

# Research Update -- July 8, 2021

### What's Here:

- Predictors and protective factors for suicide ideation across remotely piloted aircraft career fields.
- Pornography Use and Intimate Partner Violence Among a Sample of U.S. Army Soldiers in 2018: A Cross-Sectional Study.
- Presence of PTSD is Associated with Clinical and Functional Impact in Veterans with Depression Treated in Community-Based Clinics.
- Initial outcomes of couple HOPES: A guided online couple intervention for PTSD and relationship enhancement.
- Sleep disturbances following traumatic brain injury are associated with poor neurobehavioral outcomes in U.S. military service members and veterans.
- STOP-BANG screener versus objective obstructive sleep apnea testing among younger veterans with PTSD and insomnia: STOP-BANG does not sufficiently detect risk.
- Use of Electronic Cigarettes and Other Tobacco Products Among Active Component Services Members.
- Treatment outcomes in individuals diagnosed with comorbid opioid use disorder and Posttraumatic stress disorder: A review.
- Relations Among Performance and Symptom Validity, Mild Traumatic Brain Injury, and Posttraumatic Stress Disorder Symptom Burden in Postdeployment Veterans.

- Preliminary Exploration of the Relationship between Veteran Family Membership, School Climate, and Adverse Outcomes among School-Aged Youth.
- Military sexual trauma: Exploring the moderating role of restrictive emotionality among male veterans.
- Association of Potential for Deaths of Despair With Age and Military Service Era.
- Physical health, behavioral and emotional functioning in children of gulf war veterans.
- Military sexual trauma and suicidal ideation in VHA-care-seeking OEF/OIF/OND veterans without mental health diagnosis or treatment.
- Comorbid Insomnia and Sleep Apnea: mechanisms and implications of an underrecognized and misinterpreted sleep disorder.
- Insomnia and Suicide Risk: A Multi-Study Replication and Extension among Military and High-Risk College Student Samples.
- A Pilot Study of Clinicians' Perceptions of Feasibility, Client-Centeredness, and Usability of the Systematic Tailored Assessment for Responding to Suicidality Protocol.
- Longitudinal associations of military-related factors on self-reported sleep among U.S. service members.
- The Efficacy of the Stellate Ganglion Block as a Treatment Modality for Posttraumatic Stress Disorder Among Active Duty Combat Veterans: A Pilot Program Evaluation.
- Military couples' childhood experiences and romantic relationship satisfaction: The role of accepting influence.
- Understanding moral injury: Military-related injuries of the mind, body, and soul.
- Posttraumatic stress disorder symptom severity modulates avoidance of positive emotions among trauma-exposed military veterans in the community.
- Social isolation among older veterans: findings from the National Health and Aging Trends Study.
- A randomized, double-blind, placebo-controlled trial of Hydrocortisone Augmentation of prolonged exposure for PTSD in U.S. combat veterans.
- Links of Interest

 Resource of the Week: Telehealth Use Among Military Health System Beneficiaries (Defense Health Agency)

\_\_\_\_\_

### https://doi.org/10.1080/08995605.2021.1902181

# Predictors and protective factors for suicide ideation across remotely piloted aircraft career fields.

Kinsey B. Bryant-Lees, Rachael N. Martinez, Anna Frise, Craig J. Bryan, Tanya Goodman, Wayne Chappelle & William Thompson

Military Psychology Published online: 30 Jun 2021

The US Air Force remote warrior community comprises several career fields including remotely piloted aircraft pilots and intelligence, cyber, and sensor operators. The crews are responsible for working seamlessly together to provide 24/7 real-time intelligence, surveillance, and reconnaissance and precision-strike weapons capabilities for a wide range of global combat operations. Due to the rapid increase in global demands and operational tempo, there is growing concern from military leadership about the impact of operational stress on the health and psychological well-being of remote warriors. Previous assessments from 2011 and 2015 have demonstrated a significant increase in the reported rates of operators experiencing suicide ideation. The current study examined two protective factors expected to reduce the risk of suicide ideation – team member social support and leader social support. A total of 905 active duty remote warriors participated in occupational health assessments conducted in 2018. Risk factors for suicide ideation included being unmarried, worsening relationship problems, occupational burnout, and increased operational stress. Results indicated that team member and leader social support were significant protective factors for shift workers and those who reported being less likely to seek mental healthcare. Implications of the findings, intervention recommendations, and directions for future research are discussed.

-----

### https://doi.org/10.1007/s10508-021-01924-x

# Pornography Use and Intimate Partner Violence Among a Sample of U.S. Army Soldiers in 2018: A Cross-Sectional Study.

Matthew R. Beymer, Christopher G. Hill, Michelle A. Perry, Latoya D. Johnson, Brantley P. Jarvis, Joseph A. Pecko, Jennifer L. Humphries & Eren Youmans Watkins

Archives of Sexual Behavior Published June 24, 2021

The objective of the present study was to determine whether there is an association between pornography use and reported intimate partner violence (IPV) perpetration among a sample of soldiers in the US Army. The study was a secondary analysis of cross-sectional data collected from soldiers at a military installation in 2018 (n = 9,052). IPV was defined as any self-reported perpetration of physical, sexual, or psychological abuse of an intimate partner. Multivariable negative binomial regressions were used to assess the association between pornography use and any lifetime perpetration of IPV, controlling for gender, age group, race/ethnicity, relationship status, educational status, military rank, hazardous drinking, depression, stimulant use, depressant use, and post-traumatic stress disorder. Of the population analyzed, 41% of soldiers reported any pornography use per week, and 9.6% reported perpetrating any form of IPV. Soldiers who reported pornography use had between a 1.72- and 3.56-fold greater likelihood of reporting any lifetime perpetration of IPV, longitudinal studies should be designed to further understand predictors of IPV in military populations.

\_\_\_\_\_

### https://doi.org/10.1007/s10880-021-09796-y

Presence of PTSD is Associated with Clinical and Functional Impact in Veterans with Depression Treated in Community-Based Clinics.

