

# CDP



## Research Update -- October 31, 2024

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- Factors influencing postdeployment reintegration adjustment for U.S. service members and their spouses by spouse gender.
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<https://doi.org/10.1016/j.amepre.2024.10.011>

## **Gun Ownership for Safety/Protection and Unsecure Firearm Storage Practices: Suicide Risk and Prevention among U.S. Army Servicemembers.**

Catherine L. Dempsey, David M. Benedek, Patricia T. Spangler, James C. West, ...  
Robert J. Ursano

American Journal of Preventive Medicine  
Available online 24 October 2024

### Introduction:

2021 had the highest number firearm suicide deaths in U.S. history, with veterans representing 62.4% of firearm suicide deaths. The study objective is to understand motivations for firearm ownership, storage practices, history of mental health disorders and suicide risk in servicemembers, as reported by family members.

### Methods:

Data were obtained from a case-control psychological autopsy study of 135 suicide decedents in the U.S. Army compared to a probability sample of 255 living controls, who are also service members weighted to be representative of the Army. Next-of-kin and Army supervisor informants participated in structured interviews and assessed reasons for firearm ownership, and storage practices. The military medical record provided mental health history of suicide decedents. A subsample of 123 personal firearm owners (n = 31 cases and n = 92 living controls) addressed the study objectives. Multivariable logistic regression analyses were constructed to examine predictors of unsecured firearm storage practices.

### Results:

Family members reported safety/protection as the main reason for suicide decedents' firearm ownership, which was significantly associated with unsecure firearm storage practices (OR = 3.8, 95% CI, 1.65, 8.75,  $x^2 = 9.88$ ,  $p = 0.0017$ ). Ownership for safety/protection and lifetime history of Generalized Anxiety Disorder (GAD) from the military medical record (OR = 3.65, 95% CI, 1.48 – 9.02,  $x^2 = 7.89$ ,  $p = 0.0050$ ) predicted unsecure storage.

## Conclusions:

Ownership for safety/protection and the presence of clinically significant anxiety predicted unsecure firearm storage practices. Future research examining motivations for gun ownership for safety/protection, anxiety, and unsecure storage practices may help target interventions to prevent suicide.

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<https://doi.org/10.1001/jamanetworkopen.2024.40388>

## **Psychosocial Well-Being at the Time of Trauma Exposure and Risk of PTSD.**

Vogt, D., Borowski, S., Kumar, S. A., Lee, L. O., & Schnurr, P. P.

JAMA Network Open

October 25, 2024

### Introduction

Given that most individuals will experience at least 1 traumatic event in their lifetime, it is critical to identify factors that protect against negative mental health consequences, such as posttraumatic stress disorder (PTSD). Although some studies have examined how pretrauma factors affect PTSD,<sup>1,2</sup> most research has examined risk rather than protective factors. Here, we investigated whether individuals with higher pretrauma vocational well-being (V-WB), financial well-being (F-WB), and social well-being (S-WB) were less likely to experience PTSD following traumatic events, building on the expectation that these individuals may have better access to resources that promote coping and trauma recovery. The resulting knowledge can inform efforts to enhance resilience to PTSD in populations at high risk for trauma exposure, including those who serve in the military, the current study focus.

### Methods

Data for this cohort study were from the Veterans Metrics Initiative Study, a large prospective national study of US military veterans who completed biannual surveys during the first 3 years after discharge (2016-2019).<sup>3</sup> Participants reported on their V-WB, F-WB, and S-WB on the Well-Being Inventory, a validated measure of psychosocial well-being.<sup>4</sup> Their experiences of probable PTSD (P-PTSD), prior trauma exposure, educational attainment, race and ethnicity, stress exposure, probable depression, and preexisting P-PTSD were also assessed. We obtained institutional review board approval from the VA Boston Healthcare System and informed consent. We followed STROBE reporting guidelines, drawing data from 4 time points (T) that

used the same P-PTSD measure (approximately 15 to approximately 33 months after discharge) in 2024. We applied modified Poisson regressions with robust error variances to examine the prospective association of pretrauma well-being with P-PTSD at the subsequent surveys among those who reported trauma exposure between each time frame. All models adjusted for prior trauma exposure. Additional models were implemented to evaluate potential confounders, and a final model included all well-being domains to evaluate their unique contribution. Analyses were completed in Stata MP version 18.0 (StataCorp), and statistical significance was set at  $P < .05$ . Please see the eMethods in Supplement 1 for more details.

## Results

Table 1 displays sample characteristics in the 3 analytical time frames. The sample comprised 978 individuals (773 [79.0%] men; mean [SD] age, 33.0 [9.3] years).

Both overall and domain-based measures of well-being were associated with lower risk of P-PTSD in the T3 to T4 time frame after adjusting for prior trauma exposure. Analyses of associations in the T4 to T5 and T5 to T6 time frames largely replicated these findings (Table 2). Nearly all associations between overall and domain-specific measures of well-being and P-PTSD remained significant and similar in magnitude when accounting for education, race and ethnicity, and stress exposure. After adjusting for probable depression, overall well-being associations remained significant, and all domain-based measures were associated with P-PTSD in at least 2 time frames. The same held true when controlling for prior P-PTSD, except that F-WB was no longer associated with P-PTSD. Both S-WB and V-WB maintained unique associations with P-PTSD in models with all domains included, but F-WB was not associated with P-PTSD in 2 of 3 time frames.

