Mental Health Among Service Members Who Experienced Military Sexual Trauma: Exploring the Roles of Individual and Social Factors

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Military sexual trauma (MST) is sexual assault or harassment that occurs during one's military service and can negatively influence the wellbeing, mental health, and overall readiness of service members (e.g., Livingston et al., 2020). The Department of Defense (2023) received 8,942 reports of sexual assault from active-duty service members in 2022, and it is likely that there were additional instances as some victims chose not to report their assault. MST has been linked to higher rates of a variety of mental health conditions like post-traumatic stress disorder, depression, and anxiety (Klingensmith, 2014).

Ongoing research has examined the antecedents and effects of MST to increase the safety of service members and treat those affected by MST. For example, research indicates a correlation between less organizational influence (e.g., lower rank) as well as sociocultural influences (e.g., being a woman, belonging to a marginalized racial group) and an increased likelihood of experiencing sexual assault or harassment (e.g., Cleveland & Kerst, 1993). Additionally, after a trauma has occurred, several studies have documented that strong unit cohesion and support can buffer the negative effects of traumatic stress (Armistead-Jehle et al., 2011; Mitchell et al., 2012). Such findings demonstrate the complex interplay between MST and individual and social characteristics that influence mental health outcomes.

The current study advances this area of research by assessing depressive and anxiety symptoms, two hallmark indicators of mental health, of active-duty service members who experienced MST while deployed and exploring possible differences in mental health indicators based on individual characteristics and available social supports. Applying a socioecological theoretical lens that acknowledges the multiple levels of environmental influence (e.g., within-individual factors and social factors) on individual development and functioning (Bronfenbrenner, 1979), this study first tested whether mental health levels differed across demographic groups (i.e., race and sex). Identifying risk factors of elevated distress can help identify those in need of support and treatment planning. To understand the role of social support after experiences of MST, this study explored links between mental health support, unit cohesion, and mental health (depressive and anxiety symptoms). Identifying protective factors, especially ones that are modifiable, may help mitigate negative mental health outcomes. Specifically, this study addressed the following research questions.

Among soldiers who experienced MST while deployed…

- Research Question 1: Are there differences in depressive and anxiety symptoms based on sex and racial minority status?
- Research Question 2: Are there differences in depressive and anxiety symptoms based on unit cohesion and mental health support?
- Research Question 3: Are mental health support and unit cohesion related to lower levels of depressive and anxiety symptoms?

This study utilized secondary data from the Army Study to Assess Risk and Resilience in Servicemembers (STARRS) All Army Study (AAS) to conduct within-group analyses of 114 service members who had experienced sexual assault on deployment. Analyses were conducted in SPSS 29.

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Analysis of variance (ANOVA) testing was conducted to address Research Questions 1 and 2, exploring differences in mental health symptoms based on sex, race, mental health support, and unit cohesion among soldiers who experienced MST (Table 1). Regarding Research Question 1, there were no statistically significant differences among MST survivors based on sex or race in depressive (sex: $F_{[1,110]} = .55$, $p = .46$; race: $F_{[1,107]} = 1.53$, $p = .22$) or anxiety symptoms (sex: $F_{[1,111]} = .22$, $p = .64$; race: $F_{[1,108]} = 1.49$, $p = .23$). This means that men and women MST survivors reported similar levels of depressive symptoms and anxiety symptoms. Further, those identifying as White and those identifying as a racial minority also reported similar levels of depressive symptoms and anxiety symptoms.

Regarding Research Question 2, MST survivors who received mental health support reported fewer depressive ($F_{[1,99]} = 11.55$, $p < .001$) and anxiety ($F_{[1,99]} = 12.13$, $p < .001$) symptoms compared to those who did not receive mental health support. There were no differences in anxiety symptoms between MST survivors with high and low unit cohesion ($F_{[1,98]} = 2.17$, $p < .144$); however, MST survivors who reported higher unit cohesion reported marginally fewer depressive symptoms ($F_{[1,97]} = 3.70$, $p < .057$) compared to those who reported less unit cohesion.

A multiple linear regression model was used to address Research Question 3, exploring the additive associations between having received mental health support and unit cohesion to understand current mental health symptoms. Having received mental health support ($\beta = -0.28$, $p = .003$) and greater unit cohesion ($\beta = -0.30$, $p = .002$) were both associated with fewer depressive symptoms, accounting for 18% of the variance in depressive symptoms (Adjusted $R^2 = .18$). See **Figure 1** for a visual representation of the model. In a separate model, findings suggested that having received mental health support ($\beta = -0.30$, $p = .002$) and greater unit cohesion ($\beta = -0.24$, $p < .001$) were linked to fewer anxiety symptoms, accounting for 16% of the variance in anxiety symptoms (Adjusted $R^2 = .16$, $p < .001$). See **Figure 2**.

