Research Update -- November 7, 2019

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PTSD Monthly Update -- PTSD and Sleep: Rest Easier with Treatment

National Center for PTSD
October 2019

Many who are diagnosed with PTSD also have sleep problems. And when sleep problems last, they can have a negative impact on many parts of your life. The good news is, treatment can help!

Typologies of Combat Exposure and Their Effects on Posttraumatic Stress Disorder and Depression Symptoms.

Kelber, M. S., Smolenski, D. J., Workman, D. E., Morgan, M. A., Garvey Wilson, A. L., Campbell, M. S., Evatt, D. P. and Belsher, B. E.

Journal of Traumatic Stress
First published: 25 October 2019
https://doi.org/10.1002/jts.22459

The present study identified distinct classes of U.S. military service members based on their combat experiences and examined mental health outcomes and longitudinal growth curves of posttraumatic stress disorder (PTSD) and depression symptoms associated with each class. Participants were 551 active duty service members who screened positive for PTSD and/or depression based on DSM-IV-TR criteria. All participants completed the Combat Experiences Scale at baseline as well as PTSD and depression measures at baseline and at 3-, 6-, and 12-month follow-ups. A latent class analysis identified four classes of service members based on their combat experiences: limited exposure, medical exposure, unit exposure, and personal exposure. Service
members in the personal exposure class were characterized by a distinct mental health profile: They reported a higher level of PTSD symptoms at baseline and a higher prevalence of traumatic brain injury and PTSD diagnoses during the course of the study. The limited exposure class was more likely to receive diagnoses of depression and adjustment disorders. All classes except the medical exposure class demonstrated a slight decrease in PTSD and depression symptoms over time. However, participants in the limited exposure class had a larger decrease in PTSD and depression symptoms earlier in care but did not demonstrate superior long-term symptom improvements at 12 months compared to the other groups. These results inform PTSD development models and have implications for the screening and clinical management of combat-exposed service members.

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https://journals.sagepub.com/doi/abs/10.1177/1039856219881965

**Sub-syndromal PTSD: what is important to know in military personnel and veterans?**

Duncan Wallace, Andrew S Moss, Samantha Hodges

Australasian Psychiatry
First Published October 24, 2019
https://doi.org/10.1177/1039856219881965

Objective:
To assist healthcare professionals in their management of military personnel and veterans by providing information on the importance of sub-syndromal PTSD.

Conclusion:
Sub-syndromal PTSD occurs when persons experience many of the symptoms of PTSD, with some impairment, but do not meet full diagnostic criteria. Found to be associated with a range of mental health conditions including alcohol abuse, higher rates of suicidal ideas and delayed-onset PTSD, it should be seen as ‘symptoms that are predictive of later disorder’. Patients with this condition need accurate assessment, trauma-focused therapy and follow-up to address the symptoms and, potentially, prevent development of PTSD.

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A Longitudinal Analysis of Tobacco Use in Younger and Older U.S. Veterans.

Maria Cooper, Maha Yaqub, Josephine T. Hinds, Cheryl L. Perry

Preventive Medicine Reports
Available online 25 October 2019
https://doi.org/10.1016/j.pmedr.2019.100990

United States (U.S.) veterans are prone to higher rates of smoking and smoking-related disease. We describe the prevalence of cigarette and non-cigarette product use and determine longitudinal predictors of tobacco use transitions in this vulnerable population.

Data are from Waves 1 (2013-2014) and 2 (2014-2015) of the adult cohort in the Population Assessment of Tobacco and Health. Wave 1 prevalence was calculated for past 30-day use of all queried tobacco products, and compared by veteran status. Weighted multinomial logistic regression was used to determine predictors—demographics, substance use, and physical and psychological comorbidities—of tobacco use transitions (continued use, initiation, and cessation) among veterans.

Compared to non-veterans, use of nearly all tobacco products was significantly higher among veterans and was highest among younger veterans. Compared to continued nonusers, continued users were more likely to: be of younger age (OR=.95, 95% CI: .95-.96), have poorer physical health (OR=1.58, 95% CI: 1.22-2.06) and mental health (OR=1.48, 95% CI: 1.18-1.85), report substance use (OR=1.79, 95% CI: 1.21-2.64), and report problematic alcohol use (OR=4.23, 95% CI: 2.38-7.52) and were less likely to be female (OR=.57, 95% CI: .35-.93). Compared to continued nonusers, initiators were more likely to report problematic alcohol use (OR=8.63, 95% CI: 3.79-19.63), and those in the cessation category were more likely to be of younger age (OR=.97, 95% CI: .95-.99).

Cigarette and non-cigarette use is especially prevalent among young veterans, so prevention should begin during military service. Tobacco cessation programs should be tailored for this population, incorporating aspects related to concomitant health conditions.
Relational turbulence and psychological distress in romantic relationships in the military.

Kale Monk, Erin D. Basinger, Bryan Abendschein

Journal of Social and Personal Relationships
First Published October 24, 2019
https://doi.org/10.1177/0265407519883701

To understand the process of relational turbulence and psychological distress in the context of the military, we used a grounded theory approach to analyze individuals’ experiences in online forums. Analyses revealed a process by which perceived changes in individuals’ romantic partners or their relationships and suspicions of infidelity led to a cycle of turmoil. Participants reported a tension between caring for their partner and upsetting experiences and relational transgressions, which contributed to them feeling caught in the cycle. In addition to feeling conflicted, the cycle of turmoil also encompassed relational turbulence, psychological distress, and fighting between partners. The conceptual model identified in this study has implications for both theory and practice, including underscoring the importance of relational turbulence theory and identifying feeling conflicted as a potentially viable point of intervention.

