

CDP



Research Update -- June 4, 2020

What's Here:

- Contacts with Health Services During the Year Prior to Suicide Death and Prevalent Conditions A Nationwide Study.
- Comorbid PTSD and Depression Diagnoses Mediate the Association of Military Sexual Trauma and Suicide and Intentional Self-Inflicted Injury in VHA-Enrolled Iraq/Afghanistan Veterans, 2004-2014.
- PTSD's Risky Behavior Criterion: Associated Risky and Unhealthy Behaviors and Psychiatric Correlates in a Nationally Representative Sample.
- Sleep-Related Practices, Behaviors, and Sleep-Related Difficulties in Deployed Active-Duty Service Members Performing Security Duties.
- Smoking, obesity, and their co-occurrence in the U.S. military veterans: results from the national health and resilience in veterans study.
- Predictors of involuntary and voluntary emotional episodic memories of virtual reality scenarios in Veterans with and without PTSD.
- Daily Morning Blue Light Therapy Improves Daytime Sleepiness, Sleep Quality, and Quality of Life Following a Mild Traumatic Brain Injury.
- Factors Associated with U.S. Military Women Keeping Guns or Weapons Nearby for Personal Security Following Deployment.
- Development of character strengths across the deployment cycle among U.S. Army soldiers.

- The Relationship Between Army Soldiers' Perceived Stress and Army Life Adjustment: Focusing on the Mediating Effect of Stress Response and the Moderating Effect of Cohesion.
- Links of Interest
- Resource of the Week: New Resources for Assessment and Management of Suicide Risk Toolkit (Psychological Health Center of Excellence)

<https://www.sciencedirect.com/science/article/abs/pii/S0165032720305024>

Contacts with Health Services During the Year Prior to Suicide Death and Prevalent Conditions A Nationwide Study.

Moussa Laanani, Claire Imbaud, Philippe Tuppin, Claire Poulalhon, ... Grégoire Rey

Journal of Affective Disorders

Volume 274, 1 September 2020, Pages 174-182

<https://doi.org/10.1016/j.jad.2020.05.071>

Highlights

- Contacts with primary care services are frequent in the last weeks prior to suicide
- Mental and physical conditions are more common among suicide decedents than in the general population
- General practitioners and emergency rooms should be targeted for suicide preventive interventions
- Contacts with Health Services During the Year Prior to Suicide Death and Prevalent Conditions: A Nationwide Study

Abstract

Background

This study was designed to describe contacts with health services during the year before suicide death in France, and prevalent mental and physical conditions.

Methods

Data were extracted from the French National Health Data System (SNDS), which comprises comprehensive claims data for inpatient and outpatient care linked to the national causes-of-death registry. Individuals aged ≥ 15 years who died from suicide in France in 2013-2015 were included. Medical consultations, emergency room visits, and hospitalisations during the year preceding death were collected. Conditions were

identified, and standardised prevalence ratios (SPRs) were estimated to compare prevalence rates in suicide decedents with those of the general population.

Results

The study included 19,144 individuals. Overall, 8.5% of suicide decedents consulted a physician or attended an emergency room on the day of death, 34.1% during the week before death, 60.9% during the month before death. Most contacts involved a general practitioner or an emergency room. During the month preceding suicide, 24.4% of individuals were hospitalised at least once. Mental conditions (36.8% of cases) were 7.9-fold more prevalent in suicide decedents than in the general population. The highest SPRs among physical conditions were for liver/pancreatic diseases (SPR=3.3) and epilepsy (SPR=2.7).

Limitations

The study population was restricted to national health insurance general scheme beneficiaries (76% of the population living in France).

Conclusions

Suicide decedents have frequent contacts with general practitioners and emergency departments during the last weeks before death. Improving suicide risk identification and prevention in these somatic healthcare settings is needed.

<https://www.sciencedirect.com/science/article/abs/pii/S0165032719323213>

Comorbid PTSD and Depression Diagnoses Mediate the Association of Military Sexual Trauma and Suicide and Intentional Self-Inflicted Injury in VHA-Enrolled Iraq/Afghanistan Veterans, 2004-2014.

