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Research Update -- May 1, 2025

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Perceived Benefits and Risks of Keeping Firearms in and Around the Home: Results From a Nationally Representative Survey.

Michael D. Anestis, Kimberly Burke, Allison, E. Bond, Sultan Altikriti, Daniel C. Semenza

Introduction
This study aimed to characterize the extent to which individuals perceive value and risk from firearm access and to what extent these perceptions vary across subpopulations.

Methods
A nationally representative sample (n=8,009) recruited from Ipsos KnowledgePanel completed an online survey May 15 to May 28, 2024. Data were analyzed in 2024.

Results
Most (63.2%) individuals believe firearms increase safety in the case of home invasions. With respect to suicide risk, the most common response is that firearm access has no impact (36.3%). Those who perceive greater protective value from firearms tended to perceive less of an association with suicide risk. Individuals endorsing conspiratorial beliefs and those who report typically storing firearms loaded and unlocked perceived more protective value and less suicide risk. Those with prior gun violence exposure perceived greater protective value but did not differ on levels of perceived suicide risk.

Conclusions
U.S. residents may overstate the protective value of firearms while discounting risk. Certain groups, including those susceptible to conspiratorial beliefs, appear prone to these skewed perceptions. An imbalance in the available information on the risks and benefits of firearm access may perpetuate risky behaviors.

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Firearm leadership: Development, analysis, and application of a novel concept to message secure storage of firearms in the military.

Walsh, A., Ghahramanlou-Holloway, M., Stanley, I. H., Betz, M. E., Heintz Morrissey, B., Godin, S., Morganstein, J. C., LaCroix, J., Cobb, E., Grammer, J., & Button, C. J.

Suicide remains a leading cause of death in the United States (U.S.) Armed Forces. Access to firearms increases the risk of death by suicide due to the high lethality of firearm-related injuries (~90% in suicide attempts) and the highly dynamic nature of suicide which includes rapid change from low- to high-risk states. Critical gaps remain in research, programming, and communication amongst scientists, Department of Defense (DoD) programmatic leaders, front-line commanders, and service members. To enhance communication and coordination, in June 2022, the first-ever national "Firearm Suicide Prevention in the Military: Messaging and Interventions Summit" was held, with discussion of Firearm Leadership, a concept that emphasizes the importance of communication about lethal means safety (LMS) among military leaders and service members. Through a discussion of scientific literature, the points identified during the Summit, as well as presenting illustrative case examples derived from suicide death reviews, we aim to provide a conceptual model for the benefits of Firearm Leadership and how some barriers can be overcome. Following the Summit, further discussions on "Firearm Leadership" led to the development of a Firearm Leadership Factsheet.

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Well-Being and Suicidal Ideation in U.S. Veterans: Age Cohort Effects During Military-to-Civilian Transition.

Shelby Borowski, Eric D. Caine, Shaina A. Kumar, Elizabeth Karras, Stephanie Gamble, Dawne Vogt

Introduction
Life transitions often bring stress and uncertainty and may lead to poor long-term health outcomes if not navigated successfully. Every year over 200,000 U.S. service members transition from military to civilian life. Given that transition may be particularly

challenging for younger individuals this study examined younger military Veterans' well-being during transition and its impact on suicidal ideation as compared with middle-aged Veterans.

Methods
Using data from the Veterans Metrics Initiative (TVMI) study (N=6,615), latent class analysis was used to identify age-stratified subgroups of Veterans (18–34 and 35–54 years) based on health, vocational, financial, and social well-being 1 year following military discharge. Negative binomials models were used to examine associations between subgroups and suicidal ideation at 4 data points. Data were collected in 2016–2019 and analyzed in 2024.

Results
Four subgroups were identified for younger and middle-aged Veterans. For younger Veterans, subgroups included high well-being (32.3%); low well-being (24.7%); poor health and social well-being (17.3%); and poor financial well-being with health risk (25.7%). Middle-aged Veterans subgroups included high well-being with health risk (37.4%); low well-being (20.6%); poor health and social well-being (21.8%), and poor financial well-being with health risk (20.2%). Subgroups with poorer well-being had an increased rate of suicidal ideation compared with those with the highest well-being, with the strongest association with the low well-being subgroups (younger IRRs=10.1–51.0; middle-aged IRRs=11.3–26.0), followed by poor health and social well-being subgroups (younger IRRs=3.9–22.3; middle-aged IRRs=4.9–10.2).

Conclusions
Findings highlight the importance of considering age cohort effects in efforts to enhance well-being and reduce suicidal ideation among transitioning Veterans.

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Military Veterans' Psychological Health and Physical Activity Following Separation from Service.

K.J. Waldhauser, B.A. Hives, Y. Liu, E. Puterman, N. Sharifian, S.F. Castañeda, F.R. Carey, R.P. Rull, M.R. Beauchamp

Introduction

The transition from military to civilian life can bring about substantive challenges for United States (U.S.) veterans. The purpose of this study was to examine veterans' trajectories of psychological health prior to and following separation, and to examine whether veterans who engaged in more physical activity would report better psychological health over time.

Methods

Longitudinal data between 2001-2016 from the Millennium Cohort Study were analyzed, which consisted of U.S. military personnel who separated from service, followed up every 3-5 years. Veterans (N = 37, 464, Mage = 36.3, SD = 10.9 at baseline) who had self-report data collected prior to and on at least two timepoints following separation were analyzed. Psychological health was measured with self-reported mental health-related quality of life, depressive symptoms, and posttraumatic stress disorder symptoms. Physical activity was measured using self-reported minutes per week of moderate-to-vigorous physical activity. Parallel process latent growth modelling was used to examine the relationship between physical activity and psychological health.

