

CDP



Research Update -- July 22, 2021

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<https://doi.org/10.1002/jts.22717>

Vulnerability to COVID-19–Related Disability: The Impact of Posttraumatic Stress Symptoms on Psychosocial Impairment During the Pandemic.

Danielle M. Morabito, Carter E. Bedford, Savannah Woller, Norman B. Schmidt

Journal of Traumatic Stress
First published: 10 July 2021

As a result of the COVID–19 pandemic, many individuals have experienced disruptions in social, occupational, and daily life activities. Individuals with mental health difficulties, particularly those with elevated posttraumatic stress symptoms (PTSS), may be especially vulnerable to increased impairment as a result of COVID–19. Additionally, demographic factors, such as age, gender, and race/ethnicity, may impact individual difficulties related to the pandemic. The current study examined the concurrent and prospective associations between posttraumatic stress disorder (PTSD) symptoms, broader anxiety and depression symptoms, and COVID–19–related disability. Participants recruited through Amazon's Mechanical Turk (N = 136) completed questionnaire batteries approximately 1 month apart during the COVID–19 pandemic (i.e., Wave 1 and Wave 2). The results indicated that PTSD, anxiety, and depressive symptoms were all associated with increased COVID–19–related disability across assessment points, $r_s = .44-.68$. PTSD symptoms, specifically negative alterations in cognition and mood, significantly predicted COVID–19–related disability after accounting for anxiety and depressive symptoms as well as demographic factors, $\beta_s = .31-.38$. Overall, these findings suggest that individuals experiencing elevated PTSS are particularly vulnerable to increased functional impairment as a result of COVID–19 and suggest a need for additional outreach and clinical care among individuals with elevated PTSD symptoms during the pandemic.

<https://doi.org/10.1016/j.jadr.2021.100190>

Transcutaneous Cervical Vagal Nerve Stimulation in Patients with Posttraumatic Stress Disorder (PTSD): A Pilot Study of Effects on PTSD Symptoms and Interleukin-6 Response to Stress.

J. Douglas Bremner, Matthew T. Wittbrodt, Nil Z. Gurel, MdMobashir H. Shandhi, ...
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Journal of Affective Disorders Reports
Volume 6, December 2021

Background

Posttraumatic stress disorder (PTSD) is a highly disabling condition associated with alterations in multiple neurobiological systems, including increases in inflammatory and sympathetic function, responsible for maintenance of symptoms. Treatment options including medications and psychotherapies have limitations. We previously showed that transcutaneous Vagus Nerve Stimulation (tcVNS) blocks inflammatory (interleukin (IL)-6) responses to stress in PTSD. The purpose of this study was to assess the effects of tcVNS on PTSD symptoms and inflammatory responses to stress.

Methods

Twenty patients with PTSD were randomized to double blind active tcVNS (N=9) or sham (N=11) stimulation in conjunction with exposure to personalized traumatic scripts immediately followed by active or sham tcVNS and measurement of IL-6 and other biomarkers of inflammation. Patients then self administered active or sham tcVNS twice daily for three months. PTSD symptoms were measured with the PTSD Checklist (PCL) and the Clinician Administered PTSD Scale (CAPS), clinical improvement with the Clinical Global Index (CGI) and anxiety with the Hamilton Anxiety Scale (Ham-A) at baseline and one-month intervals followed by a repeat of measurement of biomarkers with traumatic scripts. After three months patients self treated with twice daily open label active tcVNS for another three months followed by assessment with the CGI.

Results

Traumatic scripts increased IL-6 in PTSD patients, an effect that was blocked by tcVNS ($p < .05$). Active tcVNS treatment for three months resulted in a 31% greater reduction in PTSD symptoms compared to sham treatment as measured by the PCL ($p = 0.013$) as well as hyperarousal symptoms and somatic anxiety measured with the Ham-A $p < 0.05$. IL-6 increased from baseline in sham but not tcVNS. Open label tcVNS resulted in improvements measured with the CGI compared to the sham treatment period ($p < 0.05$).

Conclusions

These preliminary results suggest that tcVNS reduces inflammatory responses to stress, which may in part underlie beneficial effects on PTSD symptoms.

<https://doi.org/10.1001/jamanetworkopen.2021.15707>

Development and Validation of Computerized Adaptive Assessment Tools for the Measurement of Posttraumatic Stress Disorder Among US Military Veterans.

Brenner, L. A., Betthausen, L. M., Penzenik, M., Germain, A., Li, J. J., Chattopadhyay, I., Frank, E., Kupfer, D. J., & Gibbons, R. D.

JAMA Network Open

2021 Jul 1; 4(7): e2115707

Importance:

Veterans from recent and past conflicts have high rates of posttraumatic stress disorder (PTSD). Adaptive testing strategies can increase accuracy of diagnostic screening and symptom severity measurement while decreasing patient and clinician burden.

Objective:

To develop and validate a computerized adaptive diagnostic (CAD) screener and computerized adaptive test (CAT) for PTSD symptom severity.

Design, setting, and participants:

A diagnostic study of measure development and validation was conducted at a Veterans Health Administration facility. A total of 713 US military veterans were included. The study was conducted from April 25, 2017, to November 10, 2019.

Main outcomes and measures:

The participants completed a PTSD-symptom questionnaire from the item bank and provided responses on the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (PCL-5). A subsample of 304 participants were interviewed using the Clinician-Administered Scale for PTSD for DSM-5.

Results:

Of the 713 participants, 585 were men; mean (SD) age was 52.8 (15.0) years. The

CAD-PTSD reproduced the Clinician-Administered Scale for PTSD for DSM-5 PTSD diagnosis with high sensitivity and specificity as evidenced by an area under the curve of 0.91 (95% CI, 0.87-0.95). The CAT-PTSD demonstrated convergent validity with the PCL-5 ($r = 0.88$) and also tracked PTSD diagnosis (area under the curve = 0.85; 95% CI, 0.79-0.89). The CAT-PTSD reproduced the final 203-item bank score with a correlation of $r = 0.95$ with a mean of only 10 adaptively administered items, a 95% reduction in patient burden.

