

# CDP



## Research Update -- February 8, 2024

### What's Here:

- Availability of Mental Telehealth Services in the US.
- Cumulative trauma load and timing of trauma prior to military deployment differentially influences inhibitory control processing across deployment.
- Women Veterans' perspectives, experiences, and preferences for firearm lethal means counseling discussions.
- Massed cognitive processing therapy for combat-related posttraumatic stress disorder: Study design and methodology of a non-inferiority randomized controlled trial.
- The Effect of Concussion Mechanism of Injury on Sleep Problems in Active Duty Service Members Following Deployment.
- Scoping Review of Postvention for Mental Health Providers Following Patient Suicide.
- Mindfulness-Oriented Recovery Enhancement for Veterans and Military Personnel on Long-Term Opioid Therapy for Chronic Pain: A Randomized Clinical Trial.
- Relative Risk of All-Cause Medical Evacuation for Behavioral Health Conditions in U.S. Central Command.
- Which veterans with PTSD are most likely to report being told of their diagnosis?
- State of the science: Eye movement desensitization and reprocessing (EMDR) therapy.

- Linguistic and affective characteristics of script-driven imagery for adults with posttraumatic stress disorder: Associations with clinical outcomes during deep transcranial magnetic stimulation.
- Impact of Sleep Profiles on Multimorbidity Among US Active-Duty Service Members in the 2018 Health-Related Behaviors Survey.
- Pre-implementation adaptation of suicide safety planning intervention using peer support in rural areas.
- Evidence-based treatment for posttraumatic stress disorder decreases suicidal ideation by reducing perceived burdensomeness among veterans in an outpatient program.
- Experiences of discrimination and mental health treatment seeking among LGBTQ+ veterans.
- Mild Traumatic Brain Injury in the Maturing Brain: An Investigation of Symptoms and Cognitive Performance in Soldiers Returning From Afghanistan and Iraq.
- Investigating insomnia in United States deployed military forces: A topic modeling approach.
- Evidence-based treatment for posttraumatic stress disorder decreases suicidal ideation by reducing perceived burdensomeness among veterans in an outpatient program.
- Longitudinal predictors of children's self-blame appraisals among military families reported for family violence.
- Impact of 8 lifestyle factors on mortality and life expectancy among United States veterans: The Million Veteran Program.
- Links of Interest
- Resource of the Week – FY2024 NDAA: Military Mental Health Strategy Development and Program Assessment Provisions (Congressional Research Service).

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<https://doi.org/10.1001/jamahealthforum.2023.5142>

## **Availability of Mental Telehealth Services in the US.**

Cantor, J., Schuler, M. S., Matthews, S., Kofner, A., Breslau, J., & McBain, R. K.

JAMA Health Forum  
(2024) 5(2), e235142

### Key Points

#### Question

What is the availability of different levels of telehealth services offered through mental health treatment facilities (MHTFs) across the US, and does availability differ by the client-caller's demographic characteristics, mental health condition, or facility location?

#### Findings

This cross-sectional secret shopper study of 1404 MHTFs conducted from December 2022 to March 2023 found that privately owned facilities with only outpatient services were most likely to offer telehealth services. No differences were found to be associated with the client-caller's perceived race, ethnicity, sex, or presenting mental health condition.

#### Meaning

These findings suggest that there are significant differences in the availability of telehealth appointments by location of MHTFs across the US, but few differences based on the client-caller's demographic characteristics or mental health condition.

### Abstract

#### Importance

Telehealth utilization for mental health care remains much higher than it was before the COVID-19 pandemic; however, availability may vary across facilities, geographic areas, and by patients' demographic characteristics and mental health conditions.

#### Objective

To quantify availability, wait times, and service features of telehealth for major depressive disorder, general anxiety disorder, and schizophrenia throughout the US, as well as facility-, client-, and county-level characteristics associated with telehealth availability.

## Design, Settings, and Participants

Cross-sectional analysis of a secret shopper survey of mental health treatment facilities (MHTFs) throughout all US states except Hawaii from December 2022 and March 2023. A nationally representative sample of 1938 facilities were contacted; 1404 (72%) responded and were included. Data analysis was performed from March to July 2023.

## Exposure

Health facility, client, and county characteristics.

## Main Outcome and Measures

Clinic-reported availability of telehealth services, availability of telehealth services (behavioral treatment, medication management, and diagnostic services), and number of days until first telehealth appointment. Multivariable logistic and linear regression analyses were conducted to assess whether facility-, client-, and county-level characteristics were associated with each outcome.

## Results

Of the 1221 facilities (87%) accepting new patients, 980 (80%) reported offering telehealth. Of these, 97% (937 facilities) reported availability of counseling services; 77% (726 facilities), medication management; and 69% (626 facilities) diagnostic services. Telehealth availability did not differ by clinical condition. Private for-profit (adjusted odds ratio [aOR], 1.75; 95% CI, 1.05-2.92) and private not-for-profit (aOR, 2.20; 95% CI, 1.42-3.39) facilities were more likely to offer telehealth than public facilities. Facilities located in metropolitan counties (compared with nonmetropolitan counties) were more likely to offer medication management services (aOR, 1.83; 95% CI, 1.11-3.00) but were less likely to offer diagnostic services (aOR, 0.67; 95% CI, 0.47-0.95). Median (range) wait time for first telehealth appointment was 14 (4-75) days. No differences were observed in availability of an appointment based on the perceived race, ethnicity, or sex of the prospective patient.

## Conclusions and Relevance

The findings of this cross-sectional study indicate that there were no differences in the availability of mental telehealth services based on the prospective patient's clinical condition, perceived race or ethnicity, or sex; however, differences were found at the facility-, county-, and state-level. These findings suggest widespread disparities in who has access to which telehealth services throughout the US.