Fenan S. Rassu, Shubhada Sansgiry, Natalie E. Hundt, Mark E. Kunik & Jeffrey A. Cully

Journal of Clinical Psychology in Medical Settings Published June 5, 2021 Providers in non-traditional mental health settings (e.g., primary care, community medical clinics) face challenges involving patients who often present with multiple mental health conditions, but require rapid assessment and treatment. To help address this challenge, this study characterized differences in health symptom severity and mental health treatment perceptions between depressed Veterans with and without posttraumatic stress disorder (PTSD) served in community medical clinics. Relative to depressed Veterans without PTSD (N = 62), depressed Veterans with PTSD (N = 122) endorsed greater depression, suicidal ideation, anxiety, pain, and insomnia symptoms, as well as lower functioning. Veterans with depression and PTSD also reported greater mental health needs, prior utilization of mental health services, and higher perceived importance of mental health treatment. Results highlight the complexity of comorbid mental health conditions frequently seen in community medical care clinics and suggest that patients with comorbid mental health difficulties may present with a complex array of mental health symptoms.

\_\_\_\_\_

## https://doi.org/10.1016/j.invent.2021.100423

Initial outcomes of couple HOPES: A guided online couple intervention for PTSD and relationship enhancement.

Skye Fitzpatrick, Anne C. Wagner, Alexander O. Crenshaw, Sonya Varma, ... Candice M. Monson

Internet Interventions Volume 25, September 2021

Highlights

- Couple HOPES is an online, self-help couple intervention for PTSD.
- Feasibility, acceptability, and efficacy of Couple HOPES was tested with 10 couples.
- 10 couples with a military member/veteran/first responder with PTSD participated.
- Couple HOPES was feasible, acceptable, and resulted in reductions in PTSD symptoms.
- It improved relationship satisfaction for partners and several secondary outcomes.

### Abstract

Couple HOPES (Helping Overcome PTSD and Enhance Satisfaction) is a guided, online couple intervention adapted from Cognitive-Behavioral Conjoint Therapy for posttraumatic stress disorder (PTSD). It was created to overcome a range of barriers to accessing evidence-based treatments for PTSD and the intimate relationship problems associated with it. This manuscript describes initial outcomes of the intervention in a series of 10 couples. Participants were military, veteran and first responders with probable PTSD and their intimate partners. Couples completed the program and measurements of PTSD, relationship satisfaction, and secondary outcomes at pre-, mid-, and post-intervention. Mean satisfaction for the program was high and it was completed by seven of ten couples. Participants with PTSD evidenced significant and large pre- to post-intervention effect size improvements in PTSD symptoms (g = 0.80) and perceived health (g = 1.13). They also exhibited non-significant but medium effect size pre- to post-intervention improvements in quality of life (g = 0.62), and depression (g = 0.53), and small effect size pre- to post-intervention improvements in argumentativeness (g = 0.43), anger (g = 0.31), and anxiety (g = 0.31). Partners reported significant and moderate pre- to post-intervention effect size improvements in relationship satisfaction (g = 0.68), and medium but not significant effect size improvements in accommodation of PTSD (g = 0.56). Results provide initial support for the feasibility, acceptability, and efficacy of Couple HOPES for improving PTSD and relationship satisfaction. However, more testing in larger samples, including with randomized controlled designs, is needed.

-----

### https://doi.org/10.5664/jcsm.9454

# Sleep disturbances following traumatic brain injury are associated with poor neurobehavioral outcomes in U.S. military service members and veterans.

Cassandra L. Pattinson, PhD , Tracey A. Brickell, DPsych , Jason Bailie, PhD , Lars Hungerford, PhD , Sara. M. Lippa, PhD , Louis M. French, PsyD , Rael T. Lange, PhD

Journal of Clinical Sleep Medicine Published Online:June 21, 2021

### STUDY OBJECTIVES:

This study examined whether sleep disturbances were associated with neurobehavioral outcome following a traumatic brain injury (TBI) in a well characterized group of service members and veterans.

### METHODS:

Six-hundred and six participants were enrolled into the Defense and Veterans Brain Injury Center, 15-Year Longitudinal TBI study. All participants completed a battery of tests measuring self-reported sleep disturbances, neurobehavioral symptoms, and Posttraumatic Stress Disorder PTSD symptoms. Data were analyzed using analysis of variance with post-hoc comparisons. Four groups were analyzed separately: uncomplicated mild TBI (MTBI); complicated mild, moderate, severe, or penetrating combined TBI (CTBI); injured controls (IC, i.e., orthopedic or soft-tissue injury without TBI); and non-injured controls (NIC).

## **RESULTS**:

A higher proportion of the MTBI group reported moderate-severe sleep disturbances (66.5%) compared to the IC (54.9%), CTBI (47.5%), and NIC groups (34.3%). Participants classified as having Poor Sleep had significantly worse scores on the majority of TBI-QOL scales compared to those classified as having Good Sleep, regardless of TBI severity or the presence of TBI. There was a significant interaction between sleep disturbances and PTSD. While sleep disturbances and PTSD by themselves were significant factors associated with worse outcome, both factors combined resulted in worse outcome than either singularly.

## CONCLUSIONS:

Regardless of group (injured or NIC), sleep disturbances were common and were associated with significantly worse neurobehavioral functioning. When experienced concurrently with PTSD, sleep disturbances pose significant burden to service members and veterans.

\_\_\_\_\_

### https://doi.org/10.5664/jcsm.9498

STOP-BANG screener versus objective obstructive sleep apnea testing among younger veterans with PTSD and insomnia: STOP-BANG does not sufficiently detect risk.

Robert Lyons, MS , Lara A. Barbir, PsyD , Robert Owens, MD , Peter J. Colvonen, PhD

Journal of Clinical Sleep Medicine Published Online:June 23, 2021

### STUDY OBJECTIVES:

Posttraumatic stress disorder (PTSD) and obstructive sleep apnea (OSA) co-occur in veterans even who are younger with lower body mass index (BMI). The STOP-BANG screener for OSA relies heavily on high blood pressure, age, and BMI, and may not generalize to veterans with PTSD. The inability to effectively screen veterans for OSA is problematic given negative outcomes of untreated OSA.

METHODS: Our study compared the STOP-BANG to objective OSA diagnostic testing in 48 younger veterans (mean age=43.7 years; 43.8% Caucasian; 20.8% female) seeking treatment for PTSD and insomnia. Apnea-hypopnea events per hour (AHI), recorded by NOX T3 sleep monitors, were used to diagnose OSA (AHI $\geq$ 5). Logistic regressions examined how STOP-BANG cut-off scores ( $\geq$  3 and  $\geq$ 5) classified OSA status (AHI $\geq$ 5). Follow-up chi-square goodness of fit tests examined single-item STOP-BANG performance in the OSA positive subsample (n=28).