## Discussion

Results provide evidence for the protective role that pretrauma psychosocial well-being may offer in reducing risk for PTSD, supporting the call for greater investment in well-being promotion among populations at risk for poor health<sup>5,6</sup> and highlighting the value of focusing these efforts on the extent to which individuals are doing well in key life roles and activities. These findings also extend research demonstrating the impact of social factors on PTSD (eg, social support) and underscore the need for greater attention to how success in vocational pursuits affects experiences of PTSD. They also provide guidance regarding how best to prioritize the provision of psychosocial well-being programming, pointing to the particular value that interventions that can improve relationship quality and vocational outcomes may offer in PTSD risk reduction. Limitations of the study include reliance on self-reported PTSD measurement and use of an observational rather than experimental design; nonetheless, confidence in the

protective role of psychosocial well-being is increased by our replication of findings and evaluation of potential confounders.

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<https://pmc.ncbi.nlm.nih.gov/articles/PMC11502141/>

**A review of empirical treatments focused on mind-body and spiritually grounded complementary practices for moral injury among veterans.**

Kelley, M. L., Strowger, M., Gabelmann, J. M., Vasic, S., Rivera, I. E., Fleming, R., Burgin, E. E., Bravo, A. J., Fleming, W. H., Gaylord, S. A., & Vinci, C.

Counseling and Values  
2024; 69(1), 65–91

Investigators have called for mind-body practices and spiritual and religious approaches for the treatment of moral injury in veterans. Programs and interventions that use mindfulness, meditation, spirituality, prayer, and other techniques span different academic disciplines and can be difficult for investigators and clinicians to identify but are important for those who work with veterans with moral injury. This paper reports a review of a systematic search that identified 12 empirical studies from eight databases (i.e., PSYCInfo, PSYCArticles, PubMed, Medline, Web of Science, ebsco Military & Government Collection, and cinahl) that use mind-body interventions or religious or spiritual interventions for the treatment of moral injury in veterans. Most identified studies were uncontrolled and included small samples. Although many of the identified interventions need additional research to illustrate feasibility and efficacy, mind-body practices and/or spiritual or religious approaches may provide novel and important methods for treating veterans with moral injury.

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<https://doi.org/10.1038/s41598-024-74086-0>

**Burnout and turnover risks for healthcare workers in the United States: downstream effects from moral injury exposure.**

Usset, T. J., Baker, L. D., Griffin, B. J., Harris, J. I., Shearer, R. D., Munson, J., Godzik, C., Torrey, W. C., Bardach, S. H., Mulley, A. G., Jr, Locke, A., Wright, H. M., Call, M., Sexton, B., Shanafelt, T., & Smith, A. J.

Scientific Reports

Published: 22 October 2024

Moral injury has emerged as a construct of interest in healthcare workers' (HCW) occupational stress and health. We conducted one of the first multidisciplinary, longitudinal studies evaluating the relationship between exposure to potentially morally injurious events (PMIEs), burnout, and turnover intentions. HCWs (N = 473) completed surveys in May of 2020 (T1) and again in May of 2021 (T2). Generalized Linear Models (robust Poisson regression) were used to test relative risk of turnover intentions, and burnout at T2 associated with PMIE exposure, controlling for T1 covariates. At T1, 17.67% reported they had participated in a PMIE, 41.44% reported they witnessed a PMIE and 76.61% reported feeling betrayed by healthcare or a public health organization. In models including all T1 PMIE exposures and covariates, T2 turnover intentions were increased for those who witnessed a PMIE at T1 (Relative Risk [RR] = 1.66, 95% Confidence Interval [CI] 1.17–2.34) but not those that participated or felt betrayed. T2 burnout was increased for those who participated in PMIE at T1 (RR = 1.38, 95%CI 1.03–1.85) but not those that witnessed or felt betrayed. PMIE exposure is highly prevalent among HCWs, with specific PMIEs associated with turnover intentions and burnout. Organizational interventions to reduce and facilitate recovery from moral injury should account for differences in the type of PMIE exposures that occur in healthcare work environments.

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<https://doi.org/10.1186/s12913-024-11731-4>

### **Oscillating US Department of Defense policies and medical record documentation of gender dysphoria in service members: an observational time-series analysis.**

Highland, K. B., Klein, D. A., Rogers, S., Velosky, A. G., Roberts, C., & Larson, N. S.

BMC Health Services Research

Published: 23 October 2024

#### Background

United States military policies regarding service by transgender service members have shifted several times within the past decade. The relationships between policy changes and electronic health record documentation of gender dysphoria, a current and historic

policy requisite for gender affirming care receipt, in active duty service members remain unknown.

### Methods

Bayesian estimator of abrupt change, seasonality, and trend models identified changepoints in the proportion of service members who had new and then historical medical record documentation consistent with gender dysphoria from January 2015 to August 2022. Changepoints were evaluated as they related to salient military policy-related events.

### Results

Approximately 3,853 active duty and activated National Guard or Reserve service members received a documented diagnosis corresponding to gender dysphoria from January 2015 to August 2022. Four significant changepoints were identified across both time series. Salient historical events that occurred during the changepoint periods were identified for contextualization.

### Conclusions

Clinical documentation of gender dysphoria oscillated with changes to policies and public statements by government leaders, which may in turn, impact military recruitment and retention. This study highlights the need for equitable policies that optimize the strength of a diverse military force. Equity-oriented monitoring is needed to continually examine the impact of military service policies on readiness and retention to support actionable, data-driven improvements to policies and their implementation.

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<https://doi.org/10.1177/00207640241264195>

### **Suicidal ideation in male UK military personnel who sustained a physical combat injury in Afghanistan and the mediating role of leaving service: The ADVANCE cohort study.**

Dyball, D., Williamson, C., Bennett, A. N., Schofield, S., Boos, C. J., Bull, A. M., Cullinan, P., & Fear, N. T.