Whitney S. Livingston, Jamison D. Fargo, Adi V. Gundlapalli, Emily Brignone, Rebecca K. Blais

Journal of Affective Disorders

Available online 23 May 2020

<https://doi.org/10.1016/j.jad.2020.05.024>

Highlights

- Suicide is one of the leading causes of preventable death among veterans.
- This study examined mediators of military sexual trauma and suicidal behavior.

- Mediators included PTSD, depression, and comorbid PTSD and depression diagnoses.
- Comorbid PTSD and depression diagnoses had the largest indirect effect.
- Treatments targeting comorbid PTSD and depression may reduce suicidal behaviors.

Abstract

Background

Exposure to military sexual trauma (MST) in veterans is associated with suicidal ideation. Previous research suggests there are mechanisms of this association, including posttraumatic stress disorder (PTSD) and depression. Research has yet to examine whether comorbid PTSD and depression mediate the association of MST and suicide and intentional self-inflicted injury, and whether this comorbidity confers a greater risk for suicide relative to PTSD-only and depression-only. The current study addressed this gap in our knowledge.

Methods

Screening results identifying MST exposure, PTSD and depression diagnoses, suicide and intentional self-inflicted injury, and demographic covariates in 435,690 Iraq/Afghanistan veterans were extracted from Veterans Health Administration (VHA) medical records. Veterans were included if they attended VHA from 2004-2014. Mediation was tested with path analyses.

Results

Suicide and intentional self-inflicted injury was observed in 16,149 (3.71%) veterans. The indirect effect of suicide and intentional self-inflicted injury, given a positive screen for MST, was highest among veterans with comorbid PTSD and depression diagnoses (indirect effect=3.18%, 95% confidence interval [CI] [3.01%, 3.32%]), with smaller probabilities observed for both PTSD-only (indirect effect=-0.18%, 95% CI [-0.20%, -0.14%]) and depression-only (indirect effect=0.56%, 95% CI [0.51%, 0.62%]; $p < .05$).

Limitations

Data were limited to VHA-enrolled Iraq/Afghanistan veterans.

Conclusions

To reduce suicide risk among veterans with a history of MST, treatments may be most effective if they target comorbid PTSD and depression. Future research should examine the mechanisms through which comorbid PTSD and depression result in heightened risk for suicide and intentional self-inflicted injury.

<https://www.sciencedirect.com/science/article/abs/pii/S088761852030061X>

PTSD's Risky Behavior Criterion: Associated Risky and Unhealthy Behaviors and Psychiatric Correlates in a Nationally Representative Sample.

Jordana L. Sommer, Renée El-Gabalawy, Ateka A. Contractor, Nicole H. Weiss, Natalie Mota

Highlights

- All risky and unhealthy behaviors were associated with criterion E2 except binge eating.
- Criterion E2 was associated with select psychiatric conditions.
- Criterion E2 was associated with all PTSD symptoms, except intrusions.

Abstract

Criterion E2 (“reckless or self-destructive behavior”) was added to the DSM-5 posttraumatic stress disorder (PTSD) criteria to reflect the established association between PTSD and risky and unhealthy behaviors (RUBs); however, previous research has questioned its clinical significance. To determine whether criterion E2 adequately captures reckless/self-destructive behavior, we examined the prevalence and associations of RUBs (e.g., substance misuse, risky sexual behaviors) with criterion E2 endorsement. Further, we examined associations between criterion E2 and psychiatric conditions (e.g., depressive disorders, anxiety disorders) in a population-based sample of trauma-exposed adults. We analyzed data from the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions (N = 36,309). The Alcohol Use Disorder and Associated Disabilities Interview Schedule-5 assessed lifetime DSM-5 psychiatric conditions and self-reported RUBs. Among trauma-exposed adults (n = 23,936), multiple logistic regressions examined criterion E2’s associations with RUBs and psychiatric conditions. After adjusting for covariates, all RUBs were associated with E2 endorsement (AOR range: 1.58-3.97; most prevalent RUB among those who endorsed E2: greater substance use than intended [57.0%]) except binge eating, and E2 endorsement was associated with increased odds of PTSD, bipolar 1 disorder, substance use disorders, and schizotypal, borderline, and antisocial personality disorders (AOR range: 1.65-2.75), and decreased odds of major depressive disorder (AOR = 0.76). Results support the clinical significance of criterion E2 through identifying associated RUBs and distinct correlates. These results may inform screening and intervention strategies for at-risk populations.

