4 Class Model - Marijuana Use, Grouping Variable

No Measurement Invariance

Data Summary, Model Information, and Fit Statistics (EM Algorithm)

Number of subjects in dataset: 2587

Number of subjects in analysis: 2587

Number of measurement items: 7

Response categories per item: 2 2 2 2 2 2 2

Number of groups in the data: 3

Number of latent classes: 4

Rho starting values were randomly generated (seed = 262040658).

No parameter restrictions were specified (freely estimated).

The model converged in 472 iterations.

Maximum number of iterations: 5000

Convergence method: maximum absolute deviation (MAD)

Convergence criterion: 0.000001000

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Fit statistics:

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Log-likelihood: -6483.16

G-squared: 303.36

AIC: 489.36

BIC: 1034.18

CAIC: 1127.18

Adjusted BIC: 738.69

Entropy: 0.94

Degrees of freedom: 290

Test for MCAR

Log-likelihood: -6331.48

G-squared: 309.74

Degrees of freedom: 989

4 Class Model - Marijuana Use, Grouping Variable

No Measurement Invariance

Parameter Estimates

(Standard errors could not be computed; please see the log file for details. )

Gamma estimates (class membership probabilities):

Class: 1 2 3 4

Y1 : 0.0762 0.1390 0.2824 0.5024

Y2 : 0.0991 0.1445 0.2265 0.5299

Y3 : 0.1135 0.1423 0.2168 0.5274

Rho estimates (item response probabilities):

Y1 :

Response category 1:

Class: 1 2 3 4

LIFETIME : 0.3180 1.0000 1.0000 0.1289

PREV\_YR : 0.0000 0.9299 1.0000 0.0000

PREV\_MO : 0.0000 0.3021 0.7440 0.0000

NEXT\_MO : 0.1644 0.3162 0.8443 0.0138

APRV\_TRY : 1.0000 0.7013 1.0000 0.1458

APRV\_OCC : 1.0000 0.1778 0.9924 0.0059

APRV\_REG : 0.3953 0.0102 0.6342 0.0021

Response category 2:

Class: 1 2 3 4

LIFETIME : 0.6820 0.0000 0.0000 0.8711

PREV\_YR : 1.0000 0.0701 0.0000 1.0000

PREV\_MO : 1.0000 0.6979 0.2560 1.0000

NEXT\_MO : 0.8356 0.6838 0.1557 0.9862

APRV\_TRY : 0.0000 0.2987 0.0000 0.8542

APRV\_OCC : 0.0000 0.8222 0.0076 0.9941

APRV\_REG : 0.6047 0.9898 0.3658 0.9979

Y2 :

Response category 1:

Class: 1 2 3 4

LIFETIME : 0.2466 1.0000 1.0000 0.1008

PREV\_YR : 0.0000 0.8171 1.0000 0.0000

PREV\_MO : 0.0000 0.1979 0.7231 0.0000

NEXT\_MO : 0.1843 0.2705 0.8920 0.0112

APRV\_TRY : 0.9416 0.5662 1.0000 0.1807

APRV\_OCC : 1.0000 0.1870 1.0000 0.0085

APRV\_REG : 0.4361 0.0298 0.5879 0.0000

Response category 2:

Class: 1 2 3 4

LIFETIME : 0.7534 0.0000 0.0000 0.8992

PREV\_YR : 1.0000 0.1829 0.0000 1.0000

PREV\_MO : 1.0000 0.8021 0.2769 1.0000

NEXT\_MO : 0.8157 0.7295 0.1080 0.9888

APRV\_TRY : 0.0584 0.4338 0.0000 0.8193

APRV\_OCC : 0.0000 0.8130 0.0000 0.9915

APRV\_REG : 0.5639 0.9702 0.4121 1.0000

4 Class Model - Marijuana Use, Grouping Variable

No Measurement Invariance

Y3 :

Response category 1:

Class: 1 2 3 4

LIFETIME : 0.3768 1.0000 1.0000 0.1326

PREV\_YR : 0.0000 0.9950 1.0000 0.0000

PREV\_MO : 0.0000 0.2941 0.7342 0.0000

NEXT\_MO : 0.2534 0.3211 0.9135 0.0224

APRV\_TRY : 1.0000 0.7231 1.0000 0.1715

APRV\_OCC : 0.9108 0.2562 1.0000 0.0000

APRV\_REG : 0.4127 0.0257 0.5990 0.0024

Response category 2:

Class: 1 2 3 4

LIFETIME : 0.6232 0.0000 0.0000 0.8674

PREV\_YR : 1.0000 0.0050 0.0000 1.0000

PREV\_MO : 1.0000 0.7059 0.2658 1.0000

NEXT\_MO : 0.7466 0.6789 0.0865 0.9776

APRV\_TRY : 0.0000 0.2769 0.0000 0.8285

APRV\_OCC : 0.0892 0.7438 0.0000 1.0000

APRV\_REG : 0.5873 0.9743 0.4010 0.9976

4 Class Model - Marijuana Use, Grouping Variable

Measurement Invariance

Data Summary, Model Information, and Fit Statistics (EM Algorithm)

Number of subjects in dataset: 2587

Number of subjects in analysis: 2587

Number of measurement items: 7

Response categories per item: 2 2 2 2 2 2 2

Number of groups in the data: 3

Number of latent classes: 4

Rho starting values were randomly generated (seed = 262040658).

Rho (measurement) parameters were constrained to be equal across groups.

The model converged in 73 iterations.

Maximum number of iterations: 5000

Convergence method: maximum absolute deviation (MAD)

Convergence criterion: 0.000001000

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Fit statistics:

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Log-likelihood: -6505.68

G-squared: 348.39

AIC: 422.39

BIC: 639.15

CAIC: 676.15

Adjusted BIC: 521.59

Entropy: 0.93

Degrees of freedom: 346

Test for MCAR

Log-likelihood: -6331.48

G-squared: 309.74

Degrees of freedom: 989

4 Class Model - Marijuana Use, Grouping Variable

Measurement Invariance

Parameter Estimates

(Standard errors could not be computed; please see the log file for details. )

Gamma estimates (class membership probabilities):

Class: 1 2 3 4

Y1 : 0.0774 0.1432 0.2804 0.4990

Y2 : 0.1014 0.1352 0.2237 0.5398

Y3 : 0.1044 0.1472 0.2248 0.5236

Rho estimates (item response probabilities):

(All groups)

Response category 1:

Class: 1 2 3 4

LIFETIME : 0.3109 1.0000 1.0000 0.1204

PREV\_YR : 0.0000 0.9047 1.0000 0.0000

PREV\_MO : 0.0000 0.2616 0.7342 0.0000

NEXT\_MO : 0.2020 0.3065 0.8748 0.0158

APRV\_TRY : 0.9802 0.6674 1.0000 0.1658

APRV\_OCC : 0.9815 0.1986 0.9972 0.0054

APRV\_REG : 0.4232 0.0201 0.6082 0.0019

Response category 2:

Class: 1 2 3 4

LIFETIME : 0.6891 0.0000 0.0000 0.8796

PREV\_YR : 1.0000 0.0953 0.0000 1.0000

PREV\_MO : 1.0000 0.7384 0.2658 1.0000

NEXT\_MO : 0.7980 0.6935 0.1252 0.9842

APRV\_TRY : 0.0198 0.3326 0.0000 0.8342

APRV\_OCC : 0.0185 0.8014 0.0028 0.9946

APRV\_REG : 0.5768 0.9799 0.3918 0.9981