

Complex PTSD as an indicator of internalizing spectrum

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INTRODUCTION

ICD-11 complex posttraumatic stress disorder (CPTSD) is described as severe and persistent symptoms of PTSD and disturbances in self-organization (DSO). Validation studies argue that CPTSD and PTSD are empirically distinguishable constructs. We are not convinced in light of limitations in the literature.

1. **Inconsistent results:** 9 out of 18 validation-studies identify the ICD-11 model to be relatively superior to other tested models
2. Relative comparisons are frequently limited to one or two competing models, **thus most models are rarely compared or rejected**
3. **Inconsistent use of model selection criteria** in ITI studies
4. Defining CPTSD as a latent variable while **defining other symptoms as sum-scores** may conceal poor model fit and ensure apparent discriminant validity
5. **Impossible estimates are frequent** and consistently ignored in the commonly preferred operationalization of CPTSD

AIM

To investigate whether symptoms of CPTSD fit the proposed ICD-11 operationalization, or if an internalizing spectrum could explain symptoms

METHOD

124 treatment-seeking veterans at the Military Psychology Department, The Danish Veterans Centre, in the Danish Defense were interviewed with the International Trauma Interview (ITI). The best fitting CFA model(s) were tested in hierarchical models alongside latent factors measuring depression, anxiety, stress and well-being. The tested models are shown under (Figure 1)

Figure 1. Alternative models of the latent structure of ICD-11 PTSD and CPTSD symptoms

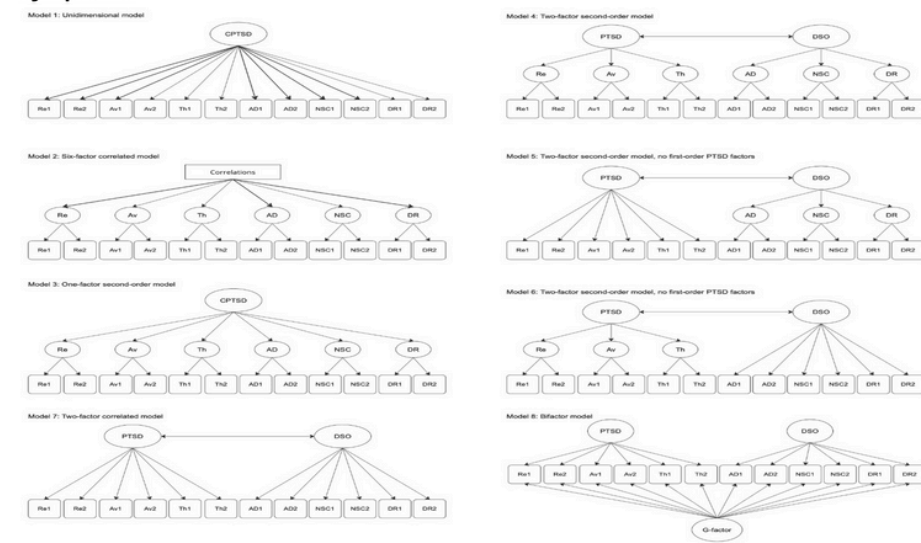
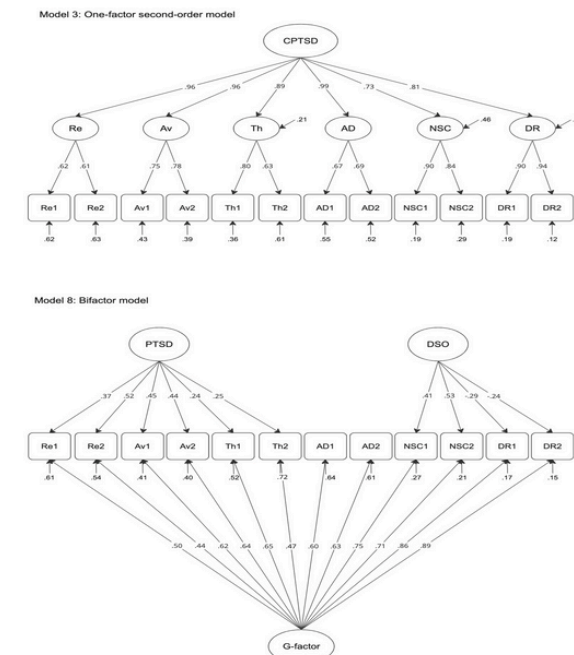


Figure 2. Models showing standardized factor loadings and residual errors for the single-factor higher-order model (M3) and the Bifactor model (M8)



RESULTS

Prevalence: 80 veterans (65%) had CPTSD, 17 (14%) had PTSD and 26 (21%) had no diagnosis.