Results

Results revealed decreases in psychological health following separation. Veterans with higher pre-separation physical activity were more likely to display steeper trajectories of decreased physical activity and psychological health post-separation. In contrast, veterans who engaged in higher levels of physical activity post-separation displayed increases in psychological health following separation.

Conclusions

Findings suggest that high levels of physical activity during service may not protect against worsened psychological health trajectories post-separation. However, the results provide support for the potential protective factor of physical activity post-separation on psychological health symptoms following separation.

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https://doi.org/10.1001/jamapsychiatry.2025.0488

Distinct Convergent Brain Alterations in Sleep Disorders and Sleep Deprivation: A Meta-Analysis.

Reimann, G. M., Hoseini, A., Koçak, M., Beste, M., Küppers, V., Rosenzweig, I., Elmenhorst, D., Pires, G. N., Laird, A. R., Fox, P. T., Spiegelhalder, K., Reetz, K., Eickhoff, S. B., Müller, V. I., & Tahmasian, M.

Importance:
Sleep disorders have different etiologies yet share some nocturnal and daytime symptoms, suggesting common neurobiological substrates; healthy individuals undergoing experimental sleep deprivation also report analogous daytime symptoms. However, brain similarities and differences between long-term sleep disorders and short-term sleep deprivation are unclear.

Objective:
To investigate the shared and specific neural correlates across sleep disorders and sleep deprivation.

Data sources:
PubMed, Web of Science, Embase, Scopus, and BrainMap were searched up to January 2024 to identify relevant structural and functional neuroimaging articles.

Study selection:
Whole-brain neuroimaging articles reporting voxel-based group differences between patients with different sleep disorders and healthy control participants or between total or partial sleep-deprived and well-rested individuals were included.

Data extraction and synthesis:
Significant coordinates of group comparisons, their contrast direction (eg, patients < controls), and imaging modality were extracted. For each article, 2 raters independently evaluated eligibility and extracted data. Subsequently, several meta-analyses were performed with the revised activation likelihood estimation algorithm using $P < .05$ cluster-level familywise error correction.

Main outcomes and measures:
Transdiagnostic regional brain alterations were identified across sleep disorders and among articles reporting sleep deprivation. Their associated behavioral functions and task-based or task-free connectivity patterns were explored using 2 independent datasets (BrainMap and the enhanced Nathan Kline Institute-Rockland Sample).

Results:
A total of 231 articles (140 unique experiments, 3380 unique participants) were retrieved. The analysis across sleep disorders (n = 95 experiments) identified the subgenual anterior cingulate cortex (176 voxels, z score = 4.86), associated with reward, reasoning, and gustation, and the amygdala and hippocampus (130 voxels, z score = 4.00), associated with negative emotion processing, memory, and olfaction. Both clusters had positive functional connectivity with the default mode network. The right thalamus (153 voxels, z score = 5.21) emerged as a consistent regional alteration following sleep deprivation (n = 45 experiments). This cluster was associated with thermoregulation, action, and pain perception and showed positive functional connectivity with subcortical and (pre)motor regions. Subanalyses regarding the direction of alterations demonstrated that the subgenual anterior cingulate cortex exhibited decreased activation, connectivity, and/or volume, while the amygdala and hippocampus cluster and the thalamus cluster demonstrated increased activation, connectivity, and/or volume.

Conclusions and relevance:
Distinct convergent brain abnormalities were observed between long-term sleep disorders (probably reflecting shared symptoms) and short-term sleep deprivation.

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Clinician Suicide Risk Assessment for Prediction of Suicide Attempt in a Large Health Care System.

Bentley, K. H., Kennedy, C. J., Khadse, P. N., Brooks Stephens, J. R., Madsen, E. M., Flics, M. J., Lee, H., Smoller, J. W., & Burke, T. A.

Key Points
Question
How accurate are clinician assessments for risk stratification of future suicide attempt?

Findings
In this electronic health record–based, prognostic study, clinicians' overall single-item risk estimates predicted 90- and 180-day suicide attempt at significantly above chance

levels. Incorporating all suicide risk assessment items via machine learning significantly increased predictive accuracy.

Meaning
Clinicians stratify patients for suicide risk at significantly above chance levels; however, predictive accuracy is significantly enhanced by statistically incorporating information about recent suicidal thoughts and behaviors and other risk and protective factors routinely assessed during suicide risk assessment.

Abstract
Importance
Clinical practice guidelines recommend suicide risk screening and assessment across behavioral health settings. The predictive accuracy of real-world clinician assessments for stratifying patients by risk of future suicidal behavior, however, remains understudied.

Objective
To evaluate routine clinical suicide risk assessment for prospectively predicting suicide attempt.

Design, Setting, and Participants
This electronic health record–based, prognostic study included 89 957 patients (≥5 years of age) with a structured suicide risk assessment (based on the Suicide Assessment Five-step Evaluation and Triage framework) that was documented by 2577 clinicians during outpatient, inpatient, and emergency department encounters at 12 hospitals in the Mass General Brigham health system between July 2019 and February 2023.

Main Outcomes and Measures
The primary outcome was an emergency department visit with a suicide attempt code recorded in the electronic health record within 90 days or 180 days of the index suicide risk assessment. The predictive performance of suicide risk assessments was evaluated on a temporal test set first using stratified prevalence (clinicians' overall risk estimates from a single suicide risk assessment item indicating minimal, low, moderate, or high risk) and then using machine learning models (incorporating all suicide risk assessment items).