Suicide and suicide risk.

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Nature Reviews Disease Primer
Published: 24 October 2019
https://doi.org/10.1038/s41572-019-0121-0

Although recent years have seen large decreases in the overall global rate of suicide fatalities, this trend is not reflected everywhere. Suicide and suicidal behaviour continue to present key challenges for public policy and health services, with increasing suicide deaths in some countries such as the USA. The development of suicide risk is complex,
involving contributions from biological (including genetics), psychological (such as certain personality traits), clinical (such as comorbid psychiatric illness), social and environmental factors. The involvement of multiple risk factors in conveying risk of suicide means that determining an individual’s risk of suicide is challenging. Improving risk assessment, for example, by using computer testing and genetic screening, is an area of ongoing research. Prevention is key to reduce the number of suicide deaths and prevention efforts include universal, selective and indicated interventions, although these interventions are often delivered in combination. These interventions, combined with psychological (such as cognitive behavioural therapy, caring contacts and safety planning) and pharmacological treatments (for example, clozapine and ketamine) along with coordinated social and public health initiatives, should continue to improve the management of individuals who are suicidal and decrease suicide-associated morbidity.

The Hidden Epidemic of Firearm Suicide in the United States: Challenges and Opportunities.

Mark S Kaplan, Amelia Cromwell Mueller-Williams

Health & Social Work
Published: 25 October 2019
https://doi.org/10.1093/hsw/hlz029

According to the Institute of Medicine (2013) (National Academy of Medicine, as of 2015), firearm suicides significantly outnumber firearm homicides for most age groups, accounting for approximately two-thirds of all firearm injury fatalities in the United States. Research indicates that the suicide method that is most available and socially acceptable will be used most often (Barber & Miller, 2014; Houtsma, Butterworth, & Anestis, 2018). Firearms were involved in fewer than half of the suicides reported by high- and upper-middle-income countries, except for the United States (Grinshteyn & Hemenway, 2016). In 2017, of the 47,214 suicides in the United States, 51 percent involved the use of a firearm...
We summarise the evidence for medicinal uses of opioids, harms related to the extramedical use of, and dependence on, these drugs, and a wide range of interventions used to address these harms. The Global Burden of Diseases, Injuries, and Risk Factors Study estimated that in 2017, 40·5 million people were dependent on opioids (95% uncertainty interval 34·3–47·9 million) and 109 500 people (105 800–113 600) died from opioid overdose. Opioid agonist treatment (OAT) can be highly effective in reducing illicit opioid use and improving multiple health and social outcomes—eg, by reducing overall mortality and key causes of death, including overdose, suicide, HIV, hepatitis C virus, and other injuries. Mathematical modelling suggests that scaling up the use of OAT and retaining people in treatment, including in prison, could avert a median of 7·7% of deaths in Kentucky, 10·7% in Kiev, and 25·9% in Tehran over 20 years (compared with no OAT), with the greater effects in Tehran and Kiev being due to reductions in HIV mortality, given the higher prevalence of HIV among people who inject drugs in those settings. Other interventions have varied evidence for effectiveness and patient acceptability, and typically affect a narrower set of outcomes than OAT does. Other effective interventions focus on preventing harm related to opioids. Despite strong evidence for the effectiveness of a range of interventions to improve the health and wellbeing of people who are dependent on opioids, coverage is low, even in high-income countries. Treatment quality might be less than desirable, and considerable harm might be caused to individuals, society, and the economy by the criminalisation of extramedical opioid use and dependence. Alternative policy frameworks are recommended that adopt an approach based on human rights and public health, do not make drug use a criminal behaviour, and seek to reduce drug-related harm at the population level.
Enhanced exposure therapy for combat-related Posttraumatic Stress Disorder (PTSD): Study protocol for a randomized controlled trial.

JoAnn Difede, Barbara O. Rothbaum, Albert A. Rizzo, Katarzyna Wyka, ... Francis Lee

Contemporary Clinical Trials
Available online 24 October 2019
https://doi.org/10.1016/j.cct.2019.105857

Background
PTSD, which has been identified in up to 23% of post-9-11 veterans, often results in a chronic, pernicious course. Thus, effective treatments are imperative. The Institute of Medicine (IOM) concluded that the only intervention for PTSD with sufficient evidence to conclude efficacy is exposure therapy. This Phase III trial compares the efficacy of exposure therapy for combat-related PTSD delivered in two different formats- via virtual reality exposure therapy (VRE) or prolonged exposure therapy (PE)- combined with D-Cycloserine (DCS), a cognitive enhancer shown to facilitate the extinction of fear.

Methods/design
Military personnel of any duty status and civilians deployed to Iraq and Afghanistan were eligible. Participants were randomly assigned to 9 sessions of exposure therapy (PE or VRE) and medication (50 mg DCS or placebo). Participants were treated at three geographically diverse sites. Participants were re-assessed at 3-months post-treatment. The co-primary hypotheses are that (1) DCS will augment response to exposure therapy (both VRE and PE) on PTSD symptoms; (2) VRE will be associated with greater improvement than PE. Genetic and psychophysiological markers will be evaluated as potential moderators and mediators of treatment outcomes as well as secondary outcomes.

Discussion
This study is the first to compare the relative efficacy of DCS-augmented VRE versus PE on PTSD symptoms. The design has several advantages: participants received an active, effective treatment and predictors of response to treatment included genetic and psychobiological measures. The results may directly influence the future delivery of services and contribute to the development of a standardized treatment protocol.
I'll Trade You Skittles for a Blowjob: Assessing the Role of Anti-Female Memes in Military Sexual Harassment and Assault.

