

How PTSD Symptom Severity Correlates with Risky Behavior Engagement

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Introduction

- Posttraumatic stress disorder (PTSD) is a debilitating psychiatric disorder that develops after traumatic experiences (North et al., 2016).
- PTSD symptoms include intrusion symptoms, avoidance of trauma-related triggers, negative alterations in cognition and mood, and alterations in arousal and reactivity (American Psychiatric Association [APA], 2013).
- The prevalence of PTSD can result in a variety of maladaptive behaviors among trauma-exposed individuals. Previous research has shown that reexperiencing PTSD can lead to increased risky behavior such as suicide attempts (Armour et al., 2020)
- We examined the correlation between the severity of PTSD with the level of engagement in risky behaviors to determine if a higher engagement in more risky behaviors was associated with the severity of PTSD. We hypothesize that the severity of PTSD symptoms increases engagement in risky behaviors.

Methods

Participants

- Age: 18 to 65 years old $\rightarrow M = 38.93$ years
- Firefighters working in the DFW Metroplex
- 149 Participants: 141 = 94.6% Male
- Race/Ethnicity (could endorse multiple responses): White (83.2%), Hispanic (13%), Black or African American(10%), Asian (4%), American Indian or Alaskan Native (5%), Native Hawaiian or Pacific Islander (4%)

Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)

Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5) is a 20-item self-report questionnaire to measure the severity of PTSD symptoms. Participants indicated their symptom experience using a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely). The questionnaire has 4 subscales: intrusions cluster (items 1-5), avoidance cluster (items 6-7), negative alterations in cognition and mood cluster (items 8-14), and arousal and reactivity cluster (items 15-20) to determine the DSM-5 symptom severity.

Posttrauma Risky Behaviors Questionnaire (PRBQ)

The Posttrauma Risky Behaviors Questionnaire (PRBQ) is a 16-item questionnaire that determines the extent of the participant's risky behavior. Participants indicated their experience of each symptom using a 5-point Likert scale ranging from 0 (never) to 4 (very frequently). The final two items measure functional impairment and the association between the RSDBs' frequency and the onset of the worst trauma, so they were excluded.

Procedure

- T-test of each risky behavior score by PTSD group
- Equal variances cannot be assumed due to Levene's test being violated
- Figure to display correlation of total PTSD scores and PBRQ scores

Table 1 T-tests comparing Risky Behavior Scores across PTSD groups

Risky Behaviors	GP Mean (SD)	PTSD Mean (SD)	t	Two-sided p-value
1. Problematic alcohol use	0.76 (1.08)	1.50 (1.23)	3.20	0.00
2. Problematic drug use	0.03 (0.21)	0.21 (0.83)	1.20	0.26*
3. Problematic gambling	0.13 (0.42)	0.21 (0.50)	0.90	0.36
4. Problematic technology use	1.21 (1.13)	2.00 (1.22)	3.31	0.00
5. Impulsive or risky sexual behaviors	0.15 (0.47)	0.61 (1.29)	1.84	0.08*
6. Problematic eating behavior(s)	0.68 (0.97)	1.32 (1.36)	2.38	0.02*
7. Illegal behaviors	0.00 (0.00)	0.04 (0.19)	1.00	0.33*
8. Reckless spending	0.41 (0.74)	1.21 (1.23)	3.35	0.00*
9. Physically aggressive behavior(s)	0.03 (0.17)	0.43 (0.79)	2.65	0.01*
10. Verbally aggressive behavior(s)	0.48 (0.73)	1.25 (1.11)	3.49	0.00*
11. Property destruction	0.06 (0.24)	0.07 (0.26)	0.19	0.85
12. Reckless driving	0.34 (0.62)	0.64 (0.95)	1.62	0.12*
13. Deliberately injuring yourself without intending to kill	0.04 (0.23)	0.07 (0.26)	0.67	0.50
14. Suicidal behaviors	0.02 (0.12)	0.14 (0.59)	1.14	0.27*

GP indicates "General Population" which is those without PTSD
Welch's t-test was used for questions with unequal variances and indicated by *

Results

- The PTSD group had higher average risky behavior scores on every item compared to the non-PTSD group.
- All of the following risky behaviors were significantly higher in the PTSD group compared to the non-PTSD group: problematic alcohol use, problematic technology use, problematic eating behaviors, reckless spending, physically aggressive behavior, and verbally aggressive behavior.
- Total risky behavior scores and PTSD has a positive linear relationship in both groups.

Discussion

- The results of this study support the hypothesis that severity of PTSD symptoms potentially increase engagement in risky behaviors.
- Our findings are similar to those of Armour et al. (2020) who found that the severity of PTSD symptoms are directly linked to risky behavior engagement.
- The emotion regulation theory suggests that, in response to a life-threatening event, an individual may engage in risky behaviors to improve mood and reduce negative emotions (Ben-Zur & Zeidner, 2009).
- PTSD has been commonly associated with increased impulsivity, which potentially contributes to risky behaviors (Morris et al. 2020).

Limitations/Future Directions

- Firefighters are not completely representative of the whole population since they are first responders and exposed to more stressful situations.
- Cross-sectional design and reliance on self-reported data
- Clinical Implications: Tailored interventions for individuals with PTSD who endorse risky behaviors by targeting PTSD symptoms and risky behaviors in treatment.
- Longitudinal research is needed to explore potential mechanisms underlying the relationship between PTSD symptoms and risky behaviors.

References

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Figure 1 Correlation between PTSD and Risky Behaviors by PTSD group