International Journal of Social Psychiatry  
2024; Volume 70, Issue 7



#### Background/aims:

Suicidal Ideation (SI) is a risk factor for suicide, a leading cause of death amongst young men globally. In this study we assess whether sustaining a serious physical combat injury is associated with SI and whether leaving service mediates this association.

#### Methods:

We analysed data from male UK Armed Forces personnel who sustained a combat injury in Afghanistan and a frequency-matched comparison group who did not sustain such an injury (the ADVANCE cohort). SI was measured from the Patient Health Questionnaire-9 item 'thoughts that you would be better off dead or of hurting yourself in some way'.

#### Results:

Approximately, 11.9% (n = 61) of the uninjured group, 15.3% (n = 83) of the overall injured group, 8.5% (n = 13) of an Amputation injury (AI) subgroup and 17.6% (n = 70) of a Non-Amputation Injury (NAI) subgroup reported SI in the past 2 weeks. The NAI subgroup reported greater likelihood of SI (Relative Risk Ratio (RR) = 1.44, 95% confidence interval (CI) [1.04, 2.00]) compared to the comparison group, whereas the overall injured group (RR = 1.23, 95% CI [0.90, 1.68]) and AI subgroup (RR = 0.65, 95% CI [0.36, 1.18]) did not. Leaving service fully mediated the association between sustaining a NAI and SI (natural direct effect RR = 1.08, 95% CI [0.69, 1.69]).

#### Conclusions:

UK military personnel with NAI reported significantly higher rates of SI compared to demographically similar uninjured personnel, while those who sustained AIs reported no significant difference. Leaving service was associated with greater rates of SI for both injured and uninjured personnel and fully mediated the association between sustaining a NAI and SI.

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<https://doi.org/10.1080/13811118.2023.2270667>

### **The Link between Deployment-Related Injuries and Suicidal Thinking in the Army National Guard: Examining the Role of Perceived Burdensomeness and Hopelessness.**

Pardue-Bourgeois, S., Goldberg, S. B., Wyman, M. F., Abbas, M., Flynn, A. W. P., Domínguez, S., & Tucker, R. P.

### Objective

In 2020, Army National Guard members demonstrated greater risk of suicide than their military and civilian counterparts. Though literature on deployment-related experiences and suicidal ideation (SI) is mixed, investigations of specific deployment-related experiences (e.g., injuries) may further elucidate the relationship between deployment and suicide risk. Deployment-related injuries, including pain severity and functional impairment, have been linked to increased risk of SI, and correlates like perceived burdensomeness (PB) and hopelessness. The current study sought to examine the cross-sectional relationship between deployment-related injuries, including pain severity and functional impairment, and severity of SI through PB and hopelessness.

### Method

Immediately post-deployment, Army National Guard members (N = 2,261) completed validated self-report measures on past-week SI, PB, hopelessness, and single items regarding injury sustained during deployment and associated functional impairment and pain severity.

### Results

Indirect effect analyses revealed that experience of deployment-related injury was related to SI through PB and hopelessness ( $R^2 = .1993$ ), functional impairment was related to SI through PB, and pain severity was related to SI through PB. Contrary to hypotheses, hopelessness was not associated with SI when PB was simultaneously considered.

### Conclusions

Army National Guard members who develop a sense of PB related to their injury and functional impairment of that injury may be at increased risk for suicidal ideation. Military suicide-prevention efforts may be potentiated through targeting distorted cognitions such as PB and hopelessness, especially in service members who have been injured.

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<https://doi.org/10.1016/j.sleh.2024.09.004>

**Insomnia and sleep apnea in the entire population of US Army soldiers: Associations with deployment and combat exposure 2010-2019, a retrospective cohort investigation.**

Caldwell, J. A., Knapik, J. J., Kusumpa, S., Roy, T. C., Taylor, K. M., & Lieberman, H. R.

Sleep Health  
October 22, 2024

**Objectives**

This retrospective cohort study examined clinically diagnosed insomnia and sleep apnea and analyzed associations with deployment and combat exposure in active-duty soldiers (n=1,228,346) from 2010 to 2019.

**Methods**

Retrospective data were obtained from the Soldier Performance, Health, and Readiness database.

**Results**

Overseas soldier deployments peaked in 2010, decreasing thereafter as soldiers were withdrawn from Iraq and Afghanistan. From 2010 to 2012 insomnia incidence increased at a rate of 6.7 cases/1000 soldier-years, then decreased after 2012 at 5.3 cases/1000 soldier-years. Sleep apnea increased 2010-2016 at 1.9 cases/1000 soldier-years and generally declined thereafter. Risk of insomnia increased with deployment (hazard ratio=1.51; 95% confidence interval=1.49-1.52) and combat exposure (hazard ratio=1.15; 95% confidence interval=1.13-1.17). Risk of sleep apnea was increased by deployment (hazard ratio=1.89; 95% confidence interval, 1.86-1.92) and combat exposure (hazard ratio=1.09; 95% confidence interval, 1.07-1.11). Most relationships remained after accounting for other factors in multivariable analyses, except that the association between sleep apnea and combat exposure was reduced (hazard ratio=0.94; 95% confidence interval=0.92-0.97).

**Conclusions**

Insomnia risk decreased in the period nearly in parallel with a reduction in the number of deployments; nonetheless deployment and combat exposure increased insomnia risk in the period examined. Risk of sleep apnea increased in the period and was related to deployment but not combat exposure after accounting for demographics and comorbid conditions. Despite reductions in insomnia incidence and a slowing in sleep apnea

incidence, sleep disorders remain highly prevalent, warranting continued emphasis on sleep-disorder screening and improving the soldier sleep habits.

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<https://doi.org/10.1080/20008066.2024.2413735>

## **Post-traumatic stress disorder in peacekeepers: a systematic literature review and meta-analysis.**

Carmona, L., Camilo, C., Carvalho, V. S., & Chambel, M. J.