Caitlin Cornelius & Elizabeth Monk-Turner

Journal of Political & Military Sociology

Humor is a foundational element of culture and can have both positive and negative effects within a group or society. One such group with its own well-defined culture is the United States military. Sexual assault has been highlighted of late as a major challenge facing military leadership, policy makers, and military personnel themselves. This study is a content analysis that examines 35 internet memes taken from a Google search of military memes and identifies emergent themes. Four thematic units were identified within the sample. The results indicate possible focal points for the future construction of education programs geared toward military sexual assault and harassment training, as well as a jumping off point for future research concerning military workplace culture and sexual assault.

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Military Medicine
Published: 23 October 2019
https://doi.org/10.1093/milmed/usz275

Introduction:
Military mental health personnel (MMHP) have increasingly engaged in deployment-related roles in closer proximity to combat environments. Although studies examining deployment-related outcomes among military health care personnel have found combat exposure (CE) positively related to psychological problems, no studies of MMHP have investigated CE or its association with psychological outcomes. This study seeks to
provide descriptive data on CE and perceived impacts associated with deployment, as well as explore how CE, perceptions of preparedness for deployment, difficulties during deployment (DDD), and meaningful work during deployment relate to appraisal of problems after deployment (ie, sleep problems, interpersonal withdrawal, depressive symptoms, and work problems).

Materials and Methods:
Archival postdeployment survey data from 113 U.S. Air Force MMHP previously deployed to Iraq or Afghanistan were utilized to determine descriptive statistics on CE and other factors. Additionally, hierarchical linear regression was utilized to test relationships between CE, DDD, preparation for deployment, and meaningful work with reports of sleep problems, interpersonal withdrawal, work problems, and depression symptoms. The study was approved by the Institutional Review Board of the U.S. Air Force Academy.

Results:
MMHP reported an average of 1.58 (standard deviation = 1.03) combat-related events and DDD included: (1) being away from family/close friends (62%), (2) uncertain redeployment date (35%), (3) difficulty adapting to a new situation (35%), and (4) working long hours (31%), with 66% endorsing two or more areas of difficulty. Most MMHP reported feeling prepared for deployment both professionally (91%) and personally (87%), as well as that their family was prepared (83%). Additionally, nearly all reported at least one meaningful work experience while deployed (96%) with positive impacts on their clients, being the most frequent (89%). Furthermore, CE predicted both sleep difficulties and interpersonal withdrawal. MMHP who perceived their deployment experience as difficult also had higher rates of postdeployment difficulties. Finally, we found no relationship between perceived deployment preparation and postdeployment outcomes.

Conclusions:
This is the first study of MMHP reporting CE rates and examining relationships between perceived outcomes and CE, deployment preparation, difficulties during deployment, and meaningful work. The vast majority of MMHP were exposed to more than one combat-related event; however, this rate of CE appears lower than what has been reported among a similar sample of military health care personnel. Although CE predicted difficulties, appraisals of difficulties during deployment experience predicted the highest rates of postdeployment difficulties, accounting for nearly a quarter or more of the outcome variance. The lack of relationship between deployment preparation and meaningful work is inconsistent with prior research and may be because of the limited response range in our sample. Additionally, other methodological limitations include: (1)
cross-sectional study design, (2) lack of validated measures, and (3) the long-term retrospective nature of the assessment. Future research should incorporate more rigorous methodologies and assess constructs absent in this archival data set. Despite these limitations, this study provides important preliminary data to support future research development and funding. Additionally, the results may be used to normalize associated impacts and promote help seeking among MMHP.

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Hazardous Drinking and Clinical Correlates among Suicidal Patients Receiving Psychiatric Inpatient Care at Military Medical Settings.

Jeremy W. Luk, Jessica M. LaCroix, Matthew F. Thompson, Charles Darmour, ... Marjan Ghahramanlou-Holloway

Addictive Behaviors
Available online 23 October 2019
https://doi.org/10.1016/j.addbeh.2019.106178

Highlights
- Data were collected from a unique sample of military psychiatric inpatients.
- In this clinical sample, 28.9% of participants reported hazardous drinking.
- Hazardous drinking was associated with a diagnosis of Substance Use Disorder.
- Hazardous drinking was associated with a history of actual, but not interrupted or aborted, suicide attempt(s).
- Link between hazardous drinking and single attempt history remained after controlling for covariates.

Abstract
Background
To describe prevalence and identify clinical correlates of hazardous drinking among suicidal inpatients at military medical settings.

Method
Data were drawn from the baseline assessment of a multisite randomized controlled trial of Post-Admission Cognitive Therapy (PACT). Participants were military Service members or adult beneficiaries (N = 218) who were admitted to inpatient care following a suicide-related crisis. Hazardous alcohol use in the past year was assessed using the
Alcohol Use Disorder Identification Test (AUDIT).

Results
The average AUDIT score was 6.78 (SD = 7.87), with 28.9% reporting hazardous drinking (scored ≥ 8 on the AUDIT). Hazardous drinkers were more likely than nonhazardous drinkers to meet diagnosis of Substance Use Disorder (SUD; Odds Ratio [OR] = 5.96, 95% confidence intervals [CI] = 2.13, 16.71). Hazardous drinking was neither associated with measures of suicide ideation nor aborted or interrupted suicide attempt. However, hazardous drinkers had greater odds of having both single (Relative Risk Ratio [RRR] = 2.55, 95% CI = 1.18, 5.50) and multiple actual suicide attempts (RRR = 2.38, 95% CI = 1.07, 5.32) than nonhazardous drinkers. The association between hazardous drinking and single (but not multiple) actual suicide attempt remained significant after controlling for gender, depressive symptoms, hopelessness, Post-Traumatic Stress Disorder, and SUD (adjusted RRR = 2.48, 95% CI = 1.09, 5.65).

