

CDP



Research Update -- August 15, 2024

What's Here:

- Unveiling the Structure in Mental Disorder Presentations.
- Heavy Versus Light Smoking: Its Association With Opioid Use, Chronic Pain, and Mental Health.
- Reasons for Gun Ownership Among Demographically Diverse New and Prior Gun Owners.
- Cognitive Behavioral Therapy for Insomnia in Pain Management for Nonspecific Chronic Spinal Pain: A Randomized Clinical Trial.
- Psychological Factors, Physical Conditions, and Functioning Among US Veterans.
- Longitudinal Effects of Military Separation and Mental Health Symptomatology on Substance Use Among a Cohort of Reservists.
- Pain and Post-traumatic Stress Disorder Symptoms: Dyadic Relationships Between Canadian Armed Forces Members/Veterans With Chronic Pain and Their Offspring.
- Dispositional mindfulness moderates the links between potentially morally injurious event exposure and symptoms of anxiety and depression but not suicidal ideation.
- Effectiveness of the massed delivery of unified protocol for emotional disorders within an intensive outpatient program for military service members and veterans.
- The collective effects of work, family, and mental health on military career intentions among active-duty and national guard and reserve soldiers.

- Upstream suicide prevention in the U.S. Army: Noncommissioned officers' perspectives.
- Empirical clustering to identify individuals for whom insomnia is more closely related to suicidal ideation.
- Moral Injury and Its Consequences Among Combat Veterans: Preliminary Findings on the Role of Moral Judgment.
- When we fail to live up to our own standards: the relationship between self-discrepancy and moral injury.
- Being a parent of a soldier is a challenging experience - stress, anxiety, and depression among parents of Israeli soldiers.
- Risk Factors for Homelessness Among Post-9/11 Era Veterans.
- How military-related stress and family relationships are associated with perceptions of work-family impact for married male service members with adolescent children.
- Emotional dysregulation moderates the relation between perceived stress and emotional eating in adolescent military dependents.
- Ways Rural Group Peer Support Experiences Support PTSD Care.
- Diagnostic Accuracy of Mental Health Screening Tools After Mild Traumatic Brain Injury.
- Ranking the Ten Adverse Childhood Experiences: Long-Term Consequences to Health-Related Quality of Life.
- Veterans Crisis Line Contacts After the 988 Suicide and Crisis Lifeline Rollout.
- Environmental Bright Light Exposure, Depression Symptoms, and Sleep Regularity.
- Exploration-Exploitation and Suicidal Behavior in Borderline Personality Disorder and Depression.
- Links of Interest
- Resource of the Week: Suicide Prevention Awareness Month Communications Toolkit 2024 (Defense Suicide Prevention Office)

<https://doi.org/10.1001/jamapsychiatry.2024.2047>

Unveiling the Structure in Mental Disorder Presentations.

Spiller, T. R., Duek, O., Helmer, M., Murray, J. D., Fielstein, E., Pietrzak, R. H., von Känel, R., & Harpaz-Rotem, I.

JAMA Psychiatry

August 7, 2024

Key Points

Question

Is there a common pattern of symptom combinations across mental disorders?

Finding

This cross-sectional study found a specific pattern across 4 empirical samples (N = 155 474), with 41.7% to 99.8% of symptom combinations being reported by less than 1% of the sample, while the 1% most frequent combinations were highly prevalent in 33.1% to 78.6% of the corresponding sample. Because of the interdependence of a disorder's symptoms, not all symptom combinations are equally likely.

Meaning

Polythetic definitions lead to a common pattern of symptom heterogeneity: the presence of few prototypical and many atypical symptom combinations.

Abstract

Importance

DSM criteria are polythetic, allowing for heterogeneity of symptoms among individuals with the same disorder. In empirical research, most combinations were not found or only rarely found, prompting criticism of this heterogeneity.

Objective

To elaborate how symptom-based definitions and assessments contribute to a distinct probability pattern for the occurrence of symptom combinations.

Design, Setting, and Participants

This cross-sectional study involved a theoretical argument, simulation, and secondary data analysis of 4 preexisting datasets, each consisting of symptoms from 1 of the following syndromes: posttraumatic stress disorder, depression, schizophrenia, and anxiety. Data were obtained from various sources, including the National Institute of

Mental Health Data Archive and Department of Veteran Affairs. A total of 155 474 participants were included (individual studies were 3930 to 63 742 individuals in size). Data were analyzed between July 2021 and January 2024.

Exposure

For each participant, the presence or absence of each assessed symptom and their combination was determined. The number of all combinations and their individual frequencies were assessed.

Main Outcome and Measure

Probability or frequency of unique symptom combinations and their distribution.

