Trauma-Related Symptomatology in Prison Governors: Evidence for ICD-11 PTSD and Complex PTSD

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Overview

1. Background & Rationale
2. **Study 1:** Confirmatory Factor Analysis (CFA)
3. **Study 2:** Latent Profile Analysis (LPA)
4. **Integration:** What Both Studies Reveal Together
5. Clinical & Occupational Implications
6. Conclusions

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Background – why governors ?

- A unique, under-studied population.

Factor	Relevance
Operational trauma	Exposure to violence, self-harm, assaults, traumatic events
Organizational stress	Shift work, institutional culture, role demands
Vicarious trauma	Repeated exposure to others' trauma
Normative detachment	Emotional distance is trained and reinforced

- Most research focuses on military, veterans, or civilian trauma survivors.

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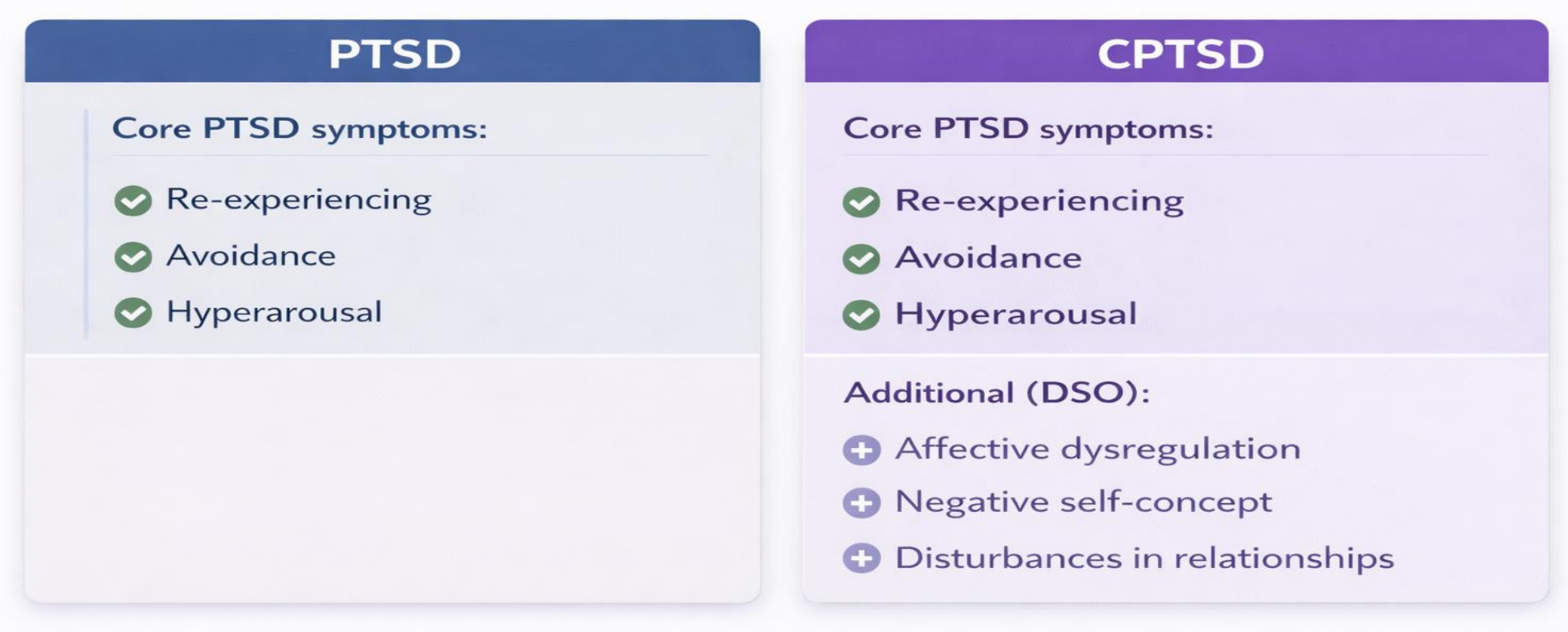
ICD-11 PTSD vs. CPTSD



CPTSD is not simply “severe PTSD” – it is a qualitatively distinct disorder with broader impairment

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Research gaps

Prior to our research, key questions remained:

1) Does the ICD-11 PTSD/CPTSD model apply to prison governors?
   - most validation studies used general population, veterans, refugee

2) What symptom patterns emerge among prison governors exposed to trauma?