Severity: Veterans with CPTSD had, on average, higher levels of all symptoms on the ITI, relative to those with PTSD

Model comparison: M3 shows the best fit, M8 fits the data adequately, M4 is rejected due to lacking discriminant validity between PTSD and DSO (table 1)

Internalizing Spectrum: A higher order factor explains relationships between CPTSD symptoms and other internalizing symptoms (Table 2 & figure 3)

Symptoms of CPTSD do not reliably fit the proposed ICD-11 factor structure

A single higher order factor explains the relationship between CPTSD and other internalizing symptoms

A single factor solution may be inevitable in a sample where CPTSD is highly prevalent

DISCUSSION

Discriminant validity as a model selection criterion

DSO collapses if used in a bifactor model (M8)

CPTSD requires the endorsement of all symptom clusters. A unidimensional solution may therefore be inevitable in samples where the CPTSD prevalence is very high

Internalizing spectrum: Why do symptoms of anxiety, depression, stress and well being fit well in the same unidimensional model?

Limitations: veteran sample, no women, cross-sectional data

Table 1. Model fit statistics for alternative models of ICD-11 CPTSD based on the ITT

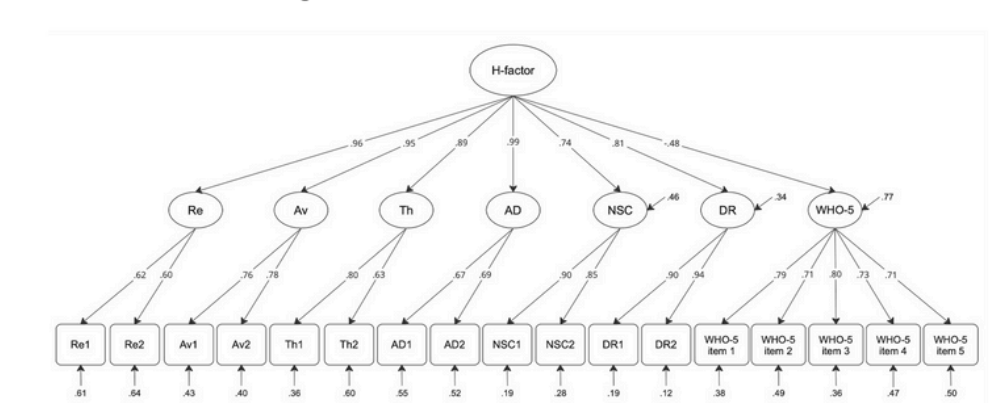
Models	df	Chi-square	P-value	CFI	TLI	RMSEA	AIC	BIC	Heywood case	Lack of discriminant validity
M1	54	165.3	0.000	0.85	0.82	0.13	3397	4098	no	no
M2	39	34.7	0.664	1.00	1.00	0.00	3896	4040	yes	yes
M3	48	52.3	0.319	0.99	0.99	0.03	3896	4014	no	no
M4	47	49.5	0.373	1.00	1.00	0.02	3895	4016	yes	yes
M4*	48	49.6	0.418	1.00	1.00	0.02	3893	4011	no	yes
M5	50	53.7	0.335	1.00	1.00	0.00	3893	4006	yes	yes
M5*	51	53.7	0.371	1.00	1.00	0.02	3891	4001	no	yes
M6	50	137.8	0.000	0.88	0.85	0.12	3977	4090	yes	no
M7	53	142.7	0.000	0.88	0.85	0.12	3976	4080	no	no
M8	42	65.3	0.012	0.97	0.95	0.07	3921	4056	no	no

Table 2. Standardized regression coefficients between the H-factor in Figure 1 and the external variables

	Anxiety	Depression	Stress	Well-being
Beta	0.37*	0.45*	0.51*	-0.49*
CFI	0.94	0.95	0.95	0.99
TLI	0.93	0.94	0.95	0.99
RMSEA	0.05	0.05	0.05	0.03
Chi-square	384	394	373	125
Df	290	288	289	112
P-value	0.00	0.00	0.00	0.19

*p<0.001

Figure 3. A single factor higher-order model explaining the relationship between CPTSD and well-being



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