Results

Among the 155 474 participants, the mean (SD) age was 47.5 (14.8) years; 33 933 (21.8%) self-identified as female and 121 541 (78.2%) as male. Because of the interrelation between symptoms, some symptom combinations were significantly more likely than others. The distribution of the combinations' probability was heavily skewed with most combinations having a very low probability. Across all 4 empirical samples, the 1% most common combinations were prevalent in a total of 33.1% to 78.6% of the corresponding sample. At the same time, many combinations (ranging from 41.7% to 99.8%) were reported by less than 1% of the sample.

Conclusions and Relevance

This study found that within-disorder symptom heterogeneity followed a specific pattern consisting of few prevalent, prototypical combinations and numerous combinations with a very low probability of occurrence. Future discussions about the revision of diagnostic criteria should take this specific pattern into account by focusing not only on the absolute number of symptom combinations but also on their individual and cumulative probabilities. Findings from clinical populations using common diagnostic criteria may have limited generalizability to the large group of individuals with a low-probability symptom combination.

<https://doi.org/10.1016/j.amepre.2024.07.010>

Heavy Versus Light Smoking: Its Association With Opioid Use, Chronic Pain, and Mental Health.

William Encinosa, Didem Bernard, R. Burciaga Valdez

Introduction

There is much concern that substance use treatment programs are rarely integrated with smoking cessation programs. Here, the first national statistics are presented on the connection between heavy vs. light smoking and the opioid epidemic.

Methods

Using the 2013–2021 Medical Expenditure Panel Survey linked to the National Health Interview Survey, N=81,400 adults-years, logit regressions estimate the impact of heavy vs. light smoking on opioid use, chronic pain, work limitations due to pain, and poor mental health. Analyses were conducted from October 2023 to May 2024.

Results

Only 37 percent of the population has ever smoked, but they used 69% of the nation's annual prescription opioids. Adults who smoked more than 5 cigarettes a day composed 12% of the population but used about the same number of opioids as the 63% of the population who never smoked. Adults who formerly smoked used 16% fewer opioids than adults who currently smoke ($p<0.01$). The percent with chronic pain during the year varied from 12.2% for adults who never smoked to 14.2% for light smoking, to 16.5% for those smoking more than a pack a day ($p<0.01$). Severe work limitations due to pain varied from 7.3% for adults who never smoked to 16.9% for those smoking more than a pack a day ($p<0.01$). Adults smoking more than a pack a day were twice as likely to report fair or poor mental health compared to those who never smoked (29.2% vs 13.6%) ($p<0.01$).

Conclusions

As nations deal with the opioid epidemic, integrating smoking cessation programs into substance abuse treatment programs appears prudent.

<https://doi.org/10.1016/j.amepre.2024.06.02>

Reasons for Gun Ownership Among Demographically Diverse New and Prior Gun Owners.

Julie A. Ward, Rebecca A. Valek, Vanya C. Jones, Cassandra K. Crifasi

Introduction

Pandemic-era social and political tensions may have accelerated pre-existing trends in gun owner diversification and shifts toward protection from people as a primary reason for gun ownership. Specific ownership motivations may shape storage behaviors, use patterns, policy support, and perceptions of safety. This study's objective was to assess the importance of specific reasons for owning guns, including protection from whom and in what circumstances, among demographic subgroups of new and prior gun owners.

Methods

From January 4, 2023 to February 6, 2023, the National Survey of Gun Policy was fielded among a nationally representative sample of U.S. adults (N=3,096), including gun owners (n=1,002). Respondents rated the importance of 10 potential reasons for gun ownership, including at-home protection, out-of-home protection, protection in ideologic conflict, and hunting or recreation. In 2023–2024, respondents' self-report of important and highly important reasons for gun ownership were compared across political affiliation, race, ethnicity, age, sex, location, income, education, and recency of first purchase.

Results

Majorities of gun owners from all demographic groups cited at-home protection, out-of-home protection, and hunting or recreation as very or extremely important. At least 10% of every demographic group endorsed at least 1 ideologic reason as extremely important. Newer gun owners more frequently endorsed multiple important reasons.

Conclusions

Concurrent, strongly held motivations may produce ambivalence or resistance to public health messaging that narrowly focuses on preventing violent firearm-related injury. Permissive firearm policies may compound behavioral ambivalence, exacerbating conditions that threaten collective safety and civic expression. These conditions call for more nuanced, multidimensional, societal efforts to assure collective safety.

<https://doi.org/10.1001/jamanetworkopen.2024.25856>

Cognitive Behavioral Therapy for Insomnia in Pain Management for Nonspecific Chronic Spinal Pain: A Randomized Clinical Trial.