<https://pubmed.ncbi.nlm.nih.gov/30764663/>

Sleep-Related Practices, Behaviors, and Sleep-Related Difficulties in Deployed Active-Duty Service Members Performing Security Duties.

Panagiotis Matsangas, Nita Lewis Shattuck, Arlene Saitzyk

Behavioral Sleep Medicine

2020; 18(2): 262-274

<https://doi.org/10.1080/15402002.2019.1578771>

Objective:

To assess sleep-related difficulties (e.g., trouble staying asleep, oversleeping, falling asleep while on duty, disturbing dreams, sleep paralysis) and behavioral patterns of active-duty service members (ADSMs) performing security duties. Participants: The participants were 1,169 ADSMs (20-44 years of age).

Methods:

ADSMs completed an online survey (67.3% response rate) with items assessing demographics, the occupational environment, sleep-related attributes, habits, or difficulties, factors affecting sleep, aids and techniques used to improve sleep, and the use of sleep-related products.

Results:

ADSMs reported sleeping ~6.5 hr/day (~56% reported sleeping < 6 hr). Sleep-related difficulties were reported by ~72% of the ADSMs (i.e., 55.1% had problems staying asleep, 33.1% reported experiencing sleep paralysis, 25.6% reported oversleeping, 21.6% had disturbing dreams, and 4.79% reported falling asleep while on duty). Daily sleep duration and quality, occupational factors (shift work, operational commitments, collateral duties, habitability, taking antimalarial medication, years deployed), and personal factors or behaviors (history of sleep problems, problems in personal life, late exercise times, altering sleep schedule to talk or text with family or friends) were associated with sleep-related difficulties. Some ADSMs reported using alcohol (~14%) or exercising prior to bedtime (~34%) in an attempt to fall asleep faster.

Conclusions:

We identified a high prevalence of sleep-related difficulties in our military sample. Even though most ADSMs used sleep hygiene practices to improve their sleep, some ADSMs

used methods not recommended. Improving ADSMs' daily schedule (to include periods for exercising, and protected sleep periods), and further emphasis on sleep hygiene practices may be viable methods to reinforce behaviors promoting healthy sleep and improve performance.

<https://www.sciencedirect.com/science/article/abs/pii/S0165032719318580>

Smoking, obesity, and their co-occurrence in the U.S. military veterans: results from the national health and resilience in veterans study.

Elina A. Stefanovics, Marc N. Potenza, Robert H. Pietrza

Journal of Affective Disorders

Volume 274, 1 September 2020, Pages 354-362

<https://doi.org/10.1016/j.jad.2020.04.005>

Highlights

- The prevalence of co-occurring obesity and smoking (COS) among U.S. veterans is 5.4%.
- COS status is linked to being male, non-white, unmarried, VA-served, and low income.
- COS status is positively associated with mental and physical health problems, higher level of trauma and stress burden, and lower quality of life.

Abstract

Background:

Smoking and obesity are major public health concerns, though little is known about the mental and physical health burden of co-occurring obesity and smoking.

Methods:

Using a nationally representative sample of U.S. military veterans, we examined the prevalence of mental and physical co-morbidities, physical and mental functioning, and quality of life between obese only; smoking only; and obese smokers.

Results:

Among current smokers, 31.7% were obese; among obese veterans, 16.4% were current smokers; and in the total sample, 5.4% were obese and current smokers. Relative to the obese-only group, obese smokers were more likely to be younger, male,

non-white, non-married, unemployed and VA-served, and have lower household incomes. These also reported higher levels of perceived stress and trauma and were more likely to endorse current suicidal ideation and lifetime suicide attempts (odds ratio [OR]=2.0), medical (2.3<=OR<=3.9) and psychiatric (1.5<=OR<=2.9) comorbidities, and lower overall health status and quality of life. Compared to the smoking-only group, obese smokers were more likely to endorse current suicidal ideation (OR=2.0) and nicotine dependence (OR=1.5), and reported poorer physical health and overall quality of life. Analyses were adjusted for sociodemographic and military characteristics.

Limitations:

The cross-sectional study design precludes causal inference.