Results
Of the 812 114 analyzed suicide risk assessments from the electronic health record, 58.81% were with female patients and 3.27% were with patients who were Asian,

5.26% were Black, 3.02% were Hispanic, 77.44% were White, and 11.00% were of Other or Unknown race. After suicide risk assessments were conducted during outpatient encounters, the suicide attempt rate was 0.12% within 90 days and 0.22% within 180 days; for inpatient encounters, the rate was 0.79% within 90 days and 1.29% within 180 days; and for emergency department encounters, the rate was 2.40% within 90 days and 3.70% within 180 days. Among patients evaluated during outpatient encounters, clinicians' overall single-item risk estimates had an area under the curve (AUC) value of 0.77 (95% CI, 0.72-0.81) for 90-day suicide attempt prediction; among patients evaluated during inpatient encounters, the AUC was 0.64 (95% CI, 0.59-0.69); and among patients evaluated during emergency department encounters, the AUC was 0.60 (95% CI, 0.55-0.64). Incorporating all clinician-documented suicide risk assessment items (87 predictors) via machine learning significantly increased the AUC for 90-day risk prediction to 0.87 (95% CI, 0.83-0.90) among patients evaluated during outpatient encounters, 0.79 (95% CI, 0.74-0.84) among patients evaluated during inpatient encounters, and 0.76 (95% CI, 0.72-0.80) among patients evaluated during emergency department encounters. Performance was similar for 180-day suicide risk prediction. The positive predictive values for the best-performing machine learning models (with 95% specificity) ranged from 3.6 to 10.1 times the prevalence for suicide attempt.

Conclusions and Relevance
Clinicians stratify patients for suicide risk at levels significantly above chance. However, the predictive accuracy improves significantly by statistically incorporating information about recent suicidal thoughts and behaviors and other factors routinely assessed during clinical suicide risk assessment.

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https://doi.org/10.1001/jamanetworkopen.2025.6372

An Evidence Map of the Women Veterans' Health Literature, 2016 to 2023: A Systematic Review.

Goldstein, K. M., Pace, R., Dancu, C., Raman, S. R., Bridges-Curry, Z., Klimek-Johnson, P., Jeevanathan, A., Gallion, A. H., Der, T., Tabriz, A. A., Sprague, S., Rushton, S., Hammer, A. J., Sims, C. A., Coleman, J. N., Martino, J., Cantrell, S., Gordon, A. M., Jacobs, M., Alexopoulos, A. S., … Gierisch, J. M.

JAMA Network Open
April 22, 2025

Key Points

Question

What is the scope and breadth of women veterans health literature published since 2015?

Findings

This systematic review identified 932 articles published since 2015 about women veterans' health; most were observational. Overall, the greatest growth was found in literature about reproductive health (physical and mental), pain, suicide, and nonsuicidal self-injury, and there was little growth about long-term care and aging issues.

Meaning

These findings suggest that the women veterans research community has expanded the evidence about issues pertinent to caring for women veterans in areas important to the VA; however, gaps remain around the evaluation of solutions to relevant health problems and on topics pertinent to this aging population.

Abstract

Importance

Women veterans are the fastest-growing veteran subpopulation in the US. Women veterans often experience military service–related health issues in addition to conditions common to all women. Because women veterans are more likely to receive care in the civilian setting than through the Department of Veterans Affairs (VA), all women's health clinicians should be equipped to provide patient-centered care for women veterans. The health care of women veterans requires evidence-based care informed by population-specific scientific literature. An updated evidence map evaluating women veteran–focused health literature is needed.

Objective

To map the scope and breadth of women veterans' health literature published from 2016 to 2023.

Evidence Review

In this systematic review, MEDLINE, Embase, and CINAHL Complete were searched for eligible articles published from 2016 to 2023. Articles reporting about US women veterans' health outcomes or on the experience of providing care to women veterans were included. Included articles were required to report patient-level outcomes that included either data for only women veterans or reported results separately for women

veterans. Articles were grouped by primary focus area based on categories previously established by the VA Women's Health research agendas and prior evidence maps.

Findings

The volume of women veterans' health literature published between 2016 and 2023 of 932 articles was double that of the prior 8 years. The largest portion of this literature was focused on chronic medical conditions (137 articles [15%]), general mental health (203 articles [22%]), and interpersonal violence (121 articles 3[13%]). Areas of greatest growth included reproductive health (physical and mental), pain, suicide, and nonsuicidal self-injury. Additionally, emerging areas of inquiry were found, including military-related toxic exposures and harassment within the health care setting.

Conclusions and Relevance

In this systematic review of literature focused on the health of women veterans, the volume of literature was found to have doubled and expanded in important areas that aligned with VA research priorities. However, despite the growth in research related to women veterans, several important research gaps remain within this field of study. Research addressing health issues pertinent to a growing and aging women veterans' population will require rigorous research and program evaluations.

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Army Wives: Exploring the Social Determinants of Health in a Population With Universal Health Care in the United States.

Jessica R. Dodge, Kathrine Sullivan, Julie C. Merrill, Kristina Clarke-Walper, Lyndon A. Riviere, Whitney Wortham and Carl Castro

Guided by the World Health Organization's (WHO) Social Determinants of Health (SDH) conceptual framework the purpose of this study was to explore the SDH among military spouses, who have universal access to health care. Two research questions guided this study: (1) What SDH factors are significantly associated with Army wives' self-reported health, and (2) What SDH level of factors best explains Army wives' self-rated health. The present study is a secondary analysis of survey data collected in 2012 from 327 U.S. Army wives. Bivariate pairwise correlations and hierarchical linear regressions

(HLR) were used to examine determinant categories outlined in the SDH framework. Results suggest significant bivariate associations in most determinant categories. The best-fitting HLR models were those with all determinant categories. These preliminary findings suggest that although universal health care can improve mental and physical health equity, other SDH factors within and across multiple determinant categories can contribute to persistent inequities.