Malfliet, A., De Baets, L., Bilterys, T., Van Looveren, E., Mairesse, O., Cagnie, B., Meeus, M., Moens, M., Goubert, D., Munneke, W., Daneels, L., Ickmans, K., Kamper, S., & Nijs, J.

JAMA Network Open
August 9, 2024

Key Points

Question

Is cognitive behavioral therapy for insomnia integrated in best-evidence pain management (CBTi-BEPM) more effective than BEPM only for improving pain- and sleep-related outcomes in nonspecific chronic spinal pain (nCSP)?

Findings

In a randomized clinical trial including 123 individuals with nCSP, no statistically significant effect was noted with CBTi-BEPM vs BEPM only on pain intensity. On a preliminary basis, CBTi-BEPM was, consistently over time and analyses, more effective than BEPM only for improving insomnia severity, sleep quality, beliefs about sleep, depressive symptoms, and physical fatigue.

Meaning

The findings of this trial suggest that CBTi integrated in pain management may be considered in the treatment of patients with nCSP and comorbid insomnia.

Abstract

Importance

Insomnia is highly prevalent in patients with nonspecific chronic spinal pain (nCSP). Given the close interaction between insomnia and pain, targeting sleep problems during therapy could improve treatment outcomes.

Objective

To evaluate the effectiveness of cognitive behavioral therapy for insomnia (CBTi) integrated in best-evidence pain management (BEPM) vs BEPM only in patients with nCSP and insomnia.

Design, Setting, and Participants

A multicenter randomized clinical trial with 1-year follow-up was conducted between April 10, 2018, and April 30, 2022. Data and statistical analysis were performed between May 1, 2022, and April 24, 2023. Patients with nCSP and insomnia were evaluated using self-report and at-home polysomnography, to exclude underlying sleep pathologic factors. Participants were treated at the University Hospital Brussels or University Hospital Ghent, Belgium. Intention-to-treat analysis was performed.

Interventions

Participants were randomized to either CBTi-BEPM or BEPM only. Both groups received 18 treatment sessions over 14 weeks. The CBTi-BEPM treatment included 6 CBTi sessions and 12 BEPM sessions. The BEPM treatment included pain neuroscience education (3 sessions) and exercise therapy (9 sessions in the CBTi-BEPM group, 15 sessions in the BEPM-only group).

Main Outcomes and Measures

The primary outcome was change in mean pain intensity (assessed with Brief Pain Inventory [BPI]) at 12 months after the intervention. Exploratory secondary outcomes included several pain- and sleep-related outcomes. Blinded outcome assessment took place at baseline, posttreatment, and at 3-, 6-, and 12-month follow-up.

Results

A total of 123 patients (mean [SD] age, 40.2 [11.18] years; 84 women [68.3%]) were included in the trial. In 99 participants (80.5%) with 12-month BPI data, the mean pain intensity at 12 months decreased by 1.976 points (reduction of 40%) in the CBTi-BEPM group and 1.006 points (reduction of 24%) points in the BEPM-only group. At 12 months, there was no significant difference in pain intensity change between groups (mean group difference, 0.970 points; 95% CI, -0.051 to 1.992; Cohen d, 2.665). Treatment with CBTi-BEPM resulted in a response for BPI average pain with a number needed to treat (NNT) of 4 observed during 12 months. On a preliminary basis, CBTi-BEPM was, consistently over time and analyses, more effective than BEPM only for improving insomnia severity (Cohen d, 4.319-8.961; NNT for response ranging from 2 to 4, and NNT for remission ranging from 5 to 12), sleep quality (Cohen d, 3.654-6.066), beliefs about sleep (Cohen d, 5.324-6.657), depressive symptoms (Cohen d, 2.935-3.361), and physical fatigue (Cohen d, 2.818-3.770). No serious adverse effects were reported.

Conclusions and Relevance

In this randomized clinical trial, adding CBTi to BEPM did not further improve pain intensity reduction for patients with nCSP and comorbid insomnia more than BEPM

alone. Yet, as CBTi-BEPM led to significant and clinically important changes in insomnia severity and sleep quality, CBTi integrated in BEPM should be considered in the treatment of patients with nCSP and comorbid insomnia. Further research can investigate the patient characteristics that moderate the response to CBTi-BEPM in terms of pain-related outcomes, as understanding of these moderators may be of utmost clinical importance.

Trial Registration

Clinical Trials.gov Identifier: [NCT03482856](https://clinicaltrials.gov/ct2/show/study/NCT03482856)

<https://doi.org/10.1001/jamanetworkopen.2024.27382>

Psychological Factors, Physical Conditions, and Functioning Among US Veterans.

Fischer, I. C., Na, P. J., Feldman, D. B., Krist, A. H., Kudler, H. S., Jeste, D. V., & Pietrzak, R. H.

