2.93	-0.25	0.072
	57	2.70	2.89	-0.19	0.109
	58	2.84	2.90	-0.06	0.108
	59	2.70	3.01	-0.31	0.082
	60	2.67	3.00	-0.33	0.100
	61	2.95	3.08	-0.13	0.106
	62	2.81	3.03	-0.22	0.098
	63	2.53	2.76	-0.23	0.086
	64	2.88	2.93	-0.06	0.121
	65	2.87	2.91	-0.04	0.101
	66	2.82	2.79	0.03	0.113
	67	2.65	2.93	-0.28	0.095
	68	2.84	2.91	-0.07	0.108
	69	2.48	2.73	-0.25	0.088
	70	2.77	3.04	-0.28	0.094
	71	2.58	2.74	-0.16	0.098
	72	2.97	3.21	-0.24	0.098

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	73	2.72	2.89	-0.17	0.103
	74	2.69	2.97	-0.27	0.102
	75	2.91	2.93	-0.03	0.097
	76	2.88	3.17	-0.29	0.091
	77	2.95	3.19	-0.24	0.118
	78	2.64	2.95	-0.31	0.092
	79	2.74	3.00	-0.26	0.108
	80	2.63	2.79	-0.16	0.112
	81	2.75	2.97	-0.22	0.101
	82	2.75	2.87	-0.12	0.115
	83	2.71	2.83	-0.12	0.111
	84	2.73	3.06	-0.33	0.085
	85	2.71	2.88	-0.17	0.095
	86	2.80	2.96	-0.16	0.119
	87	2.68	2.76	-0.09	0.104
	88	2.75	2.82	-0.07	0.095
	89	2.65	2.88	-0.24	0.101
	90	2.73	2.88	-0.16	0.105
	91	2.68	2.78	-0.10	0.104
	92	2.65	3.05	-0.41	0.096
	93	2.84	2.91	-0.07	0.106
	94	2.65	3.08	-0.43	0.087
	95	2.71	2.98	-0.27	0.092
	96	2.73	2.80	-0.07	0.116

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	97	2.72	3.04	-0.33	0.106
	98	2.70	3.09	-0.40	0.117
	99	2.86	3.14	-0.28	0.092
	100	2.82	3.06	-0.24	0.110
	101	2.46	2.54	-0.08	0.116
	102	2.76	3.03	-0.27	0.103
	103	2.73	3.16	-0.43	0.078
	104	2.96	3.04	-0.09	0.101
	105	2.66	2.86	-0.19	0.094
	106	2.68	2.89	-0.21	0.108
	107	2.75	2.89	-0.14	0.118
	108	2.68	2.71	-0.03	0.115
	109	2.68	2.82	-0.14	0.096
	110	2.63	2.81	-0.18	0.084
	111	2.74	2.88	-0.14	0.103
	112	2.67	2.97	-0.30	0.111
	113	2.66	2.87	-0.22	0.094
	114	2.87	3.10	-0.23	0.116
	115	2.89	3.24	-0.35	0.100
	116	2.73	2.85	-0.12	0.128
	117	2.67	2.77	-0.10	0.102
	118	2.97	3.23	-0.26	0.125
	119	3.01	3.16	-0.15	0.109
	120	2.95	3.08	-0.13	0.121

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	121	2.74	2.83	-0.09	0.093
	122	2.76	2.92	-0.16	0.103
	123	2.83	2.99	-0.16	0.089
	124	2.96	3.16	-0.20	0.086
	125	2.61	2.79	-0.18	0.112
	126	2.71	2.93	-0.22	0.120
	127	2.90	2.87	0.02	0.116
	128	2.67	2.87	-0.21	0.095
	129	2.80	2.95	-0.15	0.107
	130	2.67	2.83	-0.16	0.099
	131	2.98	3.14	-0.16	0.101
	132	2.91	3.23	-0.31	0.103
	133	2.96	3.05	-0.09	0.101
	134	3.09	2.91	0.18	0.132
	135	2.80	2.94	-0.14	0.109
	136	2.83	2.94	-0.10	0.110
	137	2.83	3.06	-0.23	0.104
	138	2.61	2.81	-0.20	0.101
	139	2.83	2.82	0.00	0.103
	140	2.88	2.88	-0.01	0.097
	141	2.75	2.89	-0.14	0.106
	142	2.82	3.03	-0.22	0.089
	143	2.66	3.06	-0.39	0.112
	144	2.93	3.22	-0.29	0.092

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	145	2.96	3.08	-0.11	0.107
	146	2.88	3.12	-0.24	0.131
	147	2.77	2.79	-0.02	0.118
	148	2.92	3.11	-0.20	0.107
	149	2.84	3.04	-0.20	0.119
	150	3.06	3.40	-0.33	0.113
	151	2.63	2.86	-0.23	0.095
	152	2.84	3.10	-0.25	0.101
	153	2.80	2.92	-0.12	0.092
	154	2.84	3.17	-0.33	0.097
	155	2.82	2.85	-0.03	0.104
	156	2.79	2.89	-0.10	0.125
	157	2.63	2.96	-0.33	0.088
	158	2.75	2.88	-0.13	0.092
	159	2.87	3.05	-0.18	0.113
	160	2.69	2.91	-0.22	0.113
	161	2.67	2.90	-0.23	0.089
	162	2.88	2.97	-0.09	0.119
	163	2.74	2.79	-0.05	0.099
	164	2.84	3.08	-0.24	0.110
	165	2.76	3.10	-0.34	0.101
	166	2.66	2.90	-0.24	0.094
	167	2.65	2.95	-0.30	0.113
	168	2.79	3.07	-0.28	0.085

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	169	2.73	2.90	-0.17	0.094
	170	2.61	2.76	-0.15	0.108
	171	2.88	3.24	-0.36	0.088
	172	2.90	2.94	-0.03	0.114
	173	2.64	2.87	-0.22	0.097
	174	2.53	2.76	-0.23	0.097
	175	2.68	2.90	-0.21	0.099
	176	2.74	3.00	-0.27	0.094
	177	2.70	2.80	-0.10	0.097
	178	2.83	3.01	-0.19	0.093
	179	2.72	3.00	-0.27	0.105
	180	2.60	2.71	-0.12	0.087
	181	2.72	2.85	-0.12	0.090
	182	2.73	2.82	-0.09	0.097
	183	2.72	2.97	-0.25	0.099
	184	2.69	2.99	-0.30	0.094
	185	2.79	2.99	-0.20	0.107
	186	2.69	2.77	-0.08	0.118
	187	2.69	2.95	-0.26	0.098
	188	2.53	2.91	-0.38	0.097
	189	2.70	2.97	-0.28	0.100
	190	2.72	3.05	-0.33	0.108
	191	2.71	2.94	-0.24	0.097
	192	2.57	2.75	-0.19	0.083

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	193	2.76	2.94	-0.18	0.109
	194	2.70	2.94	-0.24	0.089
	195	3.00	3.17	-0.17	0.114
	196	2.77	2.93	-0.17	0.099
	197	2.66	2.96	-0.30	0.109
	198	2.72	2.89	-0.17	0.111
	199	2.91	3.00	-0.09	0.107
	200	2.83	3.03	-0.20	0.132
	201	2.74	2.89	-0.15	0.091
	202	2.71	2.94	-0.23	0.106
	203	2.59	2.79	-0.20	0.086
	204	2.56	2.86	-0.30	0.090
	205	2.83	2.97	-0.14	0.101
	206	2.78	3.01	-0.23	0.109
	207	2.67	2.95	-0.28	0.066
	208	2.58	2.93	-0.35	0.084
	209	2.85	3.05	-0.20	0.111
	210	2.94	2.95	-0.01	0.115
	211	2.81	2.95	-0.14	0.105
	212	2.56	2.82	-0.26	0.087
	213	2.86	3.07	-0.22	0.116
	214	2.51	2.86	-0.35	0.106
	215	2.77	2.96	-0.19	0.108
	216	2.80	2.88	-0.08	0.097

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	217	2.86	3.04	-0.18	0.101
	218	2.79	2.98	-0.20	0.106
	219	2.69	2.79	-0.11	0.112
	220	2.84	3.09	-0.25	0.095
	221	2.58	2.85	-0.27	0.092
	222	2.87	3.02	-0.14	0.096
	223	2.80	2.95	-0.15	0.102
	224	2.71	2.81	-0.10	0.109
	225	2.51	2.94	-0.43	0.089
	226	2.59	2.83	-0.24	0.089
	227	2.94	3.03	-0.09	0.114
	228	2.75	2.93	-0.18	0.098
	229	2.84	3.05	-0.21	0.112
	230	3.17	3.21	-0.04	0.108
	231	2.83	3.12	-0.29	0.113
	232	2.82	3.02	-0.20	0.101
	233	2.73	2.78	-0.06	0.108
	234	2.61	2.96	-0.35	0.083
	235	2.54	2.89	-0.35	0.096
	236	2.73	2.90	-0.17	0.090
	237	3.17	3.24	-0.07	0.096
	238	2.80	2.99	-0.19	0.118
	239	2.85	3.26	-0.42	0.091
	240	3.09	3.04	0.05	0.099

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	241	2.80	2.88	-0.08	0.097
	242	2.67	2.78	-0.11	0.102
	243	2.64	2.97	-0.33	0.071
	244	2.77	3.05	-0.28	0.093
	245	2.67	2.82	-0.15	0.093
	246	2.79	2.95	-0.16	0.104
	247	2.75	2.83	-0.08	0.103
	248	2.67	2.78	-0.11	0.118
	249	2.73	2.88	-0.14	0.097
	250	3.04	3.21	-0.17	0.112
	251	2.72	3.18	-0.46	0.106
	252	2.68	2.83	-0.15	0.085
	253	2.64	2.96	-0.32	0.078
	254	3.00	3.03	-0.04	0.091
	255	2.81	3.02	-0.21	0.114
	256	2.70	2.99	-0.29	0.087
	257	2.59	2.90	-0.31	0.103
	258	2.70	2.89	-0.18	0.115
	259	2.88	3.00	-0.12	0.110
	260	2.87	3.09	-0.22	0.113
	261	2.93	2.88	0.04	0.111
	262	2.84	2.94	-0.11	0.101
	263	2.83	3.09	-0.26	0.089
	264	3.02	3.13	-0.10	0.117

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	265	2.88	3.18	-0.30	0.070
	266	2.77	2.82	-0.05	0.092
	267	2.78	2.95	-0.17	0.104
	268	2.78	2.91	-0.13	0.119
	269	2.81	3.01	-0.20	0.096
	270	2.85	2.90	-0.05	0.114
	271	2.72	2.77	-0.06	0.103
	272	2.59	2.79	-0.20	0.085
	273	2.81	2.91	-0.10	0.129
	274	2.62	2.88	-0.26	0.094
	275	2.81	2.77	0.03	0.131
	276	2.65	2.88	-0.23	0.108
	277	2.81	2.92	-0.11	0.097
	278	2.71	3.05	-0.33	0.080
	279	2.80	2.99	-0.18	0.098
	280	2.77	3.03	-0.26	0.104
	281	2.68	2.94	-0.27	0.090
	282	2.80	2.90	-0.10	0.098
	283	2.84	2.96	-0.12	0.103
	284	2.86	3.02	-0.16	0.106
	285	2.86	2.95	-0.09	0.119
	286	2.69	2.97	-0.29	0.111
	287	2.77	3.04	-0.27	0.109
	288	2.71	2.99	-0.28	0.112

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	289	2.61	2.77	-0.16	0.099
	290	2.71	2.78	-0.07	0.101
	291	2.63	2.98	-0.35	0.090
	292	2.66	3.02	-0.36	0.084
	293	2.73	2.88	-0.15	0.105
	294	2.73	2.93	-0.19	0.091
	295	2.72	3.23	-0.51	0.090
	296	2.85	2.93	-0.08	0.102
	297	2.89	3.09	-0.20	0.102
	298	2.97	3.24	-0.27	0.120
	299	2.65	2.99	-0.34	0.095
	300	2.78	2.90	-0.12	0.110
	301	2.55	2.63	-0.08	0.100
	302	2.85	2.97	-0.12	0.113
	303	2.85	2.97	-0.11	0.110
	304	2.66	2.80	-0.13	0.109
	305	2.80	2.87	-0.07	0.095
	306	2.93	3.19	-0.26	0.099
	307	2.81	3.19	-0.38	0.106
	308	2.89	2.93	-0.04	0.127
	309	2.87	3.20	-0.34	0.089
	310	2.56	2.88	-0.32	0.095
	311	2.63	2.77	-0.14	0.115
	312	2.82	2.97	-0.15	0.102

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	313	2.91	3.07	-0.15	0.110
	314	2.69	2.93	-0.25	0.086
	315	2.69	2.89	-0.20	0.113
	316	2.75	2.96	-0.21	0.115
	317	3.30	3.52	-0.22	0.113
	318	2.74	2.87	-0.14	0.090
	319	2.57	2.87	-0.30	0.099
	320	3.06	3.26	-0.20	0.113
	321	2.77	2.78	-0.00	0.121
	322	2.86	2.97	-0.10	0.105
	323	2.63	2.90	-0.26	0.111
	324	2.67	3.01	-0.34	0.098
	325	2.70	2.87	-0.17	0.097
	326	2.62	2.63	-0.01	0.087
	327	2.58	2.76	-0.17	0.114
	328	2.92	2.97	-0.05	0.101
	329	2.78	3.00	-0.22	0.087
	330	2.92	3.19	-0.27	0.102
	331	2.73	3.05	-0.32	0.085
	332	2.86	3.12	-0.26	0.099
	333	2.56	2.74	-0.18	0.095
	334	2.80	2.90	-0.10	0.113
	335	2.61	3.00	-0.40	0.075
	336	2.84	2.83	0.01	0.109

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	337	2.73	3.11	-0.37	0.099
	338	2.74	2.86	-0.12	0.109
	339	2.75	3.00	-0.25	0.098
	340	2.76	2.98	-0.22	0.077
	341	2.85	3.05	-0.20	0.105
	342	2.72	2.89	-0.16	0.095
	343	2.87	3.12	-0.25	0.106
	344	2.78	2.97	-0.19	0.105
	345	2.61	2.80	-0.18	0.090
	346	2.99	3.25	-0.26	0.118
	347	2.77	3.05	-0.28	0.097
	348	3.02	3.24	-0.22	0.095
	349	2.84	3.18	-0.34	0.100
	350	2.81	3.00	-0.19	0.103
	351	2.56	2.70	-0.14	0.101
	352	2.66	2.91	-0.25	0.087
	353	2.78	2.88	-0.10	0.085
	354	2.81	3.10	-0.28	0.094
	355	2.75	2.94	-0.19	0.113
	356	2.54	2.84	-0.30	0.090
	357	2.83	2.86	-0.03	0.106
	358	2.70	2.83	-0.12	0.116
	359	2.72	2.99	-0.26	0.097
	360	2.98	3.24	-0.26	0.118

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	361	2.89	2.86	0.03	0.095
	362	2.91	2.95	-0.04	0.088
	363	2.72	2.90	-0.18	0.102
	364	2.86	3.05	-0.19	0.113
	365	2.90	3.04	-0.14	0.117
	366	3.18	3.26	-0.09	0.121
	367	2.93	3.05	-0.12	0.108
	368	2.63	2.85	-0.22	0.101
	369	2.60	2.97	-0.37	0.093
	370	2.58	3.04	-0.46	0.089
	371	2.91	3.09	-0.18	0.101
	372	2.66	2.98	-0.32	0.091
	373	2.79	2.99	-0.20	0.080
	374	2.62	2.90	-0.28	0.092
	375	3.10	3.29	-0.19	0.127
	376	2.98	3.20	-0.23	0.128
	377	2.73	2.84	-0.11	0.107
	378	2.74	2.69	0.05	0.092
	379	2.68	2.99	-0.31	0.092
	380	2.44	2.74	-0.30	0.081
	381	2.95	3.02	-0.06	0.104
	382	2.71	2.95	-0.25	0.104
	383	2.97	2.91	0.06	0.108
	384	2.96	3.17	-0.21	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	385	2.93	3.07	-0.13	0.112
	386	2.93	3.06	-0.13	0.086
	387	2.69	2.84	-0.16	0.099
	388	2.85	3.18	-0.33	0.095
	389	2.62	2.84	-0.23	0.083
	390	2.91	2.95	-0.04	0.102
	391	2.72	2.88	-0.16	0.104
	392	2.53	2.90	-0.37	0.088
	393	2.75	2.79	-0.05	0.103
	394	2.88	3.13	-0.25	0.123
	395	2.70	2.84	-0.14	0.111
	396	2.87	2.93	-0.06	0.093
	397	2.80	2.88	-0.09	0.110
	398	2.64	2.87	-0.23	0.109
	399	2.86	3.05	-0.19	0.111
	400	2.63	2.95	-0.32	0.089
	401	2.84	3.06	-0.22	0.102
	402	2.65	3.01	-0.36	0.081
	403	2.50	2.85	-0.34	0.100
	404	2.95	3.07	-0.13	0.112
	405	2.80	3.17	-0.36	0.099
	406	2.66	2.98	-0.32	0.100
	407	2.94	3.07	-0.13	0.092
	408	2.80	3.01	-0.21	0.085

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	409	2.69	2.95	-0.26	0.087
	410	2.61	2.90	-0.29	0.084
	411	2.82	2.88	-0.06	0.107
	412	2.71	2.92	-0.21	0.091
	413	2.85	3.03	-0.18	0.114
	414	2.78	2.95	-0.17	0.105
	415	2.94	3.00	-0.06	0.108
	416	2.76	2.94	-0.17	0.098
	417	2.56	2.84	-0.27	0.099
	418	2.73	2.93	-0.20	0.095
	419	2.81	3.00	-0.19	0.105
	420	2.78	3.14	-0.36	0.111
	421	2.92	3.13	-0.21	0.102
	422	2.87	3.19	-0.32	0.113
	423	2.75	2.95	-0.20	0.093
	424	2.80	3.08	-0.27	0.095
	425	2.61	2.87	-0.26	0.095
	426	2.56	2.87	-0.31	0.087
	427	3.06	3.20	-0.14	0.125
	428	2.92	3.10	-0.17	0.125
	429	2.86	2.95	-0.09	0.118
	430	2.77	3.08	-0.31	0.091
	431	2.58	2.93	-0.35	0.084
	432	2.66	2.99	-0.33	0.086

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	433	2.88	3.14	-0.27	0.109
	434	2.76	2.86	-0.09	0.116
	435	2.88	3.00	-0.12	0.112
	436	2.86	3.16	-0.30	0.092
	437	2.91	3.02	-0.11	0.110
	438	2.50	2.61	-0.11	0.093
	439	2.99	3.12	-0.13	0.102
	440	2.81	3.07	-0.26	0.093
	441	2.82	3.00	-0.19	0.105
	442	2.74	3.10	-0.36	0.106
	443	2.95	3.07	-0.12	0.105
	444	2.71	2.93	-0.22	0.108
	445	2.51	2.82	-0.31	0.087
	446	3.04	2.96	0.08	0.115
	447	2.73	3.03	-0.30	0.102
	448	2.75	2.90	-0.15	0.081
	449	2.84	2.93	-0.10	0.120
	450	2.69	2.92	-0.23	0.103
	451	2.61	2.80	-0.19	0.096
	452	2.95	3.03	-0.08	0.101
	453	3.06	3.18	-0.11	0.116
	454	2.88	3.11	-0.23	0.118
	455	2.61	2.98	-0.37	0.096
	456	2.69	2.88	-0.19	0.091

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	457	2.94	3.03	-0.09	0.119
	458	2.99	3.15	-0.16	0.115
	459	2.76	2.89	-0.13	0.099
	460	2.74	2.92	-0.17	0.116
	461	2.73	2.88	-0.15	0.105
	462	2.77	3.00	-0.23	0.102
	463	2.84	2.92	-0.08	0.121
	464	2.83	3.05	-0.22	0.111
	465	2.77	2.81	-0.03	0.100
	466	2.75	3.02	-0.27	0.105
	467	3.02	3.11	-0.09	0.102
	468	2.74	2.86	-0.13	0.095
	469	2.49	2.77	-0.28	0.096
	470	2.88	2.92	-0.04	0.114
	471	2.84	3.11	-0.27	0.089
	472	2.73	2.86	-0.13	0.101
	473	3.02	3.11	-0.09	0.109
	474	2.62	2.96	-0.34	0.115
	475	2.73	2.97	-0.24	0.087
	476	2.50	2.74	-0.25	0.106
	477	2.82	3.00	-0.18	0.107
	478	2.83	2.93	-0.10	0.117
	479	2.74	2.95	-0.20	0.133
	480	2.69	2.97	-0.28	0.089

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	481	3.09	3.25	-0.16	0.110
	482	2.57	2.76	-0.19	0.100
	483	2.40	2.65	-0.25	0.095
	484	2.46	2.74	-0.28	0.109
	485	2.90	2.98	-0.08	0.122
	486	2.58	2.87	-0.29	0.081
	487	2.76	2.97	-0.21	0.080
	488	2.92	3.12	-0.19	0.107
	489	2.87	2.83	0.03	0.114
	490	2.92	3.19	-0.27	0.125
	491	2.81	3.09	-0.28	0.095
	492	2.95	3.26	-0.31	0.117
	493	2.63	2.95	-0.32	0.108
	494	2.77	3.06	-0.29	0.097
	495	2.64	2.74	-0.10	0.094
	496	2.74	3.10	-0.36	0.097
	497	3.00	3.12	-0.12	0.096
	498	2.61	2.90	-0.29	0.111
	499	2.96	3.05	-0.09	0.114
	500	2.82	2.94	-0.12	0.112
	501	2.80	3.05	-0.26	0.095
	502	2.87	2.99	-0.12	0.115
	503	2.89	2.98	-0.09	0.113
	504	2.75	2.98	-0.23	0.108

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	505	2.69	2.76	-0.07	0.110
	506	2.83	2.96	-0.13	0.084
	507	2.69	3.08	-0.38	0.087
	508	2.92	3.10	-0.18	0.087
	509	2.73	2.70	0.03	0.107
	510	2.71	3.00	-0.29	0.097
	511	2.72	3.02	-0.30	0.105
	512	2.80	2.81	-0.01	0.095
	513	3.06	3.17	-0.11	0.107
	514	2.49	2.70	-0.21	0.101
	515	2.90	3.05	-0.14	0.095
	516	2.69	2.86	-0.17	0.093
	517	2.77	2.82	-0.05	0.116
	518	2.79	3.02	-0.23	0.087
	519	2.66	2.86	-0.20	0.106
	520	2.79	3.04	-0.24	0.096
	521	2.69	2.77	-0.07	0.092
	522	2.66	2.70	-0.04	0.112
	523	2.75	2.89	-0.14	0.118
	524	2.75	2.87	-0.12	0.080
	525	2.83	2.98	-0.15	0.118
	526	2.77	2.87	-0.10	0.110
	527	2.77	3.06	-0.29	0.096
	528	2.80	2.91	-0.11	0.118

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	529	2.55	2.75	-0.19	0.097
	530	3.03	2.99	0.04	0.101
	531	2.69	2.88	-0.19	0.108
	532	2.74	2.98	-0.24	0.100
	533	2.73	2.90	-0.17	0.108
	534	2.75	2.87	-0.13	0.100
	535	2.58	2.82	-0.24	0.106
	536	2.86	2.96	-0.10	0.087
	537	2.96	3.11	-0.15	0.108
	538	2.80	3.04	-0.24	0.099
	539	2.64	2.76	-0.12	0.106
	540	2.70	2.85	-0.15	0.116
	541	2.98	3.16	-0.17	0.111
	542	2.78	2.93	-0.15	0.091
	543	2.59	2.84	-0.25	0.103
	544	2.83	3.09	-0.26	0.075
	545	2.90	2.97	-0.07	0.116
	546	2.84	3.01	-0.18	0.108
	547	2.94	3.05	-0.10	0.129
	548	2.60	2.88	-0.28	0.096
	549	2.80	2.84	-0.03	0.092
	550	2.75	3.05	-0.30	0.101
	551	2.75	2.89	-0.14	0.105
	552	2.88	3.01	-0.13	0.101

