

Research Update -- March 16, 2023

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https://pubmed.ncbi.nlm.nih.gov/36790903/

In-Theater Mental Health Disorders Among U.S. Soldiers Deployed Between 2008 and 2013.

Paxton Willing, M. M., Tate, L. L., O'Gallagher, K. G., Evatt, D. P., & Riggs, D. S.

MSMR (2022) 29(11), 11–17

Deployed service members regularly undergo demanding and stressful experiences that can contribute to mental health difficulties; however, there is a scarcity of studies examining rates of mental health disorders in-theater. The current study examined case rates of mental health disorders among deployed U.S. Army Soldiers using diagnostic encounter data from the Theater Medical Data Store. Case rates were calculated across 12 categories of mental health disorders. While in theater, soldiers' highest rates were for stress reactions and adjustment disorders, depression, anxiety, and sleep disorders. The lowest rates in theater were for psychosis, bipolar, somatic, and eating disorders. Notably, female soldiers had higher rates than their male counterparts for disorders in each of the 12 diagnostic categories. Results provide crucial information to aid in decision making about necessary interventions and provider competencies in deployed settings. Knowledge gained from these data may improve force readiness, help lessen disease burden, and inform military policy and prevention efforts.

https://doi.org/10.1016/j.jpsychires.2022.12.019

Mental health of U.S. combat veterans by war era: Results from the National health and Resilience in veterans study.

Na, P. J., Schnurr, P. P., & Pietrzak, R. H.

Journal of Psychiatric Research 2023 Feb; 158: 36-40

Combat exposure is associated with elevated risk for adverse psychiatric outcomes in military veterans. However, few studies have examined psychiatric characteristics of

veterans who served in different war eras. We analyzed data from the 2019-2020 National Health and Resilience in Veterans Study, which surveyed a nationally representative sample of 1257 US combat veterans including World War II or Korean War veterans (n = 61, weighted 4.9%), Vietnam War veterans (n = 767, weighted 44.5%), Gulf War veterans (n = 168, weighted 14.5%), and Iraq/Afghanistan War veterans (n = 261, weighted 36.2%). Sociodemographic, military, and mental health factors were examined. Gulf and Iraq/Afghanistan War era veterans were comprised of younger veterans and included more women and racial/ethnic minorities relative to previous era veterans. Overall, Gulf and Iraq/Afghanistan War veterans endorsed greater trauma burden, and were more likely to screen positive for lifetime and current major depressive disorder and posttraumatic stress disorder (PTSD), as well as current suicidal ideation. Among all war era groups, Iraq/Afghanistan war veterans reported the greatest lifetime trauma and combat exposure severity, and were most likely to screen positive for lifetime PTSD (weighted 29.3%), current alcohol use disorder (weighted 17.2%), and current drug use disorder (weighted 12.4%). Specifically, more than 1-in-4 Irag/Afghanistan War veterans (weighted 26.3%) reported current suicidal thoughts. Collectively, these findings provide war-era specific characterization of the psychiatric status of US combat veterans, which may help inform era-specific assessment, monitoring, and treatment of psychiatric disorders in the combat veteran population.

https://doi.org/10.1001/jamanetworkopen.2022.52109

Exposure to Bullying or Hazing During Deployment and Mental Health Outcomes Among US Army Soldiers.

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

JAMA Network Open 2023 Jan 3; 6(1): e2252109

Importance:

Workplace bullying is associated with mental disorders and suicidality in civilians, but few studies have examined associations of bullying with these outcomes among military personnel.

Objective:

To evaluate associations of being bullied or hazed during deployment with major

depressive disorder (MDD), intermittent explosive disorder, posttraumatic stress disorder (PTSD), suicidal ideation, and substance use disorder (SUD).

Design, setting, and participants:

This cohort study used data from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) New Soldier Study (NSS; April 1, 2011, to November 30, 2012) and wave 1 of the STARRS Longitudinal Study (STARRS-LS1; September 1, 2016, to April 30, 2018). A computerized survey administered at 3 US Army installations (NSS) and a web/telephone survey (STARRS-LS1) were used to collect data. Data were analyzed from October 11, 2021, to October 28, 2022. The STARRS-LS1 recruited a probability sample of active-duty soldiers and veterans who had participated in Army STARRS baseline surveys while on active duty (weighted response rate, 35.6%). Respondents whose baseline was the NSS and who had deployed to a combat theater at least once were eligible for this study.

Exposures:

Being bullied or hazed during a combat deployment.

Main outcomes and measures:

The primary outcomes were MDD, intermittent explosive disorder, PTSD, and suicidal ideation in the 12 months before STARRS-LS1 and SUD in the 30 days before STARRS-LS1, assessed with items from the Composite International Diagnostic Interview Screening Scales, PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, and Columbia-Suicide Severity Rating Scale. Logistic regression was used to estimate associations of bullying or hazing exposure with the outcomes.

Results:

The 1463 participants were predominantly male (weighted percentage [SE], 90.4% [0.9%]) and had a mean (SE) age of 21.1 (0.1) years at baseline. At STARRS-LS1, 188 respondents (weighted percentage [SE], 12.2% [1.1%]) reported bullying or hazing during deployment. Weighted outcome prevalences were 18.7% (1.3%) for MDD, 5.2% (0.9%) for intermittent explosive disorder, 21.8% (1.5%) for PTSD, 14.2% (1.2%) for suicidal ideation, and 8.7% (1.0%) for SUD. In models that adjusted for baseline sociodemographic and clinical characteristics and other potential traumas, exposure to bullying or hazing was significantly associated with MDD (adjusted odds ratio [aOR], 2.92; 95% CI, 1.74-4.88), intermittent explosive disorder (aOR, 2.59; 95% CI, 1.20-5.59), PTSD (aOR, 1.86; 95% CI, 1.23-2.83), suicidal ideation (aOR, 1.91; 95% CI, 1.17-3.13), and SUD (aOR, 2.06; 95% CI, 1.15-3.70).