European Journal of Psychotraumatology

Published online: 22 Oct 2024

### Background:

In peacekeeping operations, soldiers are often exposed to the same traumatic factors as in conventional war and may also be subject to physical risks and psychological stressors associated with post-traumatic stress disorder (PTSD). According to the Conservation of Resources Theory (COR), PTSD stems from resource depletion and inadequate restoration.

### Objectives:

To discuss and meta-analyse PTSD-related factors among peacekeepers, based on the COR theory, framing them as resources or loss/threat of loss of resources.

### Methods:

A systematic literature search was performed with relevant keywords, 51 articles were reviewed and 21 of them meta-analysed.

### Results:

Factors mentioned in prior reviews, reinforced by ours, include: family/community and military support as resources; single marital status, female gender, serving in infantry, and longer time since deployment as lack of resources. Factors mentioned in prior reviews, confirmed by our meta-analysis, include: education, rank, and problem-focused coping as resources; negative perceptions about deployment, combat/trauma exposure, deployment stressors, and deployment duration as lack of resources. Factors overlooked in prior reviews include: age as a resource; negative life events, and negative social interactions as lack of resources. Comorbidities include: physical health

problems, post-deployment impact on functioning, and post-deployment psychopathology (e.g., depression, substance use).

#### Conclusions:

Significantly more individual than contextual factors were identified. While some factors inherent to missions (e.g., combat exposure, deployment stressors) cannot be mitigated, others are crucial to prevent peacekeepers' PTSD (e.g., coping strategies, deployment duration, perceptions about deployment, social interactions, support during deployment) and to inform selection and monitoring by the Armed Forces (e.g., pre-, during and post-deployment psychopathology). However, the findings should be interpreted with caution due to limitations (e.g., publication bias, study heterogeneity) that may have affected the generalizability and strength of the recommendations.

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<https://doi.org/10.1016/j.amepre.2024.10.016>

### **Pre-Service Predictors of New-Onset Alcohol Misuse in Male United States Marines.**

Andrew J. MacGregor, Amber L. Dougherty, Zeina G. Khodr, Jennifer McAnany, Cameron T. McCabe, James M. Zouris, Yohannes G. Haile, Lt Col Patricia Rohrbeck

American Journal of Preventive Medicine  
Available online 28 October 2024

#### Introduction

U.S. military personnel have a high prevalence of alcohol misuse, which can adversely affect force readiness. The objective of this study was to identify pre-service predictors of new-onset alcohol misuse among male Marines.

#### Methods

Data for this retrospective cohort study were collected from male U.S. Marines who completed a baseline survey at the beginning of military training from 2013 to 2021 and a standard health assessment 12–36 months later (n=28,337). An Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) score  $\geq 4$  indicated alcohol misuse. Independent predictors of alcohol misuse were evaluated using a modified Poisson regression to calculate adjusted risk ratios (aRRs) and 95% CIs. Analyses were conducted between 2022 and 2024.

## Results

The incidence of new-onset alcohol misuse was 16.3% (n=4,632). In the final multivariable model, the strongest predictor of new-onset alcohol misuse was turning 21 years old during the study period (aRR 3.70, 95% CI: 3.40–4.03). Pre-service tobacco use (aRR 1.32, 95% CI: 1.22–1.43) and some pre-service alcohol use (AUDIT-C score 1–3: aRR 1.32, 95% CI: 1.24–1.40) were also associated with new-onset alcohol misuse.

## Conclusions

Multiple pre-service predictors were associated with new-onset alcohol misuse in male Marines. These findings should be considered when screening for alcohol misuse and developing clinical interventions to mitigate adverse impacts of alcohol misuse in the military.

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<https://doi.org/10.1159/000540030>

## **Enhancing Conceptual Clarity regarding the Construct of Moral Injury.**

Frankfurt O'Brien, S., Baptista, I., & Szeszko, P. R.

Psychotherapy and Psychosomatics

October 7, 2024

### Background:

The construct of “moral injury” is used widely in the research literature and media to broadly describe the impact of events involving perceived violations of one’s sense of right and wrong (herein referred to as “potentially morally injurious events” [PMIEs]).

### Summary:

In this theoretical review, we provided a brief overview of the “moral injury” construct and its limitations including the lack of consensus-drawn boundaries and operational definitions to guide hypothesis-driven research. We discussed whether this construct can be reliably distinguished from established psychiatric diagnoses and psychological constructs and the inherent challenges in separating or classifying the impact of high-magnitude stressful life events that likely form the majority of PMIEs. Assessments that purportedly measure “moral injury” are reviewed and limitations are discussed such as shared measurement variance with established psychological instruments.

### Key Messages:

We identified conceptual strategies for investigating behavioral and neurobiological features of PMIEs that could be used to inform the field of traumatic stress. We concluded that the construct of “moral injury” may provide an interpretive framework for positing why someone may be beset by guilt, shame, and/or rage whereas existing psychiatric diagnoses such as post-traumatic stress disorder and depression provide comprehensive descriptions regarding what someone might experience following extremely stressful events. We proposed directions to better clarify the boundaries of “moral injury” versus established psychiatric categories that could be used to enhance the conceptualization and assessment of this construct.

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<https://doi.org/10.1097/MLR.0000000000002073>

### **Suicide Rates by Age and Time Among American Indian and Alaskan Native Veterans.**

Brenner, Lisa A. PhD; Miller, Christin N. MPH; Schneider, Alexandra L. BA; Hoffmire, Claire A. PhD; McCloskey, Charlotte PhD; Forster, Jeri E. PhD

Medical Care  
October 3, 2024

#### Objective:

Although recent work has highlighted high rates of suicide among American Indian and Alaska Native individuals who served in the US military, to date, a comprehensive evaluation of age-specific suicide rates, over time, has yet to be conducted.