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https://doi.org/10.1017/S0033291725000947

Prospective associations of alcohol and drug misuse with suicidal behaviors among US Army soldiers who have left active service.

Campbell-Sills, L., Sun, X., Kessler, R. C., Ursano, R. J., Jain, S., & Stein, M. B.

Background
This study examines the prospective associations of alcohol and drug misuse with suicidal behaviors among service members who have left active duty. We also evaluate potential moderating effects of other risk factors and whether substance misuse signals increased risk of transitioning from thinking about to attempting suicide.

Method
US Army veterans and deactivated reservists (N = 6,811) completed surveys in 2016–2018 (T1) and 2018–2019 (T2). Weights-adjusted logistic regression was used to estimate the associations of binge drinking, smoking/vaping, cannabis use, prescription drug abuse, illicit drug use, alcohol use disorder (AUD), and drug use disorder (DUD) at T1 with suicide ideation, plan, and attempt at T2. Interaction models tested for moderation of these associations by sex, depression, and recency of separation/deactivation. Suicide attempt models were also fit in the subgroup with ideation at T1 (n = 1,527).

Results
In models controlling for socio-demographic characteristics and prior suicidality, binge drinking, cannabis use, prescription drug abuse, illicit drug use, and AUD were associated with subsequent suicidal ideation (AORs = 1.42–2.60, ps < .01). Binge drinking, AUD, and DUD were associated with subsequent suicide plan (AORs = 1.23–

1.95, ps < .05). None of the substance use variables had a main effect on suicide attempt; however, interaction models suggested certain types of drug use predicted attempts among those without depression. Additionally, the effects of smoking/vaping and AUD differed by sex. Substance misuse did not predict the transition from ideation to attempt.

Conclusions
Alcohol and drug misuse are associated with subsequent suicidal behaviors in this population. Awareness of differences across sex and depression status may inform suicide risk assessment.

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https://doi.org/10.1093/milmed/usae478

COVID-19 Personal Experiences and Posttraumatic Stress in National Guard Service Members.

Mash, H. B. H., Fullerton, C. S., Adler, A. B., Morganstein, J. C., Blumhorst, A., LaCroix, C. L., Biggs, Q. M., & Ursano, R. J.

Introduction
The National Guard (NG) was an important component of the U.S. emergency response for the coronavirus (COVID-19) pandemic. Understanding how the personal COVID-19 experiences of NG members may be associated with posttraumatic stress symptoms (PTSS) and disorder (PTSD) can inform approaches to identifying and sustaining service members' mental health.

Materials and Methods
We surveyed 3,993 NG service members (75% Army; 79% enlisted; 33% 30-39 years old; 81% male) during the pandemic. Forty-six percent of participants were activated in response to COVID-19. Surveys were administered between August and December 2020. We defined personal COVID-19 experiences as having COVID-19, a family member(s) having COVID-19, and/or having a close relationship with someone who died from COVID-19. In addition, using a 4-item form of the PTSD Checklist for DSM-5 (PCL-5), current posttraumatic stress symptoms (PTSS) and probable PTSD were

assessed. Linear and logistic regression analyses were conducted to examine the relationship of COVID-19 experiences to PTSS and probable PTSD, respectively.

Results
Approximately 32% of participants reported at least one personal COVID-19 experience. Univariable linear regression analyses indicated that NG service members who had a personal COVID-19 experience reported more PTSS than those with no personal experience (B = 0.53, SE = 0.12, P < .001). After adjusting for demographics and service-related characteristics, having a personal COVID-19 experience continued to be associated with higher PTSS (B = 0.48, SE = 0.12, P < .001). When examining the relationships of distinct types of personal COVID-19 experiences to PTSS and PTSD together in multivariable models, those who had a close relationship with someone who died from COVID-19 had higher levels of PTSS (B = 1.31, SE = 0.22, P < .001) and were almost 3 times more likely to have PTSD (OR = 2.94[95%CI = 1.93-4.47], P < .001).

Conclusions
Personal COVID-19 experiences are associated with increased PTSS and PTSD risk in NG service members. Such knowledge may aid in selection of service members for activation and identifying those in need of care.

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Anhedonia and PTSD symptom severity profiles differentially influence physical activity volume in trauma-exposed adults.

Sato, M., Chatham, S. A., Aguiar, E. J., Fedewa, M. V., MacDonald, H. V., Richardson, M. T., Wingo, J. E., & Crombie, K. M.

Background:
It is well-established that adults with elevated psychiatric symptoms or a psychiatric disorder (e.g. depression) engage in lower amounts of physical activity (PA) compared to adults with fewer symptoms/no diagnosis. However, less is known about the association between psychiatric symptoms and PA behaviour in trauma-exposed adults. Most prior investigations have focused on independent associations between overall

depression or posttraumatic stress disorder (PTSD) symptoms in relation to PA and have neglected specific symptom domains (e.g. anhedonia). Therefore, we conducted secondary analyses on a parent dataset to examine whether PTSD symptom severity moderates the association between anhedonia and PA volume.

Methods:
Trauma-exposed adults (N = 107, 61% women, M ± SD age = 28 ± 9 y 54% White) completed questionnaires assessing demographic information, anhedonia, PTSD symptom severity (overall and symptom clusters), and PA volume (total MET-min/week). Main effects and interactions between anhedonia and PTSD symptom severity in relation to PA volume were examined with robust linear regression models.