Conclusions and relevance:

In this cohort study of combat-deployed soldiers, reports of being bullied or hazed during deployment were associated with mental disorders and suicidal thoughts. Recognition of these associations may inform efforts to prevent and address mental health problems among service members.

https://doi.org/10.1007/s41347-022-00287-x

Veteran Acceptance of Sleep Health Information Technology: a Mixed-Method Study.

Jenesse Kaitz, Stephanie A. Robinson, Beth Ann Petrakis, Erin D. Reilly, Elizabeth S. Chamberlin, Renda Soylemez Wiener & Karen S. Quigley

Journal of Technology in Behavioral Science

Published: 13 December 2022

Sleep disturbances, including chronic insomnia and sleep apnea, are major concerns for US veterans, with rising rates and detrimental effects on physical, mental, and social well-being. Sleep disturbances in veterans are also underdiagnosed and undertreated for reasons that include limited sleep clinician availability, long wait times, and the time commitment for treatment. Greater use of sleep health information technologies could improve access to assessment and treatment of sleep disturbances. However, the assessment of acceptance of these technologies among veterans is still ongoing. This mixed-method study combines data from two separate but similar randomized controlled trials to assess acceptance of sleep health information technologies for veterans with chronic insomnia. Sleep health information technologies included in these trials were the following: (1) a WatchPAT sleep monitor for home-based sleep assessment, including detection of sleep apnea, and (2) the VA mobile app Cognitive Behavioral Therapy for Insomnia (CBT-i Coach), which supports self-management of insomnia. The combined sample of 37 veterans receiving care within one New England VA medical center completed a six-week trial using both health information technology tools. Participants completed a survey and interview at the end of the 6 weeks. Overall, participants found the tools acceptable, easy to use, and useful and reported they would use them in the future. Thus, these sleep health information technologies appear to provide an acceptable remote option for assessing and managing sleep issues for veterans. ClinicalTrials.gov NCT02392000;

http://clinicaltrials.gov/ct2/show/NCT02392000 and ClinicalTrials.gov NCT03305354; https://clinicaltrials.gov/ct2/show/NCT03305354

https://doi.org/10.1007/s11121-022-01424-x

The ADAPT Parenting Intervention Benefits Combat Exposed Fathers Genetically Susceptible to Problem Drinking.

DeGarmo, D. S., Gewirtz, A. H., Li, L., Tavalire, H. F., & Cicchetti, D.

Prevention Science 2023 Jan; 24(1):150-160

Testing a vantage sensitivity model from differential susceptibility theory (DST), we examined a G × E × I hypothesis; that is, whether a military parenting intervention program (I) might buffer a G × E susceptibility for military deployed fathers exposed to deployment combat stress and trauma. We hypothesized that combat stress (E, referring to the natural environmental factor) would lead to increases in problem drinking, and that the effect of problem drinking would be amplified by genetic predisposition (G) for drinking reward systems, substance use, and addictive behaviors (i.e., differential vulnerability). Providing a preventive intervention designed to improve post-deployment family environments (I, vantage sensitivity) is hypothesized to buffer the negative impacts of combat exposure and genetic susceptibility. The sample included 185 post-deployed military fathers who consented to genotyping, from a larger sample of 294 fathers enrolled in a randomized effectiveness trial of the After Deployment Adaptive Parenting Tools (ADAPT) intervention. Trauma-exposed military fathers at genetic susceptibility for problem drinking assigned to the ADAPT intervention reported significantly more reductions in risky drinking compared with fathers at genetic susceptibility assigned to the control group, with a small effect size for the G × E × I interaction (d = .2). Trial Registration. The ADAPT trial is registered at the US National Institutes of Health (ClinicalTrials.gov) # NCT03522610.

https://doi.org/10.1016/j.jpsychires.2022.10.063

Trauma history in veterans with bipolar disorder and its impact on suicidality.

Fijtman, A., Clausen, A., Kauer-Sant'Anna, M., VA Mid-Atlantic MIRECC Workgroup, & Morey, R.

Journal of Psychiatric Research 2023 Jan; 157: 119-126

Journal of Psychiatric Research Volume 157, January 2023, Pages 119-126

Highlights

- Veterans with bipolar disorder had a higher prevalence of all types of trauma.
- Bipolar disorder subjects had more trauma exposure pre, during, and postdeployment.
- Bipolar disorder was associated with exposure to sexual trauma during childhood.
- Exposure to physical assault was correlated with a diagnosis of bipolar disorder.
- Childhood trauma correlates with suicide attempts in Veterans with bipolar disorder.

Abstract

Objectives

Veterans are at increased risk for exposure to trauma, developing serious mental illnesses, and death by suicide. History of trauma correlates with worsening outcomes in patients with bipolar disorder. This study investigated associations between trauma exposure (type and timing) and suicide attempt in Veterans with bipolar disorder.

Methods

One hundred six Veterans with a diagnosis of bipolar disorder and 815 Veterans with no psychiatric history (age rage = 20–72 years old) completed a clinical questionnaire, the Beck Scale for Suicide Ideation, and the Traumatic Live Events Questionnaire. Multinomial logistic regressions investigated correlations between diagnosis, time of trauma (before, during, or after the military), trauma type (attack, illness, accident, child violence, child sexual abuse, and adult sexual abuse), and suicide attempt.

Results

Seventy-five Veterans with bipolar disorder had comorbid PTSD. Controlling for PTSD, Veterans with bipolar disorder had a higher prevalence of trauma including physical assault [odds ratio (OR) = 2.85; 95% confidence interval (CI) = 1.39-5.86] and child sexual trauma (OR = 2.89; CI = 1.38-6.05). Veterans with bipolar disorder who

endorsed previous suicide attempts (n = 42) had significantly higher levels of exposure to childhood trauma (OR = 5.69; CI = 1.84-17.62).

Conclusions

Results support incorporating history of previous trauma exposure when assessing Veterans at risk for bipolar disorder. Especially, trauma characterized as attack and childhood sexual abuse. Particular attention should be given to Veterans with bipolar disorder and exposure to trauma during childhood, which may be associated with increased risk of suicidality.

https://doi.org/10.1037/ser0000645

Caring contacts for suicide prevention: A systematic review and meta-analysis.