#### Methods:

Population-based retrospective cohort study. Average annual suicide rates (2005–2020) were computed. The cohort included 207,955 Native Veterans who were alive as of January 1, 2005, and separated from military service on or before December 31, 2020. Suicide was identified via National Death Index codes.

#### Results:

Between 2005 and 2020, average annual, age-specific suicide rates among Native Veterans ranged from 16.32/100,000 (55+ y) to 64.49/100,000 (18–34 y). Compared with other age-related cohorts, the rate among those in the youngest age cohort (18–34y) was the highest between 2005 and 2018. The 2019–2020 average annual rate for

18- to 34-year-olds (41.86/100,000) dropped below that of the middle-aged cohort (35–45 y; 44.66/100,000). Across all age cohorts, firearms were the most used method of suicide [57.2% (18–34 and 35–54 y) to 66.17% (55+y)]; however, a notable percentage of Veterans died by suffocation, 16.54% (55 y and older), 26.71% (35–54 y), and 33.21% (18–34 y).

Conclusions:

Findings highlight differences in suicide rates by age groups overtime for Native Veterans irrespective of Veterans Health Administration use and across service eras, as well as means of suicide, which also differed across groups. Increased efforts are needed to identify culturally and age-relevant intervention strategies, as well as factors associated with risk, to reduce deaths among Native Veterans.

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<https://doi.org/10.1177/08862605241285924>

### **Age-Related Variation in Ecological Resources Among Veterans Seeking Treatment Related to Military Sexual Trauma.**

Grau, P. P., Boyd, M. R., Tu, J. W., Paulson, J. L., Porter, K. E., & Sexton, M. B.

Journal of Interpersonal Violence

First published online October 8, 2024

pproximately 16% of Veterans experience military sexual trauma (MST), defined as sexual assault or harassment experienced during military service. Veterans across life stages may possess differing resources and face unique stressors that impact their ability to engage in mental health treatment or require additional liaison to services. The present study sought to characterize age-related differences in the socioecological contexts of Veterans seeking mental health treatment following MST in the domains of economic sufficiency, housing, spiritual coping, supportive relationships, and interpersonal violence. From 2009 to 2019, Veterans (N = 640) seeking mental health services following exposure to MST attended evaluation and treatment planning sessions at a Midwestern Veterans Health Administration posttraumatic stress disorder specialty clinic. Veterans completed semistructured interviews that included surveys and diagnostic screenings to assess psychosocial needs and resources. ANOVA and ordinal regressions were used to evaluate potential disparities in socioecological resources by age. No age-related differences in economic sufficiency and stable housing emerged, though most Veterans (57%) endorsed financial difficulties. Veterans



who endorsed spiritual beliefs were significantly older than those who did not. Veterans who reported having a support system were significantly younger than Veterans who denied having a support system. Less than half (46%) of Veteran reported having peer relationships. Veterans who endorsed frequent interaction with their peers were significantly older than those who did not. Veterans who reported past-year exposure to interpersonal violence were significantly younger. Greater clarity about age-related differences in the socioecological contexts of Veterans can support clinicians in providing responsive mental health treatment and connecting Veterans to additional Veterans Health Administration resources following MST.

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<https://doi.org/10.1080/10926771.2024.2403997>

### **Effectiveness of Residential and Intensive Outpatient Programs for the Treatment of Post-Traumatic Stress Disorder in Active Military Personnel and Veterans: A Meta-Analytical Review.**

Marcantoni, W. S., Gheorghiu, I., Lai, H., Wassef, M., Mares, A., & Barbat-Artigas, S.

Journal of Aggression, Maltreatment & Trauma

Published online: 07 Oct 2024

The care and services offered in the treatment of active military personnel and veterans with PTSD take a variety of forms, ranging from residential to outpatient treatment programs. The differences in the organization of care between these programs make comparisons difficult; however, an intermediate alternative exists in the form of intensive outpatient programs (IOPs), whose organization and range of care are closer to that offered in residential programs. This review compares and evaluates the effectiveness of residential programs to that of IOPs in the treatment of PTSD in active military personnel and veterans. Nine databases were searched from September/November 2022 to include primary studies evaluating the treatment of PTSD in active military personnel and veterans in residential programs and IOPs. Results were summarized in a narrative synthesis. A meta-analysis using a random effects model examined changes in standardized mean differences in PTSD symptom scores at baseline and discharge. Thirty-two studies in 41 publications were included. There was a notable decrease in PTSD symptom scores at the end of treatment in both programs, and no significant difference was found between them. However, IOPs effectiveness may be influenced by patient type (active military personnel or veterans). Regardless, our results suggest a positive effect of both types of programs on reducing PTSD symptoms. It is essential to

be aware of the constraints inherent in the literature on the subject, including the lack of comparative studies, the potential impact of comorbidities, and the differential response of active military personnel and veterans to similar treatments.

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<https://doi.org/10.1080/15325024.2024.2411694>

## **Mental Health of Servicemen, POWs, and Civilians in Ukraine: A Comparative Study.**

Kokun, O., Pischko, I., Lozinska, N., Stasiuk, V., & Oliinyk, V.