Results:
We observed a significant anhedonia × PTSD symptom severity interaction. An inverse association between anhedonia and PA volume was observed among adults with lower-to-moderate PTSD symptom severity, and a positive association between anhedonia and PA volume was observed among adults with higher PTSD symptom severity. Significant anhedonia × PTSD symptom severity interactions for avoidance (Cluster C) and negative alterations in arousal/reactivity (Cluster E) symptoms were also observed, with associations in the same direction as the overall PTSD symptom severity model.

Conclusion:
These preliminary findings suggest that co-occurring anhedonia and PTSD symptom severity profiles interact to influence PA volume in trauma-exposed adults. Future research is needed to understand why trauma-exposed adults with greater co-occurring anhedonia and PTSD symptom severity profiles reported engaging in higher levels of PA compared to those with lower symptom severity profiles. Such knowledge could help healthcare practitioners tailor treatment plans to incorporate or adjust PA prescriptions.

HIGHLIGHTS
- This study contributes to an emerging area of research aimed at understanding the relationship between comorbid psychiatric symptoms and physical activity (PA) behaviours in trauma-exposed adults.

- Greater anhedonia was associated with lower PA among adults with lower-to-moderate PTSD symptom severity. Greater anhedonia was associated with higher PA among adults with higher PTSD symptom severity.

- Trauma-exposed adults with greater anhedonia and PTSD symptom severity may engage in high levels of PA as a coping or emotional regulation strategy

(e.g. to combat high symptom burden, avoid hyperarousal symptoms, or compensate for loss of interest in some other previously enjoyable activity).

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Exploring OCD severity in treatment-seeking veterans: a cross-sectional comparison between post-traumatic stress disorder (PTSD) and complex-PTSD (C-PTSD).

Howlett, P., Sudera, T. L. R., Biscoe, N., Billings, J., & Murphy, D.

The recent International Classifications of Diseases-11 (ICD-11) distinction of complex-post-traumatic stress disorder (C-PTSD) from post-traumatic stress disorder (PTSD), has highlighted a research gap in exploring how C-PTSD may relate to obsessive-compulsive disorder (OCD) differently than PTSD. Mental health disorders and comorbidities appear to be greater in military veterans compared to the general population. Thus, this study aimed to explore potential differences in OCD severity between probable PTSD and probable C-PTSD in a national clinical sample of UK military veterans. Data from 428 veterans were analysed using a previously collected dataset. The survey assessed sociodemographic characteristics, military experiences, physical and mental health, and well-being. Results indicated significant differences in OCD severity between probable PTSD and probable C-PTSD. OCD severity significantly increased as C-PTSD symptom severity increased for veterans with probable C-PTSD. Though no significant association was identified between OCD severity and PTSD scores within the probable PTSD group, this finding should be interpreted with caution, as the small sample may have limited statistical power. Greater C-PTSD severity significantly predicted greater OCD severity, but PTSD scores did not. Disturbances of self-organisations (DSO) symptoms within C-PTSD were more strongly associated to OCD severity compared to PTSD symptoms, indicating a seemingly complex interplay between C-PTSD's cluster of symptoms and OCD severity. Future research should focus on replication involving larger veteran samples and the general population, incorporating clinician-administered assessments alongside self-report measures to enhance diagnostic accuracy.

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Behavioral Health Outcomes in the 12 Months Following Major Limb Loss Among Active Duty Service Members Treated in the Military Health System, 2001-2017.

Jannace, K. C., Schulz, R. N., Sparling, T., Cooper, D. B., Harrington, C., & Pasquina, P. F.

Introduction
Over 2,100 active duty service members (ADSM) have experienced traumatic limb loss since 2001. Combat-injured ADSMs have over 3 times the odds of developing a behavioral health condition as compared to those with noncombat injuries. Additionally, severity of injury has been associated with increased risk of post-traumatic stress disorder and depression, which increase the risk of suicidal behavior. Despite previous research, studies have not investigated incident behavioral health diagnoses in the 12 months following amputation and the highest-risk subpopulations.

Materials and Methods
A retrospective cohort study using existing electronic health record data identified ADSMs experiencing major limb loss between 2001 and 2017. Incident behavioral health conditions diagnosed in the 12 months following limb loss were identified. Disorders typically diagnosed in childhood were excluded. Wilcoxon rank-sum tests and chi-squared tests calculated differences between those with and without a diagnosis in the 12 months post-amputation. Logistic regression models calculated odds ratios and 95% CIs measuring the association between significant demographic and amputation characteristics and between post-amputation incident behavior health diagnosis and incident traumatic brain injury (TBI) and incident behavioral health diagnosis for each diagnostic category.

Results
Approximately 56% of ADSMs were diagnosed with an incident behavioral health condition in the 12 months following major limb loss. Those diagnosed with a condition were likely to be younger, enlisted ADSMs, and sustaining a combat-related lower extremity amputation. The most common diagnosis was adjustment disorder (31%). Over 41% were also diagnosed with a TBI. Unadjusted odds of a behavioral health condition were 3.3 (95% CI: 2.8-4.0) times higher among those also diagnosed with a TBI.

Conclusions

In this study, more than half of ADSMs experiencing major limb loss developed incident behavioral health conditions within the first 12 months. This study highlights the need for awareness of the potentially increased risk of these diagnoses in the acute period following amputation.

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The Association Between Disordered Eating and Musculoskeletal Injury Among Marine Officers Upon Entry to the Basic School.

Exley, L. S. L., Schvey, N. A., Ricker, E., Raiciulescu, S., Barrett, A. S., & de la Motte, S. J.

Introduction

Active duty service members (ADSMs) may be at heightened risk for eating disorders (EDs) and sub-clinical disordered eating (DE). ADSMs are also at a high risk for musculoskeletal injury (MSK-I). Given the risk for EDs/DE among ADSMs as well as robust physical requirements of military training, additional research is needed to elucidate links between DE and risk for MSK-I among ADSMs. The aim of the present study was to assess the prevalence of DE and associations with MSK-I among Marine Corps officers entering a 6 month leadership course.