Skopp, N. A., Smolenski, D. J., Bush, N. E., Beech, E. H., Workman, D. E., Edwards-Stewart, A., & Belsher, B. E.

Psychological Services 2023 Feb; 20(1): 74-83

Caring Contacts (CC), a low-cost intervention originally designed and tested by Jerome Motto in 1976, remains one of the few strategies to demonstrate efficacy in the prevention of suicide deaths. Interest in CC has increased steadily over the last several years in tandem with rising U.S. suicide rates and the acceleration of suicide prevention initiatives. There have been several efforts to design interventions modeled after Motto's strategy, and the recent publication of additional large-scale randomized controlled trials (RCTs) in alignment with the intent of Motto's original model afford an opportunity to systematically review efficacy findings. The current systematic review provides an updated and focused analysis of the evidence supporting the efficacy of CC. A systematic literature search of MEDLINE, EMBASE, PsycINFO, Cochrane Library, and ClinicalTrials.gov was conducted, and PRISMA, Cochrane, and GRADE guidelines were followed. Of 2,746 abstracts reviewed, 13 publications, comprising six randomized controlled trials (RCTs) met inclusion criteria. The studies encompassed 6,218 participants across four countries and military, veteran, and civilian health care systems. The primary outcome was suicide mortality; secondary outcomes were suicide attempts and emergency department (ED) presentations/hospitalizations. The DerSimonian-Laird random-effects univariate meta-analysis was used to estimate summary effect sizes and evaluate statistical heterogeneity. Summary risk ratio estimates ranged from 0.57 to 1.29 across outcomes and time points; most estimates indicated a protective effect. For suicide deaths and ED presentations/hospitalization, interval estimates at 1-year postrandomization were consistent with either an increase or a decrease in risk. A protective effect was observed for suicide attempts at 1-year postrandomization. Implications and methodological recommendations for future work in this area reviewed and discussed. (PsycInfo Database Record (c) 2023 APA, all rights reserved).

https://doi.org/10.1037/tra0001408

Emotion regulation and combat severity differentiates PTSD diagnostic status among veterans.

Khan, A. J., Ryder, A. L., Maguen, S., & Cohen, B. E.

Psychological Trauma: Theory, Research, Practice and Policy

2023 Feb; 15(2): 271-278

Objective:

This study examined whether posttraumatic stress disorder (PTSD) diagnostic groups in veterans were differentiated by combat severity and specific avoidance and approach-related emotion regulation (ER) strategies.

Method:

In a cohort study, 725 participants (Mage = 58.39, SD = 11.27, 94.5% male, 58.2% White) recruited from VHA facilities completed the Clinician Administered PTSD Scale (CAPS), Combat Exposure Scale (CES), and Emotion Regulation Questionnaire (ERQ). Participants were categorized into three PTSD groups: Current, Remitted, and Never.

Results:

Multinomial logistic regressions adjusting for age, sex, and race, showed combat severity significantly differentiated all groups from each other (ps < .001). Specifically, combat severity was significantly associated with increased odds of Current PTSD versus Remitted (OR: 1.02, 95% CI [1.01, 1.05]) and Never PTSD (OR: 1.14, [1.12, 1.17]) and odds of Remitted compared with Never PTSD (OR: 1.11, [1.09, 1.14]). Suppression, but not reappraisal, was significantly associated with increased odds of Current PTSD compared with Remitted (OR: 1.15, [1.06, 1.24]) and Never PTSD (OR:

1.14, [1.06, 1.22]; ps < .001). Lower reappraisal was only significantly associated with the likelihood of Remitted PTSD compared with Never PTSD (OR: 0.93, [0.88, 0.99], p = .03).

Conclusions:

Increasing levels of combat severity differentiated veterans with current, remitted, and no history of PTSD, suggesting screening for severity of combat may be helpful. Greater habitual suppression distinguished current versus non-current PTSD status, whereas only less reappraisal distinguished non-current groups from each other. Lower suppression may be an important treatment target for veterans with moderate and high combat severity. (PsycInfo Database Record (c) 2023 APA, all rights reserved).

https://doi.org/10.1093/arclin/acad012

Poorer Inhibitory Control Uniquely Contributes to Greater Functional Disability in Post-9/11 Veterans.

DeGutis, J., Agnoli, S., Bernstein, J. P. K., Jagger-Rickels, A., Evans, T. C., Fortier, C. B., McGlinchey, R. E., Milberg, W. P., & Esterman, M.

Archives of Clinical Neuropsychology 2023 Feb 13; acad012

Objective:

Post-9/11 Veterans endorse greater self-reported functional disability than 80% of the adult population. Previous studies of trauma-exposed populations have shown that increased post-traumatic stress disorder (PTSD) and depressive symptoms are consistently associated with greater disability. Additionally, poorer cognitive performance in the domain of executive functions, particularly inhibitory control, has been associated with disability, though it is unclear if this effect is independent of and/or interacts with PTSD and depression.

Method:

Three overlapping samples of n = 582, 297, and 183 combat-deployed post-9/11 Veterans completed comprehensive assessments of executive functions, PTSD and depressive symptoms, and self-reported World Health Organization Disability Assessment Schedule-II (WHODAS II).

Results:

Poorer performance on measures of inhibitory control (Delis-Kaplan Executive Functioning System Color-Word Interference-CWI Test and gradual-onset Continuous Performance Test-gradCPT), but not other executive functions, were significantly associated with greater disability on the WHODAS II (p's = -.13 and -.13, p = .002 and .026, respectively). CWI inhibitory control measures accounted for unique variance in disability after controlling for PTSD and depressive symptoms (R2 change = 0.02, p < .001). Further, CWI significantly moderated the effect of depressive symptoms on disability, such that better inhibitory control weakened the relationship between depression and disability.