Journal of Loss and Trauma  
Published online: 07 Oct 2024

This study aims to investigate the mental health differences among servicemen, POWs, and civilians affected by the war in Ukraine. Data were collected from three samples: (1) 149 servicemen from an elite combat troop of the Armed Forces of Ukraine (all men aged 22–59 years); (2) 217 POWs (209 men and 8 women aged 19–64 years); and (3) 330 civilian men aged 19–60 years. Participants completed self-report scales assessing three positive aspects of mental health (resilience, self-efficacy, and post-traumatic growth) and two negative aspects (PTSD symptoms and physical complaints). We observed significant differences between the three samples. POWs had the highest post-traumatic growth scores and reported the most physical complaints, reflecting the long-term effects of captivity. Civilians exhibited the highest levels of PTSD symptoms, likely due to continuous exposure to war-related stressors, while servicemen displayed the lowest negative mental health indicators. Contrary to expectations, resilience levels were similar between POWs and servicemen. This study expands current knowledge on the impact of modern war on mental health and suggests that targeted interventions should address both the unique challenges faced by POWs and the pervasive psychological distress experienced by civilians. These findings may inform the development of training programs for military personnel, healthcare specialists, and social service professionals to support those affected by war.

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## **Effect of Obstructive Sleep Disorder Treatment on Posttraumatic Stress Disorder Symptoms: A Literature Review.**

Jennifer W. Carpenter, DNP, CRNP, PMH-BC, PMHNP-BC

Journal of Psychosocial Nursing and Mental Health Services

Published Online: October 08, 2024

### **PURPOSE**

To explore whether continuous positive airway pressure (CPAP) adherence among adult patients with obstructive sleep apnea (OSA) and posttraumatic stress disorder (PTSD) affects the PTSD Checklist (PCL), a validated tool that measures severity of PTSD symptoms.

### **METHOD**

Studies focusing on PTSD and OSA were searched in PubMed and CINAHL databases. Inclusion and exclusion criteria were applied, decreasing the article yield to nine. All articles chosen focused on the adult population and were conducted in North America.

### **RESULTS**

The literature review yielded eight observational cohort studies and one descriptive study. Seven studies were conducted with Veterans and all studies used the PCL tool. Three themes were identified: (a) Trauma and OSA, (b) OSA and PTSD Symptoms, and (c) CPAP Therapy and PTSD Symptoms. An area of further study is assessing how CPAP adherence might affect improvement in PTSD symptoms and how adherence can be improved.

### **CONCLUSION**

OSA is correlated with more severe PTSD symptoms, but CPAP use is associated with improvement in PTSD symptoms. The literature reviewed found PCL scores improved up to 10 points within 3 months of CPAP use. These findings highlight the importance of collaboration between mental health and sleep medicine professionals and opportunity for further study in this area.

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<https://doi.org/10.1093/milmed/usae484>

## **Associations Between Sleep Disorders and Treatment Response in Service Members With Post-traumatic Stress Symptoms: A Secondary Outcome Analysis.**

Jane J Abanes, Sorana Raiciulescu

Military Medicine

Published: 15 October 2024

### Introduction

Compared with the civilian population, a higher rate of reported sleep apnea exists among military service members resulting in inadequate sleep. Those who experience chronic sleep deprivation may suffer from debilitating problems that may compromise military mission readiness and unit safety. The purpose of the study on which this secondary outcome analysis was based was to evaluate the effect of manual standardized stress acupuncture as an adjunct therapy to an abbreviated form of cognitive behavioral therapy for insomnia for sleep disturbances in post-deployment service members. The aim of this secondary outcome analysis was 2-fold: (1) to assess the relationship between sleep disorder symptoms and post-traumatic stress symptoms (PSS) and (2) to determine if the presence of sleep disorder symptoms influenced the effects of acupuncture and cognitive behavioral therapy as compared to cognitive behavior therapy only on PSS) in post-deployment military service members.

### Materials and Methods

The study was a 2-arm, single-center, randomized controlled trial approved by the Naval Medical Center San Diego and the Vanderbilt University Institutional Review Board. It was conducted at the U.S. Naval Hospital in Okinawa, Japan. Participants were active duty service members from all military branches who were stationed in Okinawa. Two measures were used to analyze the data: the Global Sleep Assessment Questionnaire (GSAQ) and the Post-traumatic Stress Disorder Checklist. A Pearson correlation coefficient was calculated to determine the relationship between sleep disorder symptoms (i.e., 11 pre-intervention GSAQ symptoms) and PSS treatment outcomes (i.e., PCL and PTSD clusters).

### Results

Results indicated associations between the GSAQ components and PCL total and PTSD cluster scores. Findings showed that the presence of sleep disorder symptoms influenced PSS treatment response in post-deployment military service members.

## Conclusions

Results from this secondary outcome analysis showed associations between GSAQ components (i.e., excessive daytime sleepiness, working conditions causing inadequate sleep, involuntary movements in sleep, and sadness or anxiousness) and PCL total and PTSD cluster scores (i.e., avoidance, negative cognition and mood, avoidance, and hyperarousal). Furthermore, sleep disorder symptoms such as having stressful working conditions (e.g., shift work), probable obstructive sleep apnea, insomnia, anxiety, and depression influenced PSS treatment responses. This study provided information on the major contribution of sleep disorder symptoms in the treatment of PSS through self-report. Future researchers should consider the use of physiologic measures to further understand the mechanisms of how sleep disorder symptoms affect treatment responses in service members with PSS. Implications for this study may assist clinicians in determining effective PSS treatments for those with OSA and insomnia.