Study overview

Study	Method	Purpose
Study 1	Confirmatory Factor Analysis (CFA)	Test structural validity of ITQ; compare dimensional vs. binary scoring
Study 2	Latent Profile Analysis (LPA)	Identify subgroups of prison staff based on symptom patterns; test external validity

Sample: Prison governors exposed to trauma (N = 409)
Measure: International Trauma Questionnaire (ITQ)

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Prison Governors Association

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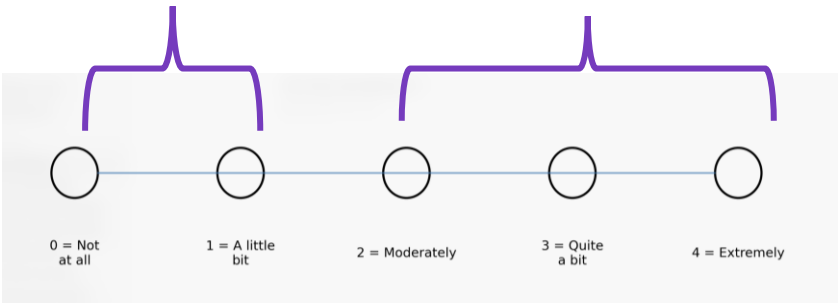
Study 1: Measurement

Dhingra, K., Mitchell, S. M., Davies, B., & Taylor, P. J. (2021). Examining the factor structure of ICD-11 posttraumatic stress disorder (PTSD) and complex-PTSD among prison staff exposed to potentially traumatic experiences. *Psychiatry Research*, *303*, 114085.

Research questions

- **What is the factor structure of the ITQ in prison governors?**
  - Tested 32 models
- **Does the structure differ according to:**
  - ITQ item response coding (dimensional vs. binary)
  - Estimator estimator used
  - Criteria used to select the best-fitting model.



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What did we find?

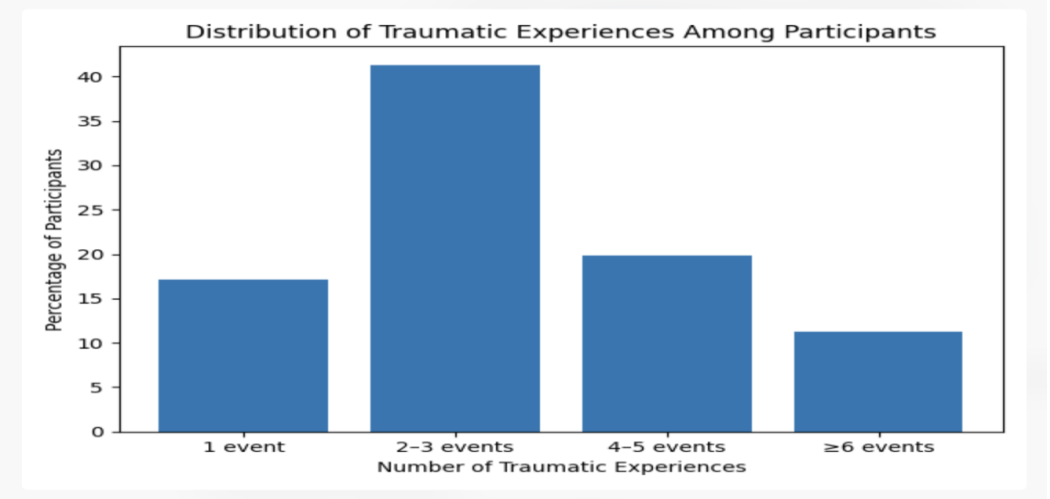
1. High trauma exposure

- Governors reported:
  - Multiple traumatic events (*M* = 2.90 experienced, *M* = 4.91 witnessed)