Conclusions:

Inhibitory control deficits are uniquely associated with increased disability in combatdeployed post-9/11 Veterans, and better inhibitory control abilities may serve as a protective factor for depressive symptoms leading to increased disability.

https://doi.org/10.1111/sltb.12931

Posttraumatic stress disorder and risk of suicidal behavior: A systematic review and meta-analysis.

Akbar, R., Arya, V., Conroy, E., Wilcox, H. C., & Page, A.

Suicide & Life-Threatening Behavior 2023 Feb; 53(1): 163-184

Introduction:

This study conducted a systematic review and meta-analysis of the association between posttraumatic stress disorder (PTSD) and (i) death by suicide, (ii) attempted suicide (AS), and (iii) suicidal ideation (SI).

Methods:

The systematic review identified seven studies on PTSD and suicide, 33 studies for AS, and 20 studies for SI. A series of stratified meta-analyses were conducted to estimate pooled effects, in addition to meta-regression to investigate sources of heterogeneity.

Results:

A higher relative risk of suicide was evident among those diagnosed with PTSD (RR =

2.09 [95% confidence interval (CI): 1.11-3.94]), with strongest associations among combat veterans (RR = 3.97, 95% CI 2.22-7.10). A lower relative risk of suicide among those with PTSD and co-morbid psychiatric conditions was evident (RR = 0.74, 95% CI 0.63-0.86). A strong association between PTSD and attempted suicide (RR = 4.05, 95% CI 3.14-5.23) and suicidal ideation (RR = 2.91, 95% CI 2.22-3.82) was also found, with a consistently strong association among those with co-morbid psychiatric conditions and non-clinical cohorts.

Conclusion:

This review found a strong association between PTSD and death by suicide, attempted suicide, and suicidal ideation, and also suicide among veteran populations. Early identification and treatment of PTSD across both clinical and non-clinical cohorts should be a priority for suicide prevention.

https://doi.org/10.1111/sltb.12923

Help-seeking among psychiatrically hospitalized military personnel at risk for suicide.

Novak, L. A., LaCroix, J. M., Perera, K. U., Stivers, M., Schvey, N. A., Goodie, J. L., Olsen, C., Sbrocco, T., Goldston, D. B., Soumoff, A., Weaver, J., & Ghahramanlou-Holloway, M.

Suicide & Life-Threatening Behavior 2023 Feb; 53(1): 75-88

Introduction:

Promoting help-seeking is a key suicide prevention strategy. Yet, research on help-seeking patterns by high-risk individuals is limited. This study examined help-seeking among United States military Service members admitted for psychiatric inpatient care.

Methods:

Participants were active duty Service members (N = 111) psychiatrically hospitalized for a suicide-related event. Data were collected as part of a larger randomized controlled trial. Reported types and perceived helpfulness of resources sought 30 days before hospitalization were examined. Hierarchical binary logistic regressions were used to examine associations among types of helping resources, mental health treatment stigma, and perceived social support.

Results:

Approximately 90% of participants sought help prior to hospitalization, most frequently from behavioral health providers and friends. Accessed resources were generally considered helpful. Adjusting for covariates, mental health treatment stigma was not associated with seeking help from any resource type. Higher perceived social support was associated with greater likelihood of help-seeking from a friend (OR = 1.08, p = 0.013 [95% CI = 1.02, 1.14]). Marital status, education level, and organizational barriers were associated with specific types of resources, and/or not seeking help.

Conclusion:

Help-seeking is a complex human behavior. Promoting help-seeking among vulnerable subgroups requires further understanding of multiple interconnected factors.

https://doi.org/10.1177/08862605221120909

Childhood Sexual Abuse and Military Sexual Trauma Interact to Increase Suicide Risk: Results from a Nationally Representative Veteran Sample.

Holliday, R., Nichter, B., Holder, N., Hill, M. L., Monteith, L. L., Norman, S. B., & Pietrzak, R. H.

Journal of Interpersonal Violence 2023 Mar; 38(5-6): 5354-5369

Childhood sexual abuse (CSA) and military sexual trauma (MST) are prevalent among veterans. Such exposures are associated with adverse mental-health sequelae, including elevated risk for suicidal thoughts and behaviors. Nonetheless, prior studies have largely focused upon discrete experiences of CSA or MST in circumscribed samples. In the current study, we analyzed data from a large, nationally representative sample of 4,069 US military veterans to examine main and interactive effects of CSA and MST in relation to suicidal thoughts and behaviors. After accounting for sociodemographics, psychiatric comorbidity, and trauma-related characteristics, we detected a significant interaction between MST and CSA as it related to report of past-year suicidal ideation, lifetime suicide attempt, and risk for future suicide attempt. These findings underscore the impact of sexual trauma throughout the lifespan, highlighting the continued importance of screening for trauma exposure and connecting veterans to

appropriate, evidence-based treatment to decrease their risk for suicidal thoughts and behaviors.

https://doi.org/10.3390/ijerph20032457

Feasibility of Using a Mobile App Supported Executive Function Intervention in Military Service Members and Veterans with mTBI and Co-Occurring Psychological Conditions.

Gartell, R., Morris, J., & Wallace, T.

International Journal of Environmental Research and Public Health 2023 Jan 30; 20(3): 2457

This pilot study assessed the feasibility of using SwapMyMood, a smartphone application supporting evidence-based strategies for emotion regulation and problemsolving as a supplement to conventional care for military service members and veterans (SM/Vs) experiencing chronic symptoms of mild traumatic brain injury (mTBI) and cooccurring psychological conditions. Eight military SM/Vs were recruited from an intensive outpatient program. Participants were block randomized to an experimental group (conventional care plus use of the SwapMyMood app) or a conventional care only group for six weeks. Conventional care included instruction on problem-solving and emotion regulation strategies using traditional paper manuals and protocols. Effects on the knowledge and use of strategies and related goal attainment were measured. Patient-reported outcomes were measured via several validated problem-solving and emotion regulation scales. No differences were found between groups in goal attainment, global executive function, problem-solving, emotion regulation, and knowledge of how to use the problem-solving and emotion regulation strategies targeted. Experimental group participants rated the application positively, demonstrating feasibility of integration of the app into clinical care. The implementation of SwapMyMood is feasible in a clinical setting. SwapMyMood may be a clinically effective supplemental tool for supporting executive function in SM/Vs with mTBI and cooccurring psychological conditions.

https://doi.org/10.1093/milmed/usac354

Improving the Health and Readiness of Military Women.