Conclusions and relevance:

Using a maximum of only 6 items, the CAD-PTSD developed in this study was shown to have excellent diagnostic screening accuracy. Similarly, using a mean of 10 items, the CAT-PTSD provided valid severity ratings with excellent convergent validity with an extant scale containing twice the number of items. The 10-item CAT-PTSD also outperformed the 20-item PCL-5 in terms of diagnostic accuracy. The results suggest that scalable, valid, and rapid PTSD diagnostic screening and severity measurement are possible.

<https://doi.org/10.1007/s10943-021-01328-0>

Moral Injury: An Increasingly Recognized and Widespread Syndrome.

Koenig, H.G., Al Zaben, F.

Psychological Exploration

Published: 10 July 2021

Moral injury (MI), originally discussed in relationship to transgressing moral beliefs and values during wartime among military personnel, has expanded beyond this context to include similar emotions experienced by healthcare professionals, first responders, and others experiencing moral emotions resulting from actions taken or observations made during traumatic events or circumstances. In this article, we review the history, definition, measurement, prevalence, distinctiveness, psychological consequences, manifestations (in and outside of military settings), and correlates of MI in different settings. We also review secular psychological treatments, spiritually integrated therapies, and pastoral care approaches (specific for clergy and chaplains) used to treat MI and the evidence documenting their efficacy. Finally, we examine directions for future research needed to fill the many gaps in our knowledge about MI, how it develops, and how to help those suffering from it.

<https://doi.org/10.1038/s41398-021-01467-8>

Teasing apart trauma: neural oscillations differentiate individual cases of mild traumatic brain injury from post-traumatic stress disorder even when symptoms overlap.

Zhang, J., Emami, Z., Safar, K., McCunn, P., Richardson, J. D., Rhind, S. G., da Costa, L., Jetly, R., & Dunkley, B. T.

Translational Psychiatry
2021 Jun 4;11(1):345

Post-traumatic stress disorder (PTSD) and mild traumatic brain injury (mTBI) are highly prevalent and closely related disorders. Affected individuals often exhibit substantially overlapping symptomatology - a major challenge for differential diagnosis in both military and civilian contexts. According to our symptom assessment, the PTSD group exhibited comparable levels of concussion symptoms and severity to the mTBI group. An objective and reliable system to uncover the key neural signatures differentiating these disorders would be an important step towards translational and applied clinical use. Here we explore use of MEG (magnetoencephalography)-multivariate statistical learning analysis in identifying the neural features for differential PTSD/mTBI characterisation. Resting state MEG-derived regional neural activity and coherence (or functional connectivity) across seven canonical neural oscillation frequencies (delta to high gamma) were used. The selected features were consistent and largely confirmatory with previously established neurophysiological markers for the two disorders. For regional power from theta, alpha and high gamma bands, the amygdala, hippocampus and temporal areas were identified. In line with regional activity, additional connections within the occipital, parietal and temporal regions were selected across a number of frequency bands. This study is the first to employ MEG-derived neural features to reliably and differentially stratify the two disorders in a multi-group context. The features from alpha and beta bands exhibited the best classification performance, even in cases where distinction by concussion symptom profiles alone were extremely difficult. We demonstrate the potential of using 'invisible' neural indices of brain functioning to understand and differentiate these debilitating conditions.

<https://doi.org/10.1136/bmjmilitary-2021-001903>

Veteran help-seeking behaviour for mental health issues: a systematic review.

Randles, R., & Finnegan, A.

BMJ Military Health
2021 Jul 12

Introduction:

Serving military personnel and veterans have been identified to have a high prevalence of mental health disorders. Despite this, only a significantly small number seek mental healthcare. With the UK beginning to invest further support to the armed forces community, identification of barriers and facilitators of help-seeking behaviour is needed.

Methods:

Corresponding literature search was conducted in PsycINFO, PsycArticles, Medline, Web of Science and EBSCO. Articles which discussed barriers and facilitators of seeking help for mental health concerns in the veteran population were included. Those which discussed serving personnel or physical problems were not included within this review. A total of 26 papers were analysed.

Results:

A number of barriers and facilitators of help-seeking for a mental health issue within the veteran population were identified. Barriers included stigma, military culture of stoicism and self-reliance, as well as deployment characteristics of combat exposure and different warzone deployments. Health service difficulties such as access and lack of understanding by civilian staff were also identified. Facilitators to help combat these barriers included a campaign to dispel the stigma, including involvement of veterans and training of military personnel, as well as more accessibility and understanding from healthcare staff.

Conclusions:

While some barriers and facilitators have been identified, much of this research has been conducted within the USA and on male veterans and lacks longitudinal evidence. Further research is needed within the context of other nations and female veterans and to further indicate the facilitators of help-seeking among veterans.

<https://doi.org/10.1002/jts.22717>

Vulnerability to COVID-19–Related Disability: The Impact of Posttraumatic Stress Symptoms on Psychosocial Impairment During the Pandemic.

Danielle M. Morabito, Carter E. Bedford, Savannah Woller, Norman B. Schmidt

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As a result of the COVID–19 pandemic, many individuals have experienced disruptions in social, occupational, and daily life activities. Individuals with mental health difficulties, particularly those with elevated posttraumatic stress symptoms (PTSS), may be especially vulnerable to increased impairment as a result of COVID–19. Additionally, demographic factors, such as age, gender, and race/ethnicity, may impact individual difficulties related to the pandemic. The current study examined the concurrent and prospective associations between posttraumatic stress disorder (PTSD) symptoms, broader anxiety and depression symptoms, and COVID–19–related disability. Participants recruited through Amazon's Mechanical Turk ($N = 136$) completed questionnaire batteries approximately 1 month apart during the COVID–19 pandemic (i.e., Wave 1 and Wave 2). The results indicated that PTSD, anxiety, and depressive symptoms were all associated with increased COVID–19–related disability across assessment points, $r_s = .44-.68$. PTSD symptoms, specifically negative alterations in cognition and mood, significantly predicted COVID–19–related disability after accounting for anxiety and depressive symptoms as well as demographic factors, $\beta_s = .31-.38$. Overall, these findings suggest that individuals experiencing elevated PTSS are particularly vulnerable to increased functional impairment as a result of COVID–19 and suggest a need for additional outreach and clinical care among individuals with elevated PTSD symptoms during the pandemic.