## **RESULTS**:

The STOP-BANG ( $\geq$ 3) had good sensitivity (92.6%), but poor specificity (47.6%), negative (0.16) and positive (1.77) likelihood ratios. The STOP-BANG ( $\geq$  5) led to improved specificity (76.19%), but sensitivity (37.04%) and positive (1.56)/negative likelihood ratios (0.83) were poor. Single-item OSA subgroup analyses revealed that BMI, age, and neck circumference performed poorly, while, tiredness and gender performed well.

## CONCLUSIONS:

Findings suggest that the STOP-BANG correctly diagnosed OSA in some veterans, but missed OSA in large number of younger veterans with PTSD. This suggests objective diagnostic OSA testing is needed in veterans with PTSD. Future research is needed to develop more accurate OSA screening measures in this population.

### CLINICAL TRIAL REGISTRATION:

Registry: ClinicalTrials.gov, Title: Integrated CBT-I on PE and PTSD Outcomes (Impact Study), Identifier: NCT02774642, URL:

https://www.clinicaltrials.gov/ct2/show/NCT02774642

-----

## https://doi.org/10.1093/milmed/usab252

Use of Electronic Cigarettes and Other Tobacco Products Among Active Component Services Members.

Sierra Smucker, PhD, Sarah O Meadows, PhD, Robin Beckman, MPH

Military Medicine Published: 24 June 2021

### Introduction

e-cigarettes have been touted as a safer alternative to classic cigarettes and other combustible tobacco products. However, a growing body of evidence finds that any risk reduction associated with e-cigarette use is eliminated when individuals use "both" e-cigarettes and other tobacco products. Recent analyses from the Health Related Behaviors Survey suggest that rates of e-cigarette use are higher among active component service members than in the general population. However, little is known about the frequency and health behaviors associated with the dual use of e-cigarettes and other tobacco products among service members.

### Data and Method

Using data from the 2018 Health Related Behaviors Survey, this paper investigates whether active component service members who use both e-cigarettes and other tobacco products are more likely to engage in other types of substance use or negative health behaviors.

### Results

We find that the dual use of e-cigarettes and other tobacco products is associated with poorer physical and mental health, higher rates of alcohol misuse, and higher rates of insufficient sleep.

### Conclusion

The association between the dual use of e-cigarettes and tobacco products suggests that these individuals represent an important target group for health-related resources and attention in DoD.

\_\_\_\_\_

https://doi.org/10.1016/j.addbeh.2021.107026

Treatment outcomes in individuals diagnosed with comorbid opioid use disorder and Posttraumatic stress disorder: A review.

Sarah Meshberg-Cohen, R. Ross MacLean, Ashley M. Schnakenberg Martin, Mehmet Sofuoglu, Ismene L. Petrakis

Addictive Behaviors Volume 122, November 2021

Highlights

- Posttraumatic stress disorder is highly comorbid with opioid use disorder.
- PTSD is associated with more severe addiction, depression, and attempted suicide.
- PTSD diagnosis does not necessarily predict reduced OUD treatment retention.
- Participation in a PTSD-focused treatment might improve OUD treatment outcomes.
- Research needed to develop brief, integrative, feasible PTSD interventions with OUD.

# Abstract

## Objectives

Opioid use disorder (OUD) is a public health emergency. Evidence suggests that posttraumatic stress disorder (PTSD) is common among individuals with OUD; however, few studies evaluate whether concurrent diagnoses affect treatment outcomes. This review examines the impact of concurrent diagnoses of OUD and PTSD on treatment outcomes.

# Methods

A search was performed using articles identified through June 30, 2020 in PubMed, PsycINFO, and EMBASE. Included peer-reviewed articles evaluated individuals with OUD and a PTSD diagnosis via standardized assessment and/or medical record diagnoses, and reported relationships between diagnosis and treatment outcomes and/or other psychiatric conditions.

# Results

Out of 412 articles, 17 studies met inclusion criteria for this review (from 13 databases). Articles included had a total of n = 2190 with OUD, with n = 79 non-OUD comparison participants. Studies examining individuals with OUD revealed comorbid PTSD was associated with more severe addiction, higher rates of depression, attempted suicide, and psychosocial problems.

## Conclusions

Among individuals with OUD, presence of PTSD is associated with multiple mental

health problems. The impact of PTSD on drug use is inconclusive. Although only 5 studies examined psychosocial PTSD treatment, all found PTSD-focused treatment to be effective for those with comorbid OUD. Overall, results suggest the need to better identify PTSD among those with OUD, and to develop and evaluate interventions that are brief, integrative, and easy to implement in clinical settings.

-----

https://doi.org/10.1007/s12207-021-09415-z

# Relations Among Performance and Symptom Validity, Mild Traumatic Brain Injury, and Posttraumatic Stress Disorder Symptom Burden in Postdeployment Veterans.

Robert D. Shura, Ruth E. Yoash-Gantz, Treven C. Pickett, Scott D. McDonald & Larry A. Tupler

Psychological Injury and Law Published: 22 June 2021

The purpose of this study was to evaluate relationships among the Word Memory Test (WMT), symptom validity test (SVT) indices of the Personality Assessment Inventory (PAI), history of mild traumatic brain injury (mTBI), and posttraumatic stress disorder (PTSD) symptom burden. Participants were postdeployment, predominantly male (88.5%) veterans (N = 417) who completed a neurocognition study that included the WMT and PAI. Correlations, chi-square analyses, and ANOVAs were used for analyses. Results of aim 1 examining relations among the two tests found that 20.4% produced invalid scores on the WMT (regardless of PAI scores), 13.8% produced an invalid PAI (regardless of WMT scores), and 4.6% were invalid on both tests. Of the 4 original PAI validity scales, only Negative Impression Management was related to WMT failure; the supplementary Malingering Index was also significant at a smaller effect size. The second aim evaluated mTBI and PTSD symptoms in relation to validity scores. History of mTBI was associated with invalid WMT scores but not PAI scores; follow-up analyses indicated that injuries sustained during deployment were significantly more likely to produce invalid WMT scores than non-deployment injuries. Contrary to hypotheses, PTSD symptom burden was related to WMT failure but not overreporting on the PAI. After dividing the sample into four groups based on valid versus invalid WMT and PAI scores, the invalid PVT valid SVT group had the highest proportion of mTBI, whereas PTSD symptom burden was highest in the groups that invalidated both measures or only the WMT. Service-connected disability status was unrelated to either type of

validity. Given invalidating both types of validity measures is uncommon, the importance of sampling both types of validity is highlighted.

