

Table 1: Age and educational level and mean AUDIT-score across gender.

	Male	Female	P-Value
	n = 1457	n = 2861	
<b>Age</b>			<.001
	46.3 (11.6)	44.6 (11.2)	
<b>Educational level</b>			<.001
Primary/lower secondary	56 (3.8%)	51 (1.8%)	
Upper secondary	356 (24.4%)	661 (23.1%)	
University/college ≤4 years	474 (32.5%)	988 (34.5%)	
University/college 4+ years	571 (39.2%)	1161 (40.6%)	
<b>Mean AUDIT-score</b>			<.001
	4.8 (3.5)	3.6 (2.7)	

Table 2: Comparison of model fit.

Model	Chi-square	Df	RMSEA	RMSEA lower CI95%	RMSEA upper CI95%	CFI	TLI
Model A: One factor	393.202	35	0.049	0.044	0.053	0.933	0.913
Model B: One factor, correlated residual variance <sup>a</sup>	243.346	34	0.038	0.033	0.042	0.961	0.948
Model C: Two factor	286.132	34	0.041	0.037	0.046	0.953	0.937
Model D: Bi-factor, with specific consequence factor	287.044	28	0.046	0.042	0.051	0.951	0.922
Model E: Three-factor <sup>b</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>a</sup>Allowing for AUDIT-item 2 and 3 to have correlated residual variance.

<sup>b</sup>Model not identified: Covariance matrix of latent variables was not positive definite, and standard errors could not be identified. Problem involving factor 2 and 3.

Table 3: Standardized factor loadings for a 1-factor model and a bi-factor model with one specific factor (item 4-10).

	One-factor	Bi-factor	
	structure	General	Specific (consequence)
AUDIT 1	0.45	0.49	-
AUDIT 2	0.64	0.67	-
AUDIT 3	0.84	0.95	-
AUDIT 4	0.78	0.64	0.49
AUDIT 5	0.77	0.64	0.44
AUDIT 6	0.70	0.65	0.22
AUDIT 7	0.77	0.64	0.53
AUDIT 8	0.81	0.72	0.35
AUDIT 9	0.52	0.44	0.29
AUDIT 10	0.67	0.53	0.45
Mean factor loadings	0.69	0.64	0.39

Table 4: Measurement invariance testing across gender, age groups and educational attainment.

Invariance test	Constraint	CFI	RMSEA	$\Delta CFI$	$\Delta RMSEA$	Verdict <sup>a</sup>
Gender						
	Configural: Baseline	0.960	0.061	-	-	
	Equal thresholds	0.958	0.060	-0.002	-0.001	
	Scalar: Equal thresholds and loadings	0.958	0.057	No change	-0.003	
	Additive <sup>a</sup>			-0.002	-0.004	Invariant
Age						
	Configural: Baseline	0.965	0.059	-	-	
	Equal thresholds	0.962	0.059	-0.003	No change	
	Scalar: Equal thresholds and loadings	0.965	0.054	0.003	-0.005	
	Additive <sup>a</sup>			No change	-0.005	Invariant
Education						
	Configural: Baseline	0.969	0.056	-	-	
	Equal thresholds	0.969	0.054	No change	-0.002	
	Scalar: Equal thresholds and loadings	0.969	0.050	No change	-0.004	
	Additive <sup>a</sup>			No change	-0.006	Invariant

<sup>a</sup>Additive change from baseline.

A verdict of scalar non-invariance was given when  $\Delta CFI > 0.01$  combined with  $\Delta RMSEA > 0.015$  was observed.