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<https://doi.org/10.1038/s41598-023-48505-7>

**Cumulative trauma load and timing of trauma prior to military deployment differentially influences inhibitory control processing across deployment.**

Lisa N. Miller, David Forbes, Alexander C. McFarlane, Ellie Lawrence-Wood, Julian G. Simmons & Kim Felmingham

Scientific Reports

Volume 13, Article number: 21414 (2023)

Military personnel experience high trauma load that can change brain circuitry leading to impaired inhibitory control and posttraumatic stress disorder (PTSD). Inhibitory control processing may be particularly vulnerable to developmental and interpersonal trauma. This study examines the differential role of cumulative pre-deployment trauma and timing of trauma on inhibitory control using the Go/NoGo paradigm in a military population. The Go/NoGo paradigm was administered to 166 predominately male army combat personnel at pre- and post-deployment. Linear mixed models analyze cumulative trauma, trauma onset, and post-deployment PTSD symptoms on NoGo-N2 and NoGo-P3 amplitude and latency across deployment. Here we report, NoGo-N2 amplitude increases and NoGo-P3 amplitude and latency decreases in those with high prior interpersonal trauma across deployment. Increases in NoGo-P3 amplitude following adolescent-onset trauma and NoGo-P3 latency following childhood-onset and adolescent-onset trauma are seen across deployment. Arousal symptoms positively correlated with conflict monitoring. Our findings support the cumulative trauma load and sensitive period of trauma exposure models for inhibitory control processing in a military population. High cumulative interpersonal trauma impacts conflict monitoring and response suppression and increases PTSD symptoms whereas developmental trauma differentially impacts response suppression. This research highlights the need for tailored strategies for strengthening inhibitory control, and that consider timing and type of trauma in military personnel.

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**Women Veterans' perspectives, experiences, and preferences for firearm lethal means counseling discussions.**

Evan R. Polzer , Ryan Holliday, Carly M. Rohs, Suzanne M. Thomas, Christin N. Miller, Joseph A. Simonetti, Lisa A. Brenner, Lindsey L. Monteith

PLoS ONE

(2023) 18(12): e0295042

### Aims

Firearms have become an increasingly common method of suicide among women Veterans, yet this population has rarely been a focus in firearm suicide prevention research. Limited knowledge is available regarding the preferences, experiences, or needs of women Veterans with respect to firearm lethal means counseling (LMC), an evidence-based suicide prevention strategy. Understanding is necessary to optimize delivery for this population.

### Method

Our sample included forty women Veterans with lifetime suicidal ideation or suicide attempt(s) and firearm access following military separation, all enrolled in the Veterans Health Administration. Participants were interviewed regarding their perspectives, experiences, and preferences for firearm LMC. Data were analyzed using a mixed inductive-deductive thematic analysis.

### Results

Women Veterans' firearm and firearm LMC perspectives were shaped by their military service histories and identity, military sexual trauma, spouses/partners, children, rurality, and experiences with suicidal ideation and attempts. Half reported they had not engaged in firearm LMC previously. For those who had, positive aspects included a trusting, caring relationship, direct communication of rationale for questions, and discussion of exceptions to confidentiality. Negative aspects included conversations that felt impersonal, not sufficiently comprehensive, and Veterans' fears regarding implications of disclosure, which impeded conversations. Women Veterans' preferences for future firearm LMC encompassed providers communicating why such conversations are important, how they should be framed (e.g., around safety and genuine concern), what they should entail (e.g., discussing concerns regarding disclosure), whom should initiate (e.g., trusted caring provider) and where they should occur (e.g., safe spaces, women-specific groups comprised of peers).

### Discussion

This study is the first to examine women Veterans' experiences with, and preferences for, firearm LMC. Detailed inquiry of the nuances of how, where, why, and by whom firearms are stored and used may help to facilitate firearm LMC with women Veterans.

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<https://doi.org/10.1016/j.cct.2023.107405>

**Massed cognitive processing therapy for combat-related posttraumatic stress disorder: Study design and methodology of a non-inferiority randomized controlled trial.**

JS Wachen, KL Morris, TE Galovski, KA Dondanville, PA Resnick, C Schwartz

Contemporary Clinical Trials  
Volume 136, January 2024, 107405

**Background**

Posttraumatic stress disorder (PTSD) is prevalent among military personnel. Cognitive processing therapy (CPT) is identified as one of the most effective treatments for PTSD, although smaller effects have been found in military populations. High rates of dropout from treatment may contribute to reduced efficacy, and military personnel may face unique barriers to treatment completion. One method of improving efficacy may be to reduce dropout by decreasing the time required to receive a full dose of treatment. This paper describes the design and methodology of the first randomized clinical trial testing whether CPT delivered in an intensive format is non-inferior to standard delivery of CPT.

**Method**

Participants are 140 active duty service members randomized to receive CPT in a 5-day combined group and individual intensive outpatient format (MCPT) or standard CPT (delivered individually twice weekly over 6 weeks). Participants are assessed at baseline, and 1 month, 4 months, and 1 year following the conclusion of the therapy. Reduction in PTSD symptomatology is the primary outcome of interest. Secondary outcomes include comorbid psychological symptoms, health, and functioning. A secondary objective is to examine predictors of treatment outcome to determine which service members benefit most from which treatment modality.

**Conclusion**

If determined to be non-inferior, MCPT would provide an efficient and accessible modality of evidence-based PTSD treatment. This therapy format would improve access to care by reducing the amount of time required for treatment and improving symptoms and functioning more rapidly, thereby minimizing interference with work-related activities and disruption to the mission.