-----

\_\_\_\_

### https://doi.org/10.1177/00131245211027363

## Preliminary Exploration of the Relationship between Veteran Family Membership, School Climate, and Adverse Outcomes among School-Aged Youth.

Sullivan, K., Dodge, J., Williamson, V., Alves-Costa, F., Barr, N., Kintzle, S., Fear, N. T., & Castro, C.

Education and Urban Society First Published June 24, 2021

Little is known about the functioning of children in veteran-connected families, who may experience a unique constellation of stressors including exposure to parental mental health symptoms and unemployment. Further, research has not previously considered the role of school climate in counteracting these stressors for veteran-connected students. This preliminary study examines the relationship between veteran parent's mental health and employment with adverse outcomes for their school-age children, as well as the potential moderating effect of safe school climate. Participants were 218 veteran parents of children in K-12 schools, who completed the Chicago Veterans Survey, including measures of PTSD and depression, unemployment, a school safety scale drawn from the California School Parent Survey, and an adverse child functioning screening tool. Regression models suggest that depression symptomatology and perceptions of less safe school climate were significantly associated with adverse outcomes among veteran-connected students. Safe school climate buffered against the negative effects of parents' depression symptoms, particularly at lower levels of depression severity. Findings suggest the need for future research to explore the potentially crucial role for schools, including teachers, administrators, and particularly school-based mental health providers, in supporting the healthy functioning of veteranconnected students and their families.

### https://doi.org/10.1037/tra0000647

# Military sexual trauma: Exploring the moderating role of restrictive emotionality among male veterans.

Rivera, L. A., Liang, C. T. H., Johnson, N. L., & Chakravorty, S.

Psychological Trauma: Theory, Research, Practice, and Policy Advance online publication

### Objective:

Military Sexual Trauma (MST) has been found to be positively associated with mental health outcomes, such as posttraumatic stress disorder (PTSD) symptoms, depressive symptoms, symptoms of anxiety, and insomnia severity (Jenkins et al., 2015; O'Brien & Sher, 2013). Male survivors of MST face unique challenges, including concerns associated with hypermasculinity (e.g., restrictive emotionality [RE]). Men with high RE (difficulty expressing emotions) report more negative mental health outcomes compared to men with low RE (Good et al., 1995). The present study investigated whether RE moderated the relationship between MST and negative mental health outcomes, while controlling for combat exposure (CE) and age to further assess confounding variables.

### Method:

One hundred thirty-four adult male veterans in behavioral health treatment at a large VA medical center in the mid-Atlantic region of the United States were recruited. Participants provided self-reported data on MST and symptoms of PTSD, depression, anxiety, and insomnia, as well as their endorsement of restrictive emotionality. PROCESS v3.3 (Hayes, 2017) regression analytic method was used to test main and interaction effects.

### Results:

MST was a significant predictor of PTSD symptoms and insomnia severity—but not depressive symptoms or symptoms of anxiety. RE also moderated the relationship between MST and PTSD symptoms, depressive symptoms, and insomnia, after controlling for CE and age.

### Conclusion:

These findings suggest that restricting emotions has a negative influence on men's mental health functioning. Therefore, assessing male veterans' experiences of expressing their emotions within the context of masculinity and their military training will

likely have implications on trauma processing and treatment outcomes. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

\_\_\_\_\_

### https://doi.org/10.1093/milmed/usab249

### Association of Potential for Deaths of Despair With Age and Military Service Era.

Kathleen A Fairman, MA, PhD, Kelsey Buckley, PharmD, BCACP

Military Medicine Published: 26 June 2021

#### Introduction

Predictors of deaths of despair, including substance use disorder, psychological distress, and suicidality, are known to be elevated among young adults and recent military veterans. Limited information is available to distinguish age effects from serviceera effects. We assessed these effects on indicators of potential for deaths of despair in a large national sample of U.S. adults aged ≥19 years.

### Materials and Methods

The study was a retrospective, cross-sectional analysis of publicly available data for 2015-2019 from 201,846 respondents to the National Survey on Drug Use and Health (NSDUH), which measures psychological symptoms and substance use behaviors using standardized scales and diagnostic definitions. Indicators of potential for a death of despair included liver cirrhosis, past-year serious suicidal ideation, serious psychological distress per the Kessler-6 scale, and active substance use disorder (e.g., binge drinking on ≥5 occasions in the past month, nonmedical use of prescribed controlled substances, and illicit drug use). Bivariate, age-stratified bivariate, and multivariate logistic regression analyses were performed using statistical software and tests appropriate for the NSDUH complex sampling design. Covariates included demographic characteristics, chronic conditions, and religious service attendance.

### Results

Indicators were strongly and consistently age-associated, with  $\geq 1$  indicator experienced by 45.5% of respondents aged 19-25 years and 10.7% of those aged  $\geq 65$  years (P < .01). After age stratification, service-era effects were modest and occurred only among adults aged  $\geq 35$  years. The largest service-associated increase was among adults aged 35-49 years; service beginning or after 1975 was associated (P < .01), with increased prevalence of  $\geq 1$  indicator (30.2%-34.2% for veterans and 25.2% for nonveterans) or  $\geq 2$  indicators (6.4%-8.2% for veterans and 5.4% for nonveterans). Covariate-adjusted results were similar, with adjusted probabilities of  $\geq 1$  indicator declining steadily with increasing age: among those 19-34 years, 39.9% of nonveterans and 42.2% of Persian Gulf/Afghanistan veterans; among those aged  $\geq 65$  years, 10.3% of nonveterans, 9.2% of World War II/Korea veterans, and 14.4% of Vietnam veterans.

