

EXPLORING ASSOCIATIONS BETWEEN PTSD SYMPTOM CLUSTERS AND SUICIDAL IDEATION

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Introduction

- Posttraumatic stress disorder (PTSD) is a trauma and stressor-related disorder that features the development of characteristic posttraumatic stress symptoms (PTSS) following exposure to a traumatic event. PTSS are grouped into four clusters, namely intrusion (INT), avoidance (AVO), negative cognitions/mood (NCM), and hyperarousal (HYP), in the diagnosis of PTSD¹.
- PTSD is associated with a higher risk for suicidal ideation (SI)², a known risk factor for suicide³.
- While the relationship between PTSD and SI is well known, little is known about how SI is uniquely related to the PTSD symptom clusters.
- Using an ecological momentary assessment⁴ methodology, this study conducted preliminary analyses to examine the associations between overall PTSD symptoms (i.e., PTSS) and the four PTSD symptom clusters and SI among trauma-exposed military Service members (SMs) with and without PTSD.

Methods

Participants: Current and former U.S. military SMs ($N = 156$) were recruited from a military medical center as part of a larger study of PTSD. The majority of SMs were male (60.3%), White (64.1%), married (65.4%), had a Bachelor's degree or higher (55.8%), and mean age was 41.7 ($SD = 13.7$). Those with PTSD did not differ from those without PTSD on demographics, except those with PTSD were younger (39.2 vs. 44.3).

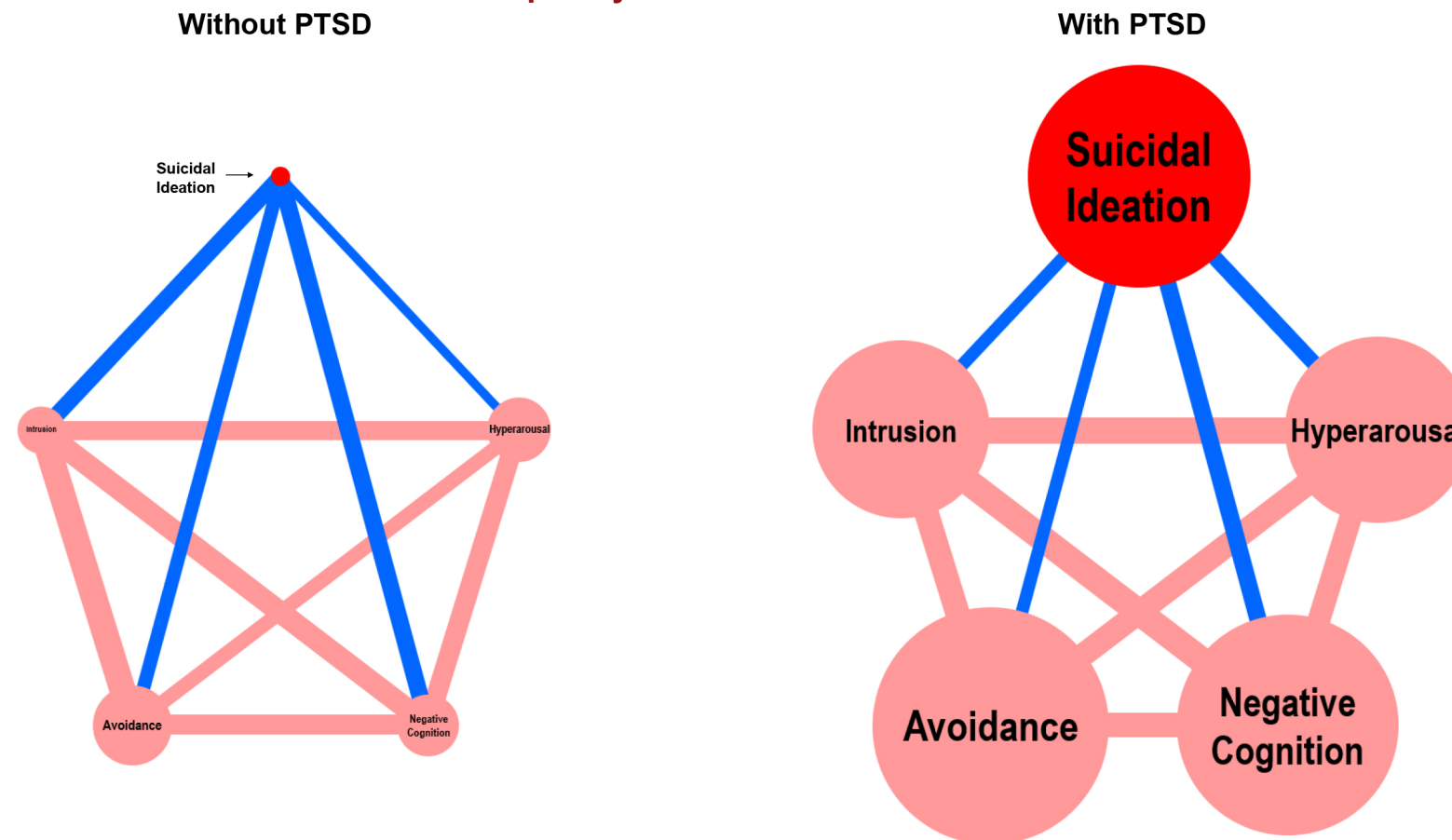
Procedure and Measures: Participants completed four symptom assessments per day for 15 consecutive days; $N = 7,491$ assessments were included in data analyses.