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<https://doi.org/10.1093/milmed/usad197>

## **The Effect of Concussion Mechanism of Injury on Sleep Problems in Active Duty Service Members Following Deployment.**

Harrison, E. M., Chung, S. Y., Englert, R. M., & Belding, J. N.

Military Medicine

Volume 189, Issue 1-2, January/February 2024, Pages e141–e147

### Introduction

Sleep disruption is pervasive in the military and is generally exacerbated during deployment, partially due to increases in operational tempo and exposure to stressors and/or trauma. In particular, sleep disruption is a commonly reported symptom following deployment-related traumatic brain injury (TBI), though less is known about the prevalence of sleep disturbance as a function of whether the TBI was induced by high-level blast (HLB) or direct impact to the head. TBI assessment, treatment, and prognosis are further complicated by comorbidity with posttraumatic stress disorder (PTSD), depression, and alcohol misuse. Here, we examine whether concussion mechanism of injury is associated with differences in the prevalence of self-reported sleep disturbance following deployment in a large sample of U.S. Marines while accounting for probable PTSD, depression, and alcohol misuse.

### Materials and Methods

This was a retrospective cohort study of active duty enlisted Marines with a probable concussion (N = 5757) who completed the Post-Deployment Health Assessment between 2008 and 2012. Probable concussion was defined as endorsement of a potentially concussive event with corresponding loss or alteration of consciousness. The presence of concussion-related sleep problems was assessed with a dichotomous item. Probable PTSD, depression, and alcohol misuse were assessed using the Primary Care PTSD Screen, the Patient Health Questionnaire-2, and the Alcohol Use Identification Test-Concise, respectively. Logistic regression models investigated the effects of mechanism of injury (HLB vs. impact), PTSD, depression, and alcohol misuse on the presence of sleep problems, adjusting for sex and pay grade. The study was approved by the Naval Health Research Center Institutional Review Board.



## Results

Approximately 41% of individuals with a probable deployment-related concussion reported sleep problems following the event; 79% of concussed individuals reporting both HLB and probable PTSD reported sleep problems. All main effects were significantly associated with sleep disturbance in adjusted models. PTSD showed the strongest association with sleep disturbance (adjusted odds ratio [AOR] = 2.84), followed by depression (AOR = 2.43), HLB exposure (AOR = 2.00), female sex (AOR = 1.63), alcohol misuse (AOR = 1.14), and pay grade (AOR = 1.10). A significant HLB × PTSD interaction emerged (AOR = 1.58), which suggests that sleep disturbance was elevated among those with both HLB-induced (vs. impact-induced) concussions and presence (vs. absence) of PTSD. No other significant interactions emerged.

## Conclusion

To our knowledge, this is the first study to examine the prevalence of concussion-related sleep complaints following deployment as a function of the mechanism of injury in individuals with and without probable PTSD and depression. Individuals with HLB-induced concussion were twice as likely to report sleep problems as those with an impact-induced concussion. Future work should examine these effects longitudinally with validated measures that assess greater precision of exposure and outcome assessment (e.g., blast intensity and type of sleep disturbance).

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<https://doi.org/10.1093/milmed/usac433>

## **Scoping Review of Postvention for Mental Health Providers Following Patient Suicide.**

Daly, K. A., Segura, A., Heyman, R. E., Aladia, S., & Slep, A. M. S.

Military Medicine

Volume 189, Issue 1-2, January/February 2024, Pages e90–e100

## Introduction

As suicides among military personnel continue to climb, we sought to determine best practices for supporting military mental health clinicians following patient suicide loss (i.e., postvention).

## Materials and Methods

We conducted a scoping review of the literature using Preferred Reporting Items for

Systematic Reviews and Meta-Analyses extension for Scoping Reviews guidelines. Our initial search of academic databases generated 2,374 studies, of which 122 were included in our final review. We categorized postvention recommendations based on the socioecological model (i.e., recommendations at the individual provider, supervisory/managerial, organizational, and discipline levels) and analyzed them using a narrative synthesizing approach.

## Results

Extracted recommendations (N = 358) comprised those at the provider (n = 94), supervisory/managerial (n = 90), organization (n = 105), and discipline (n = 69) levels.

## Conclusions

The literature converges on the need for formal postvention protocols that prioritize (1) training and education and (2) emotional and instrumental support for the clinician. Based on the scoped literature, we propose a simple postvention model for military mental health clinicians and recommend a controlled trial testing of its effectiveness.

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<https://doi.org/10.1176/appi.ajp.20230272>

## **Mindfulness-Oriented Recovery Enhancement for Veterans and Military Personnel on Long-Term Opioid Therapy for Chronic Pain: A Randomized Clinical Trial.**

Garland, E. L., Nakamura, Y., Bryan, C. J., Hanley, A. W., Parisi, A., Froeliger, B., Marchand, W. R., & Donaldson, G. W.

The American Journal of Psychiatry

Published Online: 10 Jan 2024

### Objective:

This randomized clinical trial evaluated the efficacy of Mindfulness-Oriented Recovery Enhancement (MORE) among past and present U.S. military personnel with prescriptions for long-term opioid therapy for chronic pain.

### Methods:

In this clinical trial, 230 past and present military personnel with prescriptions for long-term opioid therapy were randomized in a 1:1 ratio to MORE or supportive psychotherapy (initially delivered in person and then via videoconferencing after the onset of the COVID-19 pandemic). Primary outcomes were chronic pain, measured by

the Brief Pain Inventory, and aberrant drug-related behaviors, measured by the Current Opioid Misuse Measure, through 8 months of follow-up. Opioid dose was a key secondary outcome. Other outcomes included psychiatric symptoms, catastrophizing, positive affect, ecological momentary assessments of opioid craving, and opioid attentional bias.