Catherine T Witkop, MD, PhD, MPH, USAF, MC (Ret), Elizabeth A Kostas-Polston, PhD, APRN, WHNP-BC, FAANP, FAAN, Linda C Degutis, DrPH, MSN

Military Medicine
Volume 188, Issue Supplement_1, March-April 2023, Pages 8–14

Why the Defense Health Horizons Did This Study

Women comprise approximately one-fifth of the total force in the U.S. Military. Gynecologic and reproductive health issues not only affect the health and wellness of individual servicewomen but may also impact the mission of the DoD. Unintended pregnancies can result in adverse maternal and infant outcomes and can negatively impact the careers of military women and mission readiness. Gynecologic conditions such as abnormal uterine bleeding, fibroids, and endometriosis can also limit women's optimal health and performance, and a significant proportion of military women have indicated their desire to manage and/or suppress menstrual cycles, especially when deployed. Access to the full range of contraceptive methods is an important strategy to allow women to achieve their reproductive goals and address other health concerns. This report reviews rates of unintended pregnancy and contraceptive utilization among servicewomen and examines factors that influence these measures of health.

What Defense Health Horizons Found

Overall rates of unintended pregnancy are higher among servicewomen than the general population and rates of contraceptive use among servicewomen are lower than the general population. Congress mandates that servicewomen have access to contraceptive options, but the DoD has not established target measures for contraceptive access and use, unlike that present for the civilian population.

What Defense Health Horizons Recommends

Four potential courses of action are proposed to improve the health and readiness of military women.

Recommendation 1: The Military Health System (MHS) should develop and maintain reliable sources of data to assess the gynecologic health of servicewomen, including rates of unintended pregnancy.

Recommendation 2: When menstrual suppression, treatment for a medical condition, or contraception is desired, servicewomen should have ready access to the information they need to select the option that is best suited for their personal preferences and situation.

Recommendation 3: In order to ensure that servicewomen have optimal access to the full range of contraceptive methods, the MHS should determine true access at all their facilities and identify actions to address any barriers.

Recommendation 4: The MHS should establish service delivery targets for use of women's preventive health services, particularly contraception, to prevent unintended pregnancies.

https://doi.org/10.1111/jsr.13847

The effect of cognitive behavioural therapy for insomnia in people with comorbid insomnia and sleep apnoea: A systematic review and meta-analysis.

Alexander Sweetman, Seamas Farrell, Douglas M. Wallace, Megan Crawford

Journal of Sleep Research First published: 05 March 2023

Comorbid insomnia and sleep apnoea (COMISA) is a highly prevalent and debilitating sleep disorder. Cognitive behavioural therapy for insomnia (CBTi) may be an appropriate treatment for COMISA; however, no previous study has systematically reviewed and meta-analysed literature reporting on the effect of CBTi in people with COMISA. A systematic literature search was conducted across PsychINFO and PubMed (n = 295). In all, 27 full-text records were independently reviewed by at least two authors. Forward- and backward-chain referencing, and hand-searches were used to identify additional studies. Authors of potentially eligible studies were contacted to provide COMISA subgroup data. In total, 21 studies, including 14 independent samples of 1040 participants with COMISA were included. Downs and Black quality assessments were performed. A meta-analysis including nine primary studies measuring the Insomnia Severity Index indicated that CBTi is associated with a large improvement in insomnia severity (Hedges' g = -0.89, 95% confidence interval [CI] -1.35, -0.43). Subgroup meta-analyses indicated that CBTi is effective in samples with untreated obstructive sleep apnoea (OSA) (five studies, Hedges' g = -1.19, 95% CI

–1.77, –0.61) and treated OSA (four studies, Hedges' g = –0.55, 95% CI –0.75, –0.35). Publication bias was evaluated by examining the Funnel plot (Egger's regression p = 0.78). Implementation programmes are required to embed COMISA management pathways in sleep clinics worldwide that currently specialise in the management of OSA alone. Future research should investigate and refine CBTi interventions in people with COMISA, including identifying the most effective CBTi components, adaptations, and developing personalised management approaches for this highly prevalent and debilitating condition.

https://doi.org/10.1007/s11325-022-02587-1

Exercise capacity remains supernormal, though mildly reduced in middle-aged military personnel with Moderate to Severe Obstructive Sleep Apnea.

Subodh K. Arora, Tyler A. Powell, Shannon N. Foster, Shana L. Hansen & Michael J. Morris

Sleep and Breathing Volume 27, pages 137–144 (2023)

Introduction

The relationship between moderate to severe OSA and exercise capacity remains unclear. Prior studies showing a reduction in VO2 max in this population have mostly involved middle-aged, overweight patients. We aimed to study this relationship in a similarly aged population of military personnel with previously undiagnosed moderate to severe OSA.

Methods

We studied late-career male military personnel who underwent CPET and polysomnography (PSG). Patients were categorized either into an OSA group (apnea—hypopnea index (AHI) ≥ 15 events/h) or a control group (AHI < 15 events/h). VO2 max was compared between groups.

Results

170 male military personnel met criteria for the study. Mean AHI was 29.0/h in the OSA group (n = 58) versus 7.4/h in the controls (n = 112) while SpO2 nadir was slightly lower (86.0% vs. 89.0%). Patients were of similar age (53.1 vs. 53.7 years), and BMI was slightly higher in the OSA group (27.5 kg/m2 vs. 26.3 kg/m2). Percent-predicted VO2

max was supernormal in both groups, though it was comparatively lower in the OSA group (117% vs. 125%; p < 0.001).