LEC-5 Item	Happened to Me *n* (%)	Witnessed It *n* (%)
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)	50 (12.2)	42 (10.3)
2. Fire or explosion	107 (26.2)	148 (36.2)
3. Transportation accident	249 (60.9)	118 (28.9)
4. Serious accident at work, home, or during recreational activity	44 (10.8)	173 (42.3)
5. Exposure to toxic substances	42 (10.3)	25 (6.1)
6. Physical assault	269 (65.8)	192 (46.9)
7. Assault with a weapon	119 (29.1)	181 (44.3)
8. Sexual assault	22 (5.4)	21 (5.1)
9. Other unwanted or uncomfortable sexual experience	71 (17.4)	40 (9.8)
10. Combat or exposure to a war-zone	55 (13.4)	11 (2.7)
11. Captivity	8 (2)	71 (17.4)
12. Life-threatening illness or injury	50 (12.2)	202 (49.4)
13. Severe human suffering	12 (2.9)	143 (35)
14. Sudden violent death	27 (6.6)	230 (56.2)
15. Sudden accidental death	26 (6.4)	170 (41.6)
16. Serious injury, harm, or death you caused to someone else	33 (8.1)	242 (59.2)
17. Any other very stressful event or experience	163 (39.9)	141 (34.5)

2. Low levels of PTSD & CPTSD

- Despite high exposure:
  - PTSD & CPTSD symptoms were relatively low



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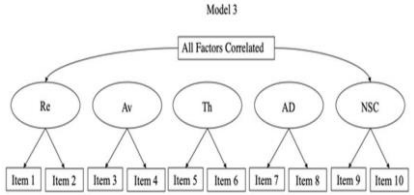
Dimensional results (5-point scale)

Model	Fit	Outcome
6-factor (full theorized)	Suboptimal	DR items failed to cohere
5-factor (PTSD + AD + NSC)	**Best fit**	DR items removed



What this means:

- When using severity ratings, the relational domain (DR) did not cohere with other DSO symptoms
- The best structure was 3 PTSD clusters + AD + NSC as separate factors

Implication: the relational domain might be problematic in this population

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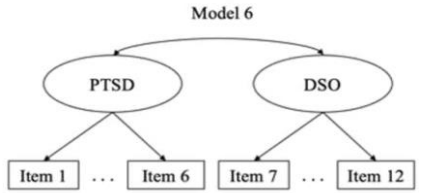
Binary results (presence/absence)

Model	Fit	Outcome
2-factor (PTSD + DSO)	**Best fit**	All items retained, including DR
6-factor	Acceptable but not superior	



What this means:

- When using binary scoring (as intended clinically), the full DSO construct, including relational disturbances, cohered as a single factor
- The relational domain is valid when assessed categorically

Implication:

- Measurement method significantly affects structural conclusions

Conclusion from study 1

Key Findings:

Scoring Method	Best-Fit Model	DR Items
Dimensional (5-point)	5-factor (PTSD + AD + NSC)	Removed
Binary (presence/absence)	2-factor (PTSD + DSO)	Retained

- The relational domain of DSO appears problematic at the dimensional level
- However, binary scoring supports the full ICD-11 structure

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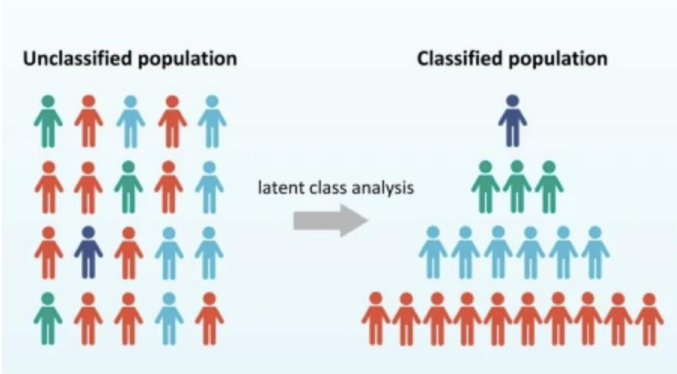
Study 2: Symptom profiles

Dhingra, K., Boyda, D., Mitchell, S. M., & Taylor, P. J. (2025). ICD-11 posttraumatic stress disorder (PTSD) and complex PTSD in a sample of prison staff: A latent profile approach. *Journal of Traumatic Stress*, *38*(2), 305-316.