Conclusions
A history of actual suicide attempt is associated with hazardous alcohol use among suicidal psychiatric inpatients. Assessment of drinking and drug use may inform case conceptualization and treatment of suicide behaviors in inpatient settings.


The Influence of Posttraumatic Stress Disorder and Recurrent Major Depression on Risk-Taking Propensity following Trauma Script Exposure among Patients with Substance Use Disorders.

Ariana G. Vidaña, Courtney N. Forbes, Kim L. Gratz, Matthew T. Tull

Addictive Behaviors
Available online 24 October 2019,
https://doi.org/10.1016/j.addbeh.2019.106181

Highlights
- The co-occurrence of PTSD and SUDs is associated with greater risk-taking behavior.
- Recurrent major depression (MDD) may moderate this association.
- Risk-taking assessed after a neutral and trauma script.
PTSD-MDD associated with lower risk-taking post-trauma script than PTSD alone.
PTSD-MDD had lesser risk-taking from neutral to trauma script than PTSD alone.
Assessing MDD may identify PTSD patients at greater/lesser risk for risky behaviors.

Abstract
Although evidence suggests that risk-taking among individuals with co-occurring posttraumatic stress disorder (PTSD) and substance use disorder (SUD) may be precipitated by trauma-related emotional distress, studies have yet to examine moderators of this effect. One moderator worth investigating is recurrent major depressive disorder (MDD), given its influence on emotional responding and subsequent behavior. This study examined the moderating role of recurrent MDD in the relation of PTSD to risk-taking propensity following neutral and trauma scripts among SUD patients. Participants were 193 patients with and without current PTSD and/or recurrent MDD in residential SUD treatment. Risk-taking propensity, as assessed through the Balloon Analogue Risk Task (BART), was evaluated following a neutral script and a personalized trauma script. A significant script by PTSD by recurrent MDD interaction was found. Participants with PTSD and recurrent MDD exhibited significantly lower risk-taking following the trauma script relative to participants with PTSD but no recurrent MDD. Moreover, participants with PTSD and recurrent MDD exhibited a significantly smaller increase in risk-taking following the trauma script (relative to the neutral script) than participants with PTSD but no recurrent MDD. Participants with PTSD and recurrent MDD did not differ significantly from participants without PTSD. Results provide support for the context-dependent nature of risk-taking among PTSD-SUD patients without (vs. with) recurrent MDD. Results also highlight the importance of considering the presence of recurrent MDD in research and/or clinical work with SUD patients with PTSD.


A review of popular smartphone apps for depression and anxiety: Assessing the inclusion of evidence-based content.

Akash R. Wasil, Katherine E. Venturo-Conerly, Rebecca Shingleton, John R. Weisz
Highlights

- Do popular mobile apps for depression and anxiety include evidence-based content?
- To find out, we coded 27 popular apps for empirically supported treatment elements.
- Apps included between 0 and 12 evidence-based elements (median = 3).
- Core anxiety and depression elements (e.g., exposure, restructuring) were rare.
- Content limitations suggest a need for new apps and rigorous tests of app effects.

Abstract

Smartphone applications for the treatment of depression and anxiety have acquired millions of users, yet little is known about whether they include evidence-based therapeutic content. We examined the extent to which popular mental health applications (MH apps) for depression and anxiety contain treatment elements found in empirically supported psychotherapy protocols (i.e., “common elements”). Of the 27 MH apps reviewed, 23 included at least one common element, with a median of three elements. Psychoeducation (in 52% of apps), relaxation (44%), meditation (41%), mindfulness (37%), and assessment (37%) were the most frequent elements, whereas several elements (e.g., problem solving) were not found in any apps. We also identified gaps between app content and empirically supported treatments. Cognitive restructuring was more common in depression protocols than in depression apps (75% of protocols vs. 31% of apps), as was problem solving (34% vs. 0%). For anxiety, exposure (85%, 12%), cognitive restructuring (60%, 12%), and problem solving (25%, 0%) were more common in protocols than apps. Overall, our findings highlight empirically supported treatment elements that are poorly represented in current MH apps. The absence of several core treatment elements underscores the need for future research, including randomized trials testing the effectiveness of popular MH apps.