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	553	2.71	2.98	-0.28	0.107
	554	2.76	2.94	-0.18	0.110
	555	2.98	3.22	-0.24	0.112
	556	2.60	2.66	-0.06	0.111
	557	2.83	3.05	-0.21	0.095
	558	2.76	2.98	-0.22	0.105
	559	2.61	2.95	-0.34	0.086
	560	2.68	2.88	-0.20	0.118
	561	2.92	3.20	-0.27	0.114
	562	2.58	2.82	-0.24	0.111
	563	2.88	2.94	-0.07	0.096
	564	2.71	2.74	-0.03	0.115
	565	2.71	2.93	-0.22	0.098
	566	2.86	2.99	-0.13	0.094
	567	2.81	2.88	-0.07	0.111
	568	2.66	2.93	-0.27	0.102
	569	2.85	3.16	-0.31	0.095
	570	2.97	3.16	-0.19	0.094
	571	2.58	2.94	-0.37	0.098
	572	2.87	3.32	-0.45	0.097
	573	2.74	2.81	-0.07	0.096
	574	2.79	3.05	-0.27	0.106
	575	2.80	2.90	-0.10	0.116
	576	2.75	3.01	-0.25	0.114

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	577	2.91	3.04	-0.13	0.084
	578	2.82	3.02	-0.19	0.107
	579	2.86	3.14	-0.28	0.099
	580	2.85	2.91	-0.05	0.101
	581	2.83	2.96	-0.13	0.099
	582	2.89	2.99	-0.11	0.121
	583	2.70	2.87	-0.16	0.105
	584	2.89	3.12	-0.23	0.104
	585	2.95	2.88	0.07	0.106
	586	2.83	2.95	-0.12	0.108
	587	2.81	2.96	-0.15	0.109
	588	2.50	2.72	-0.23	0.106
	589	3.09	3.27	-0.17	0.106
	590	2.76	2.91	-0.15	0.100
	591	2.69	2.93	-0.24	0.097
	592	2.80	3.11	-0.31	0.078
	593	2.74	3.04	-0.31	0.090
	594	2.87	3.07	-0.20	0.121
	595	2.70	2.94	-0.25	0.100
	596	2.79	3.09	-0.30	0.100
	597	2.64	3.06	-0.42	0.078
	598	2.92	3.06	-0.14	0.092
	599	2.69	2.70	-0.02	0.085
	600	3.11	3.18	-0.07	0.126

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	601	2.47	2.66	-0.19	0.094
	602	2.67	2.92	-0.25	0.095
	603	2.70	2.97	-0.27	0.108
	604	2.67	2.62	0.05	0.106
	605	2.74	3.05	-0.30	0.107
	606	2.78	2.97	-0.19	0.121
	607	2.67	2.81	-0.14	0.100
	608	2.78	3.11	-0.33	0.096
	609	3.03	3.07	-0.04	0.122
	610	2.73	2.84	-0.11	0.109
	611	2.99	3.13	-0.13	0.113
	612	2.92	2.94	-0.02	0.112
	613	2.86	2.96	-0.10	0.109
	614	2.78	2.97	-0.19	0.111
	615	2.80	3.13	-0.33	0.105
	616	3.03	2.96	0.08	0.120
	617	2.74	2.81	-0.07	0.103
	618	2.43	2.81	-0.38	0.096
	619	2.90	3.00	-0.10	0.103
	620	3.12	3.07	0.04	0.114
	621	2.71	3.04	-0.33	0.082
	622	2.82	3.03	-0.21	0.095
	623	3.10	3.07	0.03	0.117
	624	2.70	2.88	-0.17	0.094

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	625	2.66	2.87	-0.21	0.112
	626	2.81	3.00	-0.19	0.095
	627	2.86	2.97	-0.11	0.088
	628	2.76	3.05	-0.28	0.100
	629	3.06	3.08	-0.02	0.114
	630	2.70	3.00	-0.30	0.103
	631	2.84	3.13	-0.29	0.120
	632	2.51	2.84	-0.32	0.106
	633	2.77	2.87	-0.10	0.095
	634	2.73	2.95	-0.22	0.088
	635	2.89	3.15	-0.26	0.112
	636	2.88	3.24	-0.36	0.105
	637	2.95	3.03	-0.09	0.118
	638	2.87	3.25	-0.38	0.106
	639	2.58	2.98	-0.40	0.100
	640	2.67	2.98	-0.30	0.076
	641	2.50	2.88	-0.38	0.114
	642	2.71	2.81	-0.10	0.094
	643	2.84	3.07	-0.24	0.089
	644	2.76	2.99	-0.23	0.112
	645	2.93	3.01	-0.08	0.104
	646	2.90	3.04	-0.14	0.132
	647	2.85	2.96	-0.11	0.124
	648	2.80	2.94	-0.14	0.107

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	649	2.67	2.85	-0.18	0.106
	650	2.74	3.11	-0.36	0.101
	651	2.63	2.93	-0.30	0.102
	652	2.93	2.98	-0.05	0.102
	653	2.81	3.03	-0.22	0.105
	654	2.79	3.01	-0.22	0.105
	655	2.74	3.06	-0.32	0.102
	656	2.87	2.91	-0.05	0.121
	657	2.86	2.89	-0.03	0.114
	658	2.66	2.91	-0.25	0.100
	659	2.74	2.94	-0.21	0.094
	660	2.60	2.84	-0.24	0.093
	661	2.97	3.00	-0.03	0.099
	662	2.70	2.79	-0.09	0.097
	663	2.87	2.96	-0.09	0.097
	664	2.91	3.13	-0.22	0.117
	665	2.94	3.10	-0.16	0.122
	666	2.73	2.93	-0.20	0.088
	667	2.58	2.84	-0.26	0.098
	668	2.65	2.92	-0.27	0.076
	669	2.85	2.92	-0.06	0.096
	670	2.74	2.81	-0.07	0.110
	671	2.66	2.95	-0.29	0.106
	672	2.97	3.13	-0.16	0.099

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	673	2.52	2.83	-0.30	0.103
	674	2.77	2.80	-0.03	0.111
	675	2.69	2.93	-0.24	0.086
	676	2.89	3.09	-0.21	0.110
	677	2.86	2.93	-0.07	0.109
	678	2.88	3.12	-0.24	0.108
	679	2.84	2.95	-0.11	0.096
	680	2.86	2.99	-0.13	0.105
	681	2.78	2.88	-0.11	0.117
	682	2.84	3.04	-0.20	0.095
	683	2.68	2.71	-0.03	0.111
	684	2.67	2.87	-0.20	0.095
	685	2.97	3.02	-0.05	0.099
	686	2.87	2.90	-0.03	0.117
	687	2.86	2.91	-0.05	0.110
	688	2.64	2.70	-0.06	0.084
	689	2.72	2.86	-0.13	0.118
	690	2.81	3.10	-0.29	0.085
	691	2.67	2.98	-0.31	0.095
	692	2.73	3.01	-0.28	0.109
	693	2.66	2.81	-0.16	0.111
	694	2.63	2.78	-0.15	0.091
	695	2.79	2.94	-0.16	0.101
	696	2.78	2.96	-0.17	0.097

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	697	2.92	2.99	-0.08	0.090
	698	2.80	2.92	-0.12	0.108
	699	2.57	2.70	-0.13	0.105
	700	2.86	3.10	-0.24	0.104
	701	2.60	2.86	-0.26	0.090
	702	2.82	2.97	-0.15	0.112
	703	2.88	2.95	-0.07	0.103
	704	2.74	2.79	-0.05	0.102
	705	2.85	3.05	-0.20	0.114
	706	2.89	3.13	-0.24	0.101
	707	2.81	2.96	-0.15	0.119
	708	3.06	3.33	-0.28	0.120
	709	2.76	3.00	-0.24	0.102
	710	2.80	3.12	-0.31	0.108
	711	2.60	2.76	-0.15	0.099
	712	2.57	2.91	-0.34	0.076
	713	2.56	2.86	-0.29	0.107
	714	2.69	3.03	-0.34	0.088
	715	2.81	2.86	-0.04	0.108
	716	2.75	2.77	-0.02	0.094
	717	2.75	3.00	-0.25	0.111
	718	2.78	3.02	-0.24	0.098
	719	3.00	3.14	-0.14	0.106
	720	2.73	2.91	-0.18	0.098

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	721	2.73	3.01	-0.28	0.108
	722	2.68	2.90	-0.22	0.102
	723	2.66	2.69	-0.03	0.112
	724	2.90	3.07	-0.17	0.089
	725	3.06	3.18	-0.13	0.108
	726	2.74	2.89	-0.15	0.105
	727	2.94	3.00	-0.06	0.108
	728	2.82	2.91	-0.09	0.114
	729	2.51	2.62	-0.11	0.093
	730	2.82	2.98	-0.16	0.112
	731	2.70	2.93	-0.23	0.107
	732	2.60	2.91	-0.31	0.081
	733	2.77	2.88	-0.11	0.104
	734	2.85	3.16	-0.31	0.092
	735	2.73	2.87	-0.14	0.094
	736	2.62	2.80	-0.18	0.102
	737	2.85	3.09	-0.24	0.111
	738	2.82	3.05	-0.22	0.082
	739	2.59	2.94	-0.35	0.106
	740	2.51	2.86	-0.36	0.096
	741	2.87	2.96	-0.09	0.127
	742	2.74	2.89	-0.15	0.114
	743	2.74	2.97	-0.24	0.106
	744	2.88	3.07	-0.20	0.114

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	745	2.70	3.03	-0.33	0.088
	746	2.92	3.05	-0.12	0.103
	747	2.78	3.13	-0.35	0.105
	748	2.85	3.16	-0.31	0.090
	749	3.02	3.13	-0.10	0.101
	750	2.68	3.03	-0.35	0.105
	751	2.74	2.90	-0.16	0.084
	752	2.77	2.95	-0.17	0.105
	753	2.71	2.85	-0.14	0.089
	754	2.79	3.02	-0.22	0.105
	755	2.57	2.74	-0.17	0.098
	756	2.52	2.78	-0.26	0.110
	757	2.63	2.95	-0.32	0.093
	758	2.82	3.09	-0.27	0.112
	759	2.90	3.03	-0.13	0.110
	760	2.64	2.75	-0.10	0.118
	761	2.65	3.04	-0.39	0.096
	762	2.68	3.04	-0.36	0.100
	763	2.95	3.08	-0.13	0.101
	764	2.90	3.13	-0.23	0.100
	765	2.94	3.07	-0.13	0.139
	766	2.81	3.32	-0.51	0.111
	767	2.73	2.90	-0.17	0.093
	768	2.79	2.93	-0.15	0.101

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	769	2.46	2.76	-0.30	0.091
	770	2.80	2.93	-0.13	0.127
	771	2.79	3.11	-0.32	0.091
	772	2.80	2.99	-0.19	0.113
	773	2.96	3.22	-0.26	0.105
	774	2.94	2.98	-0.04	0.107
	775	2.49	2.70	-0.21	0.108
	776	2.74	3.04	-0.30	0.094
	777	2.70	2.93	-0.24	0.105
	778	2.83	2.95	-0.12	0.108
	779	2.77	3.00	-0.22	0.113
	780	2.98	3.10	-0.11	0.123
	781	2.88	3.05	-0.17	0.091
	782	2.63	2.93	-0.30	0.112
	783	2.75	2.96	-0.21	0.113
	784	2.78	3.04	-0.26	0.098
	785	2.85	2.87	-0.03	0.116
	786	2.72	2.98	-0.27	0.112
	787	2.62	2.75	-0.14	0.113
	788	2.95	3.12	-0.17	0.103
	789	2.76	2.91	-0.15	0.099
	790	2.60	2.80	-0.20	0.096
	791	2.63	2.74	-0.11	0.117
	792	2.74	2.82	-0.07	0.103

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	793	2.94	3.22	-0.28	0.113
	794	2.60	2.75	-0.15	0.091
	795	2.74	2.98	-0.24	0.094
	796	2.69	2.86	-0.18	0.108
	797	2.91	3.13	-0.22	0.106
	798	2.82	3.07	-0.25	0.094
	799	2.58	2.72	-0.14	0.099
	800	2.84	3.14	-0.30	0.088
	801	2.63	2.86	-0.22	0.087
	802	2.86	2.81	0.05	0.105
	803	2.70	2.97	-0.26	0.093
	804	2.80	2.79	0.01	0.089
	805	2.78	3.09	-0.31	0.085
	806	2.66	2.86	-0.19	0.105
	807	2.81	3.15	-0.34	0.102
	808	2.81	3.13	-0.32	0.102
	809	2.65	2.90	-0.25	0.106
	810	2.61	2.95	-0.34	0.104
	811	2.50	2.83	-0.34	0.106
	812	2.69	2.91	-0.22	0.102
	813	2.75	2.77	-0.02	0.111
	814	2.85	3.00	-0.16	0.121
	815	2.70	3.03	-0.33	0.099
	816	3.09	2.97	0.12	0.107

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	817	2.87	3.03	-0.17	0.104
	818	2.72	2.93	-0.21	0.102
	819	2.79	2.90	-0.12	0.086
	820	2.74	2.79	-0.06	0.116
	821	2.85	2.94	-0.09	0.117
	822	2.57	2.74	-0.17	0.089
	823	2.61	2.93	-0.31	0.092
	824	2.86	3.06	-0.20	0.112
	825	2.73	2.96	-0.23	0.095
	826	2.87	2.92	-0.05	0.105
	827	2.62	2.83	-0.22	0.095
	828	2.88	3.12	-0.24	0.107
	829	2.68	2.86	-0.18	0.091
	830	2.87	3.06	-0.19	0.108
	831	2.84	2.89	-0.05	0.120
	832	2.44	2.92	-0.48	0.094
	833	2.92	2.94	-0.02	0.099
	834	3.02	3.09	-0.07	0.114
	835	2.66	2.65	0.01	0.111
	836	2.65	2.83	-0.18	0.097
	837	2.99	3.18	-0.19	0.107
	838	2.80	3.01	-0.21	0.105
	839	2.91	2.79	0.12	0.105
	840	2.82	3.01	-0.18	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	841	2.49	2.65	-0.17	0.094
	842	2.65	2.82	-0.17	0.079
	843	2.82	3.03	-0.21	0.102
	844	2.74	3.06	-0.32	0.090
	845	2.87	3.01	-0.14	0.118
	846	2.79	2.97	-0.17	0.113
	847	2.70	3.07	-0.37	0.101
	848	2.74	2.89	-0.15	0.083
	849	2.67	2.93	-0.26	0.098
	850	2.83	3.07	-0.23	0.093
	851	2.57	2.65	-0.08	0.107
	852	2.77	2.70	0.07	0.098
	853	2.78	2.94	-0.16	0.091
	854	2.79	3.04	-0.25	0.102
	855	2.82	3.04	-0.22	0.096
	856	2.80	2.98	-0.18	0.106
	857	2.56	2.88	-0.32	0.106
	858	2.93	3.16	-0.23	0.111
	859	2.87	2.90	-0.04	0.104
	860	3.04	3.06	-0.02	0.117
	861	2.85	2.92	-0.07	0.102
	862	2.66	2.84	-0.17	0.090
	863	2.95	3.26	-0.30	0.101
	864	2.77	2.98	-0.20	0.104

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	865	2.65	2.70	-0.06	0.117
	866	2.73	2.70	0.03	0.110
	867	2.86	3.03	-0.16	0.097
	868	2.78	3.03	-0.25	0.091
	869	2.71	2.86	-0.15	0.094
	870	2.69	2.87	-0.18	0.110
	871	2.55	2.75	-0.20	0.095
	872	2.65	2.80	-0.15	0.088
	873	2.54	2.86	-0.32	0.081
	874	2.84	3.11	-0.27	0.124
	875	2.64	2.92	-0.28	0.092
	876	2.96	3.32	-0.36	0.101
	877	3.04	3.30	-0.25	0.123
	878	2.75	2.97	-0.22	0.099
	879	2.98	3.08	-0.10	0.086
	880	2.70	2.98	-0.29	0.091
	881	2.54	2.82	-0.28	0.091
	882	2.75	3.13	-0.38	0.093
	883	2.85	2.93	-0.09	0.082
	884	2.76	2.81	-0.05	0.089
	885	2.60	2.88	-0.29	0.097
	886	2.89	3.05	-0.16	0.104
	887	2.72	2.94	-0.21	0.096
	888	2.81	2.97	-0.15	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	889	2.82	2.97	-0.15	0.097
	890	2.72	2.78	-0.07	0.109
	891	2.80	2.83	-0.03	0.103
	892	2.71	3.08	-0.37	0.092
	893	2.72	2.97	-0.26	0.085
	894	2.70	2.99	-0.28	0.107
	895	2.87	3.02	-0.14	0.112
	896	2.87	2.93	-0.07	0.105
	897	2.57	2.81	-0.23	0.102
	898	2.68	2.91	-0.22	0.106
	899	2.88	3.17	-0.28	0.112
	900	2.59	2.94	-0.35	0.084
	901	3.01	3.13	-0.12	0.113
	902	2.91	2.84	0.07	0.113
	903	2.69	2.83	-0.14	0.099
	904	2.58	2.75	-0.17	0.101
	905	2.75	3.12	-0.37	0.097
	906	2.83	2.97	-0.14	0.109
	907	2.64	2.86	-0.23	0.104
	908	2.80	3.00	-0.20	0.102
	909	2.59	2.74	-0.15	0.094
	910	2.78	2.90	-0.12	0.098
	911	2.93	3.02	-0.09	0.117
	912	2.74	2.83	-0.09	0.101

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	913	2.79	2.93	-0.14	0.099
	914	2.85	3.14	-0.29	0.109
	915	2.68	2.98	-0.31	0.094
	916	2.72	2.97	-0.25	0.098
	917	2.87	3.06	-0.19	0.087
	918	2.73	2.79	-0.06	0.092
	919	2.59	2.81	-0.22	0.102
	920	2.70	2.97	-0.27	0.088
	921	2.64	2.65	-0.01	0.097
	922	2.78	2.87	-0.10	0.111
	923	2.64	2.95	-0.31	0.095
	924	2.86	2.99	-0.14	0.116
	925	2.79	2.92	-0.14	0.092
	926	2.89	3.12	-0.23	0.106
	927	2.86	2.89	-0.04	0.104
	928	2.69	2.75	-0.06	0.113
	929	2.79	3.06	-0.27	0.104
	930	2.74	2.79	-0.05	0.102
	931	2.73	3.13	-0.39	0.100
	932	2.62	2.65	-0.03	0.102
	933	2.87	2.94	-0.07	0.111
	934	3.01	3.06	-0.05	0.107
	935	2.75	2.97	-0.22	0.119
	936	2.75	3.02	-0.27	0.107

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	937	2.55	2.62	-0.08	0.108
	938	2.84	3.09	-0.25	0.089
	939	2.77	2.83	-0.06	0.102
	940	2.95	3.32	-0.36	0.103
	941	2.80	2.94	-0.14	0.123
	942	2.76	2.96	-0.19	0.090
	943	2.64	2.91	-0.27	0.086
	944	2.94	3.05	-0.11	0.114
	945	2.78	2.99	-0.21	0.096
	946	2.99	3.14	-0.14	0.098
	947	2.97	3.12	-0.15	0.097
	948	2.73	2.86	-0.14	0.099
	949	2.58	2.72	-0.14	0.090
	950	3.11	3.33	-0.21	0.108
	951	2.88	2.91	-0.03	0.104
	952	2.71	2.85	-0.14	0.104
	953	2.79	2.99	-0.20	0.099
	954	2.95	3.38	-0.42	0.088
	955	2.75	2.97	-0.22	0.105
	956	2.89	3.06	-0.17	0.090
	957	2.90	3.04	-0.14	0.107
	958	2.86	2.92	-0.06	0.108
	959	3.08	3.06	0.02	0.110
	960	3.01	3.15	-0.15	0.110

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	961	2.54	2.86	-0.33	0.089
	962	2.74	2.99	-0.25	0.085
	963	2.62	2.95	-0.33	0.088
	964	2.86	3.08	-0.22	0.108
	965	2.70	2.93	-0.23	0.103
	966	2.83	2.95	-0.11	0.110
	967	2.90	3.00	-0.10	0.100
	968	2.98	3.15	-0.17	0.103
	969	3.00	3.03	-0.03	0.112
	970	2.68	3.00	-0.32	0.099
	971	2.86	3.06	-0.21	0.090
	972	2.83	3.03	-0.20	0.108
	973	2.84	3.16	-0.32	0.078
	974	2.66	2.89	-0.23	0.084
	975	2.95	3.08	-0.13	0.104
	976	2.68	2.91	-0.22	0.097
	977	2.89	2.90	-0.01	0.110
	978	2.68	2.97	-0.29	0.107
	979	2.59	2.97	-0.38	0.079
	980	2.70	2.87	-0.18	0.096
	981	2.89	3.10	-0.21	0.111
	982	2.60	2.82	-0.22	0.096
	983	2.87	3.13	-0.27	0.098
	984	3.11	3.13	-0.01	0.098

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	985	2.65	2.80	-0.15	0.088
	986	2.90	3.02	-0.13	0.111
	987	2.65	2.83	-0.17	0.090
	988	2.76	2.98	-0.22	0.104
	989	2.69	2.94	-0.26	0.098
	990	2.62	2.79	-0.17	0.106
	991	2.76	2.92	-0.17	0.101
	992	2.69	2.94	-0.24	0.093
	993	2.76	2.97	-0.21	0.086
	994	2.67	3.04	-0.37	0.109
	995	2.53	2.72	-0.19	0.091
	996	2.95	3.09	-0.15	0.125
	997	2.79	3.06	-0.27	0.109
	998	2.86	3.00	-0.15	0.109
	999	2.73	2.93	-0.20	0.082
	1000	2.84	2.88	-0.04	0.099
	1001	3.04	3.16	-0.12	0.096
	1002	2.80	2.97	-0.16	0.092
	1003	2.78	2.92	-0.14	0.105
	1004	2.67	2.82	-0.15	0.114
	1005	2.64	2.74	-0.09	0.101
	1006	2.67	2.87	-0.19	0.105
	1007	2.75	3.03	-0.28	0.101
	1008	2.76	3.16	-0.40	0.100

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	1009	2.80	2.93	-0.13	0.107
	1010	2.76	2.98	-0.22	0.127
	1011	2.79	2.93	-0.14	0.112
	1012	2.93	3.16	-0.24	0.107
	1013	2.58	2.60	-0.02	0.094
	1014	2.95	3.10	-0.15	0.098
	1015	2.82	3.03	-0.20	0.090
	1016	2.49	2.75	-0.26	0.094
	1017	2.88	3.04	-0.16	0.110
	1018	2.69	2.79	-0.10	0.092
	1019	2.84	2.94	-0.10	0.109
	1020	2.58	2.90	-0.32	0.100
	1021	2.76	3.08	-0.32	0.097
	1022	2.77	2.89	-0.12	0.070
	1023	2.76	2.76	-0.00	0.089
	1024	2.71	2.88	-0.17	0.100
	1025	2.73	2.82	-0.09	0.114
	1026	2.76	2.88	-0.12	0.089
	1027	2.82	2.96	-0.14	0.104
	1028	3.03	2.97	0.06	0.109
	1029	2.73	2.95	-0.22	0.095
	1030	2.79	2.93	-0.14	0.120
	1031	2.93	3.03	-0.10	0.096
	1032	2.66	2.89	-0.23	0.088

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1033	2.74	3.04	-0.30	0.084
	1034	2.79	3.04	-0.26	0.117
	1035	2.76	3.07	-0.30	0.083
	1036	2.83	2.90	-0.07	0.115
	1037	2.63	3.07	-0.43	0.095
	1038	2.77	3.11	-0.34	0.112
	1039	2.57	2.60	-0.03	0.115
	1040	2.77	2.83	-0.06	0.117
	1041	2.86	3.00	-0.14	0.107
	1042	2.72	2.84	-0.13	0.097
	1043	2.55	2.68	-0.13	0.083
	1044	2.75	2.83	-0.08	0.088
	1045	3.02	2.96	0.06	0.104
	1046	2.92	3.16	-0.24	0.105
	1047	2.80	3.03	-0.24	0.105
	1048	2.92	3.06	-0.14	0.102
	1049	2.61	2.93	-0.32	0.094
	1050	2.67	2.85	-0.17	0.089
	1051	2.86	3.08	-0.22	0.102
	1052	2.80	2.86	-0.06	0.117
	1053	2.79	2.87	-0.07	0.115
	1054	2.66	2.94	-0.27	0.114
	1055	2.84	2.95	-0.12	0.100
	1056	2.95	3.08	-0.13	0.102