<https://doi.org/10.1037/ccp0000572>

Tracking positive and negative affect in PTSD inpatients during a service dog intervention.

Woodward, S. H., Jamison, A. L., Gala, S., Lawlor, C., Villasenor, D., Tamayo, G., & Puckett, M.

Tracking positive and negative affect in PTSD inpatients during a service dog intervention.

Journal of Consulting and Clinical Psychology
(2021), 89(6), 551–562.

Though popular across many audiences, engagement with a service dog has undergone limited empirical evaluation as a complementary or alternative treatment for posttraumatic stress disorder (PTSD). The present study took advantage of a service dog training intervention underway in a Department of Veterans Affairs residential PTSD treatment program to perform a within-subjects comparison of a range of phenotypic markers. The present report considers negative and positive affect, assessed throughout the day, contrasting weeks when participants were or were not accompanied by their service dog. Fifty-four veterans were studied for 2–6 weeks. Negative and positive affect were sampled five times per day using items from the Positive and Negative Affect Schedule. Participants also wore a single-patch ECG/activity recorder and slept on beds recording sleep actigraphically. Linear mixed effects regression was employed to estimate the effect of the presence of service dog on momentary affect in the context of other presumable influences. Missing data were managed using methods applicable to random and nonrandom missingness. In this sample, the presence of a service dog was associated with reduced negative and increased positive affect, with both effects diminishing over time. Only negative affect was associated with time in residential treatment, and only positive affect was associated with concurrent heart rate, activity, and the interaction of activity and prior-night actigraphic sleep efficiency. These results concur with prior reports of reduced PTSD symptomology in association with the presence of a service dog, and with the distinct neurocircuitries underlying defensive and appetitive emotion and motivation. Limitations derive from the artificial environment and brief duration of study. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

<https://doi.org/10.1111/sltb.12789>

Warzone experiences and subsequent clinician suicide risk assessment in veterans.

Bjork, J. M., Perrin, P. B., Redae, M., VA Mid-Atlantic MIRECC Workgroup, & Tupler, L. A.

Suicide and Life-Threatening Behavior

First published: 08 July 2021

Objective

To determine in veterans whether severity of combat exposure was predictive of subsequently receiving a suicide risk assessment (SRA), and whether this relationship was mediated by depression symptomatology.

Method

We conducted an electronic medical records review for SRA ratings of 486 veterans who had completed Combat Exposure Scale (CES) and Beck Depression Inventory-II (BDI-II) assessments in a study of Post-Deployment Mental Health (PDMH).

Results

Higher total scores on the CES and BDI-II were characteristic of PDMH participants who subsequently (mean 29.2 months later) received an SRA from a Veterans Health Administration provider. Among participants with an SRA, those scoring at high risk had significantly greater CES and BDI-II scores than those rated at low risk. Participants rated at low risk tended to have CES and BDI-II scores higher than those of participants for whom no SRA was found. Relationships between combat exposures and both performance of an SRA and the SRA risk level were mediated by BDI-II scores.

Conclusion

These data extend previous findings of depression-mediated linkages between warzone experiences and subsequent self-reported suicide risk among veterans, by indicating chronicity of combat trauma-related suicide risk and demonstrating a concordance between self-reported and clinician-reported suicidality as it relates to experiential and psychiatric factors.

<http://dx.doi.org/10.1136/bmjmilitary-2021-001845>

Medication-assisted treatment and self-help group participation among military veterans with opioid or alcohol use disorder.

Albright DL, McDaniel JT, Suntai Z, Laha-Walsh M K, Frick K, Weatherly T, & McIntosh S

BMJ Military Health

Published Online First: 12 July 2021

Introduction

Medication-assisted treatment (MAT) is a combination of behavioural therapy and medications to assist with recovery and has been administered to individuals with alcohol and opioid withdrawal symptoms. Military veterans seeking MAT could have barriers preventing them from receiving the care they desire. The present study sought to compare outcomes in individuals who received MAT or those who participated in self-help groups for opioid or alcohol use disorder. In addition, the present study sought to compare outcomes between veterans and non-military-connected individuals.

Methods

We used the 2015–2017 United States Treatment Episode Data Set Discharges data from the Substance Abuse and Mental Health Services Administration. The data set included 138 594 unique discharges. A multinomial logistic regression model was used to examine differences in substance use outcomes for veterans/non-veterans in MAT and a self-help group.

Results

Fewer veterans (2.58%) than non-veterans (4.28%) reported usage of MAT. Fewer veterans (38.94%) than non-veterans (40.17%) reported signing up for a self-help group. Finally, those who participated in MAT and a self-help group had a better outcome (66.64%)—defined as no substance use at discharge—than those who only received MAT (43.02%) and those who did not participate in MAT or self-help groups (34.84%).

Conclusions

Recommendations for future research on MAT and implementation for the veteran population would benefit the literature base.

<https://doi.org/10.1016/j.cbpra.2021.06.001>

Intensive Outpatient Program Using Prolonged Exposure for Combat-Related PTSD: A Case Study.

Casey L. Straud, Tabatha H. Blount, Carmen P. McLean, Cindy A. McGeary, ... Alan L. Peterson

Cognitive and Behavioral Practice

Available online 14 July 2021

Highlights

- PE can be effectively adapted to an intensive outpatient format.
- IOP-PE can result in clinically significant reductions in PTSD over time.
- Addressing multiple traumatic events may increase processing and new learning.
- Feedback and booster sessions may help to enhance and maintain treatment gains.
- Incorporation of significant others may mitigate accommodating behaviors.