## Conclusions

After accounting for age, military service-era effects on potential for a death of despair were modest but discernible. Because underlying causes of deaths of despair may vary by service era (e.g., hostility to Vietnam service experienced by older adults versus environmental exposures in the Persian Gulf and Afghanistan), providers treating veterans of different ages should be sensitive to era-related effects. Findings suggest the importance of querying for symptoms of mental distress and actively engaging affected individuals, veteran or nonveteran, in appropriate treatment to prevent deaths of despair.

-----

## https://doi.org/10.1016/j.lfs.2021.119777

# Physical health, behavioral and emotional functioning in children of gulf war veterans.

R Toomey, RE Alpern, AJ White, X Li, DJ Reda, MS Blanchard

Life Sciences Available online 28 June 2021

Highlights

- Children of Gulf War veterans have not been studied in person.
- Children of deployed veterans (DV) had worse dentition and greater obesity.
- Children of DV had more behavioral problems on the Child Behavior Checklist.
- Veteran characteristics and mental health predicted children's behavioral problems.
- Children's health (including obesity) predicted children's behavioral problems.

### Abstract

Objective

We examined whether the prevalence of medical and behavioral conditions is higher in

children of deployed veterans (DVs) versus non-deployed veterans (NDVs) after the 1991 Gulf War.

### Methods

We examined 1387 children of 737 veterans. Children ages 2-18 had physical exams and parental reports of physical history and behavior.

## Results

Physical health was analyzed using GEE models. Behavioral health [total, internalizing, and externalizing behavior problems (TBP, IBP, EBP)] was analyzed with mixed-effects regression models. Analyses were conducted by age group (2-3, 4-11, 12-18), and gender (ages 4-11, 12-18). Children of DVs ages 2-3 had significantly worse dentition (13.9% vs. 4.8%, P = 0.03) and more EBP {least square means (Ismeans) 54.31 vs. 47.59, P = 0.02}. Children of DVs ages 4-11 had significantly more obesity (18.8% vs. 12.7%, P = 0.02). Among children 4-11, male children of DVs had significantly more TBP (Ismeans 70.68 vs. 57.34, P = 0.003), IBP (Ismeans 63.59 vs. 56.16, P = 0.002) and EBP (Ismeans 61.60 vs. 52.93, P = 0.03), but female children did not. For children ages 12-18, male children of DVs had more EBP (Ismeans 63.73 vs. 43.51, P = 0.008), while female children of DVs had fewer EBP (Ismeans 45.50 vs. 50.48, P = 0.02). Veteran military characteristics and mental health, and children's social status and health, including obesity, predicted children's TBP for one or more age groups.

## Conclusions

Children of DVs experienced worse dentition, greater obesity, and more behavioral problems compared to NDV children, suggesting adverse health effects associated with parental deployment in need of further exploration.

-----

## https://doi.org/10.1016/j.psychres.2021.114089

# Military sexual trauma and suicidal ideation in VHA-care-seeking OEF/OIF/OND veterans without mental health diagnosis or treatment.

Suzanne E. Decker, Christine M. Ramsey, Silvia Ronzitti, Robert D. Kerns, ... Joseph L. Goulet

Psychiatry Research Available online 29 June 2021 Highlights

- 14.7-16.5% Veterans without mental health diagnosis report recent suicidal ideation
- MST is reported by 27.9% and 2.9% of these women and men, respectively
- RR of MST on SI: 1.65 (95% CI 1.35, 2.00) in women, 1.49 (95% CI 1.26, 1.75) in men

## Abstract

Sexual trauma is a suicide risk factor. While military sexual trauma (MST) is frequently associated with suicidal ideation (SI) in women and men veterans who served in recent conflicts, less is known about MST's relationship to SI in veterans who have no documented mental health concerns. Of the 1.1 million post-9/11 veterans enrolled in the Veterans Healthcare Administration (VHA) we examined 41,658 (12.3% women, 87.7% men) without evidence of mental health diagnosis or treatment and who were screened for MST and SI using the standard VHA clinical reminders between 2008-2013. Relative risk estimates were generated using separate models for women and men. MST was reported by 27.9% of women and 2.9% of men; SI by 14.7% and 16.5%, respectively. The adjusted relative risk of MST on SI was 1.65 (95% CI 1.35, 2.00) in women, and 1.49 (95% CI 1.26, 1.75) in men. In this sample of veterans without evidence of mental health diagnosis or treatment, MST was associated with a high risk of SI in both genders. Positive MST screening should prompt SI screening and risk management if indicated, and further study of barriers to mental healthcare among MST survivors at risk for suicide is warranted.

\_\_\_\_\_

https://doi.org/10.1016/j.sleep.2021.05.043

# Comorbid Insomnia and Sleep Apnea: mechanisms and implications of an underrecognized and misinterpreted sleep disorder.

Miguel Meira e Cruz, Meir H. Kryger, Charles M. Morin, Luciana Palombini, ... David Gozal

Sleep Medicine Volume 84, August 2021, Pages 283-288

Highlights

- COMISA is a prevalent condition.
- COMISA is associated with increased morbidity and mortality.

- Daytime symptoms of COMISA result from a balance of OSA and Insomnia related daytime symptoms.
- COMISA may present with many challenges to clinicians.

## Abstract

Sleep-disordered breathing (SDB) and insomnia have long been recognized as important sleep disrupters often associated with increased morbidity and mortality. Although they are often seen as divergent conditions, mainly because their cardinal symptoms (excessive daytime sleepiness, and sleep loss) differ, these two sleep disorders present with many common symptoms, which may hinder diagnosis and treatment. In addition to possible bidirectional pathways between SDB and insomnia, other factors such as circadian timing may play a role. In this paper, we review the mechanisms, differential clinical aspects, and implications of Comorbid Insomnia and Sleep Apnea, sometimes termed COMISA.

\_\_\_\_\_

## https://doi.org/10.1016/j.sleep.2021.06.032

# Insomnia and Suicide Risk: A Multi-Study Replication and Extension among Military and High-Risk College Student Samples.

Raymond P. Tucker, Robert J. Cramer, Jennifer Langhinrichsen-Rohling, Ricky Rodriguez-Cue, ... CAPT. Craig A. Cunningham

Sleep Medicine Available online 29 June 2021

# Highlights

- Insomnia symptoms were related to thwarted belongingness and perceived burdensomeness.
- Indirect effect of insomnia on suicidal thoughts was found through thwarted belongingness.
- No indirect effect of insomnia on suicidal thoughts was found through interpersonal hopelessness.