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1057	2.63	3.03	-0.40	0.094
	1058	2.61	2.84	-0.23	0.112
	1059	2.89	3.12	-0.23	0.095
	1060	2.73	3.09	-0.36	0.099
	1061	2.61	2.93	-0.32	0.098
	1062	2.82	3.00	-0.17	0.118
	1063	2.80	2.97	-0.18	0.079
	1064	2.93	3.08	-0.15	0.111
	1065	2.78	3.00	-0.21	0.092
	1066	3.15	3.18	-0.03	0.110
	1067	2.97	3.20	-0.23	0.111
	1068	2.68	2.91	-0.24	0.106
	1069	2.78	2.90	-0.12	0.108
	1070	2.79	2.95	-0.16	0.092
	1071	3.04	3.35	-0.32	0.097
	1072	2.67	2.94	-0.27	0.096
	1073	3.10	3.12	-0.02	0.101
	1074	2.76	2.76	0.00	0.104
	1075	2.80	2.86	-0.06	0.079
	1076	2.69	2.92	-0.23	0.111
	1077	2.75	2.85	-0.11	0.097
	1078	2.84	2.87	-0.03	0.096
	1079	2.85	2.87	-0.02	0.108
	1080	2.76	3.00	-0.24	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1081	2.65	3.02	-0.37	0.111
	1082	2.63	2.75	-0.12	0.102
	1083	2.86	3.13	-0.27	0.096
	1084	2.60	2.94	-0.33	0.099
	1085	2.73	3.04	-0.31	0.089
	1086	2.73	2.88	-0.14	0.090
	1087	2.85	2.94	-0.09	0.087
	1088	2.61	2.96	-0.35	0.106
	1089	2.54	2.93	-0.39	0.084
	1090	2.67	2.63	0.03	0.108
	1091	2.81	3.05	-0.24	0.116
	1092	2.58	2.92	-0.34	0.106
	1093	2.69	3.03	-0.34	0.104
	1094	2.79	3.08	-0.29	0.109
	1095	2.75	2.85	-0.10	0.105
	1096	2.80	3.01	-0.20	0.115
	1097	2.86	2.80	0.06	0.120
	1098	2.72	2.93	-0.21	0.104
	1099	2.78	2.94	-0.16	0.093
	1100	2.51	2.74	-0.24	0.119
	1101	2.77	2.74	0.03	0.101
	1102	3.02	3.22	-0.20	0.111
	1103	2.56	2.74	-0.19	0.096
	1104	2.91	3.10	-0.19	0.079

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	1105	2.75	2.93	-0.18	0.112
	1106	2.48	2.68	-0.20	0.079
	1107	2.66	2.85	-0.19	0.100
	1108	2.76	2.86	-0.10	0.105
	1109	2.75	2.98	-0.23	0.110
	1110	2.89	3.16	-0.27	0.116
	1111	2.68	2.83	-0.14	0.103
	1112	2.82	2.97	-0.15	0.105
	1113	2.87	3.01	-0.13	0.108
	1114	2.89	3.19	-0.30	0.101
	1115	2.75	2.88	-0.13	0.084
	1116	2.98	2.88	0.11	0.112
	1117	2.64	2.87	-0.23	0.081
	1118	2.66	2.80	-0.14	0.110
	1119	2.57	2.76	-0.19	0.091
	1120	2.82	3.03	-0.21	0.119
	1121	2.95	3.21	-0.26	0.107
	1122	2.77	3.00	-0.23	0.099
	1123	2.80	3.05	-0.24	0.101
	1124	2.63	2.99	-0.36	0.093
	1125	2.57	2.72	-0.15	0.122
	1126	3.06	3.02	0.04	0.108
	1127	2.95	3.06	-0.11	0.110
	1128	2.69	2.90	-0.21	0.092

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1129	2.90	2.98	-0.08	0.105
	1130	2.71	3.02	-0.30	0.111
	1131	2.91	3.01	-0.10	0.117
	1132	2.77	3.05	-0.28	0.108
	1133	2.81	3.19	-0.38	0.103
	1134	2.68	2.87	-0.19	0.094
	1135	2.73	3.05	-0.32	0.096
	1136	2.70	2.85	-0.16	0.102
	1137	2.91	3.07	-0.15	0.104
	1138	2.70	3.00	-0.30	0.101
	1139	2.83	2.86	-0.03	0.110
	1140	2.55	2.64	-0.09	0.098
	1141	2.75	2.98	-0.23	0.110
	1142	2.71	3.03	-0.32	0.092
	1143	2.75	2.93	-0.17	0.087
	1144	2.88	3.03	-0.14	0.103
	1145	2.83	2.96	-0.13	0.097
	1146	2.77	2.99	-0.23	0.108
	1147	2.49	2.77	-0.29	0.096
	1148	2.61	2.81	-0.19	0.086
	1149	2.69	2.90	-0.21	0.095
	1150	2.94	3.02	-0.08	0.106
	1151	2.80	3.12	-0.32	0.089
	1152	2.62	2.76	-0.14	0.121

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1153	2.77	2.83	-0.07	0.090
	1154	2.65	2.94	-0.29	0.092
	1155	2.67	2.91	-0.23	0.085
	1156	2.89	2.98	-0.09	0.108
	1157	2.72	2.83	-0.11	0.094
	1158	2.77	3.03	-0.26	0.109
	1159	2.85	2.99	-0.13	0.112
	1160	2.69	2.83	-0.15	0.103
	1161	2.72	2.72	0.00	0.099
	1162	2.64	2.71	-0.07	0.102
	1163	2.57	2.82	-0.25	0.090
	1164	2.65	2.85	-0.20	0.092
	1165	2.97	3.00	-0.03	0.115
	1166	2.71	2.96	-0.25	0.111
	1167	2.87	2.88	-0.01	0.095
	1168	3.09	3.05	0.04	0.116
	1169	2.61	2.91	-0.30	0.091
	1170	2.84	3.04	-0.19	0.114
	1171	2.51	2.87	-0.36	0.093
	1172	2.60	2.68	-0.09	0.111
	1173	2.75	3.05	-0.31	0.107
	1174	2.78	2.97	-0.18	0.083
	1175	2.60	2.88	-0.28	0.097
	1176	2.81	2.96	-0.15	0.106

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1177	2.71	2.85	-0.14	0.085
	1178	2.76	2.97	-0.21	0.104
	1179	2.67	2.71	-0.04	0.091
	1180	2.72	3.11	-0.39	0.102
	1181	2.95	3.10	-0.16	0.102
	1182	2.68	2.87	-0.19	0.106
	1183	2.81	3.04	-0.23	0.099
	1184	2.92	3.09	-0.16	0.116
	1185	2.65	2.93	-0.27	0.085
	1186	2.88	3.00	-0.11	0.101
	1187	2.62	2.83	-0.21	0.101
	1188	2.89	2.85	0.04	0.117
	1189	2.76	2.88	-0.12	0.108
	1190	2.70	3.06	-0.36	0.087
	1191	3.08	3.13	-0.05	0.106
	1192	2.74	3.05	-0.31	0.104
	1193	2.61	2.88	-0.27	0.108
	1194	2.77	2.99	-0.22	0.107
	1195	2.71	2.87	-0.16	0.093
	1196	2.56	2.74	-0.18	0.097
	1197	2.73	2.79	-0.05	0.095
	1198	2.75	2.79	-0.04	0.110
	1199	2.66	2.93	-0.28	0.118
	1200	2.66	2.91	-0.25	0.087

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1201	2.72	2.88	-0.17	0.099
	1202	2.60	2.83	-0.24	0.102
	1203	2.88	2.99	-0.11	0.104
	1204	2.72	3.03	-0.30	0.100
	1205	2.85	2.96	-0.11	0.114
	1206	2.88	3.08	-0.21	0.111
	1207	2.79	3.05	-0.26	0.121
	1208	2.80	2.91	-0.11	0.109
	1209	2.60	2.82	-0.22	0.101
	1210	2.64	2.87	-0.24	0.092
	1211	2.61	2.86	-0.25	0.095
	1212	2.71	2.87	-0.16	0.088
	1213	2.86	2.99	-0.13	0.106
	1214	2.85	3.06	-0.21	0.092
	1215	2.78	2.93	-0.15	0.101
	1216	2.98	3.12	-0.14	0.110
	1217	2.64	2.93	-0.29	0.089
	1218	2.93	3.08	-0.15	0.104
	1219	2.67	2.87	-0.20	0.109
	1220	2.69	2.90	-0.21	0.101
	1221	2.57	2.89	-0.33	0.109
	1222	2.66	2.91	-0.26	0.117
	1223	2.73	2.95	-0.22	0.121
	1224	2.78	2.88	-0.11	0.104

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1225	2.79	3.01	-0.22	0.099
	1226	2.99	3.11	-0.12	0.102
	1227	2.55	2.87	-0.32	0.099
	1228	2.71	2.88	-0.17	0.095
	1229	2.66	3.08	-0.42	0.093
	1230	2.86	3.06	-0.20	0.081
	1231	2.87	2.83	0.04	0.094
	1232	2.59	2.81	-0.23	0.085
	1233	2.74	3.00	-0.26	0.104
	1234	2.73	2.75	-0.02	0.110
	1235	2.64	2.90	-0.26	0.095
	1236	2.98	3.18	-0.19	0.109
	1237	2.88	3.01	-0.13	0.100
	1238	2.63	2.79	-0.17	0.093
	1239	2.74	2.98	-0.24	0.097
	1240	2.78	2.71	0.07	0.106
	1241	2.65	2.78	-0.12	0.112
	1242	2.95	3.21	-0.27	0.099
	1243	2.94	2.98	-0.04	0.119
	1244	2.93	2.97	-0.04	0.115
	1245	2.95	3.02	-0.07	0.096
	1246	2.63	2.87	-0.23	0.104
	1247	2.65	2.96	-0.31	0.096
	1248	3.14	3.27	-0.13	0.115

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1249	2.60	2.98	-0.38	0.102
	1250	2.93	3.02	-0.09	0.094
	1251	2.95	2.99	-0.04	0.106
	1252	3.06	3.35	-0.29	0.113
	1253	2.55	2.68	-0.13	0.093
	1254	3.00	3.30	-0.30	0.103
	1255	2.71	2.94	-0.23	0.110
	1256	2.84	2.89	-0.05	0.084
	1257	2.84	2.86	-0.03	0.097
	1258	2.70	2.79	-0.09	0.122
	1259	2.81	3.01	-0.20	0.099
	1260	2.61	3.01	-0.40	0.090
	1261	2.72	2.97	-0.25	0.101
	1262	2.87	2.99	-0.13	0.100
	1263	2.71	2.83	-0.12	0.107
	1264	3.13	3.26	-0.13	0.122
	1265	2.81	3.02	-0.21	0.103
	1266	2.69	2.92	-0.23	0.112
	1267	2.84	3.00	-0.15	0.106
	1268	2.69	2.99	-0.30	0.107
	1269	2.88	3.01	-0.14	0.094
	1270	2.67	2.74	-0.06	0.093
	1271	2.75	2.89	-0.14	0.103
	1272	2.78	2.89	-0.11	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1273	2.63	2.73	-0.10	0.103
	1274	2.67	2.98	-0.30	0.103
	1275	2.63	2.85	-0.23	0.108
	1276	2.94	2.91	0.04	0.119
	1277	2.56	2.73	-0.17	0.103
	1278	2.94	3.15	-0.21	0.125
	1279	2.72	2.84	-0.12	0.106
	1280	2.78	2.82	-0.04	0.114
	1281	2.97	2.99	-0.02	0.101
	1282	2.90	3.20	-0.30	0.111
	1283	2.83	3.00	-0.18	0.105
	1284	2.90	3.06	-0.16	0.089
	1285	2.52	2.67	-0.15	0.103
	1286	2.49	2.71	-0.22	0.071
	1287	2.82	3.06	-0.24	0.109
	1288	2.75	2.90	-0.15	0.103
	1289	2.76	2.96	-0.19	0.107
	1290	2.78	2.83	-0.05	0.090
	1291	2.72	2.84	-0.12	0.100
	1292	2.72	2.81	-0.09	0.106
	1293	2.67	2.91	-0.24	0.113
	1294	2.75	2.78	-0.02	0.099
	1295	2.93	3.19	-0.26	0.086
	1296	3.00	2.99	0.01	0.096

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1297	2.83	3.05	-0.21	0.109
	1298	2.85	3.20	-0.35	0.093
	1299	2.88	3.02	-0.14	0.120
	1300	2.72	3.01	-0.29	0.096
	1301	2.98	3.00	-0.02	0.112
	1302	2.86	3.13	-0.28	0.109
	1303	2.69	2.84	-0.15	0.093
	1304	2.63	2.88	-0.25	0.099
	1305	2.70	3.10	-0.40	0.085
	1306	2.75	3.09	-0.34	0.086
	1307	2.76	2.89	-0.13	0.096
	1308	2.56	2.73	-0.17	0.095
	1309	2.72	2.84	-0.12	0.108
	1310	3.00	3.07	-0.07	0.106
	1311	2.83	3.04	-0.21	0.096
	1312	2.92	3.11	-0.19	0.091
	1313	2.74	2.70	0.04	0.096
	1314	2.85	3.04	-0.20	0.100
	1315	2.79	3.10	-0.32	0.101
	1316	2.90	3.07	-0.17	0.121
	1317	2.84	2.99	-0.15	0.108
	1318	2.90	3.10	-0.20	0.124
	1319	2.64	2.94	-0.30	0.090
	1320	2.95	3.08	-0.13	0.120

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1321	2.68	2.90	-0.23	0.082
	1322	2.92	3.20	-0.29	0.105
	1323	2.65	3.06	-0.41	0.089
	1324	2.51	2.75	-0.24	0.081
	1325	2.92	2.93	-0.01	0.115
	1326	2.74	2.75	-0.02	0.109
	1327	2.80	2.85	-0.05	0.100
	1328	2.75	2.96	-0.21	0.103
	1329	2.87	3.05	-0.18	0.106
	1330	2.89	2.94	-0.06	0.112
	1331	2.87	2.88	-0.01	0.104
	1332	2.88	3.02	-0.14	0.085
	1333	2.71	2.93	-0.22	0.117
	1334	2.86	3.16	-0.30	0.097
	1335	2.67	2.81	-0.13	0.110
	1336	2.77	3.09	-0.32	0.080
	1337	3.00	2.97	0.03	0.106
	1338	2.90	2.99	-0.10	0.103
	1339	2.81	2.89	-0.09	0.111
	1340	2.60	2.66	-0.06	0.112
	1341	2.80	3.05	-0.24	0.103
	1342	2.89	2.98	-0.09	0.113
	1343	2.67	2.98	-0.30	0.100
	1344	2.60	2.87	-0.27	0.103

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	1345	2.85	2.83	0.02	0.103
	1346	2.68	2.87	-0.19	0.109
	1347	2.86	3.13	-0.27	0.082
	1348	2.63	2.89	-0.26	0.088
	1349	2.64	2.57	0.07	0.107
	1350	2.90	3.06	-0.15	0.103
	1351	2.73	2.89	-0.16	0.113
	1352	2.43	2.66	-0.23	0.095
	1353	3.16	3.23	-0.07	0.114
	1354	2.75	2.98	-0.23	0.115
	1355	2.68	3.03	-0.35	0.111
	1356	2.72	2.78	-0.07	0.086
	1357	2.83	2.98	-0.15	0.106
	1358	2.80	2.92	-0.13	0.096
	1359	2.90	2.85	0.05	0.111
	1360	2.75	2.96	-0.21	0.088
	1361	2.84	3.03	-0.18	0.117
	1362	2.86	2.97	-0.10	0.106
	1363	2.81	3.25	-0.44	0.089
	1364	2.98	3.09	-0.11	0.093
	1365	2.86	3.17	-0.31	0.124
	1366	2.71	3.10	-0.39	0.096
	1367	2.75	2.98	-0.23	0.115
	1368	2.61	3.05	-0.44	0.086

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1369	2.89	3.10	-0.21	0.097
	1370	2.76	3.09	-0.33	0.096
	1371	2.68	2.80	-0.12	0.100
	1372	2.91	2.98	-0.07	0.093
	1373	2.67	2.92	-0.24	0.101
	1374	2.89	3.26	-0.37	0.100
	1375	2.87	3.13	-0.26	0.112
	1376	2.62	3.00	-0.38	0.075
	1377	2.83	2.80	0.03	0.103
	1378	2.83	3.00	-0.17	0.088
	1379	2.69	3.03	-0.35	0.099
	1380	2.68	2.68	-0.00	0.099
	1381	2.97	3.19	-0.22	0.100
	1382	2.82	3.07	-0.25	0.080
	1383	2.78	2.99	-0.21	0.101
	1384	2.99	3.19	-0.20	0.102
	1385	3.22	3.31	-0.09	0.113
	1386	2.54	2.80	-0.27	0.093
	1387	2.87	3.09	-0.23	0.105
	1388	2.70	2.79	-0.09	0.120
	1389	2.75	2.93	-0.18	0.107
	1390	2.89	3.02	-0.13	0.108
	1391	2.61	2.85	-0.24	0.114
	1392	2.83	2.92	-0.08	0.095

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1393	3.06	3.23	-0.17	0.110
	1394	2.89	3.01	-0.12	0.105
	1395	2.75	2.88	-0.13	0.110
	1396	2.63	2.81	-0.18	0.075
	1397	2.77	2.99	-0.22	0.096
	1398	2.77	3.00	-0.23	0.113
	1399	2.74	2.89	-0.15	0.101
	1400	2.72	3.04	-0.32	0.084
	1401	3.06	3.11	-0.05	0.113
	1402	2.78	3.11	-0.33	0.095
	1403	2.63	2.75	-0.11	0.092
	1404	2.56	2.83	-0.26	0.111
	1405	2.66	2.73	-0.07	0.116
	1406	2.77	2.79	-0.02	0.126
	1407	2.71	2.87	-0.16	0.099
	1408	2.93	3.05	-0.12	0.111
	1409	2.58	2.64	-0.05	0.089
	1410	2.84	2.99	-0.16	0.101
	1411	2.77	3.01	-0.24	0.087
	1412	2.85	2.88	-0.03	0.111
	1413	2.72	2.98	-0.26	0.093
	1414	2.68	2.83	-0.15	0.109
	1415	2.68	2.78	-0.10	0.107
	1416	2.79	2.88	-0.09	0.093

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1417	2.82	2.94	-0.13	0.094
	1418	2.96	3.06	-0.10	0.120
	1419	2.90	3.15	-0.26	0.118
	1420	2.82	3.00	-0.18	0.085
	1421	2.93	3.13	-0.21	0.121
	1422	2.80	2.91	-0.11	0.096
	1423	2.84	3.05	-0.20	0.104
	1424	3.06	3.14	-0.07	0.114
	1425	2.80	2.95	-0.15	0.093
	1426	2.73	2.87	-0.14	0.101
	1427	2.77	3.10	-0.33	0.104
	1428	2.73	2.91	-0.18	0.093
	1429	2.52	2.71	-0.18	0.090
	1430	3.10	3.07	0.03	0.098
	1431	2.79	2.93	-0.14	0.094
	1432	2.93	3.25	-0.31	0.121
	1433	2.65	2.76	-0.11	0.102
	1434	2.58	2.75	-0.17	0.092
	1435	2.76	2.89	-0.13	0.101
	1436	3.02	3.18	-0.16	0.098
	1437	2.98	2.99	-0.01	0.102
	1438	2.69	2.69	-0.00	0.107
	1439	2.58	2.74	-0.16	0.104
	1440	3.13	3.23	-0.10	0.118

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1441	3.03	3.00	0.03	0.121
	1442	2.89	2.98	-0.09	0.104
	1443	2.66	2.90	-0.24	0.084
	1444	2.59	2.78	-0.18	0.110
	1445	3.06	3.14	-0.08	0.098
	1446	2.77	2.94	-0.17	0.104
	1447	2.99	3.03	-0.04	0.101
	1448	3.01	2.99	0.01	0.096
	1449	2.80	3.00	-0.20	0.109
	1450	2.65	2.87	-0.22	0.087
	1451	2.86	3.06	-0.19	0.095
	1452	2.74	2.96	-0.22	0.101
	1453	2.88	3.11	-0.22	0.096
	1454	2.89	3.25	-0.36	0.106
	1455	2.93	3.26	-0.33	0.092
	1456	3.02	3.21	-0.19	0.106
	1457	2.63	2.76	-0.13	0.097
	1458	2.81	3.15	-0.33	0.100
	1459	2.72	2.81	-0.09	0.100
	1460	2.69	2.89	-0.20	0.099
	1461	2.88	3.03	-0.15	0.112
	1462	2.77	2.98	-0.21	0.100
	1463	2.95	3.29	-0.34	0.096
	1464	2.83	3.07	-0.24	0.106

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1465	2.64	3.08	-0.44	0.090
	1466	2.73	2.85	-0.11	0.102
	1467	2.69	2.87	-0.18	0.102
	1468	2.82	2.99	-0.18	0.095
	1469	2.74	2.94	-0.20	0.103
	1470	3.14	3.21	-0.07	0.106
	1471	2.69	2.93	-0.24	0.102
	1472	2.55	2.92	-0.37	0.084
	1473	2.85	3.16	-0.31	0.111
	1474	2.74	2.81	-0.07	0.097
	1475	2.63	2.98	-0.34	0.101
	1476	2.84	3.08	-0.23	0.110
	1477	2.67	2.76	-0.09	0.110
	1478	2.87	3.23	-0.36	0.112
	1479	2.57	2.74	-0.17	0.087
	1480	2.65	2.86	-0.21	0.104
	1481	2.96	3.01	-0.06	0.115
	1482	2.72	2.78	-0.06	0.076
	1483	2.78	3.08	-0.30	0.124
	1484	2.82	3.07	-0.24	0.106
	1485	3.09	3.20	-0.11	0.097
	1486	2.77	3.04	-0.27	0.114
	1487	2.49	2.67	-0.18	0.120
	1488	2.81	3.22	-0.42	0.098

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1489	2.59	2.79	-0.20	0.076
	1490	2.97	2.91	0.05	0.117
	1491	2.77	2.98	-0.21	0.116
	1492	2.97	3.06	-0.09	0.118
	1493	2.67	3.03	-0.37	0.106
	1494	2.77	2.84	-0.07	0.107
	1495	2.73	3.03	-0.30	0.090
	1496	2.76	2.79	-0.03	0.100
	1497	2.70	3.00	-0.30	0.100
	1498	2.80	2.97	-0.17	0.102
	1499	2.69	2.68	0.01	0.107
	1500	2.95	3.24	-0.28	0.102
	1501	2.73	2.91	-0.18	0.082
	1502	2.93	2.86	0.07	0.102
	1503	2.70	2.99	-0.29	0.102
	1504	2.74	2.85	-0.11	0.097
	1505	2.82	2.78	0.04	0.095
	1506	2.73	2.95	-0.22	0.086
	1507	2.91	3.23	-0.32	0.098
	1508	2.62	2.88	-0.25	0.110
	1509	2.89	3.07	-0.18	0.113
	1510	2.94	3.10	-0.16	0.100
	1511	2.41	2.63	-0.23	0.099
	1512	2.76	2.97	-0.21	0.099

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1513	2.67	2.71	-0.04	0.099
	1514	2.64	2.72	-0.08	0.106
	1515	2.97	3.15	-0.18	0.117
	1516	2.85	3.03	-0.17	0.112
	1517	2.72	2.89	-0.17	0.116
	1518	2.59	2.94	-0.35	0.101
	1519	2.79	3.03	-0.23	0.102
	1520	2.69	2.93	-0.24	0.101
	1521	2.80	3.05	-0.25	0.093
	1522	2.58	2.98	-0.40	0.082
	1523	2.86	2.91	-0.06	0.102
	1524	2.76	2.87	-0.11	0.113
	1525	2.67	2.76	-0.09	0.094
	1526	2.81	2.99	-0.18	0.108
	1527	2.58	2.87	-0.29	0.084
	1528	2.82	3.00	-0.18	0.110
	1529	2.68	2.96	-0.28	0.109
	1530	2.65	2.75	-0.10	0.096
	1531	2.74	2.97	-0.23	0.101
	1532	2.77	2.90	-0.13	0.103
	1533	2.68	3.10	-0.42	0.088
	1534	2.86	2.90	-0.04	0.116
	1535	2.74	2.88	-0.14	0.111
	1536	2.78	2.90	-0.12	0.111

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1537	3.09	3.24	-0.15	0.123
	1538	2.71	2.90	-0.19	0.094
	1539	2.57	2.80	-0.23	0.102
	1540	2.75	3.03	-0.28	0.102
	1541	2.88	2.94	-0.06	0.108
	1542	2.81	2.98	-0.18	0.093
	1543	2.99	3.25	-0.26	0.097
	1544	2.90	3.04	-0.14	0.125
	1545	2.67	2.92	-0.24	0.102
	1546	2.74	2.88	-0.14	0.104
	1547	2.86	2.92	-0.06	0.120
	1548	2.73	2.89	-0.16	0.105
	1549	2.70	2.79	-0.09	0.118
	1550	2.78	3.01	-0.23	0.113
	1551	2.72	2.85	-0.13	0.103
	1552	2.52	2.76	-0.23	0.108
	1553	2.67	2.91	-0.24	0.089
	1554	2.62	2.80	-0.18	0.091
	1555	2.84	3.02	-0.17	0.101
	1556	2.84	2.86	-0.01	0.088
	1557	2.88	3.19	-0.31	0.115
	1558	2.54	2.76	-0.22	0.097
	1559	2.90	3.06	-0.16	0.101
	1560	2.92	2.95	-0.02	0.105