Conclusions

Military personnel with moderate to severe OSA were able to achieve supernormal VO2 max values, yet had an 8% decrement in exercise capacity compared to controls. These findings suggest that OSA without significant hypoxemia may not significantly influence exercise capacity. It remains likely that the effects of untreated OSA on exercise capacity are complex and are affected by several variables including BMI, degree of associated hypoxemia, and regularity of exercise. Statistically lower VO2 max noted in this study may suggest that untreated OSA in less fit populations may lead to significant decrements in exercise capacity.

https://doi.org/10.5664/jcsm.10540

In-person and telehealth treatment of veterans with insomnia disorder using cognitive behavioral therapy for insomnia during the COVID-19 pandemic.

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Journal of Clinical Sleep Medicine Published Online: March 2, 2023

STUDY OBJECTIVES:

Cognitive behavioral therapy for insomnia (CBT-I) is the recommended first-line treatment for insomnia disorder. The goal of this study was to evaluate clinical benefits of CBT-I to veterans with insomnia disorder during the early months of the COVID-19 pandemic using an uncontrolled observational design.

METHODS:

A cohort of 63 VA mental health providers delivered CBT-I to 180 veterans as part of an evidence-based psychotherapy training program and captured de-identified treatment outcome data through a data portal. The main patient outcomes were: change in the insomnia severity index (ISI) total score from the initial clinical assessment session to the last treatment session, response rate (% with ISI change >7 from assessment to last

session) and remission rate (% with ISI <8 at the last session). We tested the non-inferiority of telehealth only compared to at least 1 in-person session.

RESULTS:

Fifty-six percent of veterans seen for an evaluation completed CBT-I treatment during the structured training program phase and completed an initial and final ISI. Among these veterans, ISI scores decreased by an average of 9.9 points from before to after treatment (p<.001), 66% experienced a clinically meaningful treatment response, and 43% experienced insomnia symptom remission. Benefits were similar whether the veteran received some in-person care or received CBT-I entirely via telehealth.

CONCLUSIONS:

Findings suggest, regardless of treatment modality, CBT-I remained highly effective during the early months of the pandemic, which was a challenging time for both clinical providers and veterans in need of insomnia treatment.

https://doi.org/10.1016/j.cpr.2023.102266

Systematic review of training in cognitive-behavioral therapy: Summarizing effects, costs and techniques.

Dominik Henrich, Julia A. Glombiewski, Saskia Scholten

Clinical Psychology Review Available online 3 March 2023, 102266

With the steadily growing importance of psychotherapeutic care, there is also an increasing need for high-quality training. We analyze the literature published between 2009 and 2022 on the effectiveness of training in cognitive behavioral therapy. The review addresses current gaps in the literature by focusing on the description of specific training components and their associated costs, as well as examining predictors of training effectiveness. Our findings confirm the effect of additional supervision on both therapist competence and patient outcomes. Instructor-led training and self-guided webbased training seem to moderately increase competence, especially when targeting specific and highly structured treatments or skills. The level of prior training and experience of a therapist appears to predict the strength of training-related gains in competence. Few studies analyzed the differential effect of certain elements of training (e.g., the number of active learning strategies) and training costs were generally not

reported. Future studies should replicate or expand the existing evidence on active ingredients and therapist-level predictors of training effectiveness. Costs should be systematically reported to enhance the comparability of different training strategies.

https://doi.org/10.1016/j.beth.2022.09.004

PTSD Symptom Cluster Severity Predicts Momentary Emotion Dynamics During Couple Conversations.

Steffany J. Fredman, Melanie S. Fischer, Donald H. Baucom, Yunying Le, Emily C. Taverna, Sy-Miin Chow, Nilam Ram, Amy D. Marshall

Behavior Therapy Volume 54, Issue 2, March 2023, Pages 330-345

Highlights

- PTSD symptoms are associated with difficulty regulating emotions.
- Trauma survivors respond to own and partner emotional arousal during conversations.
- Specific PTSD symptoms predict momentary emotion regulatory processes.
- Reexperiencing symptoms predict greater emotional inertia (rigidity)
- Avoidance symptoms predict quicker return to emotional equilibrium.

Abstract

This study investigated the associations between momentary emotion dynamics and posttraumatic stress disorder (PTSD) symptoms. Using a sample of 61 couples (N = 122 individuals) in which all individuals were trauma exposed and at least one partner screened positive for PTSD, we examined the intra- and interpersonal regulation of vocally encoded emotional arousal (fundamental frequency [f0]) and how these momentary emotion regulatory patterns relate to specific PTSD symptoms during two couple conversations: one designed to elicit conflict and one to elicit intimacy. PTSD symptoms were assessed using a gold standard clinical interview. In both conversations, higher reexperiencing symptoms were associated with greater emotional inertia (i.e., more resistance to change in emotional state following deviation from one's emotional equilibrium), and higher avoidance symptoms were associated with less emotional inertia (i.e., quicker return to emotional equilibrium). In the intimacy conversations, individuals also responded to their partners' arousal. Furthermore, individuals whose partners exhibited higher emotional numbing symptoms exhibited

more emotional inertia, suggesting that emotion regulation may be a function of both one's own and one's partner's PTSD symptoms. Attending to the interpersonal context of emotion dynamics during PTSD treatment may enhance outcomes.

https://doi.org/10.1016/j.smrv.2023.101768

Effect of sleep manipulations on intrusive memories after exposure to an experimental analogue trauma: A meta-analytic review.

Olivia Larson, Anna C. Schapiro, Philip R. Gehrman

Sleep Medicine Reviews Volume 69, June 2023, 101768

Sleep plays an important role in memory processing and is disrupted in individuals with post-traumatic stress disorder (PTSD). A growing body of research has experimentally investigated how sleep – or lack thereof – in the early aftermath of a traumatic experience contributes to intrusive memory formation. The aim of this meta-analytic review was to examine the effects of various experimental sleep manipulations (e.g., sleep deprivation, daytime naps) on intrusive memories following exposure to an experimentally induced analogue traumatic event. Eight eligible studies were systematically identified through PsycInfo and PubMed and provided sufficient data to contribute to a meta-analysis of the effects of sleep versus wakefulness on intrusive memory frequency. Sleep was found to reduce intrusive memory frequency when compared to wakefulness at a small but significant effect size (Hedge's g = 0.29). There was no evidence of publication bias and heterogeneity of effect sizes across studies was moderate. Results suggest that sleep plays a protective role in the aftermath of exposure to a traumatic event with implications for early post-trauma intervention efforts.

https://doi.org/10.1002/jts.22892

Risk factors for the presence and persistence of posttraumatic stress symptoms following traumatic brain injury in U.S. service members and veterans.