#### Results:

MORE was superior to supportive psychotherapy through the 8-month follow-up in reducing pain-related functional interference, pain severity, and opioid dose. MORE reduced daily opioid dose by 20.7%, compared with a dose reduction of 3.9% with supportive psychotherapy. Although there was no overall between-group difference in opioid misuse, the in-person MORE intervention outperformed supportive psychotherapy for reducing opioid misuse. MORE reduced anhedonia, pain catastrophizing, craving, and opioid attentional bias and increased positive affect to a greater extent than supportive psychotherapy. MORE also modulated therapeutic processes, including mindful reinterpretation of pain sensations, nonreactivity, savoring, positive attention, and reappraisal.

#### Conclusions:

Among past and present U.S. military personnel, MORE led to sustained decreases in chronic pain, opioid use, craving, and opioid cue reactivity. MORE facilitated opioid dose reduction while preserving adequate pain control and preventing mood disturbances, suggesting its utility for safe opioid tapering.

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<https://doi.org/10.1093/milmed/usad306>

### **Relative Risk of All-Cause Medical Evacuation for Behavioral Health Conditions in U.S. Central Command.**

Hall, A., Olsen, C., Gomes, J., Bajjani-Gebara, J., Meyers, E., & Wilson, R.

Military Medicine

Volume 189, Issue 1-2, January/February 2024, Pages e279–e284

#### Introduction

Behavioral health disorders are the leading category of evacuations from the U.S. Central Command (USCENTCOM) area of responsibility. Understanding the relative

risk of behavioral health conditions associated with all-cause evacuation is important for the allocation of resources to reduce the evacuation burden.

### Materials and Methods

Data from the USTRANSCOM Regulating and Command & Control Evacuation System and Theater Medical Data Store covering personnel deployed to the USCENTCOM area of responsibility between January 1, 2017 and December 31, 2021 were collected and analyzed. All individuals who were diagnosed with a behavioral health–specific ICD-9 (290–316) or ICD-10 (F00–F99) code during the period were included. Using the earliest medical encounter, the number of individuals diagnosed with a particular code and the frequency individuals were evacuated being diagnosed with any code were calculated.

### Results

The mean monthly USCENTCOM population during this period was 62,535. A total of 22,870 individuals were diagnosed with a behavioral health–related disorder during the study period. Of this population, 1,414 individuals required an evacuation. The relative risk of the top 30 diagnosis codes used during the initial visit of individuals during the study period was calculated. Within this group of initial diagnoses, F32.9 ‘Major depressive disorder, single episode, unspecified’ had the highest proportion evacuated at 15.9%.

### Conclusions

There is a broad array of behavioral health–specific diagnoses used initially in the care of behavioral health disorders with a great variation in their association with evacuation risk. Variations of diagnoses associated with anxiety, depressive, and adjustment disorders are most associated with eventual evacuation.

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<https://doi.org/10.1016/j.jpsychires.2023.12.026>

### **Which veterans with PTSD are most likely to report being told of their diagnosis?**

Holder, N., Ranney, R. M., Bernhard, P. A., Holliday, R., Vogt, D., Hoffmire, C. A., Blosnich, J. R., Schneiderman, A. I., & Maguen, S.

Journal of Psychiatric Research  
Volume 170, February 2024, Pages 158-166

Veterans who do not know about their posttraumatic stress disorder (PTSD) diagnosis experience a fundamental barrier to accessing effective treatment. Little is known about the characteristics that influence veterans' PTSD diagnosis knowledge (i.e., report of being told they have a PTSD diagnosis by a healthcare provider). Veterans who met probable and provisional criteria for PTSD on the self-report PTSD checklist for DSM-5 were identified from the Comparative Health Assessment Interview Research Study (n = 2335). Weighted logistic regression was performed to identify demographic variables, clinical characteristics, and social determinants of health (e.g., economic instability, homelessness, healthcare coverage) associated with PTSD diagnosis knowledge among post-9/11 veterans. Approximately 62% of veterans with probable and provisional PTSD had PTSD diagnosis knowledge. Predictors with the strongest associations included another mental health diagnosis (OR = 6.10, CI95:4.58,8.12) and having Veterans Affairs (VA) healthcare coverage (OR = 2.63, CI95:1.97,3.51). Veterans with combat or sexual trauma were more likely to have PTSD diagnosis knowledge than those with different trauma types. Results suggest veterans with VA healthcare coverage and military-related trauma are more likely to be informed by a healthcare professional about a PTSD diagnosis. Further research is needed to improve PTSD diagnosis knowledge for those with non-military-related trauma and those without VA healthcare coverage.

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<https://doi.org/10.1002/jts.23012>

### **State of the science: Eye movement desensitization and reprocessing (EMDR) therapy.**

Ad de Jongh, Carlijn de Roos, Sharif El-Leithy

Journal of Traumatic Stress

First published: 28 January 2024

Eye movement desensitization and reprocessing (EMDR) therapy is an evidence-based psychotherapy for posttraumatic stress disorder (PTSD), with support from more than 30 published randomized controlled trials (RCTs) demonstrating its effectiveness in both adults and children. Most international clinical practice guidelines recommend EMDR therapy as a first-line treatment for PTSD. This paper describes the current state of the evidence for EMDR therapy. We begin with a brief description of EMDR therapy and its theoretical framework. Next, we summarize the scientific support for its efficacy, effectiveness, and safety and discuss its applicability across cultures and with diverse

populations. We conclude with suggestions for future directions to develop the research base and applications of EMDR therapy.

