Beyond PTSD: Understanding the Role of Moral Injury in Suicidal Ideation and Behavior

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Introduction

- Suicide is a significant public health concern.
- We explored the association between moral injury (MI) and suicide behavior (SB), beyond PTSD, in treatment seeking military and veterans.

Methods

- Service members (n=471) completed the PCL-5, Moral Injury and Distress Scale, and the Suicide Behaviors Questionnaire-Revised.
- Hierarchical regression analysis was used to explore the associations between MI and SB.
- Moderation analysis was used to investigate the role of MI in the association between PTSD and SB.
- ANOVA and MANOVA were used to compare groups with no history of potentially morally injurious event (PMIE), subclinical MI symptoms, and clinical symptoms in their SB.
- Logistic regression was used to determine the odds of having low versus high suicide risk based on MI group assignment.

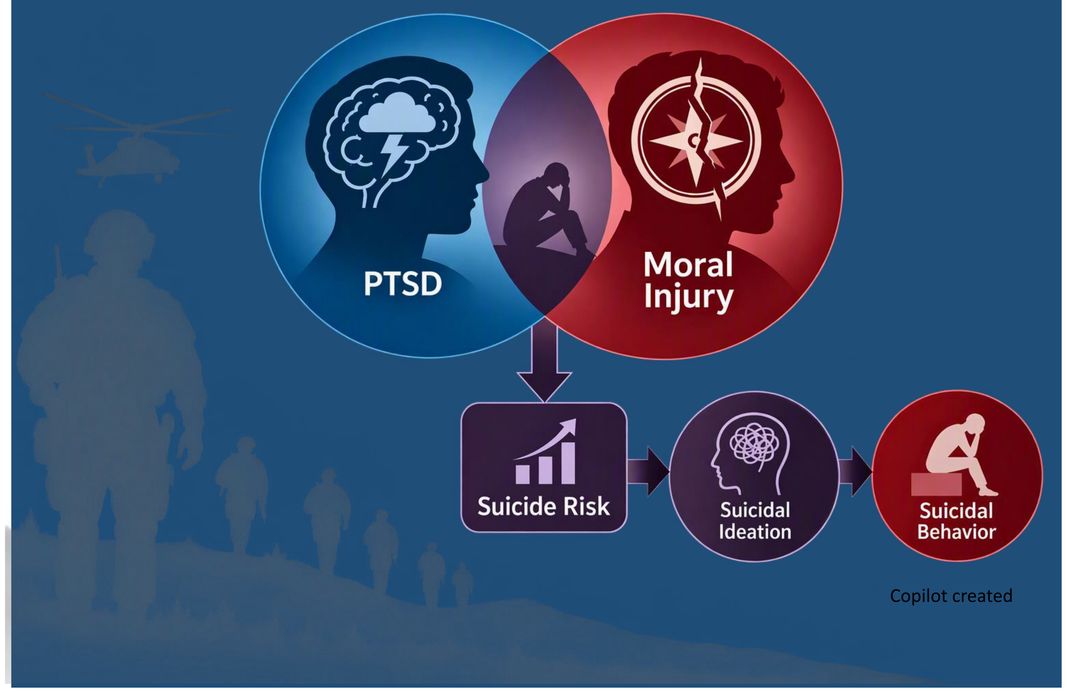
Results

- MI significantly improved the prediction of lifetime SB (ΔR^2=.098, F(1, 374)=41.35, p<.001), suicide ideation in the past year (ΔR^2=.061, F(1, 374)=26.03, p<.001), likelihood of future SB(ΔR^2=.096, F(1, 374)=41.38, p<.001), and total SB (ΔR^2=.120, F(1, 374)=54.00, p<.001) above PTSD alone.

Table 1. Demographic Table (N = 471)

Variable		N	Percentage
Sex at Birth	Female	141	30.19%
	Male	326	69.81%
Race	White	275	58.39%
	Black	115	24.42%
	Mean	**SD**	**Range**
Age	42.33	9.60	19 – 69
Moral Injury	35.75	17.15	0 – 72
PTSD	48.46	17.17	0 – 80
Lifetime Suicide Behavior	2.25	1.10	1 – 4
Suicide Ideation Past Year	2.01	1.53	1 – 5
Threat of Suicide Attempt	1.38	0.66	1 – 3
Likelihood of Future Suicide Behavior	0.85	1.24	0 – 6
Total Suicide Behavior	6.49	3.55	3 – 17

Moral injury explains unique incremental variance in **suicide behavior and lifetime risk** above and beyond current **PTSD** symptoms.



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Results

- MI×PTSD interaction was not significant.
- Comparing no history of PMIE, subclinical MI symptoms, and clinical MI symptoms revealed significant differences in suicide behavior (F(2, 468)=33.30, p<001).
- Individuals with history of PMIE and clinical symptoms scored significantly higher on suicide behavior than those with subclinical symptoms (p<.001) or no PMIE (p<.001).
- Significant group differences were present for lifetime suicide behavior (F(2, 468)=13.89, p<.001), suicide ideation in the past year (F(2, 468)=26.57, p<.001), threat of suicide attempt (F(2, 468)=9.69, p<.001), and likelihood of future suicide behavior (F(2, 468) =19.14, p<.001).
- The clinical MI group scored significantly higher than the other two groups on all outcomes (p<.001).
- Logistic regression indicated that clinical MI had 2.2- and 2.8-times higher odds of being in the high-risk suicide group than the other two groups (p<.001).

Discussion

- Moral injury is a stronger predictor of lifetime suicide behavior, suicide ideation in the past year, threat of suicide attempt, and likelihood of future suicide behavior than PTSD.
- Moral injury related symptoms are associated with higher risk of suicide behavior and lifetime risk, regardless of type of exposure.
- These findings highlights the importance of moral injury in suicide behavior and lifetime risk of suicide among veterans and military personnel.
- Additional research is needed to dig deeper.