Abstract

Although prolonged exposure (PE) has been identified as a first-line treatment for posttraumatic stress disorder (PTSD), research has found that military service members and veterans have smaller reductions in symptom severity compared to civilians. The nature of trauma in a deployed combat setting and the unique complexities of military culture have been proposed as explanations for greater rates of PTSD and poorer treatment response to first-line psychotherapies in military and veteran populations. This paper presents a case study to highlight how a novel, intensive outpatient program utilizing prolonged exposure therapy (IOP-PE) may benefit military personnel with combat-related PTSD. The patient is a Caucasian man in his early 40s seeking treatment for PTSD after more than 10 years of enlisted, active duty military service across two branches and three combat deployments. The IOP-PE includes the standard PE components and eight, nonstandard treatment augmentations tailored for military personnel. In contrast to standard PE, which typically is delivered weekly over several months, IOP-PE consists of 15 daily, 90-minute PE sessions conducted over 3 weeks. The patient demonstrated large reductions on the Clinician-Administered PTSD Scale (28 points) and PTSD Checklist (48 points) by the 6-month posttreatment follow-up point. Findings provide support for conducting further research that determines whether IOP-PE is effective and tolerable in military and veteran populations.

<https://doi.org/10.1016/j.amepre.2021.04.034>

Reported History of Traumatic Brain Injury Among Suicide Decedents: National Violent Death Reporting System, 2003–2017.

Gabrielle F. Miller, Bridget H. Lyons, Alexis B. Peterson, Ketra L. Rice, Kristin M. Holland

American Journal of Preventive Medicine
Available online 12 July 2021

Introduction

Traumatic brain injury is a major cause of death and disability in the U.S., and research shows that individuals who suffer traumatic brain injury have an increased risk for suicide. This study examines the characteristics of suicide decedents with a documented traumatic brain injury history using a database containing circumstantial data on suicides and examines the differences in traumatic brain injury– and nontraumatic brain injury–related suicides within the general population and within individuals with a history of military service.

Methods

Logistic regression models estimated AORs and 95% CIs of suicide among those with and without a previous traumatic brain injury using data from the 2003–2017 National Violent Death Reporting System (analyzed in 2020).

Results

From 2003 to 2017, a total of 203,157 suicide decedents were identified, and 993 had a documented traumatic brain injury before suicide. Among those with a documented traumatic brain injury, a higher percentage were White non-Hispanic. Firearm injuries were the most common method of suicide for both groups. Poisoning was more common among decedents with a previous traumatic brain injury than among those without. Male individuals, those who were single, and those who served in the military were 1.4 times more likely to have a documented traumatic brain injury history before the suicide. Almost 1 in 5 suicides (18.9%) documenting traumatic brain injury occurred among individuals with a history of military service.

Conclusions

Comprehensive suicide prevention approaches are imperative. Healthcare providers can play a role in assessing and identifying patients at increased risk of suicide,

including those who have experienced falls or injuries that often result in traumatic brain injury, and provide tailored interventions or referrals.

<https://doi.org/10.1097/WNP.0000000000000853>

Practice Guideline: Use of Quantitative EEG for the Diagnosis of Mild Traumatic Brain Injury: Report of the Guideline Committee of the American Clinical Neurophysiology Society.

Tenney, Jeffrey R.; Gloss, David; Arya, Ravindra; Kaplan, Peter W.; Lesser, Ronald; Sexton, Vickill; Nuwer, Marc

Journal of Clinical Neurophysiology
July 2021 - Volume 38 - Issue 4 - p 287-292

Despite many decades of research, controversy regarding the utility of quantitative EEG (qEEG) for the accurate diagnosis of mild traumatic brain injury (mTBI) remains. This guideline is meant to assist clinicians by providing an expert review of the clinical usefulness of qEEG techniques for the diagnosis of mTBI. This guideline addresses the following primary aim: For patients with or without posttraumatic symptoms (abnormal cognition or behavior), does qEEG either at the time of injury or remote from the injury, as compared with current clinical diagnostic criteria, accurately identify those patients with mTBI (i.e., concussion)? Secondary aims included differentiating between mTBI and other diagnoses, detecting mTBI in the presence of central nervous system medications, and pertinence of statistical methods for measurements of qEEG components. It was found that for patients with or without symptoms of abnormal cognition or behavior, current evidence does not support the clinical use of qEEG either at the time of the injury or remote from the injury to diagnose mTBI (level U). In addition, the evidence does not support the use of qEEG to differentiate mTBI from other diagnoses or detect mTBI in the presence of central nervous system medications, and suitable statistical methods do not exist when using qEEG to identify patients with mTBI. Based upon the current literature review, qEEG remains an investigational tool for mTBI diagnosis (class III evidence).

<https://doi.org/10.1093/milmed/usab279>

Knowledge and Attitudes of Lifestyle Medicine–Based Care in a Military Community.

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Military Medicine

Published: 13 July 2021

Introduction

The Department of Defense spends more than \$3 billion annually on medical costs of lifestyle-related morbidity. Military service members and veterans engage in unhealthy behaviors at a higher rate than the civilian population. Lifestyle medicine may mitigate lifestyle-related chronic diseases and increase medical readiness in the U.S. Military. However, patients' perspectives in a military community regarding a lifestyle medicine–based approach to health care have not been studied. The purpose of this study was to assess the knowledge and attitudes of and interest in lifestyle medicine–based care within a military community.

Materials and Methods

Following exempt study determination from the Madigan Army Medical Center Human Protections Office (Reference No. 220092), a prospective, cross-sectional, mixed-methods survey study was conducted from September 2020 to January 2021. Volunteer subjects, including active duty service members, National Guard/Reserves service members, and military dependents, were recruited to complete the anonymous survey while seeking care at five military clinics on Joint Base Lewis-McChord, Washington. The study's outcome measures were the overall level of awareness of lifestyle medicine, ranked level of importance of seven core lifestyle domains, the level of interest in seeking care from a lifestyle medicine practitioner, and the preferred lifestyle medicine care delivery setting. Kruskal–Wallis analyses of variance were conducted for categorical outcome variables. Mean composite scores were calculated for lifestyle domain rankings.