Research questions

- What distinct subgroups (profiles) of prison governors emerge based on ITQ symptom patterns?
- Do these profiles align with the ICD-11 distinction between PTSD and CPTSD?
- Do the profiles differ on external variables?
  - Cumulative trauma exposure (LEC-5)
  - Self-reported health
  - Demographics
  - Posttraumatic maladaptive beliefs



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LPA methods

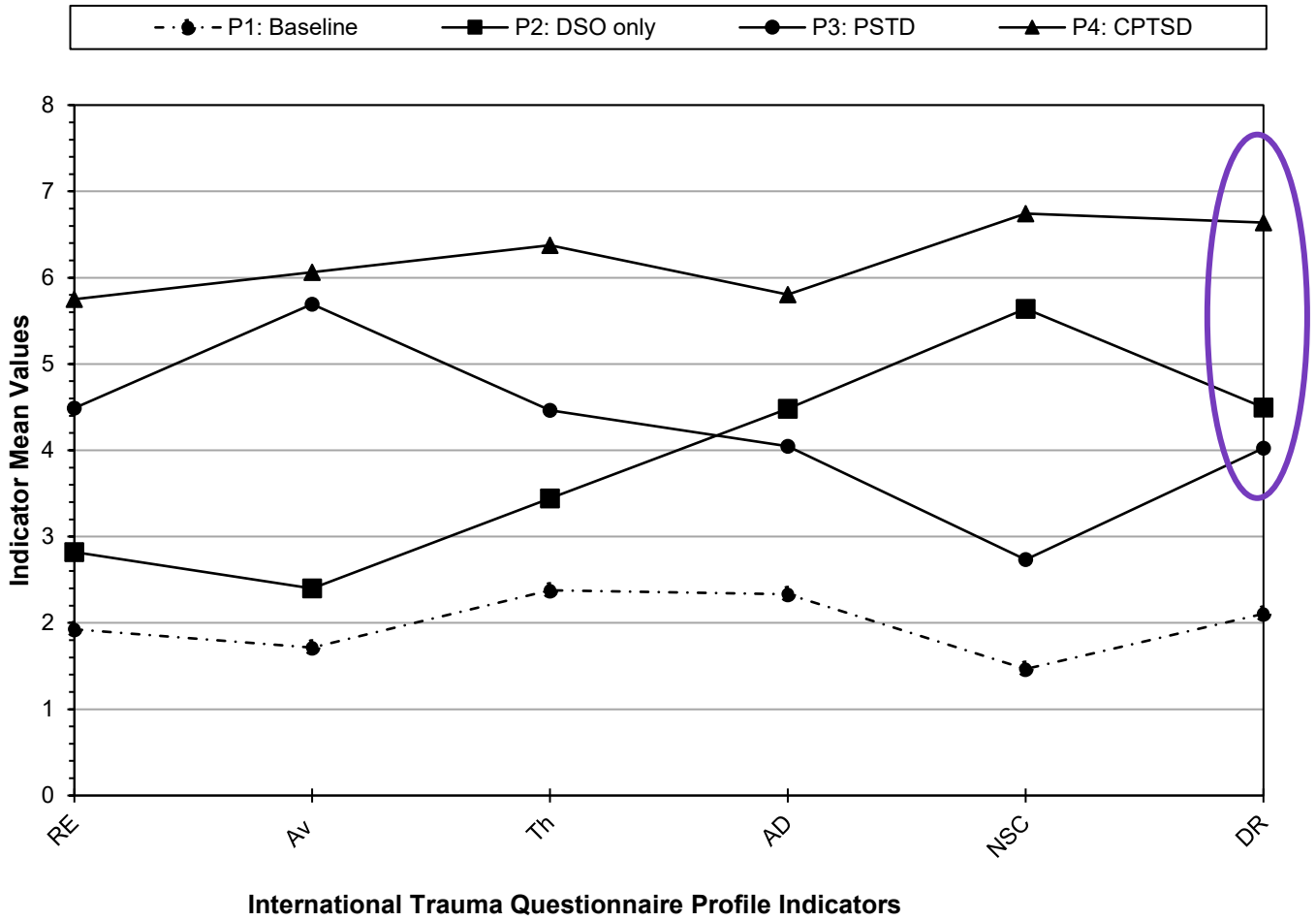
- **Participants:** *N* = 385 prison governors
- **Indicators:** 6 ITQ domain scores (dimensional)
- **Analysis:**
  - Latent profile analysis (person-centered)
  - Tested 1- through to 5-profile solutions
  - Determined optimal number using fit indices
- **External variables:**
  - Life Events Checklist (LEC-5) – cumulative trauma count
  - Single-item self-rated health
  - Posttraumatic Maladaptive Beliefs scale
  - Age