Validation of the Expressions of Moral Injury Scale – Military Version – Short Form.
Military personnel may encounter morally injurious events that lead to emotional, social, and spiritual suffering that transcend and/or overlap with mental health diagnoses (e.g., posttraumatic stress disorder [PTSD]). Advancement of scientific research and potential clinical innovation for moral injury (MI) requires a diversity of measurement approaches. Drawing on results from the bifactor model in Currier et al.’s (2017) psychometric evaluation of the Expressions of Moral Injury Scale – Military Version (EMIS-M), this study validated a 4-item short-form of the instrument with two samples of veterans with a history of war-zone service. Namely, despite the reduced number of items, the EMIS-M-Short Form (SF) yielded favorable internal consistency and comparable levels of convergent validity with theoretically-related constructs (e.g., PTSD, struggles with morality and ultimate meaning) as the full-length version. Notwithstanding the possible utility of distinguishing between self- and other-directed forms of MI, factor analytic results further revealed the EMIS-M-SF was best conceptualized with a unidimensional factorial model that might allow for a general assessment of MI-related outcomes. Overall, these initial results suggest the EMIS-M-SF may hold promise as a short, reliable, and valid assessment of overall outcomes related to a possible MI.
examines symptom endorsement subtypes on the Personality Assessment Inventory (PAI) within a sample of trauma exposed individuals. Specifically, a series of latent profile analyses (LPA) were conducted on 376 U.S. military veterans evaluated while seeking outpatient treatment for PTSD within the Veteran Affairs system. Results from these analyses identify two primary findings. First, the observed class models support the notion that the PAI clinical scales are a useful aid in detecting broad patterns of distress common to those with trauma exposure (e.g., depression, suicidal thoughts, avoidant behaviors, etc.). Second, the PAI did not demonstrate distinct response styles consistent with the theoretically and empirically supported diagnostic subtypes. Implications for research with, and the clinical use of, the PAI in veterans and those with trauma-associated symptoms are discussed.


Nonpharmacological Treatment of Army Service Members with Chronic Pain Is Associated with Fewer Adverse Outcomes After Transition to the Veterans Health Administration.

Esther L. Meerwijk, Mary Jo Larson, Eric M. Schmidt, Rachel Sayko Adams, Mark R. Bauer, Grant A. Ritter, Chester Buckenmaier III, Alex H. S. Harris

Journal of General Internal Medicine
First Online: 28 October 2019
https://doi.org/10.1007/s11606-019-05450-4

Background
Potential protective effects of nonpharmacological treatments (NPT) against long-term pain-related adverse outcomes have not been examined.

Objective
To compare active duty U.S. Army service members with chronic pain who did/did not receive NPT in the Military Health System (MHS) and describe the association between receiving NPT and adverse outcomes after transitioning to the Veterans Health Administration (VHA).

Design and Participants
A longitudinal cohort study of active duty Army service members whose MHS healthcare records indicated presence of chronic pain after an index deployment to Iraq
or Afghanistan in the years 2008–2014 (N = 142,539). Propensity score-weighted multivariable Cox proportional hazard models tested for differences in adverse outcomes between the NPT group and No-NPT group.

Exposures
NPT received in the MHS included acupuncture/dry needling, biofeedback, chiropractic care, massage, exercise therapy, cold laser therapy, osteopathic spinal manipulation, transcutaneous electrical nerve stimulation and other electrical manipulation, ultrasonography, superficial heat treatment, traction, and lumbar supports.

Main Measures
Primary outcomes were propensity score-weighted proportional hazards for the following adverse outcomes: (a) diagnoses of alcohol and/or drug disorders; (b) poisoning with opioids, related narcotics, barbiturates, or sedatives; (c) suicide ideation; and (d) self-inflicted injuries including suicide attempts. Outcomes were determined based on ICD-9 and ICD-10 diagnoses recorded in VHA healthcare records from the start of utilization until fiscal year 2018.

Key Results
The propensity score-weighted proportional hazards for the NPT group compared to the No-NPT group were 0.92 (95% CI 0.90–0.94, P < 0.001) for alcohol and/or drug use disorders; 0.65 (95% CI 0.51–0.83, P < 0.001) for accidental poisoning with opioids, related narcotics, barbiturates, or sedatives; 0.88 (95% CI 0.84–0.91, P < 0.001) for suicide ideation; and 0.83 (95% CI 0.77–0.90, P < 0.001) for self-inflicted injuries including suicide attempts.

Conclusions
NPT provided in the MHS to service members with chronic pain may reduce risk of long-term adverse outcomes.

https://www.tandfonline.com/doi/abs/10.1080/08995605.2019.1676601

Soldiers’ perceptions of military spouses’ career experience.

Ann Hergatt Huffman, Nora Dunbar, Alyssa G. Billington & Satoris S. Howes
The current study provided an exploratory qualitative examination of the issues surrounding career progression for military spouses from the perspective of the soldier. Utilizing family systems theory and spillover theory we explored the soldier’s perceptions of the impact that the military lifestyle has on a military spouse’s opportunities for employment and advancement within their work. Data from 50 soldiers (90% enlisted; 90% male; 59% White) whose spouses were employed as civilians were collected during 11 focus groups. We conducted an inductive analysis on transcripts of the focus groups to guide the discovery of themes. Three major themes surrounding military personnel and their spouses’ employment progression emerged: soldiers’ perceptions that (1) the military can negatively influence the spouses’ career progression through frequent and/or unpredictable relocations, physical distance, and the mentality that military comes first; (2) there are benefits associated with spouse employment; and (3) the spouses’ career type impacts the success of their career. Notably, soldiers view their spouses’ careers as important, and acknowledge that the military way of life can retard spouse career progression, depending upon the type of job or career the spouse holds. Soldiers suggest less frequent relocations and consideration of spouses’ jobs would improve spouse career progression and improve soldier and family well-being. Implications for theory and practice are discussed.


Body- and Movement-Oriented Interventions for Posttraumatic Stress Disorder: A Systematic Review and Meta-Analysis.

de Kamp, M. M., Scheffers, M., Hatzmann, J., Emck, C., Cuijpers, P. and Beek, P. J.