Materials and Methods

The current cross-sectional study is part of a large, prospective study, the Initiation of Marine Physiological Assessment of Combat Training (IMPACT) study. Participants completed the Eating Disorder Examination-Questionnaire Short (EDE-QS) and self-reported the presence of a recent (≤6 months) MSK-I upon entry to an officer training course. A logistic regression was used to assess the association between elevated DE (EDE-QS ≥15) and recent MSK-I, adjusting for age, race, sex, and commissioning source.

Results

N = 1,382 officers (11.6% female, MAge: 24.8 ± 2.9 years, 26.6% racial/ethnic minority)

completed the questionnaires. Seven percent had elevated DE (EDE-QS score ≥15) (female: 10.6%, male: 6.9%, P = .10); 18.3% self-reported recent MSK-I (female: 26.3%, male: 17.3%; P = .009). Females had 17% greater odds of MSK-I compared to males (aOR: 1.17, 95% CI: 1.03-1.33, P = .02). Moreover, females with elevated DE had greater odds of MSK-I than males with elevated DE (aOR= 1.38); among females, odds of MSK-I were greatest among those with elevated DE (aOR= 1.35).Conclusions
In this sample of Marine officers, DE was associated with greater odds of a recent MSK-I among women only. Results align with previously reported relationships between DE and skeletal health in female athletes. Prospective research is needed to elucidate the temporal nature of these relationships.

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Military sexual trauma, combat trauma, and disordered eating among United States veterans: An exploration of underlying mechanisms.

Tilstra-Ferrell, E. L., Braden, A., & Russin, S.

Military sexual trauma (MST) and combat trauma (CT) survivors experience disproportionate risk for disordered eating. A survey of MST, CT, disordered eating, trauma-related self-blame, emotion regulation challenges, body dissatisfaction, and dissociation among military personnel with a history of military-related trauma was conducted. These survey-based cross-sectional data were analyzed via parallel mediation analyses and Analyses of Covariance (ANCOVA). Six parallel mediation analyses were conducted examining trauma-related self-blame, emotion regulation challenges, body dissatisfaction, and dissociation as mediators linking MST and CT, separately, with purging, restricting, and bingeing. ANCOVAs were also performed to examine differences in levels of bingeing, restriction, and purging among people exposed to MST, CT, both MST and CT, and neither. MST and CT exposure was indirectly related to bingeing via emotion regulation challenges. MST and CT was also indirectly related to both restriction and purging via emotion regulation challenges and trauma-related self-blame. Dissociation and body dissatisfaction were not significant mediators in any model. Participants endorsed high levels of disordered eating. Individuals exposed to both MST and CT reported greater bingeing, restricting, and purging than individuals exposed to either CT, MST, or neither. Findings highlight the

nuanced symptoms that may increase risk for disordered eating among MST and/or CT survivors. Future treatment research should explore how addressing emotion regulation and trauma-related self-blame among individuals with MST and/or CT may help address disordered eating. Implications and future directions for this area of research are discussed.

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Assessing Attention-Deficit/Hyperactivity Disorder in Post-9/11 Veterans: Prevalence, Measurement Correspondence, and Comorbidity With Posttraumatic Stress Disorder.

Knight, A. R., Kim, S., Currao, A., Lebas, A., Nowak, M. K., Milberg, W. P., & Fortier, C. B.

Introduction
Attention-deficit/hyperactivity disorder (ADHD) is common among Veterans but overlapping symptoms with other prevalent psychiatric disorders (e.g., posttraumatic stress disorder [PTSD]) complicate diagnosis. This study aims to (1) assess the prevalence of ADHD, (2) evaluate the correspondence between ADHD self-report measures, and (3) examine the association between ADHD and PTSD in a sample of combat-deployed post-9/11 Veterans.

Materials and Methods
A total of 332 combat-deployed post-9/11 Veterans from VA Boston Healthcare System completed the Clinician-Administered PTSD Rating Scale, 2 ADHD self-report questionnaires (Wender Utah Rating Scale–25 and the Adult ADHD Self-Report Scale v1.1), and report of the presence/absence of a historical ADHD diagnosis. Attention-deficit/hyperactivity disorder status via Wender Utah Rating Scale ([WURS-25] criterion standard) was compared to historical ADHD diagnosis and the ASRSv.1.1 screener. Log-binomial regression models assessed the relationship between ADHD and PTSD. This study was reviewed and approved by the VA Boston Institutional Review Board.

Results
In all, 12.7% of the sample met criteria for ADHD per the WURS-25. The WURS-25

demonstrated poor sensitivity with historical ADHD diagnosis (27.7%) but adequate specificity (90.3%). Poor sensitivity (60.7%) and specificity (60.8%) were observed between the WURS-25 and the ASRS-v.1.1. The prevalence of ADHD was 2.5 times as high for Veterans with a history of PTSD (Prevalence Ratio [PR] = 2.53, 95% CI: 1.11, 7.28) and over twice as high for those with current PTSD (PR = 2.19, 95% CI: 1.17, 4.38).

Conclusions
Attention-deficit/hyperactivity disorder is prevalent in this sample of Veterans and is associated with an increased risk of current and lifetime PTSD. The low correspondence across self-report ADHD measures illustrates the complexity of assessing ADHD in this highly comorbid population. When evaluating ADHD in Veterans, clinicians should carefully consider alternative and contributory symptom etiologies, such as PTSD, to ensure accurate diagnosis and treatment.