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1561	2.67	2.80	-0.13	0.087
	1562	2.92	2.92	-0.00	0.108
	1563	2.57	2.88	-0.30	0.114
	1564	2.75	3.03	-0.28	0.092
	1565	2.73	3.03	-0.30	0.111
	1566	2.88	3.10	-0.22	0.106
	1567	2.85	3.25	-0.39	0.107
	1568	2.85	3.09	-0.25	0.100
	1569	2.93	3.05	-0.12	0.118
	1570	2.88	3.04	-0.16	0.108
	1571	2.85	3.00	-0.15	0.096
	1572	2.86	2.99	-0.13	0.115
	1573	2.63	2.77	-0.13	0.087
	1574	2.71	2.88	-0.18	0.105
	1575	3.19	3.25	-0.06	0.104
	1576	2.75	2.99	-0.25	0.113
	1577	2.85	3.04	-0.19	0.107
	1578	2.71	2.98	-0.27	0.100
	1579	2.98	3.09	-0.11	0.108
	1580	2.77	2.91	-0.14	0.106
	1581	2.89	3.09	-0.19	0.130
	1582	2.72	2.94	-0.22	0.089
	1583	2.79	2.91	-0.12	0.112
	1584	2.62	2.94	-0.32	0.083

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1585	2.76	2.95	-0.18	0.105
	1586	2.63	3.01	-0.38	0.096
	1587	2.82	3.27	-0.45	0.094
	1588	2.66	2.96	-0.30	0.073
	1589	2.91	3.04	-0.13	0.115
	1590	2.79	3.23	-0.44	0.102
	1591	2.88	3.02	-0.13	0.114
	1592	2.81	2.81	-0.00	0.103
	1593	2.74	2.85	-0.11	0.096
	1594	2.84	3.06	-0.21	0.112
	1595	2.97	3.11	-0.14	0.109
	1596	2.81	3.02	-0.21	0.111
	1597	2.61	2.87	-0.26	0.094
	1598	2.51	2.71	-0.20	0.105
	1599	2.56	2.91	-0.35	0.084
	1600	3.15	3.18	-0.02	0.100
	1601	2.74	3.04	-0.30	0.092
	1602	2.78	3.05	-0.27	0.112
	1603	2.75	3.15	-0.39	0.103
	1604	2.86	3.05	-0.20	0.104
	1605	2.76	3.03	-0.27	0.109
	1606	2.84	2.97	-0.14	0.113
	1607	2.65	2.82	-0.17	0.104
	1608	2.93	2.92	0.00	0.128

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1609	2.58	2.80	-0.21	0.094
	1610	2.79	2.90	-0.11	0.088
	1611	2.60	2.78	-0.17	0.110
	1612	2.60	2.90	-0.30	0.116
	1613	2.91	3.04	-0.13	0.108
	1614	2.75	3.04	-0.29	0.092
	1615	2.89	3.11	-0.22	0.106
	1616	2.87	3.10	-0.24	0.107
	1617	2.61	2.78	-0.17	0.087
	1618	2.84	2.95	-0.11	0.109
	1619	2.57	2.68	-0.11	0.089
	1620	2.74	3.01	-0.26	0.107
	1621	2.77	2.89	-0.13	0.109
	1622	2.97	3.18	-0.21	0.111
	1623	2.52	2.85	-0.33	0.096
	1624	2.71	2.95	-0.24	0.115
	1625	2.69	2.96	-0.26	0.104
	1626	2.72	2.95	-0.23	0.104
	1627	2.81	3.01	-0.21	0.106
	1628	2.79	3.14	-0.35	0.099
	1629	2.83	3.12	-0.30	0.082
	1630	2.64	2.88	-0.24	0.091
	1631	2.90	3.20	-0.30	0.104
	1632	2.71	2.97	-0.26	0.120

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1633	2.74	2.99	-0.25	0.110
	1634	2.77	2.89	-0.12	0.101
	1635	2.79	3.10	-0.31	0.098
	1636	2.78	2.97	-0.19	0.088
	1637	2.86	3.15	-0.30	0.119
	1638	2.85	2.88	-0.03	0.111
	1639	2.67	2.80	-0.13	0.087
	1640	2.73	2.99	-0.26	0.105
	1641	2.74	2.82	-0.07	0.093
	1642	3.01	3.16	-0.15	0.103
	1643	3.09	3.18	-0.10	0.101
	1644	2.62	2.77	-0.15	0.114
	1645	2.76	2.91	-0.16	0.106
	1646	2.65	2.89	-0.24	0.109
	1647	2.86	3.11	-0.25	0.110
	1648	2.97	3.16	-0.19	0.107
	1649	2.58	2.85	-0.26	0.111
	1650	2.89	3.03	-0.15	0.089
	1651	2.89	3.02	-0.13	0.109
	1652	2.93	3.06	-0.13	0.110
	1653	2.67	2.98	-0.31	0.105
	1654	2.67	2.79	-0.11	0.096
	1655	2.89	3.05	-0.16	0.098
	1656	2.62	2.95	-0.33	0.092

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1657	3.05	3.22	-0.16	0.102
	1658	2.62	2.75	-0.13	0.106
	1659	2.76	3.05	-0.28	0.081
	1660	2.81	3.07	-0.27	0.111
	1661	2.95	3.02	-0.07	0.089
	1662	2.70	2.86	-0.16	0.099
	1663	2.68	2.90	-0.22	0.116
	1664	2.80	2.97	-0.17	0.124
	1665	2.72	3.09	-0.37	0.099
	1666	2.69	2.70	-0.01	0.100
	1667	2.74	2.87	-0.13	0.091
	1668	2.70	2.79	-0.09	0.120
	1669	2.86	3.15	-0.30	0.097
	1670	2.85	2.99	-0.15	0.105
	1671	2.60	2.89	-0.29	0.097
	1672	2.43	2.74	-0.31	0.081
	1673	2.73	3.02	-0.29	0.094
	1674	2.84	3.01	-0.16	0.116
	1675	2.99	3.03	-0.05	0.116
	1676	2.70	3.02	-0.31	0.097
	1677	2.75	2.99	-0.24	0.095
	1678	2.76	3.00	-0.25	0.110
	1679	2.80	2.92	-0.13	0.109
	1680	2.67	3.11	-0.44	0.095

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1681	3.04	3.15	-0.11	0.110
	1682	2.72	3.07	-0.35	0.073
	1683	2.98	2.95	0.03	0.107
	1684	2.96	3.17	-0.21	0.100
	1685	2.81	2.89	-0.08	0.098
	1686	2.75	2.89	-0.14	0.109
	1687	2.85	3.13	-0.28	0.099
	1688	2.59	2.75	-0.16	0.110
	1689	2.81	3.00	-0.19	0.095
	1690	2.75	2.78	-0.03	0.109
	1691	2.93	3.13	-0.20	0.116
	1692	2.54	2.71	-0.17	0.114
	1693	2.60	2.80	-0.21	0.083
	1694	2.50	2.76	-0.26	0.105
	1695	2.68	3.05	-0.37	0.093
	1696	2.56	3.01	-0.45	0.077
	1697	2.80	2.88	-0.08	0.107
	1698	2.92	3.11	-0.19	0.104
	1699	3.04	3.11	-0.07	0.103
	1700	2.81	2.80	0.01	0.119
	1701	2.55	2.80	-0.25	0.095
	1702	2.67	3.00	-0.34	0.105
	1703	2.78	2.97	-0.19	0.122
	1704	2.66	2.95	-0.29	0.118

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1705	2.91	3.04	-0.14	0.101
	1706	2.89	3.02	-0.13	0.107
	1707	2.69	2.92	-0.24	0.098
	1708	2.65	2.88	-0.23	0.098
	1709	2.73	2.86	-0.13	0.108
	1710	2.83	2.96	-0.13	0.111
	1711	2.78	3.18	-0.41	0.081
	1712	2.76	3.03	-0.27	0.101
	1713	2.68	2.86	-0.18	0.111
	1714	2.68	2.84	-0.16	0.108
	1715	2.92	3.01	-0.09	0.111
	1716	2.53	2.85	-0.32	0.082
	1717	3.01	3.17	-0.15	0.105
	1718	2.63	2.73	-0.10	0.093
	1719	2.90	2.85	0.04	0.114
	1720	2.72	2.88	-0.15	0.114
	1721	3.00	3.03	-0.03	0.111
	1722	2.92	3.01	-0.09	0.109
	1723	2.93	3.05	-0.12	0.095
	1724	2.81	2.92	-0.11	0.106
	1725	2.66	2.76	-0.10	0.096
	1726	2.68	2.85	-0.18	0.098
	1727	2.97	3.13	-0.16	0.103
	1728	2.87	3.14	-0.27	0.098

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		Lsmean estimate	Lsmean estimate	estimate	SD
Psychological Reward Subscale	1729	2.77	2.87	-0.10	0.115
	1730	2.72	2.70	0.02	0.103
	1731	2.90	3.11	-0.21	0.111
	1732	2.81	2.84	-0.03	0.094
	1733	2.56	2.92	-0.35	0.096
	1734	2.81	3.09	-0.27	0.084
	1735	2.77	2.92	-0.16	0.090
	1736	2.83	2.94	-0.11	0.117
	1737	2.78	2.88	-0.10	0.098
	1738	2.66	2.84	-0.18	0.096
	1739	2.66	2.74	-0.08	0.106
	1740	2.63	2.87	-0.23	0.111
	1741	2.59	2.79	-0.20	0.114
	1742	2.71	2.80	-0.09	0.110
	1743	2.58	2.95	-0.37	0.083
	1744	2.76	2.70	0.06	0.094
	1745	2.73	2.90	-0.17	0.090
	1746	2.43	2.78	-0.34	0.099
	1747	2.69	2.76	-0.07	0.092
	1748	2.64	2.73	-0.09	0.102
	1749	2.78	3.08	-0.30	0.093
	1750	2.64	2.73	-0.09	0.094
	1751	2.54	2.86	-0.32	0.097
	1752	3.07	3.21	-0.14	0.114

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1753	2.80	2.93	-0.13	0.104
	1754	2.83	3.10	-0.27	0.107
	1755	2.70	2.90	-0.20	0.088
	1756	2.90	2.76	0.14	0.105
	1757	2.68	2.77	-0.08	0.096
	1758	2.58	2.79	-0.21	0.088
	1759	2.57	2.95	-0.38	0.091
	1760	2.55	2.79	-0.24	0.108
	1761	2.91	3.08	-0.17	0.096
	1762	2.57	2.77	-0.20	0.111
	1763	2.82	2.99	-0.18	0.111
	1764	2.69	3.09	-0.41	0.102
	1765	2.72	2.95	-0.23	0.106
	1766	2.92	3.07	-0.15	0.105
	1767	2.93	2.86	0.07	0.106
	1768	2.94	3.15	-0.21	0.105
	1769	2.87	3.12	-0.25	0.109
	1770	2.83	3.11	-0.28	0.099
	1771	2.89	3.13	-0.24	0.102
	1772	2.77	2.90	-0.13	0.103
	1773	2.95	3.23	-0.28	0.081
	1774	3.08	3.25	-0.17	0.122
	1775	2.76	2.87	-0.11	0.107
	1776	2.90	2.88	0.02	0.113

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1777	2.70	2.94	-0.24	0.089
	1778	2.80	3.01	-0.21	0.116
	1779	2.74	3.06	-0.32	0.096
	1780	2.59	2.63	-0.04	0.083
	1781	2.71	2.79	-0.08	0.098
	1782	3.04	3.18	-0.14	0.117
	1783	2.93	3.10	-0.16	0.110
	1784	2.66	2.82	-0.16	0.085
	1785	2.73	2.93	-0.20	0.119
	1786	2.91	2.97	-0.06	0.107
	1787	2.77	2.99	-0.22	0.109
	1788	2.68	2.83	-0.14	0.112
	1789	2.84	3.00	-0.16	0.102
	1790	3.03	3.16	-0.13	0.083
	1791	2.89	3.07	-0.18	0.110
	1792	2.80	2.72	0.08	0.103
	1793	2.70	2.92	-0.22	0.099
	1794	2.67	2.92	-0.25	0.095
	1795	2.72	3.04	-0.32	0.125
	1796	2.77	2.92	-0.15	0.111
	1797	2.69	2.84	-0.15	0.098
	1798	2.94	3.21	-0.27	0.118
	1799	2.82	3.04	-0.22	0.078
	1800	2.92	3.09	-0.17	0.103

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1801	2.71	2.85	-0.14	0.096
	1802	2.58	2.72	-0.14	0.102
	1803	2.86	3.04	-0.18	0.107
	1804	2.53	2.97	-0.44	0.100
	1805	2.77	3.05	-0.29	0.097
	1806	2.56	2.82	-0.26	0.082
	1807	2.63	2.79	-0.16	0.106
	1808	2.88	3.09	-0.22	0.096
	1809	2.72	3.06	-0.34	0.111
	1810	2.82	3.02	-0.20	0.096
	1811	2.98	3.19	-0.21	0.095
	1812	2.91	3.21	-0.30	0.103
	1813	2.85	2.97	-0.12	0.105
	1814	2.90	3.23	-0.33	0.111
	1815	2.77	2.92	-0.15	0.115
	1816	2.68	2.90	-0.22	0.112
	1817	2.69	2.73	-0.04	0.102
	1818	2.57	2.86	-0.29	0.094
	1819	2.85	2.94	-0.09	0.118
	1820	2.61	2.86	-0.26	0.103
	1821	2.79	2.98	-0.19	0.083
	1822	2.70	2.85	-0.15	0.096
	1823	2.86	3.09	-0.23	0.094
	1824	2.85	2.99	-0.13	0.123

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1825	2.93	3.04	-0.11	0.126
	1826	2.82	2.87	-0.06	0.114
	1827	2.66	2.94	-0.29	0.085
	1828	2.77	2.79	-0.02	0.116
	1829	2.80	2.88	-0.08	0.105
	1830	2.61	2.81	-0.20	0.089
	1831	3.08	3.27	-0.20	0.108
	1832	3.14	3.16	-0.02	0.111
	1833	2.86	3.02	-0.16	0.089
	1834	2.77	3.11	-0.33	0.086
	1835	2.65	2.88	-0.22	0.091
	1836	3.04	3.24	-0.20	0.133
	1837	3.05	3.06	-0.01	0.114
	1838	2.79	2.86	-0.07	0.108
	1839	2.77	3.05	-0.28	0.121
	1840	2.62	2.93	-0.31	0.092
	1841	2.57	2.69	-0.12	0.104
	1842	2.68	3.04	-0.35	0.096
	1843	2.65	2.80	-0.15	0.080
	1844	2.81	3.01	-0.20	0.114
	1845	2.67	3.05	-0.38	0.098
	1846	2.84	2.97	-0.13	0.109
	1847	2.63	2.83	-0.20	0.100
	1848	2.55	2.79	-0.24	0.096

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1849	2.63	2.73	-0.10	0.103
	1850	2.78	3.04	-0.26	0.097
	1851	2.70	2.79	-0.08	0.118
	1852	3.04	3.08	-0.04	0.088
	1853	2.92	2.98	-0.06	0.114
	1854	2.62	2.80	-0.18	0.091
	1855	2.47	2.67	-0.20	0.105
	1856	2.81	2.97	-0.16	0.109
	1857	2.75	2.97	-0.23	0.084
	1858	2.69	2.88	-0.19	0.104
	1859	2.67	2.86	-0.19	0.100
	1860	2.84	2.93	-0.09	0.122
	1861	2.65	2.80	-0.15	0.095
	1862	2.90	3.11	-0.21	0.117
	1863	2.53	2.70	-0.17	0.099
	1864	2.75	3.01	-0.26	0.101
	1865	2.73	2.92	-0.19	0.118
	1866	2.94	3.17	-0.23	0.107
	1867	2.74	3.04	-0.30	0.107
	1868	2.85	3.01	-0.17	0.116
	1869	2.75	3.06	-0.31	0.098
	1870	2.86	3.26	-0.40	0.092
	1871	2.77	3.01	-0.24	0.083
	1872	2.47	2.70	-0.23	0.089

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1873	2.85	2.93	-0.08	0.117
	1874	2.88	2.95	-0.07	0.106
	1875	3.32	3.35	-0.03	0.116
	1876	2.82	2.89	-0.08	0.097
	1877	2.79	3.04	-0.25	0.100
	1878	2.75	2.95	-0.19	0.105
	1879	2.51	2.83	-0.31	0.110
	1880	2.85	3.10	-0.26	0.099
	1881	2.92	3.03	-0.11	0.111
	1882	2.86	3.07	-0.21	0.113
	1883	2.78	2.99	-0.21	0.111
	1884	2.75	3.03	-0.28	0.093
	1885	2.94	3.08	-0.15	0.103
	1886	2.85	3.03	-0.18	0.104
	1887	2.92	3.17	-0.25	0.105
	1888	2.69	2.87	-0.18	0.103
	1889	2.55	2.74	-0.19	0.111
	1890	2.80	3.09	-0.29	0.106
	1891	2.78	2.88	-0.10	0.097
	1892	2.69	3.06	-0.37	0.083
	1893	2.86	3.08	-0.23	0.114
	1894	2.80	3.09	-0.29	0.089
	1895	2.71	2.88	-0.17	0.096
	1896	2.77	3.04	-0.27	0.095

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1897	2.69	2.85	-0.16	0.092
	1898	2.81	2.96	-0.15	0.101
	1899	2.58	2.78	-0.20	0.087
	1900	3.03	3.14	-0.11	0.102
	1901	2.74	2.92	-0.18	0.108
	1902	2.86	2.97	-0.11	0.096
	1903	2.80	2.82	-0.02	0.102
	1904	2.62	2.94	-0.32	0.098
	1905	2.96	3.11	-0.15	0.104
	1906	2.42	2.59	-0.17	0.092
	1907	2.65	2.98	-0.33	0.089
	1908	2.91	3.00	-0.09	0.096
	1909	2.73	2.92	-0.19	0.086
	1910	2.84	3.12	-0.28	0.116
	1911	2.65	2.89	-0.24	0.110
	1912	2.60	2.77	-0.17	0.106
	1913	2.81	3.12	-0.31	0.079
	1914	2.55	2.88	-0.34	0.086
	1915	2.75	2.97	-0.21	0.083
	1916	2.91	3.17	-0.26	0.113
	1917	2.90	3.25	-0.35	0.097
	1918	2.77	2.95	-0.18	0.106
	1919	2.91	3.02	-0.10	0.111
	1920	2.82	3.06	-0.24	0.096

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1921	2.67	2.86	-0.19	0.087
	1922	2.81	2.95	-0.14	0.112
	1923	2.76	2.88	-0.12	0.100
	1924	2.80	2.98	-0.17	0.104
	1925	2.68	2.70	-0.03	0.106
	1926	2.80	2.89	-0.09	0.096
	1927	2.45	2.77	-0.32	0.091
	1928	2.87	2.86	0.01	0.128
	1929	2.92	2.86	0.06	0.098
	1930	2.85	2.95	-0.10	0.110
	1931	2.72	2.87	-0.15	0.095
	1932	2.69	2.88	-0.19	0.114
	1933	2.74	2.95	-0.21	0.099
	1934	2.95	3.09	-0.14	0.111
	1935	2.54	2.81	-0.27	0.088
	1936	2.75	2.84	-0.09	0.112
	1937	2.71	2.84	-0.13	0.094
	1938	2.48	2.78	-0.30	0.098
	1939	2.58	2.84	-0.26	0.093
	1940	2.84	3.12	-0.28	0.109
	1941	2.52	2.87	-0.34	0.101
	1942	2.67	2.74	-0.07	0.110
	1943	2.72	2.82	-0.10	0.095
	1944	2.86	3.00	-0.14	0.115

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1945	2.96	3.04	-0.08	0.114
	1946	2.84	2.84	0.00	0.110
	1947	2.79	2.83	-0.04	0.112
	1948	2.62	2.94	-0.32	0.103
	1949	2.82	3.04	-0.22	0.102
	1950	2.67	2.72	-0.04	0.102
	1951	2.88	2.96	-0.08	0.110
	1952	2.81	3.00	-0.19	0.098
	1953	3.01	3.17	-0.16	0.088
	1954	2.93	3.07	-0.14	0.112
	1955	2.90	3.15	-0.25	0.108
	1956	2.90	3.21	-0.31	0.099
	1957	2.93	3.09	-0.16	0.098
	1958	2.84	3.10	-0.26	0.107
	1959	2.72	2.76	-0.04	0.102
	1960	2.78	2.76	0.02	0.093
	1961	2.93	3.04	-0.11	0.090
	1962	2.65	3.09	-0.44	0.088
	1963	2.73	3.01	-0.28	0.107
	1964	2.56	2.57	-0.01	0.100
	1965	2.64	2.88	-0.24	0.096
	1966	2.60	2.85	-0.25	0.096
	1967	2.54	2.76	-0.22	0.111
	1968	2.83	3.12	-0.28	0.107

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1969	2.72	2.88	-0.17	0.101
	1970	2.42	2.72	-0.30	0.078
	1971	2.88	3.05	-0.16	0.116
	1972	2.62	2.82	-0.20	0.091
	1973	2.78	3.07	-0.29	0.102
	1974	2.88	3.06	-0.17	0.108
	1975	2.76	2.89	-0.13	0.108
	1976	2.78	3.08	-0.30	0.086
	1977	2.71	3.02	-0.30	0.090
	1978	2.70	2.91	-0.21	0.095
	1979	2.84	2.98	-0.14	0.099
	1980	2.49	2.82	-0.34	0.091
	1981	2.78	3.01	-0.23	0.099
	1982	2.70	2.98	-0.28	0.116
	1983	2.92	2.96	-0.04	0.117
	1984	2.89	2.99	-0.10	0.105
	1985	2.53	2.75	-0.23	0.106
	1986	2.85	2.90	-0.06	0.104
	1987	2.81	2.95	-0.13	0.107
	1988	2.88	2.94	-0.06	0.104
	1989	2.92	3.09	-0.17	0.115
	1990	2.79	2.84	-0.05	0.110
	1991	2.71	3.03	-0.33	0.106
	1992	2.74	2.84	-0.10	0.106

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Psychological Reward Subscale	1993	2.62	2.69	-0.06	0.109
	1994	2.75	3.00	-0.25	0.104
	1995	2.50	2.92	-0.42	0.101
	1996	3.00	3.08	-0.08	0.108
	1997	2.74	2.95	-0.21	0.100
	1998	3.00	3.21	-0.20	0.100
	1999	2.75	2.92	-0.17	0.103
	2000	2.76	2.88	-0.12	0.119
Smoking Satisfaction Subscale	1	3.31	4.30	-1.00	0.196
	2	3.34	4.57	-1.23	0.221
	3	2.82	3.99	-1.17	0.150
	4	3.20	4.52	-1.32	0.199
	5	3.28	4.45	-1.18	0.215
	6	3.06	4.25	-1.19	0.230
	7	3.44	4.41	-0.97	0.180
	8	3.01	4.21	-1.19	0.199
	9	2.99	4.17	-1.17	0.202
	10	3.43	4.42	-0.99	0.206
	11	3.09	4.23	-1.15	0.178
	12	3.16	4.34	-1.18	0.188
	13	3.07	3.98	-0.91	0.189
	14	3.55	4.32	-0.78	0.197
	15	3.00	3.97	-0.97	0.198
	16	2.89	4.36	-1.46	0.187