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<https://doi.org/10.1002/jts.23010>

**Linguistic and affective characteristics of script-driven imagery for adults with posttraumatic stress disorder: Associations with clinical outcomes during deep transcranial magnetic stimulation.**

Andrew G. Guzick, Aron Tendler, Lily A. Brown, Ogechi C. Onyeka, Eric A. Storch

Journal of Traumatic Stress

First published: 30 January 2024

Brief exposure to traumatic memories using script-driven imagery (SDI) has been proposed as a promising treatment for posttraumatic stress disorder (PTSD). This study investigated the effect of SDI plus active versus sham deep transcranial magnetic stimulation (TMS) in a secondary analysis of a randomized controlled trial for adults with PTSD (N = 134). Linguistic features of scripts and self-reported distress during a 12-session deep TMS treatment protocol were examined as they related to (a) baseline PTSD symptom severity, (b) trauma characteristics, and (c) treatment outcomes. Linguistic Inquiry and Word Count (LIWC) software was used to analyze the following linguistic features of SDIs: negative emotion, authenticity, and cognitive processing. More use of negative emotion words was associated with less severe self-reported and clinician-rated baseline PTSD symptom severity,  $r = -.18$ ,  $p = .038$ . LIWC features did not differ based on index trauma type, range:  $F(3, 125) = 0.29-0.49$ ,  $ps = .688-.831$ . Between-session reductions in self-reported distress across SDI trials predicted PTSD symptom improvement across both conditions at 5-week,  $B = -15.68$ ,  $p = .010$ , and 9-week endpoints,  $B = -16.38$ ,  $p = .011$ . Initial self-reported distress and linguistic features were not associated with treatment outcomes. The findings suggest that individuals with PTSD who experience between-session habituation to SDI-related distress are likely to experience a corresponding improvement in PTSD symptoms.

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<https://doi.org/10.2147/NSS.S434813>

## **Impact of Sleep Profiles on Multimorbidity Among US Active-Duty Service Members in the 2018 Health-Related Behaviors Survey.**

Weinberger, M., Ahmed, A. E., & Singer, D. E.

Nature and Science of Sleep

Published 5 December 2023

Volume 2023:15 Pages 1019—1032

### **Purpose:**

Sleep is a modifiable factor affecting chronic diseases and conditions in the Active-Duty (AD) United States (US) military population. This study assesses the impact of reported sleep health behaviors and sleep profiles on reported multimorbidity in active-duty service members (ADSMs).

### **Participants and methods:**

The study used a military representative sample of 17,166 active duty SMs from the 2018 Department of Defense Health Related Behaviors Survey (HRBS) to explore sleep patterns and profiles, and medical conditions. Multimorbidity was defined as the presence of two or more medical conditions which we limited to include obesity, hypertension, and hyperlipidemia. The adjusted odds ratios for six sleep-related health behaviors and their unobservable sleep profiles were calculated using a weighted multinomial logistic model.

### **Results:**

Sleep-related health behaviors were associated with increased odds of obesity, hypertension, and hyperlipidemia. We found higher odds of reported multimorbidity in SMs who reported lack of energy due to poor sleep (adjusted odds ratio [aOR] = 2.35, 95% CI:1.88– 2.93), sleep 6 hours or less per night (aOR = 1.95, 95% CI:1.53– 2.50), trouble sleeping (aOR = 2.19, 95% CI:1.76– 2.72), and use of sleep medications (aOR = 2.10, 95% CI:1.64– 2.68). Latent class analysis (LCA) identified three unobservable sleep profiles in SMs: minimal or low-risk sleep patterns (37.43%), moderate-risk sleep patterns (31.11%), and high-risk sleep patterns (31.46%). SMs with high-risk sleep patterns were significantly associated with reported multimorbidity (adjusted odds ratio [aOR] = 3.54, 95% CI:2.75– 4.56).

### **Conclusion:**

We found a strong association between sleep-related health behaviors and their

unobservable sleep profiles with multimorbidity in this AD population. Future studies should investigate whether other chronic diseases may be influenced by sleep impairment in the US military population.

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<https://doi.org/10.3389/frhs.2023.1225171>

## **Pre-implementation adaptation of suicide safety planning intervention using peer support in rural areas.**

Woodward EN, Lunsford A, Brown R, Downing D, Ball I, Gan-Kemp JM, Smith A, Atkinson O and Graham T

Frontiers in Health Services  
22 December 2023/Volume 3 - 2023

### Introduction:

Currently, seventeen veterans die by suicide daily in the United States (U.S.). There are disparities in suicide behavior and access to preventative treatment. One disparity is the suicide rate in rural areas, including the state of Arkansas—suicide deaths among rural veterans increased 48% in the last 2 decades, double that of urban veterans. One major challenge for veterans in rural areas is the lack of healthcare providers to provide Safety Planning Intervention, which is an effective intervention to reduce suicide attempts in the general adult population and among veterans. One solution is more broadly implementing Safety Planning Intervention, by using peers to deliver the intervention in rural communities. Before implementation, the intervention needs to be adapted for peer-to-peer delivery, and barriers and facilitators identified.

### Methods:

Since January 2021, using community-based participatory research, we collaboratively developed and executed a 1 year study to adapt Safety Planning Intervention for peer-to-peer delivery in rural communities and identified implementation barriers and facilitators prior to spread. From July 2022 to February 2023, we conducted group interviews with 12 participants: rural veterans with prior suicidal thoughts or attempts in one U.S. state, their support persons, and healthcare professionals with expertise in veteran suicide prevention, Safety Planning Intervention, and/or peer delivery. We collected qualitative data through interviews during nine, 2 h meetings, and quantitative data from one anonymous survey and real-time anonymous voting—all on the topic of core and adaptable components of Safety Planning Intervention and implementation



barriers and facilitators for peer delivery in rural communities. Questions about adaptation were designed according to processes in the ENGAGED for CHANGE community-engaged intervention framework and questions about facilitators and barriers were designed according to the Health Equity Implementation Framework. Participants categorized which Safety Planning Intervention components were core or adaptable, and how freely they could be adapted, using the metaphor of a traffic light in red (do not change), yellow (change with caution), and green (change freely) categories.