Journal of Traumatic Stress
First published: 28 October 2019
https://doi.org/10.1002/jts.22465

To assess the efficacy of body- and movement-oriented interventions (BMOIs) in traumatized adults with posttraumatic stress disorder (PTSD), we conducted a systematic review and meta-analysis of pertinent literature. Four bibliographical databases (PsycINFO, Ovid MEDLINE(R), EMBASE, and the Cochrane Central
Register of Controlled Trials) were searched using keywords and text words for trials on BMOIs addressing PTSD. The search included articles published between October 2005 and August 2017. Studies were included if participants were adults suffering from PTSD, if BMOIs were the therapeutic strategy under investigation, and if a psychometrically evaluated standardized outcome measure for PTSD was used. No limitations for control conditions were applied. Hedges’ g was computed as the effect size (ES) for the treatment versus control condition. The meta-analysis included 15 studies, which resulted in a mean ES of g = 0.85, 95% CI [0.31, 1.39], with very high heterogeneity, I² = 91%. After removing one study as outlier, a mean effect size of g = 0.56, 95% CI [0.29, 0.82] (i.e., medium effect), still with considerable heterogeneity, I² = 57%, was found. BMOIs seem to be effective in reducing symptoms of PTSD, but more research is needed to identify working mechanisms and to determine which types of intervention are most effective for various subgroups of patients.

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Psychological Symptoms and Rates of Performance Validity Improve Following Trauma-Focused Treatment in Veterans with PTSD and History of Mild-to-Moderate TBI.

Sarah M. Jurick, Laura D. Crocker, Victoria C. Merritt, Samantha N. Hoffman, Amber V. Keller, Graham M. L. Eglit, Kelsey R. Thomas, Sonya B. Norman, Dawn M. Schiehser, Carie S. Rodgers, Elizabeth W. Twamley, Amy J. Jak

Journal of the International Neuropsychological Society
Published online by Cambridge University Press: 29 October 2019
DOI: https://doi.org/10.1017/S1355617719000997

Objective:
Iraq and Afghanistan Veterans with posttraumatic stress disorder (PTSD) and traumatic brain injury (TBI) history have high rates of performance validity test (PVT) failure. The study aimed to determine whether those with scores in the invalid versus valid range on PVTs show similar benefit from psychotherapy and if psychotherapy improves PVT performance.
Method:
Veterans (N = 100) with PTSD, mild-to-moderate TBI history, and cognitive complaints underwent neuropsychological testing at baseline, post-treatment, and 3-month post-treatment. Veterans were randomly assigned to cognitive processing therapy (CPT) or a novel hybrid intervention integrating CPT with TBI psychoeducation and cognitive rehabilitation strategies from Cognitive Symptom Management and Rehabilitation Therapy (CogSMART). Performance below standard cutoffs on any PVT trial across three different PVT measures was considered invalid (PVT-Fail), whereas performance above cutoffs on all measures was considered valid (PVT-Pass).

Results:
Although both PVT groups exhibited clinically significant improvement in PTSD symptoms, the PVT-Pass group demonstrated greater symptom reduction than the PVT-Fail group. Measures of post-concussive and depressive symptoms improved to a similar degree across groups. Treatment condition did not moderate these results. Rate of valid test performance increased from baseline to follow-up across conditions, with a stronger effect in the SMART-CPT compared to CPT condition.

Conclusion:
Both PVT groups experienced improved psychological symptoms following treatment. Veterans who failed PVTs at baseline demonstrated better test engagement following treatment, resulting in higher rates of valid PVTs at follow-up. Veterans with invalid PVTs should be enrolled in trauma-focused treatment and may benefit from neuropsychological assessment after, rather than before, treatment.

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https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0223855

The evolution of mental health outcomes across a combat deployment cycle: A longitudinal study of a Guam-based National Guard unit.

Dale W. Russell, Cristel Antonia Russell

PLOS ONE
Published: October 30, 2019
https://doi.org/10.1371/journal.pone.0223855

Sustained overseas military operations over the last two decades have resulted in large numbers of United States and Allied servicemembers being faced with multiple unique
occupational and environmental stressors, from serving in a combat zone, to having to be away from family and home for long periods of time. These stressors result in numerous negative health (physical and mental) and behavioral outcomes. Whereas there is a substantial amount of research focused on deployment-related health outcomes within active duty military populations, reserve forces are less understood. This study focuses on a United States Army National Guard combat unit before, during and after a deployment to Afghanistan. This prospective longitudinal study, conducted over the course of an operational deployment cycle (i.e., before, during and after), documents the trajectories of salient mental health outcomes (i.e., post-traumatic stress, depression, general anxiety, and aggression). The findings show that both combat (e.g., killing others) and non-combat (e.g., boredom) stressors negatively affect mental health outcomes, and the severity of these outcomes increases over the course of a deployment cycle. Of special note, the study reveals key gender differences in the evolution of PTSD, depression and anxiety across a deployment cycle: females report increased PTSD, depression and anxiety 6 months post-deployment whereas the levels reported by males stabilize at their mid-deployment levels. The findings offer insights for medical providers and policymakers in developing more targeted health promotion campaigns and interventions, especially during the post-deployment phase.

https://connect.springerpub.com/content/sgrjdnp/12/2/202

Assessing Insomnia in Active-Duty Service Members in a Military Primary Care Clinic.

Cobbs, LaShandaLTC, ANChampagne, Mary, PhDTurner, BarbaraCOL, AN (Ret), PhDPerry, MarilynLTC, MC

Journal of Doctoral Nursing Practice
12(2): 202-211
DOI: 10.1891/2380-9418.12.2.202

Background
Insomnia is a significant problem in the U.S. military, affecting the health, resiliency, and readiness of service members (Seelig et al., 2016). Although insomnia is a common sleep disorder among active-duty personnel (Mysliwiec et al., 2013), it often goes unrecognized and untreated because sleep disturbances are not routinely assessed during military primary care visits (U.S. Navy Medicine, 2014).
Objective
To introduce an evidence-based assessment for insomnia—the Insomnia Severity Index (ISI)—into a military primary care setting to increase the number of service members assessed for insomnia.