# Abstract

## Objective/Background

A clear link between insomnia concerns and suicidal ideation has been shown in a variety of populations. These investigations failed to use a theoretical lens in

understanding this relationship. Research within the veteran population has demonstrated that feelings of thwarted belongingness (TB), but not perceived burdensomeness (PB), mediate the insomnia and suicidal ideation relationship. Using two high risk samples, the present investigation replicated and extended this line of inquiry to include interpersonal hopelessness about TB, a key component of the Interpersonal Psychological Theory of Suicide.

### Methods/Results/Conclusions

Using medical record review and survey data, study 1 replicated the finding that TB is a stronger explanatory factor of the insomnia to suicidal ideation/suicide risk relationship in a sample of N=200 treatment-seeking active-duty personnel. Study 2 found that insomnia symptoms had an indirect effect on suicidal ideation through TB and PB but not interpersonal hopelessness in a sample of N=151 college students with a history of suicidal thoughts and/or behaviors. TB was the only mediator of the insomnia-suicide attempt likelihood link and insomnia to clinically significant suicide risk screening status. Limitations include cross-sectional design of both studies and the lack of formal diagnoses of insomnia. Implications and future research directions are discussed.

\_\_\_\_\_

### https://doi.org/10.1027/0227-5910/a000796

## A Pilot Study of Clinicians' Perceptions of Feasibility, Client-Centeredness, and Usability of the Systematic Tailored Assessment for Responding to Suicidality Protocol.

Hawgood, J., Ownsworth, T., Mason, H., Spence, S. H., Arensman, E., & De Leo, D.

Crisis 2021 Jun 30

### Background:

The Systematic Tailored Assessment for Responding to Suicidality (STARS) is a clientcentered, psychosocial needs-based assessment protocol. This semistructured interview obtains client prioritized indicators that contribute to suicidality and informs commensurate care responses for preventing suicide. Aim: To pilot the feasibility, clientcenteredness, and usability of the STARS protocol, including clinicians' perceptions of ease of use; content validity; and administration within the community setting.

### Method:

A convenience sample of clinicians who undertook assessment and/or intervention with suicidal persons and had used STARS between mid-2016 and early 2017 completed an online survey assessing feasibility, client-centeredness, and usability of STARS.

### Results:

Of the 51 clinicians who entered the survey, 42 (82.3%; aged 25-74; 69% female) completed it. Overall, perceptions of feasibility and usability of STARS were positive, particularly regarding client-centeredness of the protocol and confidence in information obtained for screening suicidality and informing needs-based priority responses. Limitations: The pilot findings are limited by the use of a small convenience sample and the low completion rate of clinicians with STARS training.

Conclusion:

STARS was perceived as a feasible and useful psychosocial needs-based assessment protocol. Suggestions for improving STARS, training requirements, and application to diverse populations are outlined.

\_\_\_\_\_

### https://doi.org/10.1093/sleep/zsab168

# Longitudinal associations of military-related factors on self-reported sleep among U.S. service members.

Cooper, A. D., Kolaja, C. A., Markwald, R. R., Jacobson, I. G., & Chinoy, E. D.

Sleep 2021 Jul 3

### Study objectives:

Sleep loss is common in the military, which can negatively affect health and readiness; however, it is largely unknown how sleep varies over a military career. This study sought to examine the relationships between military-related factors and the new onset and reoccurrence of short sleep duration and insomnia symptoms.

### Methods:

Millennium Cohort Study data were used to track U.S. military service members over time to examine longitudinal changes in sleep. Outcomes were self-reported average sleep duration (categorized as ≤5 hours, 6 hours, or 7-9 hours [recommended]) and/or

insomnia symptoms (having trouble falling or staying asleep). Associations between military-related factors and the new onset and reoccurrence of these sleep characteristics were determined, after controlling for multiple health and behavioral factors.

### Results:

Military-related factors consistently associated with an increased risk for new onset and/or reoccurrence of short sleep duration and insomnia symptoms included active duty component, Army or Marine Corps service, combat deployment, and longer than average deployment lengths. Military officers and noncombat deployers had decreased risk for either sleep characteristic. Time-in-service and separation from the military were complex factors; they lowered risk for ≤5 hours sleep but increased risk for insomnia symptoms.

## Conclusions:

Various military-related factors contribute to risk of short sleep duration and/or insomnia symptoms over time, although some factors affect these sleep characteristics differently. Also, even when these sleep characteristics remit, some military personnel have an increased risk of reoccurrence. Efforts to improve sleep prioritization and implement interventions targeting at-risk military populations, behaviors, and other significant factors are warranted.

-----

https://doi.org/10.1093/milmed/usaa246

The Efficacy of the Stellate Ganglion Block as a Treatment Modality for Posttraumatic Stress Disorder Among Active Duty Combat Veterans: A Pilot Program Evaluation.

Odosso, R. J., & Petta, L.

Military Medicine 2021 Jul 1; 186(7-8): e796-e803

Introduction:

The lifetime prevalence for development of Posttraumatic Stress Disorder (PTSD) among military combat veterans has been estimated to be as high as 17%, or more than double the national average. The stellate ganglion block (SGB) has been proposed as a PTSD treatment modality that may potentially affect positive change in the attitude

of a service member (SM) toward mental health treatment, lead to improved clinical outcomes, promote the likelihood of a return to a productive job performance, and decrease the economic burden of PTSD treatment on the Department of Defense.

### Materials and methods:

A pilot program to determine the efficacy of the SGB was conducted in a single, closedunit of active duty combat veterans with a statistically high prevalence of PTSD-related symptoms associated with combat deployments. A retrospective project-level program evaluation was completed to assess the effectiveness of the treatment in reducing symptoms, the level of SM acceptance of the procedure, and the SM perceived response to the SGB treatment. The project-level program evaluation methodology was based on the suggestions of the W.K. Kellogg Foundation Evaluation Handbook. The primary design and context of the evaluation was viewed from an outcome evaluation perspective and format, with focus on both individual and system-level outcomes. The outcome evaluation addressed: 1) the measured outcomes and critical findings of the procedure during the pilot, 2) feasibility of and recommendation for replication of the pilot, and 3) the quality improvement potential of the SGB as part of a clinical pathway for the care and treatment of PTSD in SMs.