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	17	3.15	4.39	-1.24	0.176
	18	2.84	3.82	-0.99	0.131
	19	3.01	4.33	-1.32	0.194
	20	3.09	4.19	-1.10	0.205
	21	3.39	4.56	-1.17	0.197
	22	2.69	4.03	-1.34	0.198
	23	2.92	4.07	-1.15	0.207
	24	3.32	4.35	-1.03	0.201
	25	3.13	4.34	-1.20	0.174
	26	3.29	4.35	-1.06	0.178
	27	2.90	4.24	-1.34	0.145
	28	3.21	4.50	-1.29	0.213
	29	3.00	4.04	-1.04	0.170
	30	3.15	4.53	-1.38	0.195
	31	3.22	4.29	-1.07	0.218
	32	3.19	4.38	-1.19	0.223
	33	2.91	4.59	-1.68	0.204
	34	3.28	4.43	-1.14	0.191
	35	3.16	4.38	-1.21	0.176
	36	3.04	3.92	-0.88	0.198
	37	3.31	4.32	-1.00	0.156
	38	3.36	4.75	-1.38	0.173
	39	3.01	4.10	-1.09	0.180
	40	3.43	4.47	-1.05	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	41	3.20	4.37	-1.17	0.167
	42	3.14	4.23	-1.09	0.206
	43	3.24	4.41	-1.17	0.190
	44	3.14	4.22	-1.09	0.189
	45	3.16	4.70	-1.54	0.161
	46	3.30	4.45	-1.14	0.173
	47	3.25	4.50	-1.25	0.188
	48	3.32	4.27	-0.95	0.224
	49	3.42	4.43	-1.01	0.221
	50	3.26	4.29	-1.03	0.204
	51	3.40	4.44	-1.04	0.185
	52	3.33	4.04	-0.71	0.179
	53	2.72	4.05	-1.33	0.243
	54	2.94	4.01	-1.07	0.199
	55	3.48	4.60	-1.12	0.204
	56	3.14	4.14	-1.01	0.190
	57	3.12	4.16	-1.04	0.180
	58	3.27	4.37	-1.10	0.185
	59	3.25	4.33	-1.08	0.229
	60	3.12	4.14	-1.01	0.165
	61	3.50	4.77	-1.27	0.216
	62	3.35	4.59	-1.24	0.160
	63	2.91	3.76	-0.85	0.179
	64	3.37	4.51	-1.14	0.174

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	65	3.29	4.29	-1.00	0.211
	66	3.12	4.19	-1.07	0.195
	67	3.26	4.22	-0.96	0.194
	68	3.45	4.43	-0.98	0.200
	69	3.04	4.10	-1.06	0.192
	70	3.00	4.68	-1.68	0.177
	71	2.87	3.93	-1.05	0.168
	72	3.51	4.64	-1.13	0.180
	73	3.30	4.16	-0.86	0.146
	74	3.13	4.32	-1.19	0.201
	75	3.36	4.36	-0.99	0.186
	76	3.17	4.53	-1.36	0.221
	77	3.39	4.54	-1.16	0.182
	78	3.06	4.35	-1.28	0.167
	79	3.22	4.40	-1.18	0.185
	80	3.03	4.20	-1.17	0.178
	81	3.16	4.46	-1.30	0.174
	82	3.25	4.16	-0.90	0.166
	83	3.29	4.15	-0.87	0.153
	84	2.88	4.21	-1.32	0.199
	85	3.01	4.28	-1.27	0.175
	86	3.09	4.34	-1.25	0.226
	87	3.00	4.03	-1.03	0.154
	88	3.32	4.09	-0.78	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	89	2.93	4.07	-1.13	0.190
	90	3.15	4.13	-0.98	0.199
	91	3.28	4.21	-0.93	0.179
	92	2.99	4.57	-1.58	0.171
	93	3.47	4.41	-0.94	0.204
	94	3.07	4.46	-1.39	0.168
	95	3.21	4.33	-1.13	0.216
	96	3.24	3.88	-0.65	0.196
	97	3.02	4.33	-1.31	0.200
	98	3.15	4.67	-1.52	0.180
	99	3.34	4.53	-1.20	0.196
	100	3.16	4.46	-1.30	0.213
	101	2.77	3.59	-0.83	0.192
	102	3.03	4.48	-1.45	0.209
	103	3.22	4.45	-1.24	0.207
	104	3.41	4.34	-0.92	0.177
	105	3.01	3.99	-0.98	0.185
	106	3.22	4.19	-0.97	0.191
	107	3.22	4.12	-0.90	0.202
	108	3.03	4.15	-1.12	0.170
	109	3.02	4.04	-1.02	0.195
	110	2.96	4.03	-1.08	0.198
	111	3.25	4.24	-0.99	0.170
	112	3.25	4.44	-1.19	0.202

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	113	2.90	4.24	-1.34	0.190
	114	3.38	4.61	-1.23	0.175
	115	3.28	4.60	-1.32	0.201
	116	3.18	4.14	-0.96	0.223
	117	3.18	4.15	-0.98	0.178
	118	3.36	4.78	-1.42	0.206
	119	3.52	4.49	-0.97	0.194
	120	3.29	4.58	-1.29	0.200
	121	3.23	4.28	-1.05	0.195
	122	3.21	4.27	-1.06	0.181
	123	3.32	4.28	-0.96	0.184
	124	3.27	4.37	-1.10	0.210
	125	3.02	3.91	-0.90	0.209
	126	3.03	4.42	-1.39	0.164
	127	3.12	4.33	-1.21	0.197
	128	3.16	4.33	-1.17	0.185
	129	3.17	4.34	-1.16	0.178
	130	3.14	4.34	-1.20	0.155
	131	3.40	4.47	-1.07	0.213
	132	3.29	4.76	-1.48	0.185
	133	3.51	4.28	-0.77	0.216
	134	3.60	4.21	-0.61	0.187
	135	3.30	4.51	-1.22	0.193
	136	3.36	4.23	-0.88	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	137	3.23	4.34	-1.11	0.196
	138	3.28	4.32	-1.04	0.189
	139	3.09	4.12	-1.03	0.174
	140	3.05	4.11	-1.06	0.163
	141	3.22	4.13	-0.90	0.218
	142	3.14	4.36	-1.21	0.217
	143	3.25	4.62	-1.36	0.161
	144	3.19	4.66	-1.48	0.200
	145	3.47	4.59	-1.11	0.183
	146	3.56	4.54	-0.97	0.179
	147	3.20	3.92	-0.71	0.193
	148	3.36	4.56	-1.20	0.223
	149	3.25	4.53	-1.28	0.208
	150	3.19	5.02	-1.83	0.198
	151	2.82	4.01	-1.19	0.201
	152	3.10	4.37	-1.27	0.191
	153	3.25	4.34	-1.09	0.188
	154	3.19	4.41	-1.22	0.202
	155	3.21	4.01	-0.80	0.197
	156	3.18	4.29	-1.11	0.201
	157	2.83	4.39	-1.56	0.200
	158	3.27	4.24	-0.97	0.210
	159	3.33	4.41	-1.07	0.203
	160	3.02	4.28	-1.26	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	161	3.05	4.29	-1.24	0.222
	162	3.32	4.36	-1.04	0.201
	163	2.86	3.88	-1.02	0.192
	164	3.04	4.36	-1.33	0.205
	165	3.18	4.47	-1.29	0.162
	166	3.01	4.29	-1.28	0.194
	167	2.79	4.18	-1.39	0.196
	168	3.05	4.26	-1.21	0.168
	169	3.30	4.06	-0.77	0.214
	170	2.98	4.16	-1.19	0.185
	171	3.17	4.59	-1.42	0.160
	172	3.49	4.42	-0.93	0.188
	173	3.13	4.05	-0.92	0.166
	174	2.86	3.87	-1.01	0.178
	175	3.19	4.20	-1.01	0.159
	176	3.29	4.57	-1.28	0.194
	177	3.27	4.16	-0.89	0.188
	178	3.23	4.31	-1.08	0.189
	179	2.95	4.27	-1.33	0.185
	180	3.18	3.98	-0.80	0.157
	181	3.04	4.00	-0.96	0.208
	182	3.39	4.11	-0.72	0.142
	183	3.11	4.24	-1.13	0.220
	184	3.07	4.50	-1.44	0.189

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	185	3.32	4.37	-1.04	0.216
	186	2.94	4.24	-1.30	0.152
	187	3.08	4.46	-1.38	0.192
	188	2.90	4.24	-1.34	0.202
	189	3.06	4.29	-1.23	0.217
	190	3.24	4.59	-1.35	0.192
	191	3.13	4.45	-1.32	0.187
	192	2.91	3.89	-0.98	0.184
	193	3.19	4.55	-1.36	0.180
	194	3.13	4.25	-1.12	0.180
	195	3.38	4.65	-1.27	0.199
	196	3.29	4.38	-1.09	0.162
	197	3.03	4.23	-1.20	0.197
	198	3.16	4.16	-1.00	0.162
	199	3.27	4.38	-1.11	0.198
	200	3.17	4.37	-1.20	0.204
	201	3.12	4.11	-0.99	0.184
	202	3.10	4.19	-1.09	0.168
	203	3.02	4.17	-1.15	0.157
	204	2.99	4.01	-1.02	0.213
	205	3.42	4.33	-0.92	0.188
	206	3.12	4.34	-1.22	0.155
	207	3.24	4.32	-1.08	0.189
	208	2.89	4.23	-1.34	0.169

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	209	2.97	4.21	-1.24	0.240
	210	3.27	4.37	-1.10	0.249
	211	3.17	4.49	-1.32	0.169
	212	2.93	4.16	-1.23	0.203
	213	3.21	4.44	-1.22	0.199
	214	2.99	4.15	-1.16	0.194
	215	3.30	4.27	-0.97	0.140
	216	3.17	4.30	-1.12	0.229
	217	3.28	4.46	-1.17	0.172
	218	3.18	4.38	-1.20	0.226
	219	3.12	4.13	-1.01	0.181
	220	3.26	4.43	-1.17	0.175
	221	3.12	4.06	-0.94	0.172
	222	3.08	4.26	-1.18	0.202
	223	3.20	4.32	-1.12	0.194
	224	2.99	4.02	-1.03	0.176
	225	3.00	4.31	-1.31	0.194
	226	2.84	4.09	-1.25	0.204
	227	3.05	4.56	-1.52	0.191
	228	3.10	4.37	-1.26	0.213
	229	3.05	4.44	-1.39	0.208
	230	3.55	4.70	-1.15	0.209
	231	3.17	4.46	-1.29	0.195
	232	3.45	4.36	-0.91	0.218

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	233	2.95	3.88	-0.92	0.164
	234	3.09	4.24	-1.15	0.177
	235	3.01	4.04	-1.03	0.184
	236	3.37	4.47	-1.10	0.196
	237	3.80	4.69	-0.89	0.226
	238	2.97	4.35	-1.38	0.175
	239	3.17	4.67	-1.50	0.220
	240	3.63	4.40	-0.76	0.209
	241	3.33	4.08	-0.75	0.196
	242	3.19	4.10	-0.91	0.166
	243	2.96	4.19	-1.23	0.204
	244	3.48	4.36	-0.89	0.204
	245	3.28	4.24	-0.96	0.167
	246	3.03	4.37	-1.34	0.218
	247	3.30	4.26	-0.95	0.153
	248	3.25	4.19	-0.94	0.177
	249	3.28	4.17	-0.89	0.170
	250	3.44	4.55	-1.11	0.218
	251	3.08	4.73	-1.66	0.210
	252	3.30	4.07	-0.78	0.195
	253	3.23	4.37	-1.13	0.190
	254	3.58	4.36	-0.79	0.187
	255	2.99	4.43	-1.44	0.199
	256	2.98	4.36	-1.38	0.200

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	257	3.17	3.98	-0.82	0.172
	258	2.99	4.24	-1.24	0.197
	259	3.29	4.13	-0.84	0.215
	260	3.35	4.53	-1.17	0.226
	261	3.48	4.37	-0.89	0.195
	262	3.28	4.37	-1.09	0.185
	263	3.29	4.52	-1.24	0.164
	264	3.48	4.44	-0.96	0.178
	265	3.07	4.17	-1.09	0.188
	266	3.32	4.19	-0.86	0.173
	267	3.15	4.35	-1.20	0.177
	268	2.98	4.07	-1.08	0.235
	269	3.16	4.37	-1.20	0.185
	270	3.22	4.11	-0.88	0.175
	271	3.36	4.25	-0.88	0.162
	272	2.93	4.07	-1.14	0.201
	273	3.30	4.31	-1.01	0.199
	274	2.87	4.08	-1.21	0.209
	275	3.25	4.09	-0.84	0.193
	276	2.98	4.24	-1.25	0.189
	277	3.27	4.18	-0.92	0.157
	278	3.20	4.45	-1.25	0.193
	279	3.05	4.40	-1.35	0.218
	280	3.11	4.28	-1.17	0.218

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	281	3.07	4.32	-1.24	0.213
	282	3.40	4.53	-1.13	0.186
	283	3.23	4.39	-1.16	0.207
	284	3.34	4.32	-0.98	0.197
	285	3.39	4.34	-0.94	0.183
	286	3.09	4.46	-1.36	0.168
	287	3.08	4.29	-1.22	0.213
	288	3.22	4.34	-1.12	0.163
	289	3.35	4.11	-0.77	0.144
	290	2.97	4.11	-1.14	0.187
	291	3.28	4.47	-1.19	0.205
	292	3.08	4.21	-1.13	0.196
	293	3.10	4.30	-1.20	0.164
	294	3.02	4.25	-1.23	0.208
	295	3.03	4.69	-1.66	0.194
	296	3.37	4.31	-0.94	0.195
	297	3.56	4.55	-0.99	0.192
	298	3.47	4.65	-1.18	0.201
	299	2.81	4.38	-1.57	0.232
	300	3.30	4.40	-1.10	0.180
	301	3.10	3.85	-0.76	0.172
	302	3.41	4.31	-0.90	0.190
	303	3.47	4.62	-1.15	0.214
	304	2.97	4.22	-1.24	0.202

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	305	3.46	4.31	-0.84	0.189
	306	3.38	4.36	-0.97	0.221
	307	3.17	4.50	-1.33	0.212
	308	3.21	4.42	-1.21	0.202
	309	3.06	4.51	-1.45	0.219
	310	2.97	4.15	-1.17	0.195
	311	2.95	4.05	-1.10	0.191
	312	3.42	4.41	-0.99	0.183
	313	3.37	4.54	-1.17	0.173
	314	2.89	4.19	-1.30	0.156
	315	3.02	4.26	-1.24	0.240
	316	3.09	4.44	-1.35	0.199
	317	3.83	5.13	-1.30	0.215
	318	3.24	4.12	-0.88	0.167
	319	2.99	4.10	-1.11	0.188
	320	3.47	4.74	-1.27	0.222
	321	2.89	3.94	-1.05	0.221
	322	3.39	4.10	-0.70	0.198
	323	3.25	4.44	-1.19	0.195
	324	3.08	4.45	-1.37	0.224
	325	3.08	4.18	-1.10	0.201
	326	2.92	3.91	-0.98	0.175
	327	2.72	4.20	-1.48	0.197
	328	3.31	4.35	-1.04	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	329	3.31	4.31	-1.00	0.185
	330	3.28	4.62	-1.34	0.236
	331	2.96	4.49	-1.54	0.193
	332	3.14	4.29	-1.15	0.216
	333	3.03	4.13	-1.10	0.170
	334	3.16	4.49	-1.33	0.181
	335	2.95	4.23	-1.28	0.176
	336	3.30	4.48	-1.18	0.215
	337	3.27	4.22	-0.95	0.179
	338	3.31	4.13	-0.82	0.177
	339	3.15	4.68	-1.52	0.185
	340	3.27	4.26	-0.99	0.193
	341	3.12	4.24	-1.12	0.213
	342	3.26	4.29	-1.03	0.159
	343	3.30	4.54	-1.24	0.182
	344	3.00	4.23	-1.23	0.228
	345	2.95	3.92	-0.97	0.165
	346	3.45	4.65	-1.20	0.227
	347	3.26	4.41	-1.14	0.186
	348	3.28	4.81	-1.53	0.209
	349	3.09	4.68	-1.59	0.208
	350	3.18	4.41	-1.23	0.189
	351	2.91	3.93	-1.02	0.197
	352	2.85	4.27	-1.42	0.190

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	353	3.22	4.09	-0.87	0.195
	354	3.34	4.48	-1.14	0.211
	355	3.11	4.41	-1.29	0.182
	356	3.04	3.96	-0.92	0.166
	357	3.45	4.08	-0.62	0.182
	358	3.20	4.21	-1.01	0.178
	359	3.05	4.23	-1.17	0.183
	360	3.30	4.78	-1.48	0.209
	361	3.31	4.15	-0.84	0.189
	362	3.32	4.65	-1.33	0.188
	363	3.02	4.07	-1.05	0.174
	364	3.44	4.45	-1.01	0.187
	365	3.20	4.44	-1.24	0.200
	366	3.79	4.87	-1.09	0.213
	367	3.25	4.22	-0.96	0.215
	368	2.90	4.06	-1.15	0.196
	369	3.14	4.34	-1.20	0.176
	370	2.89	4.33	-1.45	0.201
	371	3.42	4.36	-0.94	0.200
	372	3.24	4.26	-1.02	0.181
	373	3.29	4.29	-1.00	0.161
	374	3.04	4.10	-1.05	0.153
	375	3.50	4.77	-1.26	0.228
	376	3.41	4.63	-1.22	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	377	2.94	4.38	-1.44	0.174
	378	3.09	3.85	-0.76	0.173
	379	3.27	4.27	-1.00	0.216
	380	2.90	3.90	-1.00	0.190
	381	3.32	4.55	-1.23	0.210
	382	3.19	4.25	-1.06	0.181
	383	3.61	4.41	-0.80	0.168
	384	3.38	4.70	-1.33	0.196
	385	3.48	4.42	-0.94	0.234
	386	3.18	4.14	-0.96	0.184
	387	3.03	4.11	-1.08	0.229
	388	3.19	4.46	-1.27	0.227
	389	2.79	4.21	-1.42	0.209
	390	3.27	4.28	-1.01	0.211
	391	3.00	4.07	-1.07	0.214
	392	3.04	4.15	-1.11	0.210
	393	3.12	4.25	-1.13	0.164
	394	3.19	4.71	-1.52	0.197
	395	3.00	4.09	-1.09	0.191
	396	3.44	4.45	-1.00	0.196
	397	3.30	4.20	-0.91	0.175
	398	3.08	4.02	-0.93	0.223
	399	3.36	4.28	-0.92	0.212
	400	2.88	4.20	-1.32	0.200

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	401	3.37	4.74	-1.37	0.209
	402	3.00	4.16	-1.16	0.182
	403	2.70	4.10	-1.40	0.187
	404	3.30	4.48	-1.18	0.197
	405	3.38	4.43	-1.05	0.181
	406	2.97	4.47	-1.50	0.181
	407	3.48	4.59	-1.11	0.193
	408	3.63	4.61	-0.98	0.182
	409	3.14	4.17	-1.03	0.199
	410	3.14	4.26	-1.12	0.206
	411	3.09	4.28	-1.19	0.176
	412	3.30	4.37	-1.08	0.178
	413	3.21	4.35	-1.14	0.220
	414	3.11	4.42	-1.30	0.192
	415	3.45	4.49	-1.04	0.203
	416	3.24	4.16	-0.92	0.205
	417	2.87	4.01	-1.14	0.197
	418	3.09	4.03	-0.94	0.172
	419	3.30	4.20	-0.90	0.197
	420	3.11	4.40	-1.29	0.196
	421	3.47	4.39	-0.91	0.192
	422	3.30	4.68	-1.38	0.177
	423	3.29	4.15	-0.86	0.205
	424	3.11	4.39	-1.27	0.215

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	425	3.01	4.08	-1.06	0.163
	426	3.13	4.13	-1.01	0.174
	427	3.37	4.74	-1.37	0.187
	428	3.36	4.70	-1.34	0.185
	429	3.33	4.38	-1.05	0.219
	430	2.94	4.32	-1.38	0.206
	431	3.04	4.28	-1.24	0.188
	432	2.88	4.30	-1.42	0.214
	433	3.26	4.72	-1.46	0.210
	434	3.34	4.30	-0.96	0.204
	435	3.45	4.46	-1.01	0.216
	436	3.42	4.65	-1.23	0.210
	437	3.43	4.48	-1.05	0.224
	438	2.93	3.84	-0.91	0.157
	439	3.45	4.40	-0.94	0.154
	440	3.22	4.26	-1.04	0.191
	441	3.04	4.53	-1.48	0.168
	442	3.04	4.38	-1.34	0.156
	443	3.34	4.64	-1.30	0.184
	444	3.14	4.35	-1.21	0.191
	445	2.99	4.10	-1.11	0.190
	446	3.46	4.54	-1.08	0.192
	447	3.15	4.47	-1.33	0.196
	448	3.37	4.21	-0.84	0.163

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	449	3.13	4.37	-1.23	0.211
	450	3.18	4.22	-1.04	0.234
	451	3.06	4.28	-1.22	0.185
	452	3.32	4.38	-1.06	0.206
	453	3.60	4.72	-1.12	0.212
	454	3.19	4.59	-1.40	0.152
	455	3.09	4.30	-1.21	0.190
	456	3.23	4.11	-0.89	0.185
	457	3.42	4.51	-1.09	0.179
	458	3.25	4.45	-1.20	0.223
	459	3.13	4.36	-1.23	0.214
	460	3.24	4.18	-0.94	0.152
	461	3.14	4.18	-1.04	0.208
	462	2.89	4.34	-1.45	0.193
	463	3.23	4.41	-1.18	0.192
	464	3.32	4.40	-1.07	0.228
	465	3.43	4.37	-0.93	0.176
	466	3.08	4.46	-1.38	0.192
	467	3.70	4.53	-0.83	0.176
	468	2.97	4.13	-1.17	0.203
	469	2.77	3.96	-1.19	0.192
	470	3.35	4.28	-0.93	0.213
	471	3.42	4.69	-1.27	0.195
	472	3.40	4.38	-0.97	0.171

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	473	3.50	4.40	-0.90	0.176
	474	2.88	4.27	-1.39	0.233
	475	3.18	4.27	-1.10	0.174
	476	2.81	4.13	-1.32	0.163
	477	3.25	4.41	-1.15	0.198
	478	3.01	4.43	-1.42	0.207
	479	3.37	4.40	-1.03	0.163
	480	3.24	4.21	-0.97	0.189
	481	3.39	4.61	-1.22	0.234
	482	2.85	4.13	-1.28	0.192
	483	2.76	3.65	-0.90	0.175
	484	2.84	4.07	-1.22	0.184
	485	3.47	4.34	-0.86	0.185
	486	3.09	4.18	-1.09	0.206
	487	3.06	4.25	-1.19	0.184
	488	3.18	4.54	-1.36	0.195
	489	3.26	4.28	-1.02	0.214
	490	3.14	4.70	-1.56	0.215
	491	3.24	4.46	-1.22	0.196
	492	3.30	4.61	-1.30	0.224
	493	3.11	4.39	-1.28	0.180
	494	3.27	4.47	-1.20	0.173
	495	2.96	4.05	-1.09	0.184
	496	2.92	4.56	-1.64	0.185

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	497	3.41	4.58	-1.17	0.204
	498	2.96	4.16	-1.20	0.203
	499	3.30	4.39	-1.09	0.176
	500	3.20	4.37	-1.17	0.219
	501	3.16	4.40	-1.24	0.210
	502	3.25	4.47	-1.21	0.194
	503	3.17	4.23	-1.06	0.216
	504	3.11	4.22	-1.11	0.204
	505	3.10	3.98	-0.88	0.162
	506	3.30	4.39	-1.09	0.187
	507	2.92	4.36	-1.44	0.189
	508	3.31	4.54	-1.23	0.201
	509	3.27	4.11	-0.84	0.177
	510	3.18	4.62	-1.43	0.184
	511	3.24	4.28	-1.04	0.186
	512	3.26	4.43	-1.17	0.193
	513	3.26	4.51	-1.24	0.201
	514	3.05	3.87	-0.81	0.167
	515	3.29	4.40	-1.11	0.180
	516	3.24	4.07	-0.83	0.177
	517	3.18	4.08	-0.90	0.209
	518	3.38	4.61	-1.23	0.207
	519	3.08	4.08	-1.00	0.187
	520	3.05	4.20	-1.15	0.195

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	521	3.17	3.99	-0.82	0.173
	522	3.16	4.10	-0.94	0.186
	523	3.17	4.24	-1.07	0.209
	524	3.23	4.17	-0.93	0.201
	525	3.22	4.23	-1.01	0.204
	526	3.28	4.14	-0.86	0.180
	527	3.13	4.47	-1.35	0.204
	528	3.23	4.19	-0.96	0.194
	529	2.90	4.05	-1.15	0.188
	530	3.56	4.58	-1.02	0.186
	531	3.14	4.50	-1.37	0.198
	532	3.23	4.21	-0.98	0.174
	533	3.14	4.30	-1.16	0.204
	534	2.97	4.24	-1.27	0.192
	535	2.95	4.16	-1.21	0.202
	536	3.37	4.21	-0.84	0.192
	537	3.22	4.78	-1.57	0.219
	538	3.00	4.47	-1.47	0.216
	539	2.96	4.20	-1.23	0.192
	540	3.08	4.16	-1.08	0.210
	541	3.44	4.58	-1.14	0.208
	542	3.17	4.43	-1.25	0.189
	543	3.04	4.18	-1.14	0.215
	544	3.30	4.49	-1.18	0.221