Lange, R. T., French, L. M., Lippa, S., Baschenis, S. M., Gillow, K. C., Glazer, M. E., Rogers, A. A., Cristaudo, K. E., Bailie, J. M., Hungerford, L., Kennedy, J., & Brickell, T. A.

Journal of Traumatic Stress 2023 Feb; 36(1): 144-156

This study aimed to identify risk factors predictive of the presence and persistence of posttraumatic stress disorder (PTSD) symptom reporting following traumatic brain injury (TBI). Participants were 1,301 U.S. service members and veterans (SMVs) divided into four groups: uncomplicated mild TBI (mTBI; n = 543); complicated mild, moderate, severe, and penetrating TBI (n = 230); injured controls (n = 340); and noninjured controls (n = 188). We examined 25 factors related to demographic, injury-related, military-specific, treatment/health care need, and mental health/social support variables. Seven factors were statistically associated with the presence of DSM-IV-TR symptom criteria for PTSD: premorbid IQ, combat exposure, depression, social participation, history of mTBI, need for managing mood and stress, and need for improving memory and attention, p < .001 (51.3% variance). When comparing the prevalence of these risk factors in a longitudinal cohort (n = 742) across four PTSD trajectory groups (i.e., asymptomatic, improved, developed, persistent), a higher proportion of participants in the persistent PTSD group reported worse depression, a lack of social participation, and history of mTBI. Additionally, a higher proportion of participants in the persistent and developed PTSD groups reported the need for managing mood/stress and improving memory/attention. When considered simultaneously, the presence of ≥ 1 or ≥ 2 risk factors was associated with a higher proportion of participants in the developed and persistent PTSD groups, ps < .001. These risk factors may be useful in identifying SMVs at risk for the development and/or persistence of PTSD symptoms who may need intervention.

https://doi.org/10.1001/jamanetworkopen.2023.0484

Characterizing Moral Injury and Distress in US Military Surgeons Deployed to Far-Forward Combat Environments in Afghanistan and Iraq.

Ryu, M. Y., Martin, M. J., Jin, A. H., Tabor, H. K., & Wren, S. M.

JAMA Network Open 2023 Feb 1; 6(2): e230484

Importance:

Moral injury and distress (MID), which occurs when individuals have significant dissonance with their belief system and overwhelming feelings of being powerless to do what is believed to be right, has not been explored in the unique population of military surgeons deployed far forward in active combat settings. Deployed military surgeons provide care to both injured soldiers and civilians under command-driven medical rules of engagement (MROE) in variably resourced settings. This practice setting has no civilian corollary for comparison or current specific tool for measurement.

Objective:

To characterize MID among military surgeons deployed during periods of high casualty volumes through a mixed-methods approach.

Design, setting, and participants:

This qualitative study using convergent mixed methods was performed from May 2020 to October 2020. Participants included US military surgeons who had combat deployments to a far-forward role 2 treatment facility during predefined peak casualty periods in Iraq (2003-2008) and Afghanistan (2009-2012), as identified by purposeful snowball sampling. Data analysis was performed from October 2020 to May 2021.

Main outcomes and measures: Measure of Moral Distress for Healthcare Professionals (MMD-HP) survey and individual, semistructured interviews were conducted to thematic saturation.

Results:

The total cohort included 20 surgeons (mean [SD] age, 38.1 [5.2] years); 16 (80%) were male, and 16 (80%) had 0 or 1 prior deployment. Deployment locations were Afghanistan (11 surgeons [55%]), Iraq (9 surgeons [45%]), or both locations (3 surgeons [15%]). The mean (SD) MMD-HP score for the surgeons was 104.1 (39.3). The primary thematic domains for MID were distressing outcomes (DO) and MROE. The major subdomains of DO were guilt related to witnessing horrific injuries; treating pregnant women, children, and US soldiers; and second-guessing decisions. The major subdomains for MROE were forced transfer of civilian patients, limited capabilities and resources, inexperience in specialty surgical procedures, and communication with command. Postdeployment manifestations of MID were common and affected sleep, medical practice, and interpersonal relationships.

Conclusions and relevance:

In this qualitative study, MID was ubiquitous in deployed military surgeons. Thematic

observations about MID, specifically concerning the domains of DO and MROE, may represent targets for further study to develop an evaluation tool of MID in this population and inform possible programs for identification and mitigation of MID.

https://doi.org/10.1016/j.jpsychires.2023.01.013

Putting the pieces together to understand anger in combat veterans and service members: Psychological and physical contributors.

Miles, S. R., Martindale, S. L., Flanagan, J. C., Troyanskaya, M., Reljic, T., Gilmore, A. K., Wyant, H., & Nakase-Richardson, R.

Journal of Psychiatric Research 2023 Mar; 159: 57-65

Dysregulated anger can result in devastating health and interpersonal consequences for individuals, families, and communities. Compared to civilians, combat veterans and service members (C-V/SM) report higher levels of anger and often have risk factors for anger including posttraumatic stress disorder (PTSD), traumatic brain injury (TBI), pain, alcohol use, and impaired sleep. The current study examined the relative contributions of established variables associated with anger (e.g., combat exposure, current PTSD symptoms, history of TBI, pain interference, and hazardous alcohol use) in 1263 C-V/SM. Sleep impairments, represented by poor sleep quality and obstructive sleep apnea (OSA) risk, were also evaluated as potential mediators of the relationships between established risk factors and anger, and therefore potential modifiable treatment targets. Multiple regression model results revealed that PTSD symptoms (β = 0.517, p < .001), OSA risk (β = 0.057, p = .016), pain interference (β = 0.214, p < .001), and hazardous alcohol use (β = 0.054, p = .009) were significantly associated with anger. Results of the mediation models revealed that OSA risk accounted for the association between PTSD and anger, in addition to the association between pain interference and anger. The current study extends previous literature by simultaneously examining factors associated with anger using a multivariable model in a large sample of C-V/SM. Additionally, treating OSA may be a novel way to reduce anger in C-V/SM who have PTSD and/or pain interference.

https://doi.org/10.1111/acer.15002

Prevalence and correlates of alcohol-induced blackout in a diverse sample of veterans.