Conclusions:

These findings suggest that co-occurring obesity and smoking is associated with substantial mental and physical health burden in U.S. veterans. Collectively, they underscore the importance of multicomponent interventions targeting, obesity, smoking, and co-occurring issues, such as trauma and internalizing disorders, in this population.

<https://www.tandfonline.com/doi/abs/10.1080/09658211.2020.1770289>

Predictors of involuntary and voluntary emotional episodic memories of virtual reality scenarios in Veterans with and without PTSD.

Loretta S. Malta, Cezar Giosan, Lauren E. Szkodny, Margaret M. Altemus, Albert A. Rizzo, David A. Silbersweig & JoAnn Difede

Memory

Published online: 28 May 2020

<https://doi.org/10.1080/09658211.2020.1770289>

This study investigated predictors of involuntary and voluntary memories of stressful virtual reality scenarios. Thirty-two veterans of the two Persian Gulf Wars completed verbal memory tests and diagnostic assessments. They were randomly assigned to a Recounting (16) or a Suppression (16) condition. After immersion in the VR scenarios, the Recounting group described the scenarios and the Suppression group suppressed thoughts of the scenarios. One week later, participants completed surprise voluntary memory tests and another thought suppression task. The best predictors of voluntary

memory were verbal memory ability, dissociation, and to a lesser extent, physiological arousal before and after scenarios. Dissociation and physiological stress responses selectively affected memory for neutral elements. Higher distress during scenarios impaired voluntary memory but increased the frequency of involuntary memories. Physiological stress responses promoted more frequent involuntary memories immediately after the scenarios. More frequent initial involuntary memories, tonic physiological arousal, and stronger emotional responses to dangerous events predicted difficulty inhibiting involuntary memories at follow-up. The effects of thought suppression were transient and weaker than those of other variables. The findings suggest that posttraumatic amnesia and involuntary memories of adverse events are more related to memory ability and emotional and physiological stress responses than to post-exposure suppression.

https://journals.lww.com/headtraumarehab/Abstract/9000/Daily_Morning_Blue_Light_Therapy_Improves_Daytime.99348.aspx

Daily Morning Blue Light Therapy Improves Daytime Sleepiness, Sleep Quality, and Quality of Life Following a Mild Traumatic Brain Injury.

Raikes, Adam C. PhD; Dailey, Natalie S. PhD; Shane, Bradley R. MD; Forbeck, Brittany BS; Alkozei, Anna PhD; Killgore, William D. S. PhD

Journal of Head Trauma Rehabilitation
May 27, 2020 - Publish Ahead of Print
<https://doi.org/10.1097/HTR.0000000000000579>

Objective:

Identify the treatment effects of 6 weeks of daily 30-minute sessions of morning blue light therapy compared with placebo amber light therapy in the treatment of sleep disruption following mild traumatic brain injury.

Design:

Placebo-controlled randomized trial.

Participants:

Adults aged 18 to 45 years with a mild traumatic brain injury within the past 18 months (n = 35).

Main Outcome Measures:

Epworth Sleepiness Scale, Pittsburgh Sleep Quality Index, Beck Depression Inventory II, Rivermead Post-concussion Symptom Questionnaire, Functional Outcomes of Sleep Questionnaire, and actigraphy-derived sleep measures.

Results:

Following treatment, moderate to large improvements were observed with individuals in the blue light therapy group reporting lower Epworth Sleepiness Scale (Hedges' $g = 0.882$), Beck Depression Inventory II ($g = 0.684$), Rivermead Post-concussion Symptom Questionnaire chronic ($g = 0.611$), and somatic ($g = 0.597$) symptoms, and experiencing lower normalized wake after sleep onset ($g = 0.667$) than those in the amber light therapy group. In addition, individuals in the blue light therapy group experienced greater total sleep time ($g = 0.529$) and reported improved Functional Outcomes of Sleep Questionnaire scores ($g = 0.929$) than those in the amber light therapy group.

Conclusion:

Daytime sleepiness, fatigue, and sleep disruption are common following a mild traumatic brain injury. These findings further substantiate blue light therapy as a promising nonpharmacological approach to improve these sleep-related complaints with the added benefit of improved postconcussion symptoms and depression severity.