Results

A total of 623 respondents completed the survey with a 62.3% response rate. The majority of respondents (89.7%) lacked definitive knowledge of the field of lifestyle medicine. Food/nutrition and sleep were ranked the highest of all lifestyle domains to include in a healthcare approach in the overall sample and across all subgroups. Quitting smoking and alcohol use were ranked the lowest of importance overall and

across all subgroups. The majority of respondents (65.7%) reported it was extremely or very important that lifestyle is part of the healthcare discussion with their provider. Of 614 responses, 77.6% of respondents expressed interest in a lifestyle medicine–based approach to health care, with 40.1% indicating they were extremely or very interested in this approach. A direct correlation was noted between education levels and level of interest in lifestyle medicine. Many respondents selected their primary care provider (34.6%) or a lifestyle medicine practitioner embedded in their primary care clinic (26.1%) as their preferred method of lifestyle medicine provision. A higher smoking rate was demonstrated in service members in combat arms occupational specialties.

Conclusions

Despite an overall low level of awareness of lifestyle medicine, most respondents expressed interest in a lifestyle medicine approach to health care, with food/nutrition and sleep ranked as the most important domains. Lower levels of education may be a potential barrier to patient willingness to engage in lifestyle medicine care. Service members in combat arms occupational specialties may represent a potential target population for smoking cessation interventions. Further research with a larger sample more proportionately inclusive of all military service branches is needed.

<https://doi.org/10.1080/10503307.2021.1951870>

Effectiveness of the DROP training for military behavioral health providers targeting therapeutic alliance and premature dropout.

K.L. Nugent, J.B. Macdonald, K.M. Clarke-Walper, E.A. Penix, J.M. Curley, T.A. Rangel, R.M. Laygo, K. Woolaway-Bickel & J.E. Wilk

Psychotherapy Research

Published online: 14 Jul 2021

Premature discontinuation from behavioral health treatment is a major problem reducing effectiveness of care in military populations. A training was developed and delivered to 622 behavioral health providers across 15 sites within the Army behavioral healthcare system. The training taught two techniques to foster treatment engagement: (1) Progress Informed Treatment, consisting of reviewing symptom assessments and outcome measures, and (2) assessment and discussion of the treatment alliance via a paper survey given near the end of each session. Eighty-five percent of providers indicated the training was useful and 89% of providers incorporated a technique into

their practice. Dropout before the fourth session was significantly reduced in the six months following training, from 72.5% to 67.1% in Service Members (SM; $X^2(1, N=9127) = 39.58, p < .001$). In both the pre and post-training periods, providers working at the Master's level, SM aged 17 or 46 or older, and clients receiving a mood, PTSD, anxiety, adjustment, substance or childhood/adolescent psychiatric diagnosis experienced significantly less dropout, while SM aged 18–21 had significantly more dropout. This training is a feasible and available option to increase treatment engagement and improve treatment outcomes for service members.

<https://doi.org/10.1016/j.jad.2021.07.010>

Workplace victimization and alcohol misuse among junior military personnel: Mediating the role of anger.

JY Kim, J Kim, S Park, N Fear

Journal of Affective Disorders

Available online 17 July 2021

Highlights

- Junior military personnel are vulnerable to workplace victimization, anger, and alcohol misuse.
- Prevalence of workplace victimization in junior military personnel was 17.7%, and victims showed higher level of anger and alcohol misuse.
- Workplace victimization in junior military personnel found to be predictor of anger, which was negatively related to alcohol misuse after controlling depression and job stress.
- Web-based alcohol misuse and anger intervention can be effective for military personnel.

Abstract

Background

Workplace victimization is one of most serious problems for affecting alcohol misuse in in junior military personnel (JMP) that has been largely overlooked in research attention. Studies on workplace victimization and alcohol misuse indicate anger as mediator. Workplace victimization may affect alcohol misuse (in)directly through the mediator.

Methods

A sample of JMP (N=815) completed an offline survey, consisting of the revised Conflict Tactics Scale-2, Composite International Diagnostic Interview Screening Scale, and the Alcohol Use Disorders Identification Test. Frequency, t-test and chi-square test, and mediation analyses were conducted to assess the effects of workplace victimization on alcohol misuse, mediated via anger.

Results

Victims in the workplace showed higher level of anger and alcohol misuse. In mediation analyses, workplace victimization was related to higher levels of anger, which, in turn, were associated with greater alcohol misuse.

Limitations

Study limitations included the use of cross-sectional data with the use of retrospective self-report.

Conclusion

Workplace victimization in JMP is prevalent (17.7%), and alcohol misuse is associated with effects of workplace victimization and anger with full mediation path. Findings suggest that eliminating workplace victimization against JMP and intervention for anger should be focused upon, and implemented for online alcohol misuse prevention in the military context.

<https://doi.org/10.1186/s12889-021-11462-9>

The 3 levels of HIV stigma in the United States military: perspectives from service members living with HIV.

Joseph M. Yabes Jr, Phillip W. Schnarrs, Leroy B. Foster Jr, Paul T. Scott, Jason F. Okulicz & Shilpa Hakre

BMC Public Health

Published: 15 July 2021

Background

Epidemiological surveillance data indicate that a majority of HIV-infected in the United States (U.S.) military are African-Americans and men who have sex with men. There is

limited research about barriers to HIV prevention among military service members and the unique factors that contribute to HIV stigma.

Methods

A convenience sample of 30 U.S. service members were recruited from an infectious disease clinic. In depth interviews were conducted and data analyzed using a thematic coding process.

Results

Two broad categories were identified: 1) Outcomes of HIV Stigma: Fear of Rejection, Shame, and Embarrassment; and 2) Strategies for combating stigma which include increasing HIV education and prevention resources. Military policies and institutional culture regarding sexuality were found to contribute to stigma.

Conclusions

Participants identified a need for HIV education and suggested individuals living with HIV serve as mentors. A peer-to-peer intervention for delivering HIV prevention education may address these needs and reduce HIV stigma.

<https://doi.org/10.1016/j.psychres.2021.114110>

Male-type depression symptoms in young men with a history of childhood sexual abuse and current hazardous alcohol use.