#### Results:

Participants made few actual adaptations (categorized according to the FRAME modification system), but strongly recommended robust training for peers. Participants identified 27 implementation facilitators and 47 barriers, organized using the Health Equity Implementation Framework. Two example facilitators were (1) peer-to-peer safety planning intervention was highly acceptable to rural veterans; and (2) some state counties already had veteran crisis programs that could embed this intervention for spread. Two example barriers were (1) some community organizations that might spread the intervention have been motivated initially, wanting to help right away, yet not able to sustain interventions; and (2) uncertainty about how to reach veterans at moderate suicide risk, as many crisis programs identified them when suicide risk was higher.

#### Discussion:

Our results provide one of the more comprehensive pre-implementation assessments to date for Safety Planning Intervention in any setting, especially for peer delivery (also referred to as task shifting) outside healthcare or clinical settings. One important next step will be mapping these barriers and facilitators to implementation strategies for peer-to-peer delivery. One finding surprised our research team—despite worse societal context in rural communities leading to disproportionate suicide deaths—participants identified several positive facilitators specifically about rural communities that can be leveraged during implementation.

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<https://doi.org/10.1002/jts.23004>

**Evidence-based treatment for posttraumatic stress disorder decreases suicidal ideation by reducing perceived burdensomeness among veterans in an outpatient program.**

Blain, R. C., Martin, C. E., Ehlinger, C. C., & Chard, K. M.

Journal of Traumatic Stress

First published: 06 December 2023

Evidenced-based posttraumatic stress disorder (PTSD) treatments generally reduce suicidal ideation (SI), and the interpersonal theory of suicide (ITS) may theoretically account for this finding. The ITS posits that SI stems from feeling like a burden (i.e., perceived burdensomeness) and a lack of belonging (i.e., thwarted belongingness). Previous research suggests that change in PTSD severity has a significant indirect effect on change in SI through changes in perceived burdensomeness, but not thwarted belongingness, among patients receiving residential PTSD treatment in a Veterans Affairs (VA) medical center; however, no research has investigated these associations in an outpatient VA setting with fewer confounding factors that might affect ITS constructs. Therefore, the current sample included veterans (N = 126) who completed PTSD treatment and pre- and posttreatment assessments in a VA outpatient clinic. Results from parallel models of multiple indirect effects suggest that change in PTSD severity was indirectly associated with change in SI through changes in perceived burdensomeness,  $B = 0.35$ ,  $p < .001$ ;  $\beta = .36$ ,  $p < .001$ ,  $SE = .10$ , 95% CI [.15, .54], but not thwarted belongingness,  $B = 0.14$ ,  $p = .146$ ;  $\beta = .14$ ,  $p = .161$ ,  $SE = .10$ , 95% CI [-.05, .33]. Additional models were examined using PTSD cluster scores for exploratory purposes. The results indicate that PTSD treatment reduces the perceived and objective burden of PTSD to decrease SI. Study findings support the importance of access to evidence-based care to treat PTSD and alleviate burdensomeness for suicide prevention.

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<https://doi.org/10.1037/sgd0000683>

### **Experiences of discrimination and mental health treatment seeking among LGBQ+ veterans.**

Harper, K. L., Herbitter, C., Livingston, N. A., Vogt, D., Iverson, K., Nillni, Y. I., & Galovski, T.

Psychology of Sexual Orientation and Gender Diversity

Advance online publication

Veterans who identify as gay, lesbian, bisexual, queer, and other minoritized sexual orientations (LGBQ+) experience significant stigma-related barriers to health care, including discrimination in care settings, which can lead to avoiding needed services. While research on general health care utilization is a growing area, mental health help seeking remains understudied in LGBQ+ veterans. Using data from an ongoing longitudinal study of heterosexual (n = 3,085), gay or lesbian (n = 179), and bisexual (n = 164) veterans, we examined mental health treatment seeking, satisfaction with and helpfulness of service use, utilization of other sources of support, and the association between discriminatory experiences and both use and perceptions of care. Results indicated that after controlling for mental health symptom severity (i.e., anxiety, depression, posttraumatic stress disorder), there were no differences in mental health care utilization between heterosexual and gay/lesbian or bisexual veterans. There were also no differences in satisfaction with care or helpfulness of care. However, for bisexual veterans, more experiences of discrimination were related to lower ratings of helpfulness and satisfaction. Additionally, bisexual veterans were less likely to utilize support from family, religious leaders, and medical doctors compared with heterosexual veterans. Overall, these results indicate that there are differences in help-seeking behaviors among LGBQ+ veterans and that bisexual veterans may have particular difficulty accessing helpful support. (PsycInfo Database Record (c) 2023 APA, all rights reserved)

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### **Mild Traumatic Brain Injury in the Maturing Brain: An Investigation of Symptoms and Cognitive Performance in Soldiers Returning From Afghanistan and Iraq.**

Ivins, B., Risling, M., Wisén, N., Schwab, K., & Rostami, E.

The Journal of Head Trauma Rehabilitation  
December 07, 2023

#### **Objective:**

The majority of traumatic brain injuries (TBIs) are classified as mild and occur in young individuals. The course of recovery varies but can result in chronic or troubling outcomes. The impact of age on TBI outcomes in young adults before complete brain maturation is not well studied.