<https://www.liebertpub.com/doi/abs/10.1089/jwh.2019.8029>

Factors Associated with U.S. Military Women Keeping Guns or Weapons Nearby for Personal Security Following Deployment.

Anne G. Sadler, Michelle A. Mengeling, Brian L. Cook, and James C. Torner

Journal of Women's Health

Online Ahead of Print: May 27, 2020

<http://doi.org/10.1089/jwh.2019.8029>

Introduction:

The relationship between postdeployment health characteristics and U.S. military women and women veteran's gun/weapons use for personal safety outside of military is not well understood. The purpose of this exploratory study was to determine if Operation Enduring and Iraqi Freedom era military women and women veterans keep

guns/weapons nearby for personal security outside of military duties postdeployment and factors associated with this.

Methods: A

Midwestern community sample of US Army and Air Force currently serving Military women and women veterans (N = 978) who had deployed to Iraq/Afghanistan (I/A) or outside of the United States completed telephone interviews (March 2010 to December 2011) querying sociodemographic and military characteristics, combat and gender-based trauma, and guns/weapons use postdeployment. Data were analyzed in June 2019 with chi-square, Fisher's Exact test, and odds ratios. A classification tree analysis identified subgroups with the greatest proportion of keeping guns/weapons nearby for security.

Results:

One-fifth of participants reported having guns/weapons nearby to feel secure. Women more likely to report this were younger, patrolled their homes for security (age adjusted odds ratio [aOR] 7.0); experienced combat (aOR 3.0–4.9) or gender-based traumas (aOR 1.9–2.0); self-reported mental health conditions (aOR 1.5–4.3), including post-traumatic stress disorder (PTSD; aOR 4.3); or relied on friends/family for housing (aOR 4.8). Most had seen a provider in the preceding year. The classification tree found women patrolling their homes, PTSD positive, and injured/wounded in I/A had the largest proportion of women keeping guns/weapons nearby for security.

Conclusions:

Keeping gun/weapons nearby for personal self-defense is a potential marker for complex postdeployment readjustment conditions and an overlooked public health concern. Provider recognition and assessment of women's postdeployment fears and safety-related activities are essential to address military women and women veterans and their families' safety in this high-risk population.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/jopy.12564>

Development of character strengths across the deployment cycle among U.S. Army soldiers.

Journal of Personality

First published: 26 May 2020

<https://doi.org/10.1111/jopy.12564>

Objective

Despite a narrative of post-traumatic growth and resilience, research reliably demonstrating positive character development following adversity has proved elusive. In the current study, we examined changes in character strengths in Army soldiers deploying for the first time.

Method

The sample was comprised of 212,386 Army soldiers (Mage = 26.5 years old, SD = 7.13; 70.8% White) who were deploying for the first time. Character strengths were assessed once before and up to three times following soldiers' return from deployment.

Results

We found evidence for two classes of change—a resilient class (“stable high”) and a declining class (“persistent low”). Most soldiers were resilient—they had high levels of character strengths prior to deployment and changed very little across the deployment cycle. Approximately 40% of soldiers started with lower character and experienced initial declines post-deployment, from which they experienced no more than small gains over time.

Conclusions

Character strengths were highly stable across the deployment transition but some soldiers experienced initial declines from which they never fully rebounded. The findings are discussed in the context of the mechanisms that drive character development.

<https://academic.oup.com/milmed/advance-article-abstract/doi/10.1093/milmed/usaa114/5847899>

The Relationship Between Army Soldiers' Perceived Stress and Army Life Adjustment: Focusing on the Mediating Effect of Stress Response and the Moderating Effect of Cohesion.

Jung Hee Ha, Ph.D, Juliet Jue, Ph.D, Yoojin Jang, Ph.D

Military Medicine

Published: 28 May 2020

<https://doi.org/10.1093/milmed/usaa114>

Introduction

South Korea maintains a mandatory military duty, and high percentage of conscript soldiers have difficulty adjusting to military life. The purpose of this study is to investigate the mediating effect of the stress response on the relationship between soldiers' perceived stress and military life adjustment and to clarify the moderating effect of cohesion on this relationship.