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	545	3.59	4.62	-1.03	0.194
	546	3.50	4.38	-0.88	0.179
	547	3.22	4.33	-1.10	0.211
	548	3.04	3.99	-0.95	0.228
	549	3.30	4.38	-1.08	0.215
	550	2.95	4.29	-1.35	0.202
	551	3.02	4.21	-1.19	0.192
	552	3.27	4.50	-1.23	0.203
	553	3.17	4.41	-1.24	0.206
	554	3.20	4.18	-0.98	0.211
	555	3.32	4.57	-1.25	0.203
	556	3.01	4.07	-1.06	0.184
	557	3.38	4.40	-1.02	0.156
	558	3.39	4.34	-0.96	0.166
	559	3.11	4.16	-1.06	0.201
	560	3.13	4.20	-1.06	0.195
	561	3.45	4.78	-1.33	0.219
	562	3.06	4.11	-1.05	0.178
	563	3.25	4.47	-1.22	0.213
	564	3.01	3.86	-0.85	0.188
	565	3.15	4.13	-0.98	0.218
	566	3.33	4.25	-0.91	0.197
	567	3.44	4.39	-0.95	0.171
	568	3.08	4.27	-1.20	0.193

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	569	3.09	4.24	-1.15	0.212
	570	3.49	4.76	-1.27	0.217
	571	3.06	4.43	-1.37	0.196
	572	2.98	4.68	-1.71	0.225
	573	3.25	4.23	-0.98	0.186
	574	3.21	4.26	-1.06	0.236
	575	3.21	4.18	-0.97	0.221
	576	3.18	4.53	-1.35	0.203
	577	3.53	4.44	-0.91	0.192
	578	3.01	4.36	-1.35	0.192
	579	3.29	4.54	-1.25	0.196
	580	3.32	4.20	-0.88	0.214
	581	3.18	4.38	-1.20	0.161
	582	3.26	4.37	-1.11	0.207
	583	2.96	4.27	-1.32	0.198
	584	3.39	4.22	-0.83	0.185
	585	3.61	4.41	-0.80	0.149
	586	3.25	4.21	-0.96	0.220
	587	3.34	4.49	-1.15	0.193
	588	2.80	3.94	-1.14	0.207
	589	3.60	4.80	-1.20	0.199
	590	3.18	4.26	-1.07	0.186
	591	3.42	4.58	-1.15	0.186
	592	3.10	4.39	-1.29	0.208

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	593	3.27	4.41	-1.14	0.222
	594	3.33	4.54	-1.20	0.189
	595	3.04	4.16	-1.12	0.209
	596	3.25	4.53	-1.27	0.175
	597	3.33	4.53	-1.20	0.168
	598	3.41	4.53	-1.13	0.215
	599	3.27	4.17	-0.90	0.159
	600	3.63	4.63	-1.00	0.217
	601	2.91	3.97	-1.06	0.177
	602	3.23	4.46	-1.22	0.205
	603	3.05	4.32	-1.27	0.205
	604	3.11	4.17	-1.06	0.176
	605	3.42	4.33	-0.91	0.180
	606	2.96	4.42	-1.46	0.184
	607	3.12	4.31	-1.19	0.196
	608	3.23	4.60	-1.37	0.146
	609	3.38	4.60	-1.23	0.199
	610	3.05	4.17	-1.12	0.197
	611	3.35	4.70	-1.35	0.191
	612	3.22	4.35	-1.13	0.216
	613	3.51	4.36	-0.84	0.192
	614	3.13	4.24	-1.11	0.172
	615	3.14	4.44	-1.30	0.209
	616	3.41	4.33	-0.92	0.184

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	617	3.05	3.90	-0.85	0.199
	618	2.90	4.09	-1.19	0.177
	619	3.56	4.42	-0.86	0.192
	620	3.41	4.55	-1.14	0.220
	621	3.00	4.42	-1.42	0.180
	622	3.28	4.30	-1.01	0.177
	623	3.37	4.50	-1.14	0.204
	624	3.03	4.09	-1.06	0.196
	625	3.13	4.38	-1.25	0.164
	626	3.33	4.48	-1.14	0.193
	627	3.48	4.54	-1.06	0.209
	628	3.24	4.27	-1.03	0.220
	629	3.35	4.54	-1.19	0.218
	630	3.11	4.34	-1.23	0.197
	631	3.27	4.35	-1.07	0.227
	632	3.03	4.22	-1.20	0.161
	633	3.25	4.13	-0.88	0.188
	634	2.95	4.34	-1.39	0.209
	635	3.49	4.50	-1.01	0.211
	636	3.17	4.70	-1.53	0.207
	637	3.25	4.45	-1.20	0.197
	638	3.44	4.65	-1.21	0.178
	639	2.80	4.13	-1.33	0.182
	640	3.01	4.35	-1.34	0.206

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	641	2.88	4.26	-1.38	0.177
	642	3.21	4.14	-0.93	0.171
	643	3.11	4.63	-1.52	0.209
	644	3.04	4.34	-1.29	0.202
	645	3.03	4.39	-1.36	0.199
	646	3.21	4.55	-1.35	0.192
	647	3.24	4.43	-1.20	0.210
	648	3.23	4.42	-1.19	0.209
	649	3.28	4.13	-0.86	0.183
	650	3.13	4.24	-1.11	0.193
	651	3.14	4.40	-1.26	0.188
	652	3.35	4.40	-1.05	0.180
	653	3.19	4.54	-1.34	0.219
	654	3.23	4.46	-1.23	0.191
	655	3.32	4.51	-1.19	0.190
	656	3.15	4.35	-1.20	0.180
	657	3.61	4.15	-0.54	0.197
	658	3.26	4.38	-1.11	0.198
	659	3.23	4.02	-0.79	0.195
	660	2.69	4.25	-1.56	0.187
	661	3.34	4.33	-0.98	0.179
	662	2.97	4.04	-1.07	0.196
	663	3.25	4.15	-0.90	0.187
	664	3.05	4.55	-1.50	0.229

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	665	3.32	4.46	-1.14	0.222
	666	3.10	4.15	-1.05	0.189
	667	2.91	3.89	-0.98	0.206
	668	2.91	4.31	-1.40	0.174
	669	3.35	4.18	-0.83	0.185
	670	3.07	4.14	-1.07	0.172
	671	2.97	4.15	-1.18	0.170
	672	3.38	4.50	-1.11	0.217
	673	3.06	4.11	-1.04	0.193
	674	3.18	4.18	-1.00	0.194
	675	3.08	4.18	-1.10	0.187
	676	3.36	4.58	-1.22	0.200
	677	3.36	4.32	-0.96	0.168
	678	3.09	4.58	-1.49	0.202
	679	3.09	4.23	-1.14	0.188
	680	3.32	4.43	-1.11	0.188
	681	3.01	4.33	-1.32	0.194
	682	3.23	4.52	-1.29	0.190
	683	3.02	4.08	-1.05	0.181
	684	3.07	4.07	-1.00	0.192
	685	3.38	4.33	-0.95	0.173
	686	3.56	4.18	-0.62	0.166
	687	3.22	4.33	-1.12	0.204
	688	3.06	4.20	-1.14	0.161

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	689	3.32	4.12	-0.80	0.170
	690	3.39	4.55	-1.16	0.194
	691	3.02	4.21	-1.19	0.166
	692	3.14	4.32	-1.19	0.170
	693	3.17	4.23	-1.06	0.210
	694	3.08	4.27	-1.19	0.186
	695	3.01	4.00	-0.99	0.216
	696	3.25	4.49	-1.24	0.204
	697	3.49	4.44	-0.95	0.187
	698	3.25	4.39	-1.13	0.196
	699	2.98	4.03	-1.05	0.175
	700	3.42	4.58	-1.16	0.190
	701	2.85	4.17	-1.32	0.161
	702	3.34	4.28	-0.94	0.167
	703	3.11	4.06	-0.95	0.222
	704	3.07	4.04	-0.97	0.202
	705	3.30	4.54	-1.25	0.221
	706	3.40	4.68	-1.29	0.206
	707	3.28	4.47	-1.19	0.169
	708	3.40	4.70	-1.30	0.221
	709	3.07	4.23	-1.17	0.174
	710	3.18	4.49	-1.31	0.208
	711	2.96	3.92	-0.96	0.183
	712	3.14	4.37	-1.23	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	713	2.86	4.14	-1.27	0.183
	714	3.22	4.32	-1.10	0.166
	715	3.38	4.22	-0.85	0.187
	716	3.31	4.10	-0.79	0.169
	717	3.00	4.40	-1.40	0.200
	718	3.20	4.25	-1.05	0.213
	719	3.61	4.64	-1.03	0.194
	720	3.14	4.18	-1.04	0.185
	721	3.17	4.40	-1.23	0.180
	722	3.24	4.34	-1.09	0.183
	723	3.14	4.04	-0.91	0.204
	724	3.31	4.56	-1.26	0.208
	725	3.40	4.43	-1.04	0.220
	726	3.03	4.35	-1.32	0.173
	727	3.53	4.31	-0.78	0.186
	728	3.39	4.53	-1.14	0.172
	729	2.96	4.06	-1.09	0.156
	730	3.21	4.09	-0.88	0.210
	731	2.98	4.31	-1.33	0.171
	732	2.79	4.19	-1.40	0.170
	733	3.13	4.00	-0.87	0.179
	734	3.16	4.72	-1.56	0.209
	735	3.06	4.38	-1.31	0.182
	736	3.16	3.90	-0.74	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	737	3.13	4.48	-1.35	0.208
	738	3.34	4.22	-0.88	0.191
	739	2.69	4.38	-1.69	0.191
	740	2.95	4.08	-1.14	0.177
	741	3.20	4.43	-1.23	0.195
	742	3.10	4.27	-1.17	0.173
	743	3.13	4.40	-1.26	0.180
	744	3.33	4.37	-1.04	0.191
	745	3.12	4.14	-1.02	0.204
	746	3.22	4.37	-1.16	0.222
	747	2.97	4.49	-1.52	0.202
	748	3.20	4.59	-1.38	0.198
	749	3.69	4.48	-0.78	0.198
	750	3.03	4.17	-1.15	0.218
	751	3.17	4.23	-1.06	0.181
	752	3.11	4.39	-1.29	0.204
	753	3.24	4.14	-0.90	0.194
	754	2.94	4.42	-1.49	0.199
	755	3.02	4.03	-1.01	0.186
	756	2.92	4.07	-1.15	0.212
	757	3.06	4.22	-1.15	0.207
	758	3.47	4.56	-1.09	0.184
	759	3.37	4.35	-0.98	0.182
	760	3.07	4.07	-1.00	0.163

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	761	3.33	4.38	-1.05	0.143
	762	2.83	4.36	-1.53	0.200
	763	3.56	4.66	-1.09	0.169
	764	3.33	4.48	-1.15	0.192
	765	3.31	4.49	-1.18	0.241
	766	3.37	4.88	-1.51	0.211
	767	3.22	4.35	-1.13	0.197
	768	2.97	4.24	-1.27	0.202
	769	2.78	3.82	-1.04	0.190
	770	3.24	4.19	-0.95	0.184
	771	3.17	4.39	-1.22	0.186
	772	3.32	4.44	-1.12	0.205
	773	3.39	4.74	-1.35	0.221
	774	3.35	4.40	-1.05	0.215
	775	2.98	4.03	-1.05	0.201
	776	3.09	4.41	-1.32	0.179
	777	2.97	4.30	-1.33	0.199
	778	3.57	4.51	-0.95	0.200
	779	3.34	4.54	-1.19	0.176
	780	3.28	4.29	-1.01	0.218
	781	3.59	4.26	-0.67	0.199
	782	3.13	4.21	-1.07	0.191
	783	3.20	4.39	-1.19	0.169
	784	3.11	4.62	-1.51	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	785	3.25	4.08	-0.83	0.201
	786	3.19	4.52	-1.33	0.195
	787	3.02	4.01	-0.99	0.197
	788	3.54	4.65	-1.11	0.204
	789	3.08	4.53	-1.45	0.174
	790	3.00	4.12	-1.11	0.171
	791	3.00	3.81	-0.82	0.216
	792	3.16	4.03	-0.87	0.176
	793	3.52	4.41	-0.89	0.206
	794	2.94	4.06	-1.12	0.179
	795	3.28	4.15	-0.87	0.165
	796	3.03	4.29	-1.26	0.178
	797	3.47	4.45	-0.98	0.203
	798	3.20	4.46	-1.26	0.196
	799	2.88	4.00	-1.12	0.199
	800	3.30	4.28	-0.98	0.171
	801	2.93	4.03	-1.10	0.198
	802	3.09	4.33	-1.23	0.230
	803	2.89	4.28	-1.39	0.206
	804	3.24	4.10	-0.86	0.178
	805	3.36	4.41	-1.05	0.156
	806	3.28	4.18	-0.90	0.167
	807	3.24	4.57	-1.34	0.221
	808	3.37	4.40	-1.03	0.179

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	809	3.10	4.26	-1.16	0.215
	810	2.94	4.40	-1.46	0.192
	811	2.75	4.13	-1.37	0.201
	812	3.09	4.21	-1.12	0.157
	813	3.19	4.20	-1.01	0.182
	814	3.07	4.24	-1.17	0.235
	815	3.19	4.48	-1.29	0.197
	816	3.42	4.24	-0.82	0.172
	817	3.28	4.36	-1.07	0.198
	818	2.97	4.02	-1.05	0.209
	819	3.39	4.37	-0.98	0.191
	820	3.12	4.34	-1.22	0.189
	821	3.08	4.40	-1.32	0.215
	822	3.21	3.84	-0.62	0.170
	823	3.17	4.36	-1.19	0.213
	824	3.39	4.65	-1.26	0.176
	825	3.33	4.31	-0.98	0.168
	826	3.34	4.20	-0.86	0.169
	827	2.86	4.22	-1.36	0.194
	828	3.24	4.33	-1.10	0.222
	829	3.00	4.10	-1.09	0.180
	830	3.29	4.60	-1.30	0.203
	831	3.33	4.30	-0.96	0.194
	832	3.08	4.24	-1.16	0.163

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	833	3.57	4.50	-0.93	0.192
	834	3.34	4.36	-1.02	0.204
	835	2.96	4.04	-1.08	0.158
	836	3.08	3.92	-0.84	0.213
	837	3.33	4.53	-1.20	0.203
	838	3.18	4.28	-1.11	0.205
	839	3.63	4.31	-0.68	0.153
	840	3.12	4.20	-1.09	0.203
	841	2.87	3.92	-1.05	0.185
	842	3.49	4.14	-0.65	0.168
	843	3.13	4.41	-1.29	0.169
	844	2.87	4.30	-1.43	0.198
	845	3.31	4.45	-1.14	0.168
	846	3.32	4.35	-1.03	0.200
	847	3.18	4.59	-1.41	0.192
	848	3.21	4.08	-0.87	0.134
	849	3.24	4.37	-1.13	0.194
	850	3.37	4.52	-1.15	0.208
	851	2.94	3.83	-0.88	0.159
	852	3.23	3.84	-0.60	0.182
	853	3.26	4.25	-0.99	0.210
	854	3.23	4.44	-1.21	0.207
	855	3.43	4.27	-0.85	0.192
	856	3.12	4.14	-1.02	0.183

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	857	2.74	4.17	-1.44	0.184
	858	3.31	4.65	-1.35	0.206
	859	3.38	4.29	-0.91	0.181
	860	3.36	4.27	-0.91	0.209
	861	3.14	4.38	-1.24	0.197
	862	3.10	4.05	-0.95	0.217
	863	3.55	4.68	-1.13	0.203
	864	3.37	4.64	-1.27	0.185
	865	3.15	4.14	-0.99	0.203
	866	3.29	4.01	-0.72	0.209
	867	3.26	4.43	-1.17	0.191
	868	3.22	4.60	-1.38	0.209
	869	3.10	4.28	-1.18	0.196
	870	3.22	4.35	-1.14	0.216
	871	2.83	4.26	-1.42	0.163
	872	3.05	4.18	-1.13	0.192
	873	3.01	3.99	-0.98	0.193
	874	3.37	4.47	-1.10	0.194
	875	3.19	4.37	-1.18	0.188
	876	3.34	4.79	-1.45	0.211
	877	3.31	4.74	-1.43	0.210
	878	3.18	4.22	-1.04	0.204
	879	3.21	4.32	-1.11	0.211
	880	2.95	4.26	-1.31	0.193

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	881	2.78	3.97	-1.19	0.218
	882	3.23	4.39	-1.16	0.199
	883	3.02	4.23	-1.22	0.195
	884	3.15	4.13	-0.98	0.157
	885	2.88	4.25	-1.37	0.183
	886	3.31	4.50	-1.19	0.183
	887	2.88	4.51	-1.63	0.195
	888	3.14	4.20	-1.06	0.179
	889	3.38	4.42	-1.04	0.192
	890	3.21	4.10	-0.89	0.168
	891	3.28	4.26	-0.98	0.150
	892	3.01	4.51	-1.50	0.193
	893	3.11	4.41	-1.31	0.221
	894	3.14	4.50	-1.36	0.195
	895	3.14	4.20	-1.06	0.195
	896	3.35	4.42	-1.06	0.198
	897	2.90	4.25	-1.35	0.150
	898	3.06	4.29	-1.23	0.179
	899	3.40	4.53	-1.14	0.190
	900	3.00	4.16	-1.16	0.200
	901	3.33	4.68	-1.36	0.237
	902	3.52	4.15	-0.63	0.174
	903	2.87	4.15	-1.29	0.163
	904	2.96	4.19	-1.23	0.173

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	905	3.26	4.65	-1.39	0.201
	906	3.02	4.40	-1.38	0.218
	907	3.21	3.99	-0.77	0.167
	908	3.26	4.37	-1.12	0.196
	909	2.81	3.91	-1.09	0.185
	910	3.23	4.22	-1.00	0.185
	911	3.31	4.43	-1.11	0.226
	912	3.33	4.25	-0.92	0.178
	913	3.31	4.37	-1.07	0.202
	914	3.29	4.68	-1.39	0.195
	915	3.12	4.29	-1.17	0.189
	916	3.12	4.40	-1.28	0.174
	917	3.14	4.34	-1.19	0.186
	918	3.19	4.20	-1.01	0.173
	919	2.81	4.08	-1.27	0.201
	920	3.29	4.26	-0.97	0.206
	921	3.04	4.11	-1.07	0.185
	922	3.34	4.49	-1.15	0.180
	923	3.20	4.40	-1.20	0.192
	924	3.45	4.38	-0.92	0.176
	925	3.22	4.32	-1.09	0.194
	926	3.27	4.54	-1.28	0.201
	927	3.39	4.34	-0.95	0.204
	928	3.17	3.94	-0.78	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	929	3.18	4.55	-1.36	0.159
	930	3.17	4.05	-0.88	0.182
	931	3.15	4.63	-1.48	0.202
	932	3.01	3.64	-0.63	0.160
	933	3.24	4.22	-0.97	0.197
	934	3.38	4.58	-1.20	0.184
	935	3.03	4.44	-1.40	0.208
	936	3.22	4.47	-1.25	0.230
	937	2.79	3.80	-1.01	0.164
	938	3.15	4.34	-1.19	0.192
	939	3.07	4.32	-1.25	0.174
	940	3.42	4.65	-1.23	0.216
	941	3.12	4.56	-1.44	0.194
	942	3.15	4.47	-1.33	0.190
	943	2.87	4.02	-1.16	0.191
	944	3.36	4.69	-1.33	0.210
	945	3.39	4.25	-0.86	0.175
	946	3.36	4.40	-1.04	0.195
	947	3.52	4.50	-0.98	0.214
	948	3.14	4.36	-1.21	0.197
	949	2.88	4.08	-1.21	0.190
	950	3.29	4.72	-1.42	0.214
	951	3.54	4.39	-0.85	0.198
	952	3.25	4.14	-0.89	0.173

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	953	3.10	4.51	-1.41	0.208
	954	3.20	4.78	-1.58	0.220
	955	3.12	4.29	-1.17	0.163
	956	3.14	4.33	-1.19	0.185
	957	3.44	4.41	-0.96	0.209
	958	3.17	3.99	-0.82	0.184
	959	3.52	4.24	-0.73	0.207
	960	3.40	4.48	-1.08	0.212
	961	2.98	4.28	-1.30	0.202
	962	3.16	4.37	-1.21	0.206
	963	3.23	4.24	-1.01	0.199
	964	3.18	4.58	-1.40	0.189
	965	3.12	4.43	-1.31	0.209
	966	3.29	4.21	-0.92	0.203
	967	3.35	4.27	-0.92	0.198
	968	3.29	4.67	-1.38	0.192
	969	3.28	4.48	-1.20	0.205
	970	3.12	4.53	-1.41	0.224
	971	3.37	4.71	-1.35	0.218
	972	3.08	4.54	-1.46	0.196
	973	3.24	4.64	-1.41	0.188
	974	2.97	4.36	-1.39	0.167
	975	3.49	4.60	-1.11	0.163
	976	3.16	4.42	-1.26	0.173

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	977	3.21	4.29	-1.08	0.189
	978	2.92	4.41	-1.49	0.221
	979	2.81	4.23	-1.42	0.183
	980	3.22	4.30	-1.09	0.229
	981	3.41	4.69	-1.28	0.189
	982	3.01	4.09	-1.09	0.170
	983	3.27	4.33	-1.06	0.227
	984	3.75	4.73	-0.98	0.196
	985	3.22	4.33	-1.10	0.206
	986	3.31	4.52	-1.21	0.202
	987	3.24	3.92	-0.67	0.169
	988	3.31	4.39	-1.08	0.164
	989	3.27	4.20	-0.93	0.189
	990	3.19	3.93	-0.74	0.144
	991	3.07	4.06	-0.98	0.224
	992	3.16	4.05	-0.88	0.193
	993	3.43	4.33	-0.90	0.187
	994	3.06	4.55	-1.50	0.177
	995	3.05	3.88	-0.83	0.202
	996	3.36	4.43	-1.06	0.200
	997	3.12	4.37	-1.25	0.223
	998	3.12	4.48	-1.36	0.194
	999	3.01	4.20	-1.19	0.174
	1000	3.31	3.93	-0.62	0.194

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1001	3.44	4.49	-1.05	0.191
	1002	3.13	4.36	-1.23	0.189
	1003	3.42	4.26	-0.84	0.162
	1004	3.14	4.19	-1.04	0.207
	1005	3.27	3.90	-0.63	0.175
	1006	3.16	4.21	-1.05	0.199
	1007	3.14	4.40	-1.26	0.180
	1008	2.92	4.40	-1.48	0.184
	1009	3.22	4.25	-1.02	0.181
	1010	3.07	4.25	-1.18	0.214
	1011	3.39	4.43	-1.05	0.162
	1012	3.45	4.50	-1.05	0.211
	1013	3.12	3.96	-0.84	0.167
	1014	3.21	4.47	-1.26	0.169
	1015	3.29	4.15	-0.85	0.193
	1016	2.70	3.67	-0.97	0.178
	1017	3.27	4.45	-1.18	0.198
	1018	3.10	4.03	-0.94	0.190
	1019	3.09	4.24	-1.15	0.168
	1020	3.08	4.28	-1.20	0.186
	1021	3.22	4.41	-1.20	0.206
	1022	3.26	4.15	-0.89	0.206
	1023	3.14	3.86	-0.72	0.175
	1024	3.19	4.29	-1.11	0.211

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1025	3.03	4.05	-1.02	0.200
	1026	3.10	4.15	-1.05	0.191
	1027	3.09	4.17	-1.08	0.188
	1028	3.39	4.57	-1.18	0.181
	1029	3.14	4.37	-1.23	0.163
	1030	3.08	4.25	-1.17	0.195
	1031	3.49	4.55	-1.06	0.191
	1032	3.12	4.23	-1.11	0.219
	1033	3.14	4.27	-1.13	0.187
	1034	3.09	4.61	-1.52	0.175
	1035	3.15	4.27	-1.12	0.206
	1036	3.01	4.27	-1.26	0.188
	1037	2.83	4.32	-1.48	0.189
	1038	3.12	4.48	-1.36	0.232
	1039	2.93	4.01	-1.09	0.180
	1040	2.92	4.09	-1.17	0.240
	1041	3.47	4.44	-0.97	0.182
	1042	2.99	4.18	-1.20	0.174
	1043	2.96	3.72	-0.76	0.207
	1044	3.07	4.02	-0.95	0.178
	1045	3.30	4.24	-0.94	0.175
	1046	3.42	4.63	-1.20	0.199
	1047	3.35	4.19	-0.84	0.163
	1048	3.50	4.57	-1.07	0.215