#### Methods:

In this study, we compared the effects of mild TBI on cognitive performance and self-reported TBI symptoms and posttraumatic stress disorder (PTSD) in 903 soldiers in 3 different age groups: 24 years or younger, 25 to 27 years, and 28 to 40 years. The soldiers had returned from war zones in Iraq and were screened for TBI within a few days of return. Cognitive performance was measured with the Automated Neuropsychological Assessment Metrics of Military TBI Version 4 (ANAM4). Symptoms associated with mild TBI were self-reported on the Neurobehavioral Symptom Inventory, and the PTSD Checklist—Civilian Version (PCL-C).

#### Results:

Soldiers with TBI in every age group had significantly higher prevalence of most symptoms than those with no TBI. Soldiers with TBI also reported more chronic pain sites, regardless of age. Soldiers aged 28 to 40 years with TBI had the lowest cognitive performance scores (ANAM) across several subtests, both unadjusted and adjusted. The Global Deficit Score was significantly higher for soldiers aged 28 to 40 years and 25 to 27 years with TBI than for soldiers younger than 24 years with no TBI. After adjusting for PTSD symptoms, education, and number of lifetime TBIs, the overall test battery mean for soldiers aged 28 to 40 years with TBI was significantly lower than for soldiers younger than 24 years with no TBI.

#### Conclusion:

Soldiers with mild TBI in the younger age group show more symptoms associated to frontal lobe function while soldiers in the older group suffer more cognitive impairment. This may warrant further study as it may indicate a propensity to later cognitive decline among soldiers who were older at the time of injury.

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### **Investigating insomnia in United States deployed military forces: A topic modeling approach.**

EW D'Souza, AJ MacGregor, RR Markwald, TA Elkins, JM Zouris

Sleep Health

Available online 8 December 2023

## Study objectives

This retrospective study analyzed free-text clinical notes from medical encounters for insomnia among a sample of deployed US military personnel. Topic modeling, a natural language processing technique, was used to identify thematic patterns in the clinical notes that were potentially related to insomnia diagnosis.

## Methods

Clinical notes of patient clinical encounters coded for insomnia from the US Department of Defense Military Health System Theater Medical Data Store were analyzed. Following preprocessing of the free text in the clinical notes, topic modeling was employed to identify relevant underlying topics or themes in 32,864 unique patients. The machine-learned topics were validated using human-coded potential insomnia etiological issues.

## Results

A 12-topic model was selected based on quantitative metrics, interpretability, and coherence of terms comprising topics. The topics were assigned the following labels: personal/family history, stimulants, stress, family/relationships, other sleep disorders, depression, schedule/environment, anxiety, other medication, headache/concussion, pain, and medication refill. Validation of these topics (excluding the two medication topics) against their corresponding human-coded potential etiological issues showed strong agreement for the assessed topics.

## Conclusions

Analysis of free-text clinical notes using topic modeling resulted in the identification of thematic patterns that largely mirrored known correlates of insomnia. These findings reveal multiple potential etiologies for deployment-related insomnia. The identified topics may augment electronic health record diagnostic codes and provide valuable information for sleep researchers and providers. As both civilian and military healthcare systems implement electronic health records, topic modeling may be a valuable tool for analyzing free-text data to investigate health outcomes.

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<https://doi.org/10.1002/jts.23004>

**Evidence-based treatment for posttraumatic stress disorder decreases suicidal ideation by reducing perceived burdensomeness among veterans in an outpatient program.**

Blain, R. C., Martin, C. E., Ehlinger, C. C., & Chard, K. M.

Journal of Traumatic Stress

First published: 06 December 2023

Evidenced-based posttraumatic stress disorder (PTSD) treatments generally reduce suicidal ideation (SI), and the interpersonal theory of suicide (ITS) may theoretically account for this finding. The ITS posits that SI stems from feeling like a burden (i.e., perceived burdensomeness) and a lack of belonging (i.e., thwarted belongingness). Previous research suggests that change in PTSD severity has a significant indirect effect on change in SI through changes in perceived burdensomeness, but not thwarted belongingness, among patients receiving residential PTSD treatment in a Veterans Affairs (VA) medical center; however, no research has investigated these associations in an outpatient VA setting with fewer confounding factors that might affect ITS constructs. Therefore, the current sample included veterans (N = 126) who completed PTSD treatment and pre- and posttreatment assessments in a VA outpatient clinic. Results from parallel models of multiple indirect effects suggest that change in PTSD severity was indirectly associated with change in SI through changes in perceived burdensomeness,  $B = 0.35$ ,  $p < .001$ ;  $\beta = .36$ ,  $p < .001$ ,  $SE = .10$ , 95% CI [.15, .54], but not thwarted belongingness,  $B = 0.14$ ,  $p = .146$ ;  $\beta = .14$ ,  $p = .161$ ,  $SE = .10$ , 95% CI [-.05, .33]. Additional models were examined using PTSD cluster scores for exploratory purposes. The results indicate that PTSD treatment reduces the perceived and objective burden of PTSD to decrease SI. Study findings support the importance of access to evidence-based care to treat PTSD and alleviate burdensomeness for suicide prevention.

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### **Longitudinal predictors of children's self-blame appraisals among military families reported for family violence.**

C Rancher, R Hanson, LM Williams, BE Saunders, DW Smith

Child Abuse & Neglect

Volume 147, January 2024, 106596

Background

Although children's self-blame appraisals are recognized as important sequelae of child

victimization that contribute to subsequent adjustment problems, little is known about the factors that predict their development and longitudinal course.

### Objective

The current study examines the stability and longitudinal predictors of children's self-blame appraisals among a sample of children reported for family violence.

### Participants and setting

Children (N = 195; 63 % female) aged 7 to 17 years (Mage = 12.17) were recruited as part of a longitudinal assessment of families referred to the United States Navy's Family Advocacy Program due to allegations of child physical abuse, sexual abuse, or intimate partner violence.