### Results:

Program evaluation analysis demonstrated that the SGB exhibited success in both rate and level of response, reduced stigma relative to acceptance of the treatment, and SMs verbalized a high perceived value of the treatment. However, the effect of the procedure was shown to peak and plateau with a regression to baseline at roughly the 3-month timeframe, with a reciprocal decrease in perceived value.

### Conclusion:

The most significant benefit of the SGB appears to be its ability to act as a gateway to treatment and to facilitate active participation and compliance by the SM during its "window" of efficacy. Additional research, including RCTs are required to continue to evaluate its efficacy relative to symptom-specific effectiveness, effectiveness of sequential procedures, and effectiveness when combined with other nonpharmaceutical treatment modalities. Moreover, the application of an accepted medical procedure as a mental health (MH) therapy with marked reduction in stigma, encourages pursuit of additional such treatment methods that reduce stigma and promote active SM participation in PTSD management.

### https://doi.org/10.1111/famp.12689

## Military couples' childhood experiences and romantic relationship satisfaction: The role of accepting influence.

Clairee Peterson, Catherine Walker O'Neal, Ted G. Futris

Family Process First published: 30 June 2021

Although accepting influence (i.e., being open to the influence of others) is considered important for couple relationships, there is a lack of empirical research on the association between accepting influence and relationship satisfaction. Moreover, research has not examined what family experiences may precede one's ability to accept influence in later romantic relationships, although life course theory and the vulnerability stress adaptation model support the notion that stressful childhood experiences may be consequential for accepting influence adaptive processes, which, in turn, can impact relationship satisfaction. This study used dyadic, couple data and an actor partner interdependence model to investigate the associations between stressful childhood experiences, accepting influence, and relationship satisfaction in a sample of 229 military couples (with one male service member and one female civilian spouse) after accounting for elements of their military context (e.g., rank, number of deployments), relationship length, and mental health. The path model also estimated the indirect effects from both partners' stressful childhood experiences to relationship satisfaction through accepting influence. Female spouses' stressful childhood experiences were associated with their perceptions of male partners' accepting influence, which, in turn, was associated with both partners' relationship satisfaction, demonstrating partial mediation. Military couples, as well as other couples in stressful contexts, may benefit from interventions that address how prior family experiences impact current accepting influence processes. Moreover, accepting influence behaviors can be a tool for couples to utilize to mitigate the possible negative consequences of their stressful circumstances on their relationship.

-----

https://doi.org/10.1037/scp0000270

Understanding moral injury: Military-related injuries of the mind, body, and soul.

Richardson, N. M., & Lamson, A. L.

Spirituality in Clinical Practice Advance online publication

As research continues to expand our understanding of moral injury, much remains unknown about these invisible injuries of war, particularly in relation to other stress disorders commonly experienced by military populations. While some overlap in symptomology may exist between other military traumatic stress disorders, including posttraumatic stress disorder (PTSD) and traumatic brain injury (TBI), less is known about the symptoms of moral injury and how those symptoms are unique from or interface with PTSD and TBI. The current review sought to highlight literature on moral injury in the context of military service members by differentiating moral injury and diagnostic symptomology of PTSD and TBI and providing historical context and theoretical exploration of the common injuries experienced by military personnel. The biopsychosocial-spiritual framework was introduced as an important foundation for better understanding the interconnected yet distinct differences between common military experiences that often lead to injuries of the mind (PTSD), body (TBI), and soul (moral injury) for our men and women in uniform. The authors concluded that while significant strides have been made for differentiating between diagnostic criteria for common trauma responses impacting service members and veterans since the 1980s, actions in delineating the deeper rooted morally injurious experiences of military service are needed. Key steps for addressing the gaps in our understanding of and empirically validated treatments for moral injury are also introduced. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

-----

### https://doi.org/10.1037/tra0001048

Posttraumatic stress disorder symptom severity modulates avoidance of positive emotions among trauma-exposed military veterans in the community.

Weiss, N. H., Schick, M. R., Contractor, A. A., Goncharenko, S., Raudales, A. M., & Forkus, S. R.

Psychological Trauma: Theory, Research, Practice, and Policy Advance online publication

Objective:

Theoretical and empirical evidence links emotional avoidance to the development and

maintenance of posttraumatic stress disorder (PTSD) symptoms. However, few studies have tested whether these findings extend to positive emotional avoidance. Addressing this important gap in the literature, the current study examined the moderating role of PTSD symptom severity in the relation between positive emotional intensity and positive emotional avoidance.

### Method:

Participants were 465 trauma-exposed veterans recruited from the community (Mage = 38.00, 71.6% male, 69.5% White).

## Results:

The interaction between positive emotional intensity and PTSD symptom severity on positive emotional avoidance was significant. Analysis of simple slopes revealed that positive emotional intensity was significantly positively associated with positive emotional avoidance when participants endorsed high, but not low, levels of PTSD symptom severity.

## Conclusions:

Veterans with more severe PTSD symptoms may utilize avoidance strategies in the context of intense positive emotions. These findings may suggest the potential need for addressing positive emotional avoidance in interventions to reduce PTSD symptom severity. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

-----

https://doi.org/10.1080/13607863.2021.1942434

# Social isolation among older veterans: findings from the National Health and Aging Trends Study.

Zainab Suntai & Bethany White

Aging and Mental Health Published online: 30 Jun 2021

### Objectives

Social isolation is a critical public health issue that affects multiple domains of well-being among older adults, but little is known about social isolation among older military veterans. As such, the purpose of this study was to estimate the prevalence of social

isolation among older veterans and to examine risk factors for social isolation among older veterans.

### Method

Data were derived from Round 1 of the National Health and Aging Trends Study, which is an annual, longitudinal panel survey of Medicare beneficiaries aged 65 and older. The sample included 1,683 veterans, who were primarily White and male. Weighted logistic regression models were used to predict severe social isolation (having no social participation) and social isolation (having only one source of social participation) among older veterans, while controlling for age, sex, race, marital status, education, income, and metropolitan residency.