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Analysis of Disparities in Diagnosis of Autism Spectrum Disorder in the Military Health System Pediatrics Population.

Chikezie-Darron, O., Sakai, J., & Tolson, D.

There have been disparities reported in prevalence of autism by gender, race, and socioeconomic status with older ages of diagnosis in non-White and in female children. Possible disparities in the ages of autism diagnosis are not well-established within the Military Health System (MHS) pediatric population, where we hypothesized less disparities given universal Tricare coverage for active-duty military families and theoretically equal access to the military treatment facility (MTF). We conducted retrospective cross-sectional analysis using deidentified database repository records from the MHS. We collected and analyzed demographic data on children covered by Tricare and newly diagnosed with autism within an MTF (N = 31,355) or outside of the MTF (5,579 respectively). Within the MTF, we identified younger ages of autism diagnosis in non-White children less than 18 years old ($p < 2.2e{-}16$), without significant differences in ages of diagnosis by race in children less than 6 years of age. There were no statistically significant differences in ages of diagnosis between males and females.

Outside the MTF, we identified younger ages of autism diagnosis in males versus females with statistically significant difference in average ages of autism diagnosis between males and females less than the age of 18 years (p = 4.4e-08). This difference was not seen in children less than 6 years of age. Racial data was not available for diagnosis outside the MTF. The age of autism diagnosis in the military pediatric population within the MTF did not reflect historical disparities seen in non-White and in female children.

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A Preliminary Analysis of Psychological Strengths: Service Members' Well-being Post-deployment.

Bowles, S. V., Neumaier, E. R., Hughes, E. R., Guberman, L., Cozzi, F. M., Bartone, P. T., Switzer, P., Mallonee, S. D., Goyette, A. S., Seidler, D. A., Kelly, J., & Hoyt, T.

Deployments are stressful for both service members and their families. To promote the overall health and welfare of those impacted by military deployment, it is important to identify individual resilience-building resources that service members can employ to strengthen their own well-being, the well-being of their families, and the readiness of the force. This pilot study examines different resilience-building skills that may impact individual well-being, relationship quality, and family satisfaction post-deployment. A cross-sectional sample of 78 married U.S. military enlisted service members (n = 24) and commissioned officers (n = 54) completed the Coping Self-Efficacy Scale, Resilience Scale for Adults, Humor Styles Questionnaire, Mindful Attention Awareness Scale, Dispositional Resilience Scale, the emotional well-being and spirituality subscales of the Work-Life Well-Being Inventory, and the Social Problem-Solving Inventory-Revised. The use of a positive humor style was significantly associated with individual well-being. Spirituality and religious practices were significantly predictive of a service member's family satisfaction. Responding to qualitative open-ended questions, service members identified their top 6 subcategories of stress, which were communication, moving, finances, family separation, children, and future employment during post-deployment. The strengths and resources reported as contributing the most to family effectiveness and well-being were personal character traits, external relationship skills, emotional maturity, and the ability to work. The results identified

unique individual resilience-building resources for service members, which contribute to their well-being and the well-being of their families. Findings suggest that training on individual resilience-building resources for service members can offer support to the entire family system following military deployment.

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Beyond Physical and Mental Health: The Broader Impacts of Intimate Partner Violence on Psychosocial Well-Being Among Women and Men Veterans.

Taverna, E., Iverson, K. M., Kumar, S. A., Vogt, D., & Mitchell, K. S.

Research on the consequences of experiencing intimate partner violence (IPV) has predominantly focused on specific physical and mental health outcomes and have emphasized the impacts for women. Fewer studies have comprehensively documented IPV impacts on other aspects of psychosocial well-being and examined effects for both women and men. A sample of 1133 veterans (52.3% women) completed two web-based surveys approximately one year apart. Women did not differ from men with respect to their odds of experiencing past year overall IPV (OR = 1.06, 95% CI [0.81, 1.38]) but were more likely to experience overall IPV prior to the past year (OR = 1.52, 95% CI [1.19, 1.95]). Gender-stratified multivariate regressions revealed that greater frequency of past year IPV experiences was associated with lower psychosocial well-being with respect to finances (β = −0.22, p < 0.001), health (β = −0.19, p < 0.001), intimate relationships (β = −0.14, p = 0.007), and broader social relationships (β = −0.17, p = 0.018), whereas greater frequency of IPV prior to the past year was associated with lower psychosocial well-being with respect to employment (β = −0.17, p = 0.002), finances (β = −0.14, p = 0.020), and health (β = −0.16, p = 0.012) among women. For men, nonsignificant associations were observed for all associations of IPV with psychosocial well-being outcomes. Results point to the importance of attending to broader aspects of psychosocial well-being that may represent modifiable intervention targets among women who have experienced IPV. Further research is needed to better understand the psychosocial well-being impacts of IPV for men.

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Negative non-deployment emotions, substance use, and marital satisfaction among never-deployed military couples.

Vest, B. M., Hoopsick, R. A., Homish, D. L., & Homish, G. G.