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1049	2.93	4.20	-1.26	0.195
	1050	3.13	4.20	-1.07	0.180
	1051	3.15	4.40	-1.25	0.202
	1052	3.22	4.02	-0.80	0.194
	1053	3.40	4.31	-0.90	0.167
	1054	3.18	4.12	-0.93	0.170
	1055	3.25	4.31	-1.06	0.202
	1056	3.23	4.61	-1.38	0.170
	1057	2.84	4.41	-1.57	0.205
	1058	3.23	4.20	-0.97	0.185
	1059	3.22	4.35	-1.13	0.221
	1060	3.09	4.61	-1.52	0.207
	1061	3.00	4.18	-1.18	0.195
	1062	3.40	4.33	-0.93	0.195
	1063	3.40	4.37	-0.97	0.206
	1064	3.11	4.49	-1.37	0.186
	1065	3.39	4.47	-1.08	0.196
	1066	3.77	4.58	-0.81	0.213
	1067	3.45	4.74	-1.30	0.191
	1068	3.18	4.31	-1.13	0.163
	1069	3.17	4.25	-1.08	0.192
	1070	3.30	4.14	-0.83	0.173
	1071	3.20	4.86	-1.67	0.184
	1072	3.08	4.12	-1.05	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1073	3.66	4.62	-0.96	0.189
	1074	3.16	4.05	-0.89	0.196
	1075	3.21	4.11	-0.90	0.157
	1076	3.05	4.09	-1.04	0.234
	1077	3.33	4.36	-1.03	0.172
	1078	3.42	4.29	-0.86	0.206
	1079	3.17	4.19	-1.02	0.158
	1080	3.23	4.35	-1.13	0.206
	1081	2.99	4.36	-1.37	0.186
	1082	2.80	4.08	-1.28	0.200
	1083	3.25	4.46	-1.22	0.201
	1084	3.15	4.26	-1.11	0.180
	1085	3.19	4.44	-1.25	0.211
	1086	3.40	3.96	-0.57	0.168
	1087	3.48	4.34	-0.85	0.185
	1088	2.84	4.14	-1.30	0.207
	1089	2.88	4.17	-1.29	0.178
	1090	2.96	3.97	-1.01	0.173
	1091	2.87	4.36	-1.50	0.216
	1092	2.79	3.97	-1.18	0.184
	1093	3.26	4.41	-1.15	0.179
	1094	3.10	4.45	-1.35	0.210
	1095	3.24	4.21	-0.96	0.176
	1096	3.34	4.19	-0.85	0.174

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1097	3.30	4.12	-0.83	0.181
	1098	3.21	4.30	-1.09	0.217
	1099	3.31	4.33	-1.02	0.190
	1100	2.94	4.17	-1.23	0.206
	1101	3.10	4.16	-1.06	0.154
	1102	3.27	4.70	-1.43	0.220
	1103	2.95	4.15	-1.20	0.184
	1104	3.39	4.43	-1.04	0.164
	1105	3.21	4.16	-0.95	0.190
	1106	2.90	3.79	-0.89	0.204
	1107	3.19	4.20	-1.01	0.184
	1108	3.19	4.25	-1.05	0.230
	1109	3.29	4.37	-1.08	0.182
	1110	3.17	4.71	-1.54	0.180
	1111	3.13	4.02	-0.89	0.207
	1112	3.34	4.33	-0.99	0.193
	1113	3.36	4.41	-1.05	0.202
	1114	3.45	4.65	-1.20	0.153
	1115	3.14	4.16	-1.02	0.201
	1116	3.48	4.33	-0.85	0.160
	1117	3.26	4.23	-0.98	0.176
	1118	2.95	4.12	-1.17	0.167
	1119	3.06	3.96	-0.90	0.219
	1120	3.15	4.35	-1.20	0.207

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1121	3.29	4.55	-1.25	0.193
	1122	3.31	4.33	-1.02	0.200
	1123	3.36	4.47	-1.11	0.196
	1124	3.04	4.33	-1.29	0.169
	1125	2.93	3.92	-0.98	0.161
	1126	3.53	4.44	-0.91	0.176
	1127	3.22	4.43	-1.22	0.225
	1128	3.38	4.36	-0.97	0.163
	1129	3.50	4.38	-0.88	0.161
	1130	3.16	4.48	-1.32	0.206
	1131	3.22	4.44	-1.21	0.188
	1132	3.20	4.49	-1.29	0.216
	1133	3.06	4.64	-1.58	0.170
	1134	3.08	4.40	-1.33	0.186
	1135	3.14	4.63	-1.50	0.183
	1136	3.17	4.24	-1.08	0.163
	1137	3.32	4.75	-1.43	0.218
	1138	3.02	4.10	-1.08	0.202
	1139	3.16	4.23	-1.08	0.209
	1140	3.18	4.04	-0.86	0.156
	1141	3.16	4.44	-1.28	0.179
	1142	3.11	4.14	-1.03	0.210
	1143	3.40	4.47	-1.07	0.128
	1144	3.52	4.27	-0.75	0.182

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1145	3.17	4.22	-1.04	0.183
	1146	3.25	4.20	-0.95	0.192
	1147	2.93	3.82	-0.89	0.208
	1148	3.08	3.96	-0.89	0.155
	1149	3.35	4.30	-0.95	0.172
	1150	3.37	4.33	-0.96	0.221
	1151	3.39	4.47	-1.08	0.159
	1152	3.05	4.17	-1.12	0.218
	1153	3.27	4.10	-0.83	0.190
	1154	3.11	4.28	-1.17	0.168
	1155	3.04	4.09	-1.05	0.192
	1156	3.23	4.44	-1.21	0.198
	1157	3.06	4.27	-1.20	0.158
	1158	3.23	4.24	-1.01	0.219
	1159	3.33	4.53	-1.20	0.220
	1160	3.04	4.03	-0.99	0.184
	1161	3.32	4.19	-0.88	0.189
	1162	3.07	4.02	-0.94	0.168
	1163	3.09	4.02	-0.92	0.169
	1164	2.96	4.01	-1.05	0.198
	1165	3.32	4.32	-1.00	0.203
	1166	3.08	4.30	-1.22	0.215
	1167	3.25	4.11	-0.85	0.132
	1168	3.55	4.36	-0.81	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1169	3.03	4.33	-1.30	0.198
	1170	3.39	4.44	-1.05	0.215
	1171	2.96	4.14	-1.18	0.206
	1172	2.88	3.80	-0.92	0.148
	1173	3.17	4.45	-1.28	0.184
	1174	3.12	4.52	-1.40	0.193
	1175	3.12	3.95	-0.83	0.166
	1176	3.49	4.50	-1.01	0.174
	1177	3.10	4.17	-1.08	0.156
	1178	3.16	4.43	-1.27	0.157
	1179	3.17	3.98	-0.81	0.181
	1180	3.07	4.30	-1.23	0.191
	1181	3.29	4.65	-1.36	0.171
	1182	3.26	4.32	-1.06	0.176
	1183	3.24	4.32	-1.08	0.231
	1184	3.43	4.55	-1.12	0.234
	1185	3.13	4.12	-0.99	0.196
	1186	3.21	4.34	-1.13	0.169
	1187	3.14	4.24	-1.10	0.181
	1188	3.13	4.10	-0.96	0.190
	1189	3.30	4.27	-0.98	0.168
	1190	2.96	4.52	-1.56	0.200
	1191	3.46	4.76	-1.30	0.229
	1192	3.13	4.24	-1.11	0.188

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1193	3.04	4.15	-1.11	0.220
	1194	3.29	4.52	-1.23	0.186
	1195	3.11	4.11	-1.00	0.154
	1196	2.84	3.91	-1.07	0.177
	1197	3.13	4.02	-0.89	0.185
	1198	2.97	4.18	-1.22	0.200
	1199	3.09	4.35	-1.26	0.205
	1200	3.21	4.36	-1.16	0.170
	1201	3.20	4.04	-0.84	0.208
	1202	3.00	4.19	-1.19	0.196
	1203	3.51	4.54	-1.03	0.226
	1204	3.14	4.40	-1.26	0.161
	1205	3.39	4.01	-0.61	0.191
	1206	3.59	4.47	-0.88	0.159
	1207	3.12	4.45	-1.33	0.191
	1208	3.27	4.25	-0.99	0.189
	1209	3.07	4.22	-1.16	0.173
	1210	3.04	4.27	-1.23	0.181
	1211	3.14	4.10	-0.96	0.177
	1212	3.15	4.16	-1.01	0.202
	1213	3.13	4.43	-1.30	0.216
	1214	3.26	4.47	-1.21	0.217
	1215	3.07	4.18	-1.11	0.195
	1216	3.59	4.63	-1.04	0.178

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1217	3.30	4.23	-0.93	0.198
	1218	3.21	4.64	-1.43	0.219
	1219	3.13	4.39	-1.26	0.203
	1220	3.26	4.29	-1.03	0.162
	1221	2.96	4.28	-1.32	0.189
	1222	2.84	4.42	-1.58	0.191
	1223	3.30	4.49	-1.19	0.194
	1224	3.29	4.12	-0.83	0.145
	1225	3.08	4.35	-1.27	0.178
	1226	3.52	4.69	-1.17	0.207
	1227	2.88	4.11	-1.24	0.199
	1228	3.14	4.22	-1.08	0.196
	1229	3.03	4.50	-1.47	0.199
	1230	2.99	4.34	-1.35	0.165
	1231	3.22	4.16	-0.94	0.178
	1232	2.94	4.16	-1.22	0.167
	1233	3.28	4.37	-1.09	0.203
	1234	3.30	4.17	-0.86	0.162
	1235	2.99	4.18	-1.19	0.199
	1236	3.46	4.44	-0.98	0.213
	1237	3.27	4.31	-1.04	0.196
	1238	2.90	4.16	-1.26	0.178
	1239	3.18	4.36	-1.18	0.157
	1240	3.14	4.04	-0.90	0.196

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1241	3.00	3.89	-0.89	0.198
	1242	3.17	4.56	-1.38	0.216
	1243	3.49	4.30	-0.82	0.186
	1244	3.26	4.18	-0.92	0.203
	1245	3.41	4.41	-1.00	0.168
	1246	3.01	4.20	-1.18	0.177
	1247	3.05	4.18	-1.13	0.182
	1248	3.51	4.90	-1.39	0.190
	1249	3.26	4.29	-1.03	0.195
	1250	3.22	4.39	-1.18	0.192
	1251	3.46	4.50	-1.04	0.186
	1252	3.51	4.79	-1.28	0.208
	1253	2.90	4.03	-1.13	0.175
	1254	3.27	4.66	-1.39	0.222
	1255	2.95	4.35	-1.40	0.192
	1256	3.37	4.40	-1.03	0.183
	1257	3.26	4.24	-0.97	0.205
	1258	2.95	4.20	-1.25	0.214
	1259	3.17	4.30	-1.14	0.181
	1260	2.64	4.36	-1.72	0.168
	1261	3.09	4.43	-1.34	0.170
	1262	3.27	4.46	-1.19	0.192
	1263	3.24	4.28	-1.04	0.157
	1264	3.67	4.77	-1.10	0.255

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1265	3.27	4.32	-1.05	0.174
	1266	2.85	4.27	-1.42	0.198
	1267	3.32	4.24	-0.92	0.232
	1268	3.33	4.21	-0.88	0.170
	1269	3.38	4.33	-0.95	0.197
	1270	3.06	3.85	-0.79	0.154
	1271	3.05	4.23	-1.18	0.176
	1272	3.35	4.20	-0.85	0.186
	1273	3.36	4.16	-0.80	0.182
	1274	3.07	4.27	-1.20	0.200
	1275	3.28	4.13	-0.85	0.190
	1276	3.27	4.24	-0.96	0.189
	1277	2.74	4.05	-1.31	0.198
	1278	3.48	4.68	-1.20	0.199
	1279	3.15	4.12	-0.97	0.156
	1280	3.14	4.24	-1.10	0.186
	1281	3.31	4.32	-1.01	0.184
	1282	3.34	4.62	-1.28	0.183
	1283	3.42	4.19	-0.77	0.171
	1284	3.46	4.41	-0.95	0.173
	1285	3.02	3.97	-0.95	0.168
	1286	2.95	3.79	-0.84	0.180
	1287	3.42	4.46	-1.04	0.185
	1288	3.23	4.42	-1.19	0.201

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1289	3.33	4.31	-0.98	0.205
	1290	3.43	4.15	-0.72	0.167
	1291	3.09	4.18	-1.09	0.167
	1292	3.09	4.08	-1.00	0.182
	1293	3.18	4.16	-0.98	0.174
	1294	3.24	4.10	-0.86	0.169
	1295	3.22	4.59	-1.36	0.186
	1296	3.48	4.40	-0.91	0.203
	1297	3.13	4.52	-1.39	0.207
	1298	3.32	4.48	-1.16	0.198
	1299	3.22	4.37	-1.15	0.206
	1300	3.01	4.36	-1.35	0.201
	1301	3.51	4.39	-0.88	0.197
	1302	3.36	4.63	-1.27	0.216
	1303	2.99	4.01	-1.02	0.164
	1304	3.08	4.22	-1.14	0.160
	1305	3.08	4.43	-1.35	0.175
	1306	3.08	4.51	-1.44	0.241
	1307	2.98	4.27	-1.28	0.174
	1308	2.89	3.92	-1.03	0.168
	1309	3.19	4.35	-1.16	0.175
	1310	3.64	4.48	-0.84	0.215
	1311	3.53	4.64	-1.11	0.183
	1312	3.40	4.49	-1.10	0.204

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1313	3.19	4.01	-0.82	0.183
	1314	3.29	4.53	-1.23	0.196
	1315	3.00	4.42	-1.42	0.203
	1316	3.44	4.26	-0.82	0.173
	1317	3.22	4.41	-1.19	0.180
	1318	3.27	4.61	-1.35	0.205
	1319	3.12	4.32	-1.21	0.195
	1320	3.27	4.47	-1.19	0.199
	1321	2.99	4.31	-1.32	0.205
	1322	3.51	4.77	-1.26	0.210
	1323	3.06	4.20	-1.14	0.187
	1324	2.89	4.05	-1.17	0.184
	1325	3.46	4.43	-0.97	0.210
	1326	3.09	4.19	-1.10	0.209
	1327	3.12	4.28	-1.15	0.194
	1328	3.16	4.42	-1.26	0.165
	1329	3.16	4.42	-1.25	0.227
	1330	3.18	4.41	-1.23	0.224
	1331	3.28	4.24	-0.96	0.180
	1332	3.50	4.45	-0.95	0.199
	1333	3.13	4.60	-1.48	0.154
	1334	3.27	4.53	-1.26	0.207
	1335	3.08	4.16	-1.08	0.219
	1336	3.21	4.35	-1.14	0.176

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1337	3.42	4.47	-1.05	0.193
	1338	3.21	4.39	-1.18	0.165
	1339	3.47	4.13	-0.66	0.174
	1340	3.25	3.96	-0.71	0.175
	1341	3.25	4.50	-1.24	0.204
	1342	3.17	4.23	-1.05	0.188
	1343	3.06	4.28	-1.21	0.166
	1344	3.08	4.16	-1.08	0.186
	1345	3.33	4.22	-0.89	0.179
	1346	3.04	4.23	-1.20	0.194
	1347	3.37	4.54	-1.17	0.213
	1348	3.14	4.22	-1.08	0.190
	1349	3.20	4.01	-0.81	0.184
	1350	3.40	4.61	-1.21	0.169
	1351	2.93	4.25	-1.32	0.196
	1352	2.84	3.93	-1.09	0.180
	1353	3.77	4.73	-0.96	0.192
	1354	3.05	4.33	-1.28	0.194
	1355	2.78	4.41	-1.62	0.193
	1356	3.20	4.25	-1.05	0.176
	1357	3.09	4.22	-1.12	0.217
	1358	3.24	4.55	-1.31	0.196
	1359	3.35	4.31	-0.96	0.199
	1360	3.63	4.29	-0.66	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1361	3.21	4.14	-0.92	0.200
	1362	3.21	4.27	-1.06	0.185
	1363	3.36	4.73	-1.37	0.194
	1364	3.22	4.37	-1.15	0.195
	1365	3.37	4.57	-1.21	0.201
	1366	3.08	4.41	-1.34	0.180
	1367	3.10	4.48	-1.38	0.167
	1368	3.20	4.41	-1.22	0.199
	1369	3.28	4.48	-1.19	0.182
	1370	3.03	4.56	-1.53	0.173
	1371	3.17	4.27	-1.11	0.187
	1372	3.33	4.41	-1.09	0.194
	1373	3.18	4.10	-0.92	0.151
	1374	3.36	4.82	-1.46	0.183
	1375	3.32	4.53	-1.21	0.208
	1376	2.93	4.18	-1.25	0.186
	1377	3.31	4.27	-0.96	0.170
	1378	3.41	4.28	-0.86	0.172
	1379	2.98	4.51	-1.54	0.191
	1380	3.20	3.92	-0.72	0.146
	1381	3.64	4.69	-1.06	0.214
	1382	3.20	4.55	-1.35	0.197
	1383	3.15	4.29	-1.14	0.178
	1384	3.53	4.60	-1.07	0.213

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1385	3.59	4.62	-1.03	0.228
	1386	2.91	4.09	-1.18	0.186
	1387	3.18	4.66	-1.48	0.194
	1388	3.02	3.95	-0.94	0.182
	1389	3.30	4.21	-0.91	0.171
	1390	3.47	4.26	-0.78	0.164
	1391	3.00	4.15	-1.15	0.175
	1392	3.38	4.33	-0.95	0.171
	1393	3.31	4.68	-1.38	0.239
	1394	3.17	4.51	-1.34	0.192
	1395	3.15	4.24	-1.09	0.199
	1396	2.88	4.00	-1.11	0.217
	1397	3.44	4.43	-0.99	0.192
	1398	3.14	4.32	-1.18	0.213
	1399	3.01	3.99	-0.98	0.205
	1400	3.33	4.52	-1.18	0.221
	1401	3.51	4.43	-0.92	0.228
	1402	3.05	4.55	-1.51	0.204
	1403	3.07	4.20	-1.13	0.163
	1404	3.02	4.05	-1.03	0.184
	1405	3.06	3.89	-0.83	0.169
	1406	3.29	4.19	-0.90	0.196
	1407	3.18	4.30	-1.13	0.199
	1408	3.37	4.57	-1.20	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1409	3.08	3.84	-0.76	0.151
	1410	3.26	4.54	-1.28	0.198
	1411	3.05	4.15	-1.10	0.214
	1412	3.27	4.10	-0.83	0.198
	1413	3.37	4.51	-1.14	0.176
	1414	3.22	4.13	-0.90	0.206
	1415	2.99	4.04	-1.05	0.181
	1416	3.07	4.29	-1.23	0.162
	1417	3.40	4.10	-0.70	0.174
	1418	3.32	4.11	-0.78	0.173
	1419	3.30	4.59	-1.29	0.209
	1420	3.20	4.27	-1.08	0.218
	1421	3.44	4.61	-1.18	0.208
	1422	3.32	4.28	-0.96	0.203
	1423	3.08	4.37	-1.30	0.236
	1424	3.74	4.37	-0.63	0.192
	1425	3.25	4.27	-1.02	0.211
	1426	3.12	4.19	-1.07	0.207
	1427	3.18	4.52	-1.34	0.219
	1428	3.00	4.26	-1.26	0.190
	1429	2.76	3.80	-1.03	0.172
	1430	3.60	4.30	-0.70	0.178
	1431	3.11	4.25	-1.14	0.231
	1432	3.44	4.71	-1.27	0.179

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1433	3.04	3.94	-0.90	0.183
	1434	2.92	3.85	-0.93	0.199
	1435	3.29	4.27	-0.99	0.197
	1436	3.50	4.84	-1.35	0.219
	1437	3.56	4.38	-0.82	0.185
	1438	3.06	3.97	-0.91	0.162
	1439	3.00	4.22	-1.21	0.170
	1440	3.48	4.70	-1.22	0.215
	1441	3.37	4.27	-0.91	0.204
	1442	3.39	4.38	-0.99	0.175
	1443	3.16	4.16	-1.00	0.174
	1444	2.87	3.84	-0.97	0.176
	1445	3.46	4.57	-1.11	0.196
	1446	3.02	4.16	-1.14	0.195
	1447	3.43	4.21	-0.78	0.206
	1448	3.46	4.56	-1.10	0.210
	1449	3.29	4.37	-1.08	0.152
	1450	3.20	4.15	-0.96	0.196
	1451	3.25	4.45	-1.20	0.174
	1452	3.12	4.43	-1.31	0.184
	1453	3.47	4.66	-1.19	0.186
	1454	3.04	4.68	-1.64	0.182
	1455	3.26	4.64	-1.38	0.226
	1456	3.34	4.76	-1.42	0.203

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1457	2.97	4.13	-1.15	0.182
	1458	3.33	4.53	-1.20	0.210
	1459	3.21	4.12	-0.90	0.183
	1460	2.83	4.39	-1.56	0.178
	1461	3.16	4.20	-1.04	0.233
	1462	3.39	4.39	-1.00	0.183
	1463	3.42	4.80	-1.38	0.204
	1464	3.34	4.57	-1.23	0.179
	1465	3.00	4.29	-1.30	0.171
	1466	3.12	4.25	-1.13	0.223
	1467	3.28	4.37	-1.10	0.189
	1468	3.39	4.35	-0.96	0.177
	1469	3.10	4.17	-1.07	0.224
	1470	3.42	4.63	-1.21	0.208
	1471	3.07	4.15	-1.08	0.205
	1472	2.82	4.08	-1.26	0.191
	1473	3.16	4.34	-1.17	0.212
	1474	3.19	4.16	-0.97	0.217
	1475	2.91	4.43	-1.52	0.208
	1476	3.27	4.65	-1.39	0.199
	1477	3.01	3.92	-0.90	0.187
	1478	3.34	4.82	-1.47	0.204
	1479	2.92	4.05	-1.13	0.179
	1480	2.80	3.80	-1.00	0.186

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1481	3.53	4.46	-0.93	0.163
	1482	3.19	4.22	-1.02	0.180
	1483	3.03	4.71	-1.69	0.170
	1484	3.05	4.48	-1.43	0.221
	1485	3.47	4.46	-0.99	0.209
	1486	3.06	4.43	-1.37	0.202
	1487	2.92	4.17	-1.25	0.152
	1488	3.21	4.75	-1.54	0.191
	1489	2.75	3.85	-1.10	0.171
	1490	3.46	4.39	-0.93	0.205
	1491	3.35	4.26	-0.91	0.199
	1492	3.35	4.48	-1.13	0.174
	1493	3.00	4.48	-1.49	0.209
	1494	3.18	4.19	-1.01	0.207
	1495	3.15	4.48	-1.34	0.198
	1496	3.19	4.06	-0.87	0.165
	1497	3.33	4.33	-1.00	0.195
	1498	3.19	4.30	-1.11	0.213
	1499	2.97	4.15	-1.18	0.200
	1500	3.28	4.74	-1.46	0.171
	1501	2.96	4.03	-1.07	0.180
	1502	3.44	4.32	-0.88	0.205
	1503	3.02	4.18	-1.17	0.213
	1504	3.25	4.23	-0.99	0.155

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1505	3.14	3.97	-0.83	0.192
	1506	3.14	4.20	-1.06	0.172
	1507	3.30	4.39	-1.09	0.181
	1508	2.83	4.08	-1.24	0.188
	1509	3.36	4.35	-0.99	0.230
	1510	3.30	4.42	-1.12	0.206
	1511	2.87	3.90	-1.04	0.172
	1512	3.20	4.33	-1.13	0.192
	1513	2.93	3.80	-0.87	0.166
	1514	3.17	4.07	-0.90	0.192
	1515	3.61	4.51	-0.90	0.196
	1516	3.23	4.40	-1.17	0.220
	1517	3.15	4.21	-1.06	0.209
	1518	3.15	4.43	-1.28	0.178
	1519	3.34	4.38	-1.04	0.178
	1520	3.30	4.30	-1.00	0.184
	1521	3.08	4.51	-1.43	0.186
	1522	3.14	4.25	-1.11	0.157
	1523	3.31	4.22	-0.91	0.173
	1524	3.12	4.22	-1.10	0.215
	1525	3.08	3.99	-0.91	0.182
	1526	3.14	4.33	-1.19	0.195
	1527	2.99	4.06	-1.07	0.166
	1528	3.17	4.43	-1.25	0.226