- **Probable PTSD** was assessed with the 20-item PCL-5⁵ after enrollment. Endorsement of PTSD required at least one qualifying traumatic event, meeting DSM-5 criteria B-E¹, and a symptom severity score ≥ 38 . In total, 78 (50.0%) had PTSD and 78 (50.0%) did not have PTSD.
- **PTSS** were assessed with 18 (non-sleep) PCL-5⁵ items with a modified response scale: 0 (*not at all*) to 10 (*extremely*).
- **Suicidal Ideation** was assessed with one item from the PHQ-9: *Thoughts that you would be better off dead or hurting yourself in some way*⁶ with a modified response scale: 0 (*not at all*) to 10 (*extremely*).

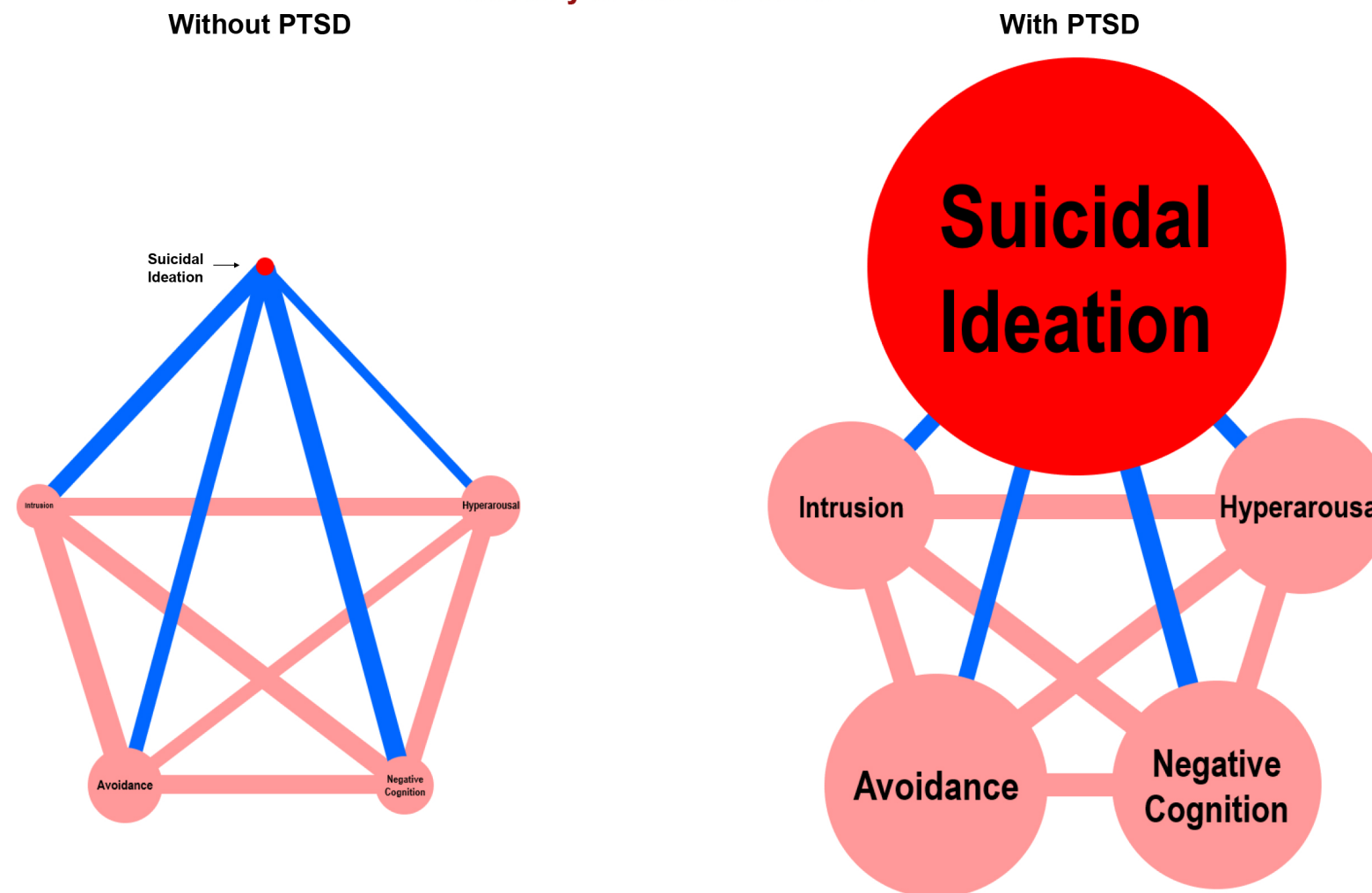
Analyses: For each person, we created an overall and a daily measure of frequency of endorsing SI (FSI; percent of surveys; range 0%-100%) and mean SI intensity (MSII; range 0-10). Descriptive statistics and correlation analyses were conducted to examine the mean levels and associations between SI and PTSD symptoms. Separate analyses were conducted for SMs with and without PTSD.

Results

Frequency of Suicidal Ideation



Intensity of Suicidal Ideation



- Across groups, FSI and MSII were significantly and positively correlated with overall PTSS and the four PTSD symptom clusters.
- SMs with PTSD reported higher mean levels of FSI (0.23 vs. 0.02), MSII (1.01 vs. 0.04), and overall PTSS (3.75 vs. 1.13).
- Among SMs without PTSD, SI showed moderate correlations with overall PTSS (FSI: $r = .52$; MSII: $r = .59$). Both FSI and MSII correlations with PTSD symptom clusters followed the same pattern (highest to lowest):