Simon M Rice, David Kealy, Zac E Seidler, Courtney C Walton, ... John S Ogrodniczuk

Psychiatry Research

Available online 14 July 2021

Highlights

- Male-type depression symptoms (e.g., anger, risk-taking) require further research
- Childhood sexual abuse and hazardous alcohol use are risk exposures for young men
- These risk exposures synergistically increase risk for male-type symptoms
- Male-type symptoms are frequently endorsed and associated with suicide risk
- Assessment of male-type symptoms should be considered for help-seeking young men

Abstract

The prevalence of male-type or externalising depression symptoms (e.g., anger, risk-taking, emotion suppression) were examined with cross-sectional online convenience sample of 1,277 help-seeking young men ($M=23.64$, $SD=3.61$ years). Almost a quarter (21.9%) of the sample reported childhood sexual abuse (CSA) exposure, and most (68.8%,) endorsed past 2-week suicide ideation. All male-type depression symptoms were frequently (>30%) endorsed across the sample, and were positively correlated with past 2-week suicide ideation. An adjusted CSA exposure \times alcohol risk interaction ($p=.013$) indicated elevated male-type depression scores for those with a CSA history and hazardous alcohol use. Results are interpreted in line with young men's adherence to masculine norms, which may be particularly complex for young men reporting a CSA exposure history. Findings support the need for enhanced screening efforts, especially among young men with a history of CSA and hazardous alcohol use, with a need to also improve gender-sensitive service offerings for young men with a CSA exposure history.

<https://doi.org/10.1159/000517862>

Cognitive-Behavioral Therapy for Insomnia to Augment Posttraumatic Stress Disorder Treatment in Survivors of Interpersonal Violence.

WR Pigeon, HF Crean, C Cerulli, AM Gallegos, TM Bishop, KL Heffner

Psychotherapy and Psychosomatics
2021 Jul 15; 1-13

Introduction:

Individuals exposed to interpersonal violence (IPV) commonly develop posttraumatic stress disorder (PTSD) with co-occurring depression and insomnia. Standard PTSD interventions such as cognitive processing therapy (CPT) do not typically lead to remission or improved insomnia. Cognitive behavioral therapy for insomnia (CBTi) improves insomnia in individuals with PTSD, but PTSD severity remains elevated.

Objective:

To determine whether sequential treatment of insomnia and PTSD is superior to treatment of only PTSD.

Methods:

In a 20-week trial, 110 participants exposed to IPV who had PTSD, depression and

insomnia were randomized to CBTi followed by CPT or to attention control followed by CPT. Primary outcomes following CBTi (or control) were the 6-week change in score on the Insomnia Severity Index (ISI), the Clinician-Administered PTSD Scale (CAPS), and the Hamilton Rating Scale for Depression (HAM-D). Primary outcomes following CPT were the 20-week change in scores.

Results:

At 6 weeks, the CBTi condition had greater reductions in ISI, HAM-D, and CAPS scores than the attention control condition. At 20 weeks, participants in the CBTi+CPT condition had greater reductions in ISI, HAM-D, and CAPS scores compared to control+CPT. Effects were larger for insomnia and for depression than for PTSD. Similar patterns were observed with respect to clinical response and remission. A tipping point sensitivity analyses supported the plausibility of the findings.

Conclusions:

The sequential delivery of CBTi and CPT had plausible, significant effects on insomnia, depression, and PTSD compared to CPT alone. The effects for PTSD symptoms were moderate and clinically meaningful.

<https://doi.org/10.1016/j.jpsychires.2021.07.017>

Individuals with and without military-related PTSD differ in subjective sleepiness and alertness but not objective sleepiness.

Alice D. LaGoy, Margaret Sphar, Christopher Connaboy, Michael N. Dretsch, ... Anne Germain

Journal of Psychiatric Research

Available online 14 July 2021

Posttraumatic stress disorder-related sleep disturbances may increase daytime sleepiness and compromise performance in individuals with posttraumatic stress disorder. We investigated nighttime sleep predictors of sleepiness in Veterans with and without posttraumatic stress disorder. Thirty-seven post-9/11 Veterans with posttraumatic stress disorder and 47 without posttraumatic stress disorder (Control) completed a 48-h lab stay. Nighttime quantitative EEG and sleep architecture parameters were collected with polysomnography. Data from daytime sleepiness batteries assessing subjective sleepiness (global vigor questionnaire), objective

sleepiness (Multiple Sleep Latency Tests) and alertness (psychomotor vigilance task) were included in analyses. Independent samples t-tests and linear regressions were performed to identify group differences in sleepiness and nighttime sleep predictors of sleepiness in the overall sample and within each group. Participants with posttraumatic stress disorder had higher subjective sleepiness ($t = 4.20$; $p < .001$) and lower alertness (psychomotor vigilance task reaction time ($t = -3.70$; $p < .001$) and lapses: $t = -2.13$; $p = .04$) than the control group. Objective daytime sleepiness did not differ between groups ($t = -0.79$, $p = .43$). In the whole sample, higher rapid eye movement delta power predicted lower alertness quantified by psychomotor vigilance task reaction time ($\beta = 0.372$, $p = .013$) and lapses ($\beta = 0.388$, $p = .013$). More fragmented sleep predicted higher objective sleepiness in the posttraumatic stress disorder group ($\beta = -.467$, $p = .005$) but no other nighttime sleep measures influenced the relationship between group and sleepiness. Objective measures of sleep and sleepiness were not associated with the increased subjective sleepiness and reduced alertness of the posttraumatic stress disorder group.

<https://doi.org/10.1016/j.nbscr.2021.100072>

Amount of < 1Hz deep sleep correlates with melatonin dose in military veterans with PTSD.

Julie Onton, Lu Le

Neurobiology of Sleep and Circadian Rhythms

Available online 16 July 2021

Highlights

- Veterans with PTSD express less Lo Deep sleep (<1 Hz) than controls.
- Melatonin dose and urine levels correlated with more Lo Deep sleep.