Miller, M. B., Freeman, L. K., Aranda, A., Shoemaker, S., Sisk, D., Rubi, S., Everson, A. T., Flores, L. Y., Williams, M. S., Dorimé-Williams, M. L., McCrae, C. S., & Borsari, B.

Alcoholism, Clinical and Experimental Research 2023 Feb; 47(2): 395-405

Background:

Alcohol-induced blackouts have been associated concurrently and prospectively with alcohol-related harm. Although rates of heavy drinking among military samples tend to be comparable or higher than rates among civilian samples, the prevalence and correlates of blackout in the military population are understudied.

Methods:

Veterans (N = 241, 29% female, 39% Black) reported on their alcohol consumption and mental health as part of a larger health-related study among veterans. In this secondary analysis, we tested theoretically and empirically informed predictors (gender, drinking quantity, and other drug use) and consequences [depression, posttraumatic stress disorder (PTSD)] of alcohol-induced blackout. Given the diversity of the sample, potential roles of racial/ethnic discrimination and drinking to cope in alcohol-induced blackout were also tested.

Results:

Past-year prevalence of alcohol-induced blackout was 53% among veterans who drank alcohol and 68% among those who screened positive for hazardous drinking. Everyday experience of racial discrimination was the strongest concurrent predictor of alcohol-induced blackout. Drinking quantity and use of other drugs were significant correlates only in bivariate models. Controlling for gender, race, drinking quantity, other drug use, and discrimination, blackout frequency was significantly associated with symptoms of depression, but not symptoms of PTSD. Both blackout and racial discrimination were associated with drinking to cope.

Conclusions:

The prevalence and correlates of alcohol-induced blackout among veterans are largely consistent with those documented in civilian and young adult populations. Among racially diverse groups, racial discrimination may be more strongly associated with

mental health symptoms than alcohol consumption or acute alcohol consequences such as blackout.

Links of Interest

CDP Presents Webinar Series 2023 https://content.govdelivery.com/accounts/USMHSUSU/bulletins/34de1bd

RAND Experts on Veteran Mental Health Respond to the White House Mental Health Research Priorities

https://www.rand.org/blog/2023/02/rand-experts-on-veteran-mental-health-respond-to-the.html

The impossible choice facing many of America's military families (commentary) https://www.militarytimes.com/opinion/commentary/2023/03/03/the-impossible-choice-facing-many-of-americas-military-families/

Women in the military: Moving beyond 'firsts' (commentary)

https://www.militarytimes.com/opinion/commentary/2023/03/04/women-in-the-military-moving-beyond-firsts/

Female 4-stars discuss sexism in the service, say the military is 'much better' for women now

https://www.stripes.com/theaters/us/2023-03-06/women-military-generals-sexism-9389800.html

The Vital Connection Between School Performance, Regional Economic Success and National Security

https://defenseopinion.com/the-vital-connection-between-school-performance-regional-economic-benefit-and-national-security/

Economic Insecurity for Military Families Predates Pandemic, Inflation https://thewarhorse.org/military-food-insecurity-higher-than-average-americans/

Pentagon reviews whether 38 medical conditions should remain disqualifiers for military service

https://www.stripes.com/theaters/us/2023-03-07/military-medical-waivers-recruitment-9417905.html

Opioid Use Disorder: A Battle That Can Be Won

https://www.health.mil/Military-Health-Topics/Centers-of-Excellence/Psychological-Health-Center-of-Excellence/Clinicians-Corner-Blog/Opioid-Use-Disorder-A-Battle-That-Can-Be-Won

The Power of Words in the Battle Against Mental Health Stigma

https://www.health.mil/Military-Health-Topics/Centers-of-Excellence/Psychological-Health-Center-of-Excellence/Clinicians-Corner-Blog/The-Power-of-Words-in-the-Battle-Against-Mental-Health-Stigma

Resource of the Week – <u>2023 NMSN White Paper: Solving the Military Spouse</u> Employment Puzzle: Seven Recommendations for the Future of Work

From Sue Hoppin, Founder & President, National Military Spouse Network:

. . .

In this anniversary paper, we reflect on the current state of military spouse employment, examining how far we have come, the reality of where we are now, and the future of work that remains before us. We also model an attitude of gratitude by recognizing and appreciating the major military spouse employment milestones that have occurred over the last several decades. No one can deny that real progress has been made, albeit painfully slow at times. Such lessons remind us that while we have achieved much, we can, and should, strive to do better.

Military spouses often upend their lives to support those willing to lay down their own for our country. They deserve nothing less than our very best efforts to support them in their professional endeavors.

We introduce our 2023 Recommendations because the military spouse employment puzzle is far from solved. This puzzle continues to evolve revealing a complex and enduring series of challenges in an ever-changing world of work. As we reflect on our own milestone anniversary of the NMSN white paper, we continue to advocate on behalf of military spouses for policy change at the highest levels of the federal government by ensuring that stakeholders are aware of the key challenges and concerns faced by this community.

Cracking the code on the military spouse employment puzzle won't be easy. It will require collaborative analysis of meaningful data, strategic programmatic planning, and design thinking innovation. It will call on us to challenge and evolve, not only policies and perspectives but the lexicon we use within the military culture.

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Solving the Military Spouse Employment Puzzle: Seven Recommendations for the Future of Work

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