Methods
The ISI was integrated into the patient intake process at a military primary care clinic serving active-duty service members exclusively. Data were collected from 180 patients before implementation and 164 patients after implementation to compare the number of sleep assessments conducted. An independent samples t-test and Fisher's exact test were used to examine whether the ISI intervention led to an increase in insomnia assessment.

Results
A significant increase was found in patients who were evaluated for insomnia from pre-implementation (13.9%, n = 25/180) to post-implementation (90.3%, n = 148/164), p < .0001.

Conclusions
A sleep screening process can be effectively implemented at a military primary care facility to increase the number of active-duty service members assessed for insomnia.

Implications for Nursing
Sleep assessment is critically needed to identify service members with sleep disorders that may negatively impact their physical and mental health. An evidence-based screening tool is an important preventive measure that can be integrated into primary care visits to ensure routine evaluation of sleep.

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High-dose ketamine infusion for the treatment of posttraumatic stress disorder in combat veterans.

Cassie Ross, Rakesh Jain, Carl Bonnett, Philip Wolfson

Annals of Clinical Psychiatry
31(4): 271–276, NOVEMBER 2019
INTRODUCTION
Combat veterans are at high risk for the development of posttraumatic stress disorder (PTSD) and substance use disorders. Ketamine has been shown to be an effective treatment for numerous mental health disorders, although research on its efficacy in combat-related PTSD in veterans is very limited.

METHODS
The study population consisted of 30 US military veterans with combat-related PTSD. Participants underwent a standard induction series of six 1-hour ketamine infusions with the goal of obtaining a transpersonal dissociative experience. Participants were given a series of self-report questionnaires to assess for changes in symptoms of depression, PTSD, and substance use prior to the first and sixth infusions.

RESULTS
Symptoms of depression as measured by change in score on the Patient Health Questionnaire decreased significantly from an average of 18.9 to 9.5 (P < .001). Similarly, symptoms of PTSD as measured by change in score on the PTSD Checklist for DSM-5 dropped significantly from an average of 56.2 to 31.3 (P < .001). Self-reported levels of substance use did not significantly decrease during the study period, although the level of use trended down.

CONCLUSIONS
This observational study suggests that high-dose ketamine infusion therapy, which induced a transpersonal dissociative experience, could be a valuable tool in the treatment of combat-related PTSD. Further study is needed to better elucidate ketamine’s mechanism of action with regards to the treatment of PTSD.

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(Not so) Smart sleep tracking through the phone: Findings from a polysomnography study testing the reliability of four sleep applications.

Edita Fino, Giuseppe Plazzi, Marco Filardi, Michele Marzocchi, Fabio Pizza, Stefano Vandi, Michela Mazzetti
An increasing number of sleep applications are currently available and are being widely used for in-home sleep tracking. The present study assessed four smartphone applications (Sleep Cycle-Accelerometer, SCa; Sleep Cycle-Microphone, SCm; Sense, Se; Smart Alarm, SA) designed for sleep–wake detection through sound and movement sensors, by comparing their performance with polysomnography. Twenty-one healthy participants (six males, 15 females) used the four sleep applications running on iPhone (provided by the experimenter) simultaneously with portable polysomnography recording at home, while sleeping alone for two consecutive nights. Whereas all apps showed a significant correlation with polysomnography-time in bed, only SA offered significant correlations for sleep efficacy. Furthermore, SA seemed to be quite effective in reliable detection of total sleep time and also light sleep; however, it underestimated wake and partially overestimated deep sleep. None of the apps resulted capable of detecting and scoring rapid eye movement sleep. To sum up, SC (functioning through both accelerometer and microphone) and Se did not result sufficiently reliable in sleep–wake detection compared with polysomnography. SA, the only application offering the possibility of an epoch-by-epoch analysis, showed higher accuracy than the other apps in comparison with polysomnography, but it still shows some limitations, particularly regarding wake and deep sleep detection. Developing scoring algorithms specific for smartphone sleep detection and adding external sensors to record other physiological parameters may overcome the present limits of sleep tracking through smart phone apps.


Utilization of and barriers to treatment among suicide decedents: Results from the Army Study to Assess Risk and Resilience Among Servicemembers (Army STARRS).

Zuromski KL, Dempsey CL, Ng THH, Riggs-Donovan CA, Brent DA, Heeringa SG, Kessler RC, Stein MB, Ursano RJ, Benedek D, Nock MK
OBJECTIVE:
To examine suicide decedents' use of mental health treatment and perceived barriers to initiating and maintaining treatment.

METHOD:
We used a psychological autopsy study conducted as part of the Army Study to Assess Risk and Resilience Among Servicemembers (Army STARRS) that compared suicide decedents (n = 135) to soldiers in two control conditions: those propensity-score-matched on known sociodemographic and Army history variables (n = 137) and those with a history of suicidal thoughts in the past 12 months (n = 118). Informants were next of kin and Army supervisors.

RESULTS:
Results revealed that suicide decedents were significantly more likely to be referred to services and to use more intensive treatments (e.g., medication, overnight stay in hospital) than propensity-matched controls. However, decedents also were more likely to perceive significant barriers to treatment-seeking. All differences observed in the current study were between propensity-matched controls and decedents, with no observed differences between suicide ideators and decedents.