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<https://doi.org/10.1093/milmed/usae434>

## **The Transition to Adulthood: A Qualitative Study of Autism Spectrum Disorder From Military and Veteran Parents and Military-Dependent Young Adults.**

Antonio F Pagán, Mara C Montenegro, Mark Ahlenius, Ana C Ramirez, Miriam Ortiz, Estefani Bernal, Cecilia Montiel-Nava, Jennifer Bittner, Katherine A Loveland, Ron E Acierno

Military Medicine

Published: 18 October 2024

## Introduction

Given the unique experiences of military service members and their families, military-dependent young adults (18–25 years old) with autism spectrum disorder (ASD) and their military or veteran families experience unique barriers to accessing quality mental health care during the transition to adulthood. In fact, developing services to address ASD challenges for military families is a burgeoning area of interest for the department of defense. However, there is a limited knowledge on the specific needs of military families as the young adult's transition outside of high school and lose supports.

## Materials and Methods

The present study conducted 3 focus groups with 16 military and veteran parents, and 3 focus groups with 10 military-dependent young adults to evaluate the needs of military-

dependent young adults (17–25 years old) with ASD and military/veteran parents with a young adult with ASD.

### Results

Parents reported several key topics, including barriers to services (e.g., permanent change of station, recently moving to a state and lacking awareness of the available resources), defining adulthood in terms working in a cohesive family structure, and therapy recommendations for parents and young adults with ASD transitioning to adulthood. Young adults provided key information, including describing experiences with having a parent in the military, difficulty accessing services during the transition to adulthood, and recommendations on therapy for military-dependent young adults with ASD.

### Conclusion

Military and veteran families with autistic dependents lack access to important mental-health resources. When developing programs for military families and military-dependent autistic young adults, mental health providers should consider the frequent relocations, lack of access to important transition resources, and common military values. The presence of advocates at military bases should be encouraged to help military families navigate autism services in their local community.

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<https://doi.org/10.1093/milmed/usae469>

## **Substance Use and Adverse Mental Health Disparities Between Heterosexual and Sexual Minority Service Members in the U.S. Military.**

Gabrielle F Kaplansky, Matthew W Allman, Matthew R Beymer, Frances M Dean, Erin M Anderson Goodell, Katherine C L Schaughency

Military Medicine

Published: 08 October 2024

### Introduction

Nationally representative studies have shown that lesbian, gay, and bisexual adults have higher levels of substance use than heterosexual adults. In the military, substance use is often associated with adverse mental health outcomes and is often comorbid with other mental health conditions and adverse or harmful behaviors. Few military studies to

date have comprehensively examined the relationship between sexual orientation, mental health, and substance use.

### Materials and Methods

Data from the 2018 Health-Related Behaviors Survey (n = 17,166) were used. Univariate and multivariable logistic regression models were used to examine the association between sexual orientation and substance use. Regression models were also used to examine whether measures of mental health moderate the relationship between sexual orientation and substance use.

### Results

Compared to heterosexual individuals, lesbian and gay individuals were more likely to engage in illicit drug use (adjusted odds ratio = 3.27; 95% CI, 1.45 to 7.36). Bisexual individuals were more likely to binge drink (adjusted odds ratio = 1.37; 95% CI, 1.08 to 1.74). Individuals with moderate or serious psychological distress were more likely to report binge drinking or smoking tobacco. Individuals with serious psychological distress were more likely to use illicit drugs. None of the interactions tested in this study were statistically significant.

### Conclusions

Substance use in the military was more likely among sexual minority individuals compared to heterosexual individuals. These findings reflect the patterns of substance use seen in the general population. Increased levels of psychological distress were associated with both the lesbian, gay, and bisexual population in this study and self-reported substance use behaviors. Further investigation of health disparities by sexual orientation may inform more efficacious treatment and prevention programs.

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<https://doi.org/10.3390/bs14100932>

## **Examination of Congruity between Subjective and Objective Working Memory in Veterans with Mild TBI and Relation to Psychiatric Symptoms and Childhood Trauma.**

Cruz, L.N.; Walker, N.C.; Rehman, S.S.; McNerney, M.W.; Madore, M.R.

MDPI Behavioral Sciences  
Published: 11 October 2024

### Objectives:

There is conflicting evidence regarding congruence between subjective cognitive decline and objective cognitive performance for individuals with a history of mild traumatic brain injury (mTBI). The current study investigated the congruity between subjective and objective cognition, particularly working memory, among veterans with an mTBI history, accounting for post-traumatic stress disorder (PTSD) and childhood trauma.

### Methods:

Participants included 35 veterans with a history of mTBI sustained during deployment. Participants completed measures of subjective [i.e., Behavioral Inventory Rating of Executive Functioning (BRIEF)] and objective working memory (i.e., WAIS-IV working memory index). Congruity between subjective and objective working memory was examined using linear regression. Bonferroni-corrected correlations were run to explore relationships among working memory, psychiatric symptoms, mTBI severity, and childhood trauma.

### Results:

Among Veterans with mTBI, subjective working memory and objective working memory performance were not significantly related ( $p > 0.05$ ); however, the overall model was significant ( $p < 0.0001$ ), and childhood trauma was a notable predictor ( $p = 0.02$ ). Greater PTSD, depression, and sleep symptoms were significantly related to increased subjective working memory concerns, even after Bonferroni adjustments ( $ps < 0.0001$ ). Better objective working memory was significantly related to a fewer number of childhood traumatic events; however, this did not sustain corrections. The majority of individuals (67%) endorsed significant working memory complaints, despite objectively performing within normal limits (within 1 SD and above).

### Conclusions:

Subjective-objective working memory congruity among veterans with mTBI was limited. Subjective, but not objective, working memory concerns were associated with greater PTSD, depression, and sleep symptoms. Childhood trauma was a notable factor that contributed to both subjective and objective cognitive concerns. There remains clinical value in assessing subjective cognitive concerns given the strong relationships with psychiatric problems and, hence, a focus for intervention.