Materials and Methods

The study's participants were 285 Korean military soldiers who are obliged to serve in the military and they completed the Perceived Stress Scale, the Stress Response Scale, the Military Life Adjustment, and the Group Cohesion Scale. Analysis methods included descriptive statistics, correlation analysis, path analysis, bootstrapping, collinearity statistic, and hierarchical regression analysis. This research obtained the approval of the institutional review board of the university (HYI-18-229-1).

Results

First, a partial mediation effect of the stress response was found in the relationship between soldiers' perceived stress and military life adjustment. That is, a high level of soldiers' perceived stress was related to their military life maladjustment. Moreover, the greater the level of soldiers' perceived stress, the greater the stress response, and, in turn, the greater the military life maladjustment. Second, we found the moderating effect of cohesion in the relationship between stress perception and military life adjustment.

Conclusions

The stress perceived by soldiers not only directly affects their military life adjustment but also indirectly affects their adjustment through the stress responses. In addition, soldiers' levels of adjustment to military life change significantly based on cohesion levels only when they perceive less stress.

Links of Interest

Connecting to Psychological Health Care Resources During COVID-19

<https://www.pdhealth.mil/news/blog/connecting-psychological-health-care-resources-during-covid-19>

DoD experts address COVID-19 effects on mental health

<https://health.mil/News/Articles/2020/05/29/DoD-experts-address-COVID-19-effects-on-mental-health>

Building Your Mental Health Through Resiliency

<https://health.mil/News/Articles/2020/05/29/Building-Your-Mental-Health-Through-Resiliency>

Coronavirus delays new child care priority system, but good news for Coast Guard military families

<https://www.militarytimes.com/pay-benefits/2020/05/27/coronavirus-delays-new-child-care-priority-system-but-good-news-for-coast-guard-military-families/>

Supporting the mental health of military families

<https://www.militarytimes.com/opinion/commentary/2020/05/28/blue-star-families-and-headstrong-join-forces-with-starbucks-to-support-the-mental-health-of-military-families/>

DARPA Declares War on Jet Lag, Other Travel Woes

<https://www.nationaldefensemagazine.org/articles/2020/6/1/darpa-declares-war-on-jet-lag-other-travel-woes>

Military children shouldn't be penalized for seeking mental health care, senators say

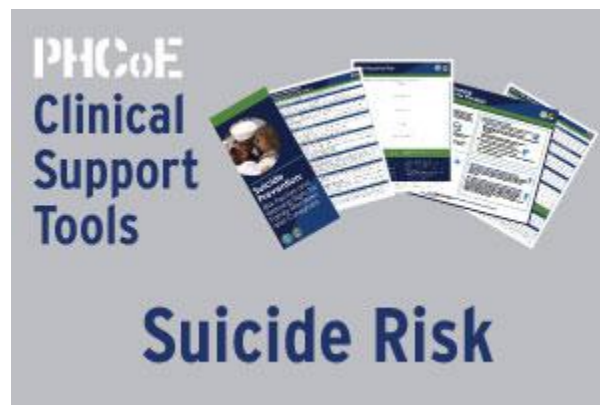
<https://www.militarytimes.com/2020/06/02/military-children-shouldnt-be-penalized-for-seeking-mental-health-care-senators-say/>

Resource of the Week: [**New Resources for Assessment and Management of Suicide Risk Toolkit**](#)

From the Psychological Health Center of Excellence (PHCoE):

If you're a mental health provider, you may already have your go-to resources for the assessment and management of patients at risk for suicide, including tools for safety planning, suicide prevention, and resources for reducing access to lethal means. But if you're new to mental health topics or are a provider looking for some new and innovative tools, the Psychological Health Center of Excellence (PHCoE) has just released a toolkit for the updated [2019 VA/DoD Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide](#) (link is external). PHCoE, in collaboration with the Department of Veterans Affairs (VA) and the U.S. Army Medical Command (MEDCOM), has developed five clinical support tools (CSTs) to help health care teams deliver evidence-based treatment, and to aid commanders, patients and their family

members/caregivers with clear, practical information derived from research on how to help those at risk for suicide.



Shirl Kennedy
Research Editor (HJF)
Center for Deployment Psychology
www.deploymentpsych.org
shirley.kennedy.ctr@usuhs.edu
240-535-3901