## Results

After accounting for other predictors, results show that veterans who are 85 and older, male, White, unmarried or unpartnered, with lower educational attainment and lower income are greatly at risk of both severe social isolation and social isolation.

## Conclusion

The results of this study support past research showing that veterans with limited social and economic capital are at great risk of experiencing adverse outcomes in older adulthood, including social isolation. Interventions should therefore aim to improve social connectedness among this population and should address the risk-factors that contribute to social isolation among older veterans.

-----

## https://doi.org/10.1016/j.brat.2021.103924

# A randomized, double-blind, placebo-controlled trial of Hydrocortisone Augmentation of prolonged exposure for PTSD in U.S. combat veterans.

Amy Lehrner, Tom Hildebrandt, Linda Bierer, Janine Flory, ... Rachel Yehuda

Behaviour Research and Therapy Available online 1 July 2021

Highlights

• Augmentation of Prolonged Exposure psychotherapy with the synthetic glucocorticoid hydrocortisone (HCORT) was tested in a randomized, double-

blind, placebo-controlled trial in 60 veterans of wars in Iraq or Afghanistan with PTSD.

- Across both conditions, there was a robust effect of PE over time.
- An intent-to-treat analysis showed that HCORT did not measurably improve PTSD symptoms or other secondary outcomes.
- Exploratory analyses indicated that veterans with mild TBI exposure and current postconcussive symptoms who received HCORT showed a greater reduction in hyperarousal symptoms; and veterans with higher baseline glucocorticoid sensitivity showed a greater reduction in avoidance symptoms with HCORT augmentation.
- Treatment matching based on cognitive or biological vulnerabilities might lead to greater efficacy of PE with glucocorticoid augmentation.

## Abstract

### Objective

Cognitive behavioral therapies such as Prolonged Exposure (PE) are considered first line treatments for posttraumatic stress disorder (PTSD). Nonetheless, many continue to experience significant symptoms following treatment and there is interest in enhancing treatment effectiveness. Glucocorticoid alterations in PTSD are well documented, and these steroids have been shown to enhance extinction learning.

### Methods

Augmentation of PE with the synthetic glucocorticoid hydrocortisone (HCORT) was tested in a randomized, double-blind, placebo-controlled trial in 60 veterans of wars in Iraq or Afghanistan with PTSD (NCT01525680). Participants ingested 30 mg oral HCORT or placebo 30 min prior to exposure sessions. Primary outcome measure: PTSD severity assessed by the CAPS; secondary outcome measures: self reported PTSD symptoms assessed by the PDS and depression assessed by the BDI; all administered at pretreatment, posttreatment, and 3-month follow up.

## Results

Across conditions, there was a robust effect of PE over time. An intent-to-treat analysis showed that HCORT did not measurably improve PTSD symptoms or secondary outcomes. However, exploratory analyses indicated that veterans with mild TBI exposure and current postconcussive symptoms showed a greater reduction in hyperarousal symptoms following PE treatment with HCORT augmentation. Additionally, veterans with higher baseline glucocorticoid sensitivity showed a greater reduction in avoidance symptoms with HCORT augmentation.

### Conclusions

Treatment matching based on cognitive or biological vulnerabilities might lead to greater efficacy of PE with glucocorticoid augmentation.

-----

## Links of Interest

A professionalized military sexual assault and response program could be on the way <u>https://www.militarytimes.com/news/your-military/2021/07/02/a-professionalized-</u><u>military-sexual-assault-and-response-program-could-be-on-the-way/</u>

Many military families, caught in a housing crunch, are suffering this PCS season <u>https://www.militarytimes.com/pay-benefits/mil-money/2021/07/01/military-families-caught-in-a-housing-crunch-suffer-deeply-this-pcs-season/</u>

The Air Force didn't have a manual for pregnant airmen. So this mom made one <u>https://www.airforcetimes.com/news/your-air-force/2021/07/06/the-air-force-didnt-have-a-manual-for-pregnant-airmen-so-this-mom-made-one/</u>

-----

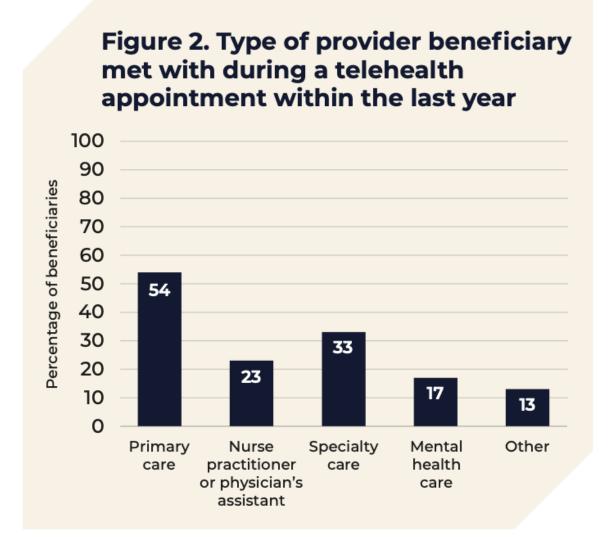
# Resource of the Week: <u>Telehealth Use Among Military Health System</u> <u>Beneficiaries</u>

From the Defense Health Agency:

This issue brief examines telehealth use among MHS beneficiaries.

- Forty-four percent of MHS beneficiaries who accessed health care used telehealth for at least one appointment between October 2019 and October 2020.
- Most beneficiaries reported positive experiences, with 93 percent reporting they were comfortable with the telehealth process. Additionally, 70 percent of beneficiaries rated their last telehealth appointment highly, and 66 percent of them would recommend telehealth to a family member or friend.
- More beneficiaries accessed telehealth through phone (85 percent) than by video (57 percent). In particular, 95 percent of beneficiaries enrolled in Prime with a military PCM who accessed telehealth used phone, whereas 28 percent participated in a video call.

 Overall, 46 percent of beneficiaries would prefer a telehealth appointment over travel- ing to see their provider in the future, with 50 percent of beneficiaries who accessed telehealth by video and 45 percent of beneficiaries who accessed telehealth by phone preferring telehealth in the future.



\_\_\_\_

Shirl Kennedy Research Editor (HJF) Center for Deployment Psychology www.deploymentpsych.org shirley.kennedy.ctr@usuhs.edu