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<https://doi.org/10.1037/ser0000913>

## **Effectiveness of telehealth-delivered massed trauma-focused psychotherapy among veterans with posttraumatic stress disorder.**

Verdi, E. K., Gramlich, M. A., Reger, G. M., & Yelland, S

Psychological Services  
Advance online publication

Trauma-focused psychotherapies can be effectively delivered using a massed delivery format. Telehealth treatment for posttraumatic stress disorder (PTSD) using evidence-based interventions has been shown to be as effective as in-person treatment. However, the effectiveness of evidence-based treatments for PTSD over telehealth using the massed delivery format requires further examination. To examine the effectiveness of telehealth massed PTSD treatment, we report on a quality improvement study of 33 veterans (75.8% male; MAge = 42.3, SD = 11.0) who participated in a virtual 4-week massed PTSD program at a Department of Veterans Affairs (VA) medical center. Twenty-seven (81.8%) veterans completed the treatment and reported large reductions in PTSD ( $d = 1.48$ ) and depressive symptoms ( $d = 1.08$ ) at Week 4 and at 1-month follow-up (PTSD,  $d = 1.34$ ; depression,  $d = 0.70$ ). Results suggested that evidence-based treatment for PTSD can be effectively delivered in a massed format over telehealth in a VA medical setting. (PsycInfo Database Record (c) 2024 APA, all rights reserved)

### Impact Statement

The present quality improvement study found delivering treatment for posttraumatic stress disorder (PTSD) via telehealth using a massed format of 3 days per week for four consecutive weeks can decrease PTSD symptom severity. Telehealth may increase access to care. Clinicians providing care for veterans might consider offering intensive treatment via telehealth to help reduce PTSD symptoms in fewer weeks and with higher treatment completion rates than traditional outpatient delivery formats. (PsycInfo Database Record (c) 2024 APA, all rights reserved)

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<https://doi.org/10.1080/08995605.2024.2394725>

## **Factors influencing postdeployment reintegration adjustment for U.S. service members and their spouses by spouse gender.**

Research on spouses' adjustment after military deployment has focused primarily on female spouses of male service members; little is known about how adjustment differs by gender. We used Walsh's family resilience framework to examine communication, belief system, organizational factors, and other stressors, likely associated with postdeployment adjustment. Using Millennium Cohort Family Study data, logistic regressions assessed risk and protective factors on spouses' and service members' time to adjust, exploring whether spouse gender moderated their associations. Findings indicated that the association of (1) spouses' perceptions of their own mental functioning with spouses' and service members' adjustment and (2) spouses' mental readiness for deployment with service members' adjustment both differed by spouse gender, with associations attenuated for male spouses and their service member partners. Other factors associated with family adjustment included the spouse's satisfaction with communication, the extent to which the service member shared deployment experiences, the extent to which the spouse was bothered by deployment experiences, the spouse's participation in postdeployment transition programs, the spouse's informal support during deployment, and length of deployment. Results indicated shared and gender-specific risk and protective factors associated with spouse and service member adjustment, demonstrating the importance of tailored military family support programs addressing the needs of different populations of military spouses.

What is the public significance of this article?—Results from this study highlight the risk and protective factors associated with the time it takes service members and their spouses to adjust postdeployment and suggest some variation by spouse gender. The findings demonstrate the importance of tailored military family support programs to address the needs of different populations of military spouses.

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### **Links of Interest**

Recreational therapy improves Veterans' mental health

<https://news.va.gov/135678/recreational-therapy-improves-mental-health/>

PTSD Bytes – PTSD and chronic pain

<https://news.va.gov/135570/ptsd-bytes-ptsd-and-chronic-pain/>

Stability in Soldiers' Lives: Army Secretary Lays Out Suggestions for Her Successor  
<https://www.military.com/daily-news/2024/10/24/army-secretary-wormuths-tenure-may-soon-end-she-still-has-ideas-improving-soldiers-lives.html>

VA housed nearly 48,000 Veterans experiencing homelessness in fiscal year 2024  
<https://www.va.gov/wilmington-health-care/news-releases/va-housed-nearly-48000-veterans-experiencing-homelessness-in-fiscal-year-2024/>

Despite uncertain risks, many turn to AI like ChatGPT for mental health  
<https://wapo.st/4fm46fR>

Stress is a Normal Survival Reaction  
<https://health.mil/Military-Health-Topics/Centers-of-Excellence/Psychological-Health-Center-of-Excellence/Clinicians-Corner-Blog/Stress-is-a-Normal-Survival-Reaction>

Technology and the Good Life: A Primer for Military Health Providers  
<https://health.mil/Military-Health-Topics/Centers-of-Excellence/Psychological-Health-Center-of-Excellence/Clinicians-Corner-Blog/Technology-and-the-Good-Life-A-Primer-for-Military-Health-Providers>

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**Resource of the Week:** [The HIPAA Privacy Rule: Overview and Issues](#)

From the Congressional Research Service:



**Congressional Research Service**  
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The final HIPAA Privacy Rule (the Rule) was first issued in December 2000, and a final modified rule was issued in August of 2002, pursuant to authority in the Health Insurance Portability and Accountability Act of 1996 (HIPAA, P.L. 104-191). HIPAA was enacted to improve the availability and continuity of health insurance coverage; promote long-term care insurance and the use of health

savings accounts; and combat waste, fraud, and abuse, particularly in Medicare and Medicaid. HIPAA also included a series of requirements under the subtitle “Administrative Simplification” to improve the efficiency of, and decrease costs within, the health care system by supporting a transition to standardized electronic administrative and financial transactions. Among these requirements, the law directed the Department of Health and Human Services (HHS) Secretary to promulgate privacy standards should legislation addressing privacy of personal health information not be enacted within a specified timeframe. The HIPAA Privacy Rule established for the first time a set of federal standards for the protection of personal health information.

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