Abstract

Military veterans with posttraumatic stress disorder often complain of non-restful sleep, which further exacerbates their symptoms. Our previous study showed a deficit in Lo Deep sleep, or slow oscillations, in the PTSD population compared to healthy control sleepers. Because Lo Deep sleep is likely a stage when the brain eliminates protein debris, it is critical to find the cause and effective therapeutics to reverse Lo Deep deficiency. The current study aims to replicate and extend this finding by examining several physiological and medication factors that may be responsible for the Lo Deep

deficiency. We recorded overnight sleep electroencephalogram (EEG) via a 2-channel headband device on 69 veterans in a residential treatment facility. Dried urine samples were collected at 4 time points during one day to measure melatonin, cortisol, norepinephrine and other factors. EEG data were transformed into frequency power and submitted to an automated sleep scoring algorithm. The scoring corresponds to clear spectral patterns in the overnight spectrogram but does not align exactly with traditional visual scoring stages. As expected, veterans showed decreased Lo Deep (activity < 1 Hz) and more Hi Deep sleep (1–3 Hz activity) than healthy controls, replicating our previous study. Multiple linear regressions showed that melatonin dose and morning urine melatonin correlated with more Lo Deep sleep. Buspirone dose also correlated with more Lo Deep, but only 6 subjects were taking buspirone. Also replicating the findings from our last study were independent reductions of REM sleep with prazosin and sertraline. Other findings included decreased Lo and increased Hi Deep sleep with higher caffeine dose, and less Hi Deep percentage with higher testosterone. Finally, evening cortisol levels correlated with a higher percentage of Wake after sleep onset. These results confirm Lo Deep deficiency in this PTSD population and suggests melatonin as a possible therapeutic to reverse Lo Deep deficiency. This is a critical first step to establishing a systematic sleep assessment and treatment program in this and potentially other populations to prevent future brain pathology.

<https://doi.org/10.1016/j.jad.2021.07.017>

Predicting Clinically Significant Response to Primary Care Treatment for Depression from Electronic Health Records of Veterans.

MC Vance, MM Chang, JB Sussman, K Zivin, PN Pfeiffer

Journal of Affective Disorders

Available online 16 July 2021

Highlights

- Prediction models may help triage patients into primary or specialty care
- Electronic health record data reflects real-world practice patterns
- Backwards stepwise selection examined predictors of depression improvement
- Future studies can assess whether addition of more risk factors improves the model

Abstract

Objective

To reduce delays in referral to specialty mental health care, we evaluated clinical prediction models estimating the likelihood of response to primary care treatment of depression in the VA healthcare system.

Methods

We included patients with a primary care depression diagnosis between October 1, 2015 and December 31, 2017, an initial PHQ-9 score ≥ 10 within 30 days, a follow-up PHQ-9 score within 2-8 months, and no specialty mental health care within three months prior to depression diagnosis. We evaluated eight ordinary least squares regression models, each with a different procedure for selecting predictors of percentage change in PHQ-9 score from baseline to follow-up. Predictors included patient characteristics from electronic health records and neighborhood characteristics from US census data. We repeated each modeling procedure 1,000 times, using different training and validation sets of patients. We used R², RMSE, and MAE to evaluate model performance.

Results

The final cohort included 3,464 patients. The two best performing models included multiple iterations of backwards stepwise variable selection with R² of 0.07, RMSE of 41.45, MAE of 33.30; and R² of 0.07, RMSE of 41.39, MAE of 33.28.

Limitations

Wide follow-up interval, possibility of misclassification error due to use of EHR data.

Conclusions

Model performance did not suggest its use as a guide in clinical decision-making. Future research should explore whether obtaining additional risk factor data from patients (e.g., duration of symptoms) or modeling PHQ-9 scores over a narrower time interval improves performance of clinical risk prediction tools for depression.

<https://doi.org/10.1016/j.apmr.2021.06.018>

Association of Lifetime TBI and Military Employment with Late-Life ADL Functioning: A Population-Based Prospective Cohort Study.

Laura Tabio, Rod Walker, Paul K. Crane, Laura E. Gibbons, ... Kristen Dams-O'Connor

Archives of Physical Medicine and Rehabilitation
Available online 18 July 2021

Objective

To determine associations of traumatic brain injury (TBI) and military employment with activities of daily living (ADL) in late life.

Setting

Community-based integrated healthcare delivery system.

Participants

Male (n=2066) and female (n=2887), aged 65+ and dementia-free.

Design

Population-based prospective cohort study with biennial follow-up and censoring at time of dementia diagnosis.

Main Outcome Measures

ADL difficulties at baseline and accumulation during follow-up. Results: TBI with loss of consciousness (LOC) before age 40 was associated with slightly higher ADL difficulty at baseline for females (RR=1.44, 95% CI: 1.08–1.93, p=0.01). For males, TBI with LOC at any age was associated with greater ADL difficulty at baseline (age <40: RR=1.58, 95% CI: 1.20 – 2.08, p = 0.001; age 40+: RR=2.14, 95% CI: 1.24 – 3.68, p = 0.006). TBI with LOC was not associated with the rate of accumulation of ADL difficulties over time in males or females. There was no evidence of an association between military employment and either outcome, nor of an interaction between military employment and TBI with LOC. Findings were consistent across a variety of sensitivity analyses.

Conclusion

Further investigation into factors underlying greater late-life functional impairment among TBI survivors is warranted.

<https://doi.org/10.1016/j.jad.2021.07.049>

Predictors and Outcomes of Experienced and Anticipated Discrimination in Patients Treated for Depression: A 2-year Longitudinal Study.

Min Jhon, Robert Stewart, Ju-Wan Kim, Hee-Ju Kang, ... Jae-Min Kim

Journal of Affective Disorders

Available online 18 July 2021

Highlights

- The effects of anticipated and experienced discrimination on the effectiveness of depression treatment over 2 years in a naturalistic prospective setting were assessed.
- Experienced discrimination was independently predicted by a previous depressive episode and low agreeableness at baseline.
- Anticipated discrimination was independently predicted by a higher level of education, non-married status, and higher functional disability at baseline.
- Patients who experienced more discrimination during treatment did not respond as well to treatment as did those who had encountered less discrimination.