Findings

4 distinct profiles emerged:

- 66.3% low symptoms
- 11.0% DSO only
- 14.4% PTSD
- 8.4% CPTSD

Critical finding: The relational domain (DR) defines the CPTSD class but is also elevated in DSO-only



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Findings

Profile	Cumulative Trauma (OR)	Poor Health (OR)	Maladaptive Beliefs	Age
Low	Reference	Reference	Lowest	–
PTSD	n.s.	n.s.	Moderate	**Younger** (OR = 0.91)
DSO-only	**1.26***	**1.64***	High	–
CPTSD	**1.42***	**2.84***	**Highest**	–

Interpretation:

- CPTSD class has highest trauma burden, poorest health, most maladaptive beliefs
- DSO-only class also shows significant impairment despite low PTSD
- PTSD class distinguished by younger age – clinically intuitive

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LPA summary

Key Findings:

- **Four distinct profiles emerged:**
    - Low symptoms (66.3%)
    - DSO-only (11.0%)
    - PTSD (14.4%)
    - CPTSD (8.4%)

2) The PTSD class shows a discordant pattern: high AD with low NSC

3) External validity confirmed clinical significance:

- CPTSD: worst outcomes
- DSO-only: significant impairment without PTSD
- PTSD: younger age

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Integration

What this tells us:

Question	Answer
Is CPTSD valid in prison staff?	**Yes.** A distinct CPTSD class (8.4%) emerged with high trauma, poor health, and maladaptive beliefs.
Is the relational domain (DR) valid?	**Yes.** DR is elevated in the CPTSD class and in the DSO-only class. It is clinically meaningful.
Does measurement method matter?	**Yes.** Dimensional vs. binary scoring yield different structural conclusions.
Do CFA and LPA give the same answer?	**No, but they are complementary.** CFA examines structure at the variable level; LPA examines structure at the person level. Both are needed for a complete picture.

Clinical and occupational implications

Group	Prevalence	Implication
PTSD class	14.4%	Younger staff may benefit from early trauma-focused intervention
DSO-only class	11.0%	Requires interventions targeting affect regulation and self-concept – even without PTSD
CPTSD class	8.4%	Needs phase-based, trauma-informed care addressing relational functioning, affect regulation, and self-concept
Low symptoms	66.3%	Majority resilient, but monitoring needed given ongoing occupational trauma exposure

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Organizational takeaway: Trauma-informed approaches should extend to staff, not just prisoners.

Methodological considerations

This programme of research demonstrates:

1. **Multi-method approaches are essential**
   - Variable-centered (CFA) and person-centered (LPA) provide complementary insights
   - Relying on either alone would have produced an incomplete picture

2. **Measurement decisions affect conclusions**
- Dimensional vs. binary scoring yielded different factor structures

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Future Directions

1) **Longitudinal studies** – do profiles change over time? What predicts transition between profiles
2) **Replication** – in prison officers
3) **Qualitative research** – how do prison staff understand and experience relational disturbances? Does normative detachment mask clinical symptoms?
4) **Interventional research** – Do PTSD, DSO-only, and CPTSD groups respond differently treatment?
5) **Cross-cultural validation** – does the DR domain function differently across cultural and occupational contexts?

Key take-home messages

Key take-home messages:

1. **ICD-11 PTSD and CPTSD are valid in prison staff** – distinct classes emerged with meaningful external correlates
2. **A DSO-only class exists** – 11% of staff experience significant DSO symptoms without PTSD
3. **The relational domain of DSO is clinically important** – it is elevated in the CPTSD and DSO-only classes
4. **Measurement method matters** – dimensional vs. binary scoring yield different structural conclusions
5. **Multi-method approaches are essential** – CFA and LPA together provide a more complete picture than either alone

Acknowledgements

Participants

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- Dr Bill Davies – Leeds Beckett University, UK
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Interested in advancing our understanding of occupational trauma in prison staff?

Get in touch to discuss collaboration opportunities

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Thank you

Any questions?