### Methods

Children completed assessments on self-blame at 3 time points (baseline, 9–12 months, and 18–24 months) and baseline measures of their victimization experience, caregiver-child conflict, and depression.

### Results

In univariate analyses, victimization that involved injury ( $r = 0.29$ ,  $p < .001$ ), the number of perpetrators ( $r = 0.23$ ,  $p = .001$ ), the number of victimization types ( $r = 0.32$ ,  $p < .001$ ), caregiver-child conflict ( $r = 0.36$ ,  $p < .001$ ), and depression ( $r = 0.39$ ,  $p < .001$ ) were each positively associated with baseline self-blame. When examined in a single longitudinal multilevel model, results indicated only caregiver-child conflict ( $b = 0.08$ ,  $p = .007$ ) and baseline depression ( $b = 0.06$ ,  $p = .013$ ) predicted increases in self-blame.

### Conclusion

Findings suggest clinicians and researchers may consider assessment of victimization characteristics, caregiver-child relationships, and depression symptoms to identify children most at risk for developing self-blame appraisals.

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<https://doi.org/10.1016/j.ajcnut.2023.10.032>

## **Impact of 8 lifestyle factors on mortality and life expectancy among United States veterans: The Million Veteran Program.**

Xuan-Mai T Nguyen, Yanping Li, Dong D Wang, Stacey B Whitbourne, ... Peter WF Wilson

## Background

Lifestyle medicine has been proposed as a way to address the root causes of chronic disease and their associated health care costs.

## Objective

This study aimed to estimate mortality risk and longevity associated with individual lifestyle factors and comprehensive lifestyle therapy.

## Methods

Age- and sex-specific mortality rates were calculated on the basis of 719,147 veterans aged 40–99 y enrolled in the Veteran Affairs Million Veteran Program (2011–2019). Hazard ratios and estimated increase in life expectancy were examined among a subgroup of 276,132 veterans with complete data on 8 lifestyle factors at baseline. The 8 lifestyle factors included never smoking, physical activity, no excessive alcohol consumption, restorative sleep, nutrition, stress management, social connections, and no opioid use disorder.

## Results

On the basis of 1.12 million person-years of follow-up, 34,247 deaths were recorded. Among veterans who adopted 1, 2, 3, 4, 5, 6, 7, and 8 lifestyle factors, the adjusted hazard ratios for mortality were 0.74 (0.60–0.90), 0.60 (95% CI: 0.49, 0.73), 0.50 (95% CI: 0.41, 0.61), 0.43 (95% CI: 0.35, 0.52), 0.35 (95% CI: 0.29, 0.43), 0.27 (95% CI: 0.22, 0.33), 0.21 (95% CI: 0.17, 0.26), and 0.13 (95% CI: 0.10, 0.16), respectively, as compared with veterans with no adopted lifestyle factors. The estimated life expectancy at age 40 y was 23.0, 26.5, 28.8, 30.8, 32.7, 35.1, 38.3, 41.3, and 47.0 y among males and 27.0, 28.8, 33.1, 38.0, 39.2, 41.4, 43.8, 46.3, and 47.5 y for females who adopted 0, 1, 2, 3, 4, 5, 6, 7, and 8 lifestyle factors, respectively. The difference in life expectancy at age 40 y was 24.0 y for male veterans and 20.5 y for female veterans when comparing adoption of 8–9 lifestyle factors.

## Conclusions

A combination of 8 lifestyle factors is associated with a significantly lower risk of premature mortality and an estimated prolonged life expectancy.

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## Links of Interest

Army prep course has graduated 15,000 potential soldiers amid recruiting slump  
<https://www.defenseone.com/policy/2024/01/army-prep-course-has-graduated-15000-potential-soldiers-amid-recruiting-slump/393809/>

How Are Male Military Spouses Really Doing?  
<https://www.military.com/daily-news/2024/01/31/how-are-male-military-spouses-really-doing.html>

The Marines are retaining women at significantly higher rates than men  
<https://www.marinecorpstimes.com/education-transition/2024/02/06/the-marines-are-retaining-women-at-significantly-higher-rates-than-men/>

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## Resource of the Week – [FY2024 NDAA: Military Mental Health Strategy Development and Program Assessment Provisions](#)

New, from the Congressional Research Service:

Congress authorizes, through the annual National Defense Authorization Act (NDAA), Department of Defense (DOD) mental health programs and services that support servicemembers, military retirees, and their families. DOD administers mental health programs that offer education; awareness; crisis prevention resources; clinical treatment; nonclinical support and counseling services; and research and development.

DOD has estimated that 456,293 active duty servicemembers were diagnosed with at least one mental health disorder from 2016 through 2020. Mental health disorders also accounted for the highest number of hospital bed days and were the second-most common reason for outpatient visits among servicemembers. During the same time period, adjustment disorders, anxiety disorders, and depressive disorders composed the majority (64%) of mental health diagnoses.

DOD has made numerous efforts to address mental health issues. The Government Accountability Office (GAO), DOD Inspector General (DODIG), and other observers of military health have highlighted potential opportunities for improvement. During ongoing deliberations on an FY2024 NDAA, Congress has expressed interest in understanding the current state of DOD's mental health

programs available to servicemembers and their families through the Military Health System (MHS) and other resources.



**INSIGHT**

## **FY2024 NDAA: Military Mental Health Strategy Development and Program Assessment Provisions**

Updated January 23, 2024

See also:

- [FY2024 NDAA: Military Mental Health Workforce Provisions](#)
- [FY2024 NDAA: Military Mental Health Care and Research Provisions](#)

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