

# The Psychometric Properties of a Modified Version of the PTSD Checklist – Civilian Version (PCL-C)

Jennifer A. Stapleton<sup>1</sup>, Gordon J. G. Asmundson<sup>1</sup>, R. Nicholas Carleton<sup>1</sup>, Ilhyeok Park<sup>2</sup>, & Steven Taylor<sup>3</sup>  
<sup>1</sup>University of Regina, <sup>2</sup>Seoul National University, & <sup>3</sup>University of British Columbia

## Introduction

- The fourth edition of the DSM (APA, 1994) classifies Posttraumatic Stress Disorder (PTSD) as an anxiety disorder that develops in response to a perceived traumatic event with three distinct symptom clusters of reexperiencing, avoidance and numbing, and hyperarousal
- In a recent literature review, Asmundson, Stapleton, and Taylor (2004) identified four lines of evidence that supported the differentiation of avoidance and numbing symptoms and made suggestions for five new avoidance items
- While the majority of evidence comes from factor analyses, the available data also suggests that:
  - different treatment modalities have differential effects on reducing avoidance but not numbing
  - patients with more severe pre-treatment numbing have poorer treatment outcomes
  - avoidance and numbing have different patterns of correlation with depression
  - they have different correlations with physiological indices of attention
- The purpose of this investigation was to assess the new avoidance items proposed by Asmundson et al. (2004) and to determine how these items contribute to a 4-factor conceptualization of PTSD

## Method

- Participants were a healthy sample of 284 university students
  - 216 women (*Mean age* = 22.9 years; *SD* = 5.5)
  - 68 men (*Mean age* = 23.5 years; *SD* = 4.5)
- Participants were asked to complete a modified version of the PCL-C with the following modifications:
  - Original Items:
    - Avoiding *thinking about or talking about* a stressful experience from the past or avoiding *having feelings* related to it?
    - Avoiding *activities or situations* because *they reminded you* of a stressful experience from the past?
    - Feeling *distant or cut off* from other people?
  - Revised Items:
    - Avoiding *having feelings* about a stressful experience from the past?
    - Not wanting to *think about* a stressful experience from the past?
    - Not wanting to *talk about* a stressful experience from the past?
    - Avoiding *situations* because *they reminded you* of a stressful experience from the past?
    - Avoiding certain *people* because *they reminded you* of a stressful experience from the past?
    - Feeling *isolated or distant and cut off* from friends?
    - Feeling *isolated or distant and cut off* from family?

## Results

- The CFA testing a three factor structure (Figure 1) resulted in some acceptable fit indices
  - $\chi^2/df$  = 4.30
  - CFI = .94
  - RMSEA = .12
    - 90% confidence intervals of .11 and .13
  - SRMR = .07
  - ECVI = 3.96
    - 90% confidence intervals of 3.62 and 4.32
- However, a CFA testing the proposed 4-factor structure (Figure 2) resulted in improved fit indices
  - $\chi^2/df$  = 3.14
  - CFI = .96
  - RMSEA = .085
    - 90% confidence intervals of .078 and .093
  - SRMR = .06
  - ECVI = 2.55
    - 90% confidence intervals of 2.30 and 2.83
- The significant  $\chi^2$  difference ( $p < .01$ ), the RMSEA, and the ECVI indicated that the 4-factor model provided a significantly improved fit for the data
- Reliability analysis results found that the modified measure had good reliability (Cronbach's  $\alpha$  = 0.94)

## Discussion

- Results from the CFA support the argument that a 4-factor conceptualization of PTSD may better define the disorder as suggested by Asmundson et al. (2004)
- The new items added to the PCL-C proved to be psychometrically sound while adding value to this conceptualization
- Support for a distinction between avoidance and numbing offers possible advances in understanding and treating PTSD, while providing further empirical evidence for revising the current diagnostic criteria
- Given this new conceptualization, treatment may be better refined (e.g., more targeted techniques) to help those with differential numbing or avoidance symptoms
- Future research is needed to further validate these newly proposed items by investigating their relationship to know PTSD correlates and administering them to a wider population

Table 1a. PCL-C Items

Reexperiencing	M	SD	CITC	$\alpha^*$
1. Repeated, disturbing <i>memories, thoughts, or images</i> of a stressful experience from the past?	2.21	1.11	0.74	0.94
2. Repeated, disturbing <i>dreams</i> of a stressful experience from the past?	1.84	1.04	0.61	0.94
3. Suddenly <i>acting or feeling</i> as if a stressful experience from the past were happening again (as if you were reliving it)?	1.86	1.03	0.71	0.94
4. Feeling <i>very upset</i> when something reminded you of a stressful experience from the past?	2.25	1.14	0.73	0.94
5. Having <i>physical reactions</i> when something reminded you of a stressful experience from the past?	1.79	1.02	0.63	0.94
Numbing	M	SD	CITC	$\alpha^*$
6. Trouble <i>remembering important parts</i> of a stressful experience from the past?	1.63	0.94	0.58	0.94
7. <i>Loss of interest</i> in activities that you used to enjoy?	1.72	0.98	0.56	0.94
8. Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you?	1.67	1.03	0.60	0.94
9. Feeling as if your <i>future somehow</i> will be <i>cut short</i> ?	1.58	0.91	0.54	0.94
10. Feeling <i>isolated or distant and cut off</i> from friends?	1.93	1.09	0.61	0.94
11. Feeling <i>isolated or distant and cut off</i> from family?	1.66	0.91	0.54	0.94

Table 1b. PCL-C Items

Reexperiencing	M	SD	CITC	$\alpha^*$
12. Trouble <i>falling or staying asleep</i> ?	2.24	1.17	0.50	0.94
13. Feeling <i>irritable</i> or having <i>angry outbursts</i> ?	2.20	1.06	0.60	0.94
14. Having <i>difficulty concentrating</i> ?	2.23	1.05	0.69	0.94
15. Being "superalert" or watchful or on guard?	1.91	1.01	0.49	0.94
16. Feeling <i>jumpy</i> or easily startled?	1.82	0.95	0.53	0.94
Avoidance	M	SD	CITC	$\alpha^*$
17. Not wanting to <i>think about</i> a stressful experience from the past?	2.24	1.11	0.69	0.94
18. Avoiding certain <i>activities or places</i> because <i>they reminded you</i> of a stressful experience from the past?	1.83	1.06	0.73	0.94
19. Not wanting to <i>talk about</i> a stressful experience from the past?	1.98	1.15	0.68	0.94
20. Avoiding <i>having feelings</i> about a stressful experience from the past?	1.88	1.01	0.73	0.94
21. Avoiding certain <i>people</i> because <i>they reminded you</i> of a stressful experience from the past?	1.98	1.13	0.66	0.94
22. Avoiding <i>situations</i> because <i>they reminded you</i> of a stressful experience from the past?	1.81	1.07	0.72	0.94

CITC = Corrected Item Total Correlations  
 $\alpha^*$  Scale  $\alpha$  if item deleted

Figure 1. Current DSM-IV-TR 3-Factor Conceptualization of PTSD

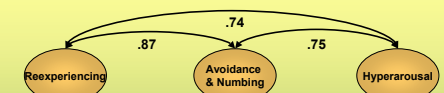


Figure 2. Proposed 4-Factor Conceptualization of PTSD