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1529	3.26	4.33	-1.07	0.201
	1530	2.97	4.14	-1.17	0.184
	1531	3.15	4.26	-1.11	0.192
	1532	3.06	4.36	-1.30	0.206
	1533	3.08	4.41	-1.33	0.212
	1534	3.23	4.26	-1.03	0.217
	1535	3.18	4.11	-0.93	0.207
	1536	3.08	4.27	-1.18	0.183
	1537	3.50	4.82	-1.33	0.200
	1538	3.22	4.39	-1.17	0.183
	1539	2.90	3.98	-1.09	0.171
	1540	3.31	4.31	-1.00	0.204
	1541	3.16	4.24	-1.09	0.184
	1542	3.24	4.30	-1.06	0.186
	1543	3.50	4.63	-1.13	0.211
	1544	3.42	4.37	-0.95	0.184
	1545	3.05	4.14	-1.09	0.176
	1546	3.01	4.26	-1.25	0.192
	1547	3.32	4.38	-1.06	0.179
	1548	2.98	4.30	-1.32	0.193
	1549	3.07	4.34	-1.27	0.156
	1550	3.23	4.45	-1.22	0.196
	1551	3.09	4.00	-0.90	0.211
	1552	2.75	4.10	-1.36	0.195

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1553	3.14	4.28	-1.14	0.199
	1554	2.91	4.04	-1.13	0.194
	1555	3.17	4.13	-0.96	0.186
	1556	3.54	4.20	-0.66	0.175
	1557	3.11	4.55	-1.44	0.186
	1558	2.84	4.05	-1.21	0.219
	1559	3.19	4.35	-1.15	0.222
	1560	3.25	4.37	-1.13	0.230
	1561	3.28	4.30	-1.02	0.169
	1562	3.39	4.25	-0.87	0.161
	1563	2.82	4.35	-1.53	0.162
	1564	3.24	4.29	-1.05	0.210
	1565	3.06	4.36	-1.30	0.180
	1566	3.32	4.73	-1.41	0.212
	1567	3.26	4.67	-1.41	0.203
	1568	3.44	4.51	-1.08	0.174
	1569	3.32	4.25	-0.92	0.187
	1570	3.53	4.38	-0.85	0.214
	1571	3.19	4.49	-1.30	0.223
	1572	3.24	4.32	-1.08	0.219
	1573	3.08	3.92	-0.84	0.187
	1574	3.29	4.34	-1.05	0.185
	1575	3.46	4.76	-1.30	0.195
	1576	3.14	4.39	-1.24	0.171

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1577	3.14	4.26	-1.12	0.168
	1578	3.31	4.34	-1.03	0.204
	1579	3.56	4.51	-0.94	0.196
	1580	3.14	4.42	-1.28	0.204
	1581	3.22	4.45	-1.23	0.224
	1582	3.04	4.36	-1.32	0.207
	1583	3.27	4.53	-1.25	0.205
	1584	3.13	4.11	-0.98	0.204
	1585	3.12	4.14	-1.01	0.184
	1586	3.29	4.29	-1.01	0.200
	1587	3.35	4.85	-1.50	0.192
	1588	3.16	4.15	-0.99	0.186
	1589	3.43	4.61	-1.17	0.190
	1590	3.33	4.63	-1.30	0.201
	1591	3.18	4.34	-1.17	0.225
	1592	3.15	4.09	-0.94	0.191
	1593	3.11	4.21	-1.11	0.169
	1594	3.35	4.58	-1.23	0.183
	1595	3.40	4.50	-1.10	0.203
	1596	3.60	4.67	-1.07	0.206
	1597	3.25	4.12	-0.87	0.191
	1598	3.20	4.21	-1.01	0.155
	1599	2.99	4.25	-1.26	0.175
	1600	3.47	4.74	-1.27	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1601	3.20	4.62	-1.42	0.212
	1602	3.30	4.35	-1.06	0.206
	1603	3.09	4.55	-1.46	0.178
	1604	3.35	4.26	-0.91	0.221
	1605	3.06	4.35	-1.29	0.197
	1606	3.10	4.45	-1.35	0.188
	1607	2.98	4.01	-1.03	0.217
	1608	3.33	4.34	-1.01	0.211
	1609	3.19	4.21	-1.03	0.170
	1610	3.27	4.19	-0.92	0.174
	1611	3.08	4.26	-1.18	0.194
	1612	2.89	4.27	-1.39	0.183
	1613	3.46	4.54	-1.09	0.219
	1614	3.36	4.46	-1.10	0.215
	1615	3.42	4.45	-1.04	0.171
	1616	3.33	4.19	-0.86	0.198
	1617	3.07	4.16	-1.09	0.173
	1618	3.24	4.05	-0.81	0.211
	1619	2.65	3.78	-1.13	0.166
	1620	2.70	4.15	-1.45	0.218
	1621	3.11	4.12	-1.01	0.177
	1622	3.18	4.43	-1.25	0.200
	1623	2.70	4.22	-1.53	0.213
	1624	3.00	4.35	-1.35	0.204

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1625	3.14	4.33	-1.19	0.165
	1626	3.21	4.35	-1.14	0.169
	1627	3.65	4.63	-0.98	0.197
	1628	3.29	4.39	-1.10	0.174
	1629	3.38	4.41	-1.03	0.181
	1630	3.01	4.18	-1.17	0.196
	1631	3.35	4.65	-1.30	0.207
	1632	3.06	4.39	-1.33	0.177
	1633	3.05	4.20	-1.15	0.207
	1634	3.17	4.18	-1.00	0.175
	1635	3.37	4.56	-1.19	0.231
	1636	3.56	4.42	-0.86	0.188
	1637	3.37	4.43	-1.07	0.209
	1638	3.21	4.21	-1.01	0.208
	1639	3.23	4.14	-0.91	0.204
	1640	3.20	4.47	-1.27	0.178
	1641	3.36	4.22	-0.86	0.193
	1642	3.43	4.24	-0.81	0.210
	1643	3.54	4.48	-0.94	0.215
	1644	2.84	3.97	-1.13	0.218
	1645	3.09	4.42	-1.33	0.183
	1646	3.14	4.08	-0.93	0.181
	1647	3.27	4.21	-0.94	0.210
	1648	3.42	4.58	-1.16	0.191

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1649	3.23	4.31	-1.08	0.196
	1650	3.30	4.49	-1.20	0.215
	1651	3.55	4.29	-0.74	0.183
	1652	3.44	4.28	-0.84	0.198
	1653	3.17	4.38	-1.21	0.178
	1654	3.13	3.97	-0.84	0.170
	1655	3.34	4.53	-1.19	0.187
	1656	3.04	4.38	-1.34	0.210
	1657	3.25	4.76	-1.51	0.213
	1658	3.02	4.15	-1.13	0.173
	1659	3.27	4.43	-1.16	0.171
	1660	3.29	4.41	-1.13	0.181
	1661	3.51	4.47	-0.96	0.187
	1662	3.15	4.17	-1.01	0.186
	1663	3.03	3.98	-0.95	0.182
	1664	3.02	4.24	-1.22	0.223
	1665	3.13	4.33	-1.21	0.207
	1666	3.22	4.00	-0.78	0.175
	1667	3.46	4.44	-0.98	0.179
	1668	3.19	4.16	-0.97	0.194
	1669	3.50	4.62	-1.11	0.184
	1670	3.11	4.39	-1.28	0.199
	1671	2.96	4.15	-1.18	0.190
	1672	2.79	4.22	-1.43	0.193

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1673	3.01	4.45	-1.44	0.210
	1674	3.31	4.53	-1.22	0.249
	1675	3.52	4.59	-1.07	0.187
	1676	3.16	4.39	-1.22	0.192
	1677	2.95	4.41	-1.45	0.217
	1678	3.21	4.41	-1.21	0.209
	1679	3.24	4.24	-1.00	0.218
	1680	3.09	4.34	-1.25	0.214
	1681	3.45	4.57	-1.11	0.220
	1682	3.30	4.50	-1.21	0.205
	1683	3.43	4.50	-1.07	0.200
	1684	3.45	4.57	-1.12	0.199
	1685	3.18	4.35	-1.17	0.158
	1686	3.14	4.20	-1.05	0.135
	1687	3.14	4.54	-1.40	0.221
	1688	3.23	4.17	-0.94	0.171
	1689	3.40	4.34	-0.94	0.196
	1690	3.18	4.16	-0.98	0.165
	1691	3.43	4.58	-1.15	0.233
	1692	3.10	4.06	-0.96	0.189
	1693	2.96	4.09	-1.14	0.166
	1694	3.10	4.08	-0.98	0.176
	1695	3.12	4.24	-1.12	0.205
	1696	2.74	4.36	-1.62	0.202

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1697	3.12	4.33	-1.21	0.182
	1698	3.29	4.44	-1.16	0.196
	1699	3.57	4.70	-1.13	0.179
	1700	3.11	4.14	-1.03	0.201
	1701	3.00	4.02	-1.02	0.195
	1702	3.04	4.11	-1.07	0.143
	1703	3.11	4.40	-1.30	0.180
	1704	2.91	4.39	-1.49	0.215
	1705	3.51	4.37	-0.86	0.212
	1706	3.26	4.15	-0.89	0.205
	1707	3.20	4.35	-1.15	0.200
	1708	3.16	4.05	-0.89	0.197
	1709	3.02	4.33	-1.31	0.198
	1710	3.11	4.06	-0.94	0.234
	1711	3.10	4.58	-1.48	0.197
	1712	3.06	4.31	-1.25	0.216
	1713	2.99	4.06	-1.07	0.194
	1714	3.02	4.28	-1.26	0.202
	1715	3.28	4.11	-0.83	0.208
	1716	2.61	4.05	-1.44	0.193
	1717	3.32	4.61	-1.29	0.190
	1718	2.92	4.09	-1.16	0.170
	1719	3.34	4.31	-0.97	0.193
	1720	3.00	4.26	-1.26	0.214

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1721	3.38	4.50	-1.12	0.191
	1722	3.47	4.27	-0.80	0.182
	1723	3.38	4.60	-1.22	0.210
	1724	3.17	4.14	-0.97	0.174
	1725	3.13	4.00	-0.87	0.158
	1726	2.80	4.08	-1.27	0.190
	1727	3.45	4.46	-1.02	0.162
	1728	3.05	4.56	-1.50	0.210
	1729	3.16	4.20	-1.04	0.202
	1730	2.96	3.97	-1.02	0.172
	1731	3.44	4.44	-1.00	0.208
	1732	3.26	4.17	-0.91	0.182
	1733	2.92	4.09	-1.17	0.216
	1734	3.55	4.36	-0.81	0.176
	1735	3.26	4.24	-0.98	0.151
	1736	3.24	4.36	-1.11	0.182
	1737	3.08	4.29	-1.21	0.190
	1738	3.06	4.28	-1.22	0.179
	1739	2.95	3.88	-0.92	0.223
	1740	2.97	3.95	-0.97	0.194
	1741	2.94	4.00	-1.06	0.169
	1742	3.04	4.16	-1.11	0.187
	1743	2.88	4.26	-1.38	0.192
	1744	3.22	4.12	-0.90	0.185

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1745	3.14	4.30	-1.16	0.202
	1746	2.78	4.08	-1.30	0.191
	1747	3.03	3.95	-0.92	0.158
	1748	3.10	4.16	-1.06	0.182
	1749	3.21	4.34	-1.14	0.227
	1750	3.07	4.18	-1.11	0.199
	1751	2.87	4.15	-1.28	0.210
	1752	3.38	4.54	-1.16	0.246
	1753	3.16	4.15	-0.99	0.183
	1754	3.05	4.59	-1.54	0.206
	1755	3.17	4.20	-1.04	0.188
	1756	3.42	4.43	-1.01	0.183
	1757	3.11	4.07	-0.96	0.169
	1758	3.02	3.94	-0.93	0.171
	1759	2.90	4.19	-1.30	0.212
	1760	2.95	4.10	-1.15	0.168
	1761	3.46	4.41	-0.95	0.167
	1762	2.90	4.13	-1.23	0.196
	1763	3.13	4.34	-1.22	0.183
	1764	3.00	4.29	-1.29	0.148
	1765	3.23	4.21	-0.97	0.179
	1766	3.30	4.72	-1.42	0.216
	1767	3.22	4.07	-0.84	0.196
	1768	3.12	4.61	-1.49	0.230

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1769	3.27	4.52	-1.26	0.199
	1770	3.36	4.58	-1.21	0.190
	1771	3.26	4.50	-1.24	0.209
	1772	3.30	4.25	-0.95	0.154
	1773	3.33	4.69	-1.35	0.206
	1774	3.64	4.56	-0.91	0.182
	1775	3.11	4.26	-1.14	0.183
	1776	3.18	4.27	-1.08	0.206
	1777	2.94	4.03	-1.09	0.179
	1778	3.41	4.35	-0.94	0.191
	1779	3.25	4.47	-1.22	0.172
	1780	3.06	4.04	-0.98	0.186
	1781	3.06	4.07	-1.02	0.185
	1782	3.20	4.64	-1.44	0.208
	1783	3.45	4.63	-1.19	0.234
	1784	3.05	4.28	-1.23	0.206
	1785	3.10	4.35	-1.25	0.211
	1786	3.60	4.49	-0.89	0.161
	1787	3.04	4.29	-1.25	0.216
	1788	3.08	4.20	-1.12	0.207
	1789	3.52	4.22	-0.70	0.206
	1790	3.58	4.55	-0.96	0.186
	1791	3.34	4.44	-1.10	0.175
	1792	3.19	3.98	-0.79	0.149

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1793	3.23	4.19	-0.97	0.203
	1794	3.22	4.22	-1.01	0.178
	1795	3.09	4.32	-1.22	0.205
	1796	3.15	4.28	-1.13	0.207
	1797	3.15	4.14	-0.99	0.191
	1798	3.33	4.74	-1.41	0.191
	1799	3.27	4.33	-1.06	0.204
	1800	3.28	4.65	-1.37	0.211
	1801	2.91	4.18	-1.27	0.215
	1802	2.85	3.97	-1.12	0.170
	1803	3.28	4.35	-1.07	0.200
	1804	2.84	4.20	-1.37	0.234
	1805	3.03	4.18	-1.15	0.226
	1806	2.92	4.10	-1.18	0.193
	1807	3.12	4.08	-0.96	0.168
	1808	3.48	4.55	-1.07	0.186
	1809	3.24	4.42	-1.17	0.216
	1810	3.24	4.53	-1.29	0.212
	1811	3.38	4.73	-1.35	0.202
	1812	3.32	4.81	-1.49	0.224
	1813	3.44	4.32	-0.88	0.190
	1814	3.17	4.55	-1.38	0.237
	1815	3.06	4.62	-1.56	0.173
	1816	3.12	4.18	-1.06	0.185

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1817	3.19	4.11	-0.93	0.158
	1818	2.93	4.05	-1.13	0.181
	1819	3.27	4.38	-1.11	0.199
	1820	2.90	4.21	-1.31	0.220
	1821	3.36	4.49	-1.14	0.173
	1822	3.19	4.30	-1.11	0.195
	1823	3.28	4.62	-1.33	0.195
	1824	3.08	4.37	-1.29	0.227
	1825	3.34	4.55	-1.21	0.201
	1826	3.21	4.28	-1.07	0.167
	1827	2.97	4.25	-1.28	0.201
	1828	3.03	4.21	-1.18	0.226
	1829	2.93	4.04	-1.11	0.187
	1830	3.21	3.80	-0.59	0.155
	1831	3.67	4.83	-1.16	0.227
	1832	3.70	4.62	-0.93	0.197
	1833	3.22	4.21	-0.99	0.193
	1834	3.11	4.28	-1.16	0.225
	1835	3.24	4.33	-1.08	0.179
	1836	3.42	4.80	-1.38	0.199
	1837	3.38	4.44	-1.07	0.168
	1838	3.20	4.07	-0.86	0.204
	1839	3.37	4.49	-1.12	0.185
	1840	3.02	4.13	-1.11	0.156

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1841	2.94	4.24	-1.30	0.180
	1842	3.26	4.19	-0.93	0.201
	1843	3.21	4.14	-0.93	0.194
	1844	3.30	4.39	-1.08	0.219
	1845	3.20	4.30	-1.10	0.183
	1846	3.15	4.35	-1.20	0.231
	1847	2.91	4.19	-1.28	0.213
	1848	3.03	4.00	-0.97	0.196
	1849	3.10	4.08	-0.98	0.172
	1850	3.20	4.38	-1.17	0.218
	1851	2.99	4.33	-1.34	0.195
	1852	3.27	4.22	-0.95	0.202
	1853	3.34	4.38	-1.04	0.198
	1854	3.07	4.14	-1.07	0.170
	1855	2.72	4.03	-1.31	0.197
	1856	3.25	4.50	-1.25	0.210
	1857	3.29	4.49	-1.20	0.189
	1858	3.14	4.17	-1.02	0.205
	1859	3.18	4.01	-0.83	0.138
	1860	3.42	4.27	-0.84	0.186
	1861	3.25	4.13	-0.89	0.195
	1862	3.25	4.49	-1.23	0.217
	1863	3.10	4.16	-1.05	0.174
	1864	3.23	4.68	-1.44	0.192

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1865	3.13	4.23	-1.10	0.219
	1866	3.37	4.54	-1.18	0.197
	1867	3.19	4.48	-1.29	0.179
	1868	3.01	4.48	-1.47	0.179
	1869	3.13	4.51	-1.38	0.179
	1870	3.37	4.63	-1.26	0.166
	1871	3.14	4.36	-1.22	0.191
	1872	2.68	3.84	-1.16	0.185
	1873	3.44	4.28	-0.85	0.172
	1874	3.21	4.24	-1.03	0.224
	1875	3.64	4.82	-1.18	0.220
	1876	3.19	4.32	-1.13	0.202
	1877	3.22	4.50	-1.28	0.215
	1878	3.13	4.07	-0.94	0.212
	1879	2.72	4.12	-1.40	0.181
	1880	3.07	4.30	-1.24	0.211
	1881	3.28	4.33	-1.06	0.181
	1882	3.18	4.40	-1.22	0.203
	1883	3.01	4.48	-1.47	0.195
	1884	3.14	4.39	-1.25	0.159
	1885	3.50	4.47	-0.96	0.185
	1886	3.32	4.31	-0.99	0.185
	1887	3.45	4.53	-1.09	0.200
	1888	3.03	4.37	-1.33	0.163

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1889	2.84	4.00	-1.16	0.194
	1890	3.53	4.42	-0.89	0.194
	1891	3.24	4.30	-1.06	0.194
	1892	3.16	4.30	-1.15	0.203
	1893	3.31	4.37	-1.06	0.174
	1894	3.07	4.36	-1.29	0.198
	1895	3.24	4.12	-0.88	0.194
	1896	3.08	4.40	-1.32	0.195
	1897	3.06	4.23	-1.17	0.207
	1898	3.45	4.38	-0.93	0.202
	1899	2.93	4.00	-1.07	0.194
	1900	3.44	4.45	-1.01	0.194
	1901	3.10	4.17	-1.06	0.179
	1902	3.09	4.40	-1.31	0.164
	1903	3.18	4.25	-1.06	0.172
	1904	2.78	4.19	-1.41	0.192
	1905	3.24	4.58	-1.34	0.211
	1906	2.49	3.83	-1.34	0.182
	1907	2.91	4.19	-1.28	0.182
	1908	3.39	4.57	-1.18	0.194
	1909	3.51	4.40	-0.89	0.210
	1910	3.02	4.57	-1.56	0.180
	1911	2.92	4.14	-1.21	0.203
	1912	3.00	4.15	-1.15	0.197

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1913	3.18	4.36	-1.18	0.226
	1914	3.19	4.25	-1.06	0.168
	1915	3.02	4.28	-1.25	0.179
	1916	3.44	4.54	-1.10	0.204
	1917	3.37	4.63	-1.27	0.214
	1918	3.11	4.12	-1.01	0.190
	1919	3.27	4.58	-1.31	0.209
	1920	3.23	4.62	-1.39	0.187
	1921	3.27	4.18	-0.92	0.150
	1922	3.17	4.44	-1.28	0.229
	1923	3.04	4.24	-1.20	0.169
	1924	2.91	4.03	-1.11	0.228
	1925	3.12	4.12	-1.00	0.163
	1926	3.43	4.38	-0.95	0.184
	1927	2.84	4.00	-1.16	0.180
	1928	3.22	4.26	-1.03	0.175
	1929	3.12	4.21	-1.08	0.174
	1930	3.27	4.27	-1.01	0.198
	1931	3.21	4.25	-1.05	0.186
	1932	3.02	4.39	-1.38	0.194
	1933	3.32	4.20	-0.89	0.185
	1934	3.51	4.48	-0.97	0.198
	1935	2.83	4.11	-1.28	0.191
	1936	3.09	4.28	-1.20	0.199

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1937	3.28	4.17	-0.90	0.152
	1938	2.77	4.05	-1.28	0.170
	1939	2.94	4.05	-1.11	0.179
	1940	3.01	4.53	-1.52	0.198
	1941	3.05	4.17	-1.13	0.166
	1942	3.05	3.93	-0.88	0.200
	1943	3.13	4.14	-1.02	0.160
	1944	3.17	4.22	-1.05	0.181
	1945	3.46	4.45	-0.99	0.203
	1946	3.22	4.23	-1.02	0.170
	1947	3.38	4.31	-0.92	0.180
	1948	3.05	4.16	-1.11	0.195
	1949	3.21	4.27	-1.06	0.201
	1950	3.25	4.19	-0.94	0.183
	1951	3.33	4.32	-0.99	0.212
	1952	3.08	4.40	-1.32	0.165
	1953	3.33	4.49	-1.16	0.214
	1954	3.36	4.42	-1.06	0.187
	1955	3.53	4.86	-1.33	0.191
	1956	3.36	4.50	-1.14	0.189
	1957	3.58	4.67	-1.09	0.200
	1958	3.19	4.44	-1.25	0.205
	1959	3.06	3.83	-0.77	0.187
	1960	3.54	4.10	-0.56	0.180

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1961	3.21	4.30	-1.09	0.203
	1962	3.19	4.35	-1.16	0.183
	1963	3.30	4.12	-0.82	0.193
	1964	2.94	3.83	-0.88	0.167
	1965	2.95	3.97	-1.01	0.207
	1966	3.00	4.30	-1.30	0.213
	1967	2.92	4.14	-1.22	0.192
	1968	3.21	4.53	-1.31	0.214
	1969	3.20	4.13	-0.93	0.171
	1970	2.93	3.89	-0.96	0.126
	1971	3.16	4.46	-1.29	0.213
	1972	3.11	4.23	-1.12	0.149
	1973	3.36	4.64	-1.28	0.207
	1974	3.21	4.35	-1.15	0.175
	1975	3.26	4.40	-1.14	0.199
	1976	3.16	4.46	-1.30	0.208
	1977	3.26	4.29	-1.03	0.202
	1978	3.23	4.19	-0.96	0.194
	1979	3.35	4.29	-0.94	0.186
	1980	2.96	4.08	-1.11	0.193
	1981	3.16	4.23	-1.07	0.224
	1982	3.23	4.60	-1.36	0.191
	1983	3.43	4.51	-1.08	0.215
	1984	3.29	4.36	-1.07	0.175

**Listing 15.4.4.16 Analysis of MCEQ Subscales by Bootstrapping Techniques - PK Population**

Subscales	Replicate	Group-1 PK			
		THS 2.2 Menthol	mCC	THS 2.2 Menthol - mCC	
		LSmean estimate	LSmean estimate	estimate	SD
Smoking Satisfaction Subscale	1985	2.94	3.92	-0.99	0.188
	1986	3.33	4.25	-0.92	0.176
	1987	3.27	4.21	-0.94	0.215
	1988	3.30	4.45	-1.16	0.183
	1989	3.21	4.35	-1.14	0.238
	1990	3.33	4.17	-0.84	0.199
	1991	3.22	4.36	-1.14	0.215
	1992	3.09	4.05	-0.96	0.199
	1993	2.87	4.02	-1.14	0.200
	1994	3.40	4.43	-1.04	0.164
	1995	2.83	4.09	-1.26	0.178
	1996	3.35	4.62	-1.26	0.217
	1997	3.23	4.37	-1.14	0.193
	1998	3.34	4.68	-1.34	0.189
	1999	3.11	4.36	-1.25	0.190
	2000	2.89	4.25	-1.36	0.208

Note: mCC = menthol conventional cigarettes; THS = Tobacco Heating System.

778498 is the seed used to generate samples from the SAS procedure proc survey select

Note: Estimates are the adjusted least squares means from an ANOVA model.

Path: /cvn/projects/prj/development/000000106326/dev/tables/tl_banlmceq.sas

Program Run: 28OCT14 cvn_ahedge Program Status: FINAL

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