Among military service members, the experience of never-deploying can create a negative affective state (i.e., "non-deployment emotions"; (NDE)) that increases stress and may contribute to higher rates of substance use among Reserve and National Guard soldiers. Little is known about how soldiers' negative NDE and substance use may affect the marital relationship of military couples. We examined the cross-spouse effects of male soldiers' negative NDE and alcohol and illicit drug use on female spouses' marital satisfaction, using cross-sectional data from never-deployed male soldiers and their female spouses (n = 94 couples; 188 participants). Negative binomial regression models tested the main effects of soldiers' negative NDE, alcohol use, and illicit drug use, separately, on their spouses' marital satisfaction, controlling for soldiers' depression, years of military service, and prior active-duty status, and spouses' depression and substance use. Interaction terms between NDE and alcohol use and illicit drug use were then added. In adjusted main effects models, only husbands' current illicit drug use was associated with wives' decreased marital satisfaction (RR: 0.78; 95% CI: 0.63, 0.96; p < .05). However, significant interaction models indicated that wives had lower marital satisfaction when their husbands had high levels of negative NDE and used alcohol or drugs. This suggests a synergistic effect; negative non-deployment emotions combined with higher substance use among soldiers may contribute to lower marital satisfaction among wives. Military organizations should consider ways to better support never-deployed soldiers, develop approaches to help mitigate feelings of reduced camaraderie or belonging, and explore ways to better support military couples.

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Antecedents, reasons for, and consequences of suicide attempts: Results from a qualitative study of 89 suicide attempts among army soldiers.

Nock, M. K., Jaroszewski, A. C., Deming, C. A., Glenn, C. R., Millner, A. J., Knepley, M., Naifeh, J. A., Stein, M. B., Kessler, R. C., & Ursano, R. J.

Most studies aimed at understanding suicidal behavior have focused on quantifying the associations between putative risk factors and suicidal behavior in comparative studies of cases and controls. The current study, in comparison, exclusively focused on cases—89 Army soldiers presenting for hospital care following a suicide attempt—and attempted to reveal the antecedents of, reasons for, and consequences of suicide attempts. This mixed-methods study using qualitative interviews and self-report surveys/interviews revealed that in most cases, the most recent onset of suicidal thoughts began shortly before the suicide attempt and were not disclosed to others, limiting opportunities for intervention via traditional approaches. The primary reason given for attempting suicide was to escape from psychologically aversive conditions after concluding that no other effective strategies or options were available. Participants reported both negative (e.g., self-view, guilt) and positive (e.g., learning new skills, receiving support) consequences of their suicide attempt—and described things they believe would have prevented them from making the attempt. These findings provide new insights into the motivational and contextual factors for suicidal behavior and highlight several novel directions for prevention and intervention efforts. (PsycInfo Database Record (c) 2025 APA, all rights reserved)

Impact Statement
In this study, researchers conducted in-depth interviews with 89 Army soldiers who had just tried to kill themselves. The aim was to increase understanding of why people engage in such behavior. Results revealed that the primary motivation for suicide was to escape from seemingly intolerable psychological states. Most people attempting suicide did not tell someone else about their plans ahead of time. Respondents described things that would have made them change their minds about making a suicide attempt. The results of this study provide valuable information about why people try to kill themselves and how we might better prevent them from doing so. (PsycInfo Database Record (c) 2025 APA, all rights reserved)

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Links of Interest

Unlocking Veteran tax exemptions across states and U.S. territories: Your roadmap to Veteran tax benefits by state and territory
https://news.va.gov/139592/unlocking-veteran-tax-exemptions-across-states-and-u-s-territories/

Veteran satisfaction and trust in VA telehealth continues to rise
https://news.va.gov/139580/veteran-satisfaction-trust-in-telehealth-rise/

Ramstein Airmen Work Together to Change 'Lie to Fly' Culture
https://www.airandspaceforces.com/ramstein-lie-to-fly/

May is Mental Health Awareness Month
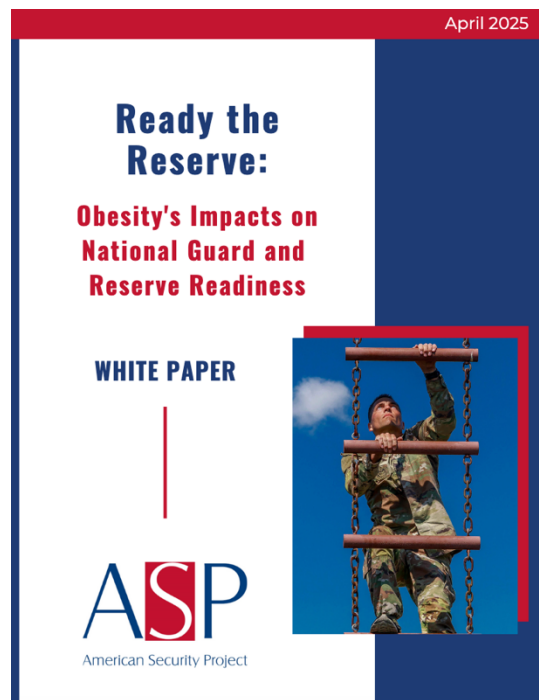https://www.samhsa.gov/about/digital-toolkits/mental-health-awareness-month

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Resource of the Week – Ready the Reserve: Obesity's Impacts on National Guard and Reserve Readiness

From the American Security Project:

> As operational demands on the U.S. Armed Forces' reserve component increase, rising rates of weight-related illnesses in the National Guard and reserves present a growing threat to manpower, mission readiness, and service member well-being. Despite new preparatory courses helping to drive up recruitment numbers, the reserve component disqualifies thousands of applicants for overweight and obesity each year, and weight-related health complications are major drivers of early separation. Injuries, lost productivity, and hospital visits due to obesity and its over 200 associated conditions hamper reserve component readiness to respond to threats both overseas and at home.

> In addition to grappling with the same weight-related challenges as the active component, the reserve component faces unique obstacles, such as inconsistent health insurance coverage, reduced access to obesity care providers, and a lack of centralized health data. To ensure that the reserve forces are fully prepared to face an array of evolving security threats, the Department of Defense must improve its understanding of the impact of obesity on reserve recruitment and

readiness, increase collection and public reporting of this information, and streamline service members' access to evidence-based obesity care.

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