FSI: NCM (.52) > INT (.49) > AVO (.42) > HYP (.28)
MSII: NCM (.62) > INT (.55) > AVO (.46) > HYP (.29)
- Among SMs with PTSD, SI showed correlations with overall PTSS similar to those without PTSD (FSI: $r = .49$; MSII: $r = .59$). FSI and MSII correlations with PTSD symptom clusters followed the same pattern (highest to lowest), but the pattern was different than those without PTSD:
FSI: NCM (.51) > HYP (.43) > AVO (.37) > INT (.36)
MSII: NCM (.60) > HYP (.48) > AVO (.46) > INT (.45)

Conclusions

- SI frequency and intensity are moderately positively associated with overall PTSD symptoms for those with PTSD and those without PTSD.
- The frequency and intensity are higher among individuals with PTSD, but the association between SI and PTSS does not differ by having PTSD or not.
- However, associations between SI and PTSD symptom clusters differ by PTSD group with hyperarousal being more highly associated with SI frequency and intensity among those with PTSD.
- Understanding the relationship between SI and PTSD is important for understanding the neurobiology of both conditions and may inform interventions and clinical care.

References

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Figures: Circle and text size are proportional to the mean level, except for the Without PTSD “Suicidal Ideation” text outside the circle, which is larger than the actual proportion. Lines show significant associations and line thickness is proportional to the correlation coefficient.