Understanding multiple influences on mental health outcomes for service members who have experienced MST is critical for helping professionals working with service members, veterans, and their families, as well as military leadership and policymakers making decisions that will influence them. Our findings underscore the importance of identifying malleable social factors (i.e., mental health support and unit cohesion) that may act as buffers against the negative mental health impacts of MST. These results highlight that social protective factors may be more salient in understanding the current mental health symptoms of service members who experienced sexual assault compared to fixed individual-level factors (i.e., race, sex).

Table 1. Subsample descriptive statistics and ANOVA results ($N = 114$ service members who had experienced MST).

	Depressive Symptoms				*Anxiety Symptoms*			
Sex	***n***	***M***	***SD***	***F***	***n***	***M***	***SD***	***F***
Women	*64*	*3.67*	*1.15*	*0.55*	*65*	*3.31*	*1.31*	*0.22*
Men	*48*	*3.5*	*1.23*		*48*	*3.43*	*1.33*	
Race								
Racial Minority	*38*	*3.4*	*1.12*	*1.53*	*38*	*3.17*	*1.36*	*1.49*
White	*71*	*3.69*	*1.18*		*72*	*3.48*	*1.22*	
Mental Health Support								
Received	*64*	*3.31*	*1.18*	***11.55******	*64*	*3*	*1.27*	***12.13*****
Not Received	*37*	*4.13*	*1.11*		*37*	*3.9*	*1.24*	
Unit Cohesion								
High	*56*	*3.5*	*1.26*	***3.70***$^{+}$	*56*	*3.19*	*1.32*	*2.17*
Low	*43*	*3.91*	*1.07*		*44*	*3.58*	*1.27*	

Note. $^{+}p < .06$, $*p < .05$, $**p < .01$, $***p < .001$

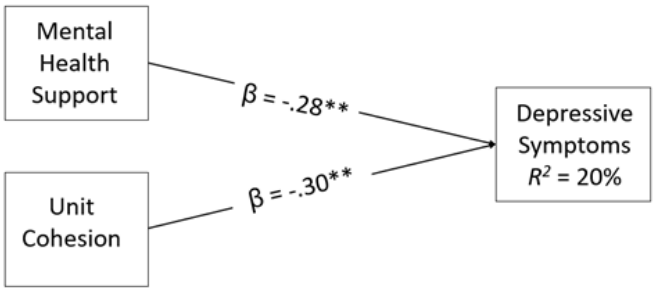

Fig. 1. Regression results demonstrating the additive associations between mental health support and unit cohesion as predictors of current depressive symptoms.

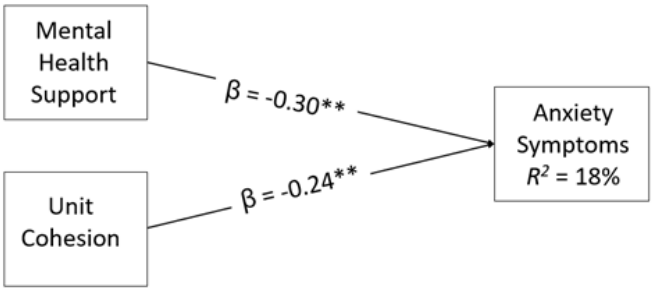

Fig. 2. Regression results demonstrating the additive associations between mental health support and unit cohesion as predictors of current anxiety symptoms.

In addition to MST prevention efforts, stakeholders may consider implementing policies and interventions focused on promoting mental health help-seeking and unit cohesion to mitigate risks to mental health due to deployment MST. Helping professionals can be sources of support, understanding, and compassion and are well-positioned to refer individuals and families experiencing the effects of MST to mental health treatment. Being well-versed in mental health resources for MST will strengthen the ability of all types of helping professionals to best serve service members and veterans. Military leadership can also consider their role in promoting mental health help-seeking and unit cohesion among service members, as cultivating a supportive environment for service members may mitigate negative mental health outcomes. Lastly, this study may also inform policymakers who develop the systems and processes involving MST reporting and support provision. Strengthening the opportunities for service members who have experienced MST to access mental health support and strong unit cohesion may best offset negative mental health effects of MST.

Statement of Research Advisor

Melissa's research represents a critical development in understanding mental health among survivors of military sexual trauma (MST). Specifically, this study elevated the role of both individual characteristics and social supports to identify needs and leverage points among service members using data from the Army Study to Assess Risk and Resilience in Servicemembers (STARRS) All Army Study (AAS). Findings point to the crucial role of social support mechanisms, such as mental health support and unit cohesion, in promoting mental health among survivors of MST. The implications of this research offer actionable insights for military leadership, policymakers, and helping professionals, namely activating diverse systems of support to promote the wellbeing of survivors.

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Authors Biography

Melissa Garnes is an undergraduate student pursuing her B.S. in Human Development Child Life at Auburn University. Growing up a military brat, has instilled in her a desire to uplift and give back to the military community. She is also an undergraduate research assistant at Military REACH, helping bridge the gap between research and practice for military families.

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