ABSTRACT

Background:

Stigma is both common and associated with greater depressive morbidity in depressives. Surprisingly few longitudinal studies have explored the predictors and consequences of stigma and discrimination.

Method:

A total of 230 patients with depression who were commencing treatment were enrolled. Experienced and anticipated discrimination were assessed using the Discrimination and Stigma Scale at the 1-year follow-up. The Hamilton Rating Scale for Depression, Hospital Anxiety and Depression Scale, Clinical Global Impression Scale-Severity, Social and Occupational Functioning Assessment Scale (SOFAS), EuroQol-5 Dimension (EQ-5D) questionnaire, and Sheehan Disability Scale were administered at baseline, 1 year, and 2 years, to assess various depression outcomes. Baseline personality was evaluated using the Big Five Inventory-10.

Results:

A previous depressive history and low agreeableness predicted experienced discrimination; a higher level of education, non-married status, and higher functional disability predicted anticipated discrimination. Higher-level experienced discrimination during the first year of treatment was significantly associated with poorer improvements in all six measured outcomes after 1 year of treatment, and again after 2 years of treatment (with the exception of the EQ-5D score). Higher anticipated discrimination

was significantly associated with less improvement in the SOFAS scores after both 1 and 2 years of treatments.

Limitations:

The study was a single-center work; this maximized consistency but may limit generalizability.

Conclusions:

Discrimination exerts negative effects on depression outcomes that can be predicted at the initiation of treatment. Interventional studies are required to prevent and manage stigmatization of persons with depression.

<https://doi.org/10.1016/j.jad.2021.07.015>

A Sex-Stratified Analysis of Suicidal Ideation Correlates among Deployed Post-9/11 Veterans: Results from the Survey of Experiences of Returning Veterans.

Claire A. Hoffmire, Lindsey L. Monteith, Lauren M. Denneson, Ryan Holliday, ... Rani A. Hoff

Journal of Affective Disorders

Available online 19 July 2021

Highlights

- Prevalence of recent SI did not differ by sex in this sample of post-9/11 veterans.
- Sex differences in SI correlates were observed among post-9/11 veterans.
- Combat experience was associated with a higher prevalence of SI among females only.
- Gender-tailored approaches may be effective in mitigating SI among post-9/11 veterans.

Abstract

Background

Suicide rates are higher among veterans than non-veterans; this difference is particularly salient for females. Knowledge is sparse regarding correlates of suicidal ideation (SI) among female veterans, particularly in non-VHA samples. As such, and given that SI confers a strong risk for subsequent suicidal behavior, this study aimed to: (1) compare prevalence of recent SI by sex; and (2) determine whether deployment

stressors, mental health symptoms, and recent psychosocial stressors are associated with recent SI, by sex, among post-9/11 veterans.

Methods

A sex-stratified analysis of cross-sectional data from 809 post-9/11, deployed veterans was conducted using the Survey of Experiences of Returning Veterans (SERV); statistical interactions between sex and correlates of interest were assessed. Results. Self-reported prevalence of recent SI did not differ by sex. A statistically significant interaction between sex and combat was observed; greater combat experience was associated with increased SI for females only. While significant interactions were not observed for other correlates, differences in significant predictors and predictor effect sizes were noted across sex-stratified models. Recent housing and financial concerns were only associated with increased SI prevalence among females, whereas concern about other recent stressful life events was associated with increased SI prevalence only among males.

Limitations

This is a cross-sectional analysis of a national survey with limited power to detect statistical sex interactions.

Conclusions

While correlates of SI are relatively consistent for males and females notable differences suggest that tailored assessment and intervention based on sex may hold merit in mitigating SI among post-9/11 era Veterans.

Links of Interest

Suicide Among Veterans

Veterans' Issues in Focus

<https://www.rand.org/pubs/perspectives/PEA1363-1.html>

'Bold action' needed by DOD to prevent consequences of sexual assault and harassment in the military

<https://www.stripes.com/theaters/us/2021-07-19/military-sexual-assault-harassment-defense-department-rand-2195760.html>

Resource of the Week: [2019 DOD Suicide Event Report](#)

From the Psychological Health Center of Excellence (PHCoE) [Clinician's Corner blog](#):

The 2019 Department of Defense Suicide Event Report (DoDSER) Annual Report was published today and details the total numbers of reported suicide deaths and attempts among U.S. service members during calendar year 2019. The report also describes suicide mortality rates for the military components and services and presents changes in military suicide rates over time, comparisons of military and U.S. general population suicide rates, and relative frequencies of key risk factors.

2019 military suicide mortality rates

For the active component, the rate was 25.9 suicide deaths per 100,000 service members. Service-specific rates were as follows:

- Air Force: 25.1 suicide deaths per 100,000 airmen
- Army: 29.8 suicide deaths per 100,000 soldiers
- Marine Corps: 25.3 suicide deaths per 100,000 Marines
- Navy: 21.5 suicide deaths per 100,000 sailors
- Space Force: 0 suicides per 100,000 population (from establishment of Space Force on December 20, 2019 through December 31, 2019)
- For the Reserves, the rate was 18.2 suicide deaths per 100,000 reservists.
- For the National Guard, the rate was 20.3 per 100,000 Guard members.

Comparisons of military suicide mortality rates with U.S. adult suicide mortality rates

After adjusting for age and sex differences between the military and U.S. general adult populations, all changes observed in suicide mortality rates for the military populations for calendar years 2011-2018 were consistent with the increase in the suicide mortality rate for the U.S. adult population over the same time frame. The comparison only extends through calendar year 2018 because 2019 U.S. population data were not available when the analyses were conducted.

DoD SER

Department of Defense Suicide Event Report Calendar Year 2019 Annual Report



The estimated cost of this report or study for the Department of Defense is approximately \$94,000 in Fiscal Years 2020 - 2021. This includes \$750 in expenses and \$93,000 in DoD labor.

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