CONCLUSIONS:
Many suicide decedents used some form of mental health care at some point in their lives; however, they also were more likely than propensity-matched controls to perceive barriers that may have prevented service use. The lack of differences between suicide ideators and decedents suggests that more information is needed, beyond knowledge of treatment utilization or perceived barriers, to identify and intervene on those at highest risk for suicide. These findings underscore the importance of reducing attitudinal barriers that may deter suicidal soldiers from seeking treatment, and also improving risk detection among those who are attending treatment. (PsycINFO Database Record (c) 2019 APA, all rights reserved).

https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2753810

Effect of Stellate Ganglion Block Treatment on Posttraumatic Stress Disorder Symptoms: A Randomized Clinical Trial.

Rae Olmsted KL, Bartoszek M, Mulvaney S, et al.
Key Points

Question
How does stellate ganglion block compare with sham treatment in reducing the severity of posttraumatic stress disorder symptoms over 8 weeks?

Findings
In this sham-controlled randomized clinical trial, 2 stellate ganglion block treatments 2 weeks apart were effective in reducing Clinician-Administered PTSD Scale for DSM-5 total symptom severity scores over 8 weeks. The adjusted mean symptom change was −12.6 points for the group receiving stellate ganglion blocks, compared with −6.1 points for those receiving sham treatment, a significant difference.

Meaning
Stellate ganglion block treatment warrants further study as a posttraumatic stress disorder treatment adjunct.

Abstract

Importance
This is the first multisite, randomized clinical trial of stellate ganglion block (SGB) outcomes on posttraumatic stress disorder (PTSD) symptoms.

Objective
To determine whether paired SGB treatments at 0 and 2 weeks would result in improvement in mean Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) total symptom severity scores from baseline to 8 weeks.

Design, Setting, and Participants
This multisite, blinded, sham-procedure, randomized clinical trial used a 2:1 SGB:sham ratio and was conducted from May 2016 through March 2018 in 3 US Army Interdisciplinary Pain Management Centers. Only anesthesiologists performing the procedures and the procedure nurses were aware of the intervention (but not the participants or assessors); their interactions with the participants were scripted and limited to the 2 interventions. Active-duty service members on stable psychotropic medication dosages who had a PTSD Checklist–Civilian Version (PCL-C) score of 32 or more at screening were included. Key exclusion criteria included a prior SGB treatment, selected psychiatric disorders or substance use disorders, moderate or severe
traumatic brain injury, or suicidal ideation in the prior 2 months.

Interventions
Paired right-sided SGB or sham procedures at weeks 0 and 2.

Main Outcomes and Measures
Improvement of 10 or more points on mean CAPS-5 total symptom severity scores from baseline to 8 weeks, adjusted for site and baseline total symptom severity scores (planned a priori).

Results
In this sham-controlled randomized clinical trial, 2 stellate ganglion block treatments 2 weeks apart were effective in reducing Clinician-Administered PTSD Scale for DSM-5 total symptom severity scores over 8 weeks. The adjusted mean symptom change was −12.6 points for the group receiving stellate ganglion blocks, compared with −6.1 points for those receiving sham treatment, a significant difference.

Conclusions and Relevance
In this trial of active-duty service members with PTSD symptoms (at a clinical threshold and subthreshold), 2 SGB treatments 2 weeks apart were effective in reducing CAPS-5 total symptom severity scores over 8 weeks. The mild-moderate baseline level of PTSD symptom severity and short follow-up time limit the generalizability of these findings, but the study suggests that SGB merits further trials as a PTSD treatment adjunct.

Trial Registration: ClinicalTrials.gov identifier: NCT03077919

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Links of Interest

Report finds no definitive reasons for Fort Wainwright suicides

Quality of life is improving for many injured veterans, but health issues are on the rise as they age, survey says
Students at DoD-run schools continue their run with nation’s top scores in reading, math

For some military families, the discovery of mold is only the beginning of their troubles

Veterans database launching to link veterans with entertainment industry employers

Suicide Has Been Deadlier Than Combat for the Military

More Can Be Done to Save Veterans from Suicide

Veteran explains life before and after receiving service dog

‘Horse whisperer’ helps veterans with PTSD on Military Channel

In five years, the VA has given out 200,000 doses of anti-overdose drug

House lawmakers plan to push ahead on veterans mental health expansion plan. If they can get past their squabbles.

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Resource of the Week: Military Suicide Prevention and Response

CRS (Congressional Research Service) in Focus (updated 102/19):

When a servicemember dies by suicide, those close to the member often experience shock, anger, guilt, and sorrow. As such, a servicemember’s suicide may adversely impact the wellbeing of his or her family and friends. Further, it may affect the morale and readiness of his or her unit. The military’s response to suicidal thoughts (ideation), attempts, and deaths involves coordinated efforts among command and unit leadership, medical professionals, counselors, and others across the military community.

Under the authority given to Congress in Article 1, Section 8 of the U.S. Constitution, to raise and support armies; provide and maintain a navy; and provide for organizing, disciplining, and regulating them, Congress strives to understand the scope of this issue as it pertains to the military, the efforts previously taken to address it, and the considerations for confronting it in the future.

Considerations for Congress
Oversight questions for Congress with regard to military suicide and resiliency may include:

- How can research be better disseminated and brought into practice?
- On what aspects of the issue should future congressionally funded research efforts focus?
- What gaps, if any, remain in DOD, service-level, or interagency suicide prevention programs?
- What factors contribute to differences in suicide rates among the services and components?
- Are high-risk military members and communities being identified and do they have access to appropriate and/or tailored services?

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