JAMA Network Open

August 9, 2024

The US Department of Veterans Affairs Whole Health initiative is designed to provide a holistic, personalized approach to health care that supports functioning and cultivates well-being. Military veterans experience a variety of stressors (eg, deployment) and health conditions (eg, cardiovascular disease) that can undermine functioning and erode well-being. Identification of factors associated with these domains may inform health promotion interventions in veterans.

Herein, we expanded previous work, which found that positive (ie, adaptive) psychological factors are associated with greater well-being in the presence of physical health difficulties among US veterans, to identify modifiable factors in multiple functional domains in this population. Although this study was largely exploratory, we hypothesized that positive psychological factors (eg, purpose in life) would moderate the association between risk factors (eg, health difficulties) and functioning.

<https://doi.org/10.15288/jsad.23-00160>

Longitudinal Effects of Military Separation and Mental Health Symptomatology on Substance Use Among a Cohort of Reservists.

Vest, B. M., Hoopsick, R. A., Homish, D. L., Kulak, J. A., & Homish, G. G.

Journal of Studies on Alcohol and Drugs
85(4), 528–536 (2024)

Objective:

The relationship between mental health and substance use among military populations is well established, and evidence suggests that these risks may be greater for those who have left the military. However, it is less clear what independent effects leaving the military may have on substance use behaviors. This study examined the longitudinal relationship between leaving the military and substance use outcomes (hazardous drinking, frequent heavy drinking, nonmedical use of prescription drugs, illicit drug use) in a cohort of Reserve and National Guard (R/NG) soldiers. Further, we examined whether mental health symptoms moderate the relationship between leaving the military and substance use.

Method:

Analyses used data (N = 485 soldiers) from the first four annual waves of Operation: SAFETY, an ongoing prospective cohort study of U.S. Army R/NG soldiers and their spouses. We used generalized estimating equations (GEEs) to examine the relationships between military status (former vs. current soldier) and substance use outcomes over 4 years. Last, we examined interactions between military status and mental health indicators (anxiety, anger, depression, and posttraumatic stress disorder) on substance use over time.

Results:

After we controlled for sex, age, race, years of military service, sleep problems, bodily pain, and substance use norms, being a former soldier, compared with being a current soldier, was associated with greater odds of current illicit drug use (adjusted odds ratio = 2.86, 95% CI [1.47, 5.57]; $p < .01$). Mental health symptomatology did not moderate the relationship between leaving the military and current drug use.

Conclusions:

Leaving the military in and of itself may result in increased drug use for some individuals, regardless of mental health symptomatology.

<https://doi.org/10.1016/j.jpain.2024.03.012>

Pain and Post-traumatic Stress Disorder Symptoms: Dyadic Relationships Between Canadian Armed Forces Members/Veterans With Chronic Pain and Their Offspring.

Lund, T., Bernier, E., Roman-Juan, J., Kopala-Sibley, D. C., Soltani, S., Noyek, S., Nania, C., Beveridge, J., Hoppe, T., O'Connor, R., O'Connor, C., Clemens, J., Mychasiuk, R., Asmundson, G., Stinson, J., & Noel, M.

The Journal of Pain
2024 Aug; 25(8): 104516

Highlights

- We characterized pain in the offspring of Canadian Armed Forces Members/Veterans with chronic pain.
- We examined dyadic relationships between post-traumatic stress disorder (PTSD) symptoms and pain.
- Findings revealed PTSD symptoms and pain interference were related within Veterans and offspring.
- No dyadic relationships were found, which could reflect resiliency in this unique population.

Abstract

Chronic pain and mental health issues occur at higher rates in Veterans than the general population. One widely recognized mental health issue faced by Veterans is post-traumatic stress disorder (PTSD). Trauma symptoms and pain frequently co-occur and are mutually maintained due to shared mechanisms. Many Veterans are also parents. Parental physical and mental health issues significantly predict children's chronic pain and related functioning, which can continue into adulthood. Only 1 U.S.-based study has examined pain in the offspring of Veterans, suggesting a heightened risk for pain. Research to date has not examined the associations between trauma and pain and the dyadic influences of these symptoms, among Veterans, and their children. The current study aimed to describe pain characteristics in Canadian Armed Forces Members/Veterans with chronic pain and their offspring (youth and adult children aged 9–38). Cross-lagged panel models were conducted to examine dyadic relationships between pain interference and trauma symptoms of Canadian Armed Forces

Members/Veterans and their offspring. Over half of adult offspring and over one-quarter of youth offspring reported chronic pain. Results revealed effects between one's own symptoms of PTSD and pain interference. No significant effects of parents on offspring or offspring on parents were found. The findings highlight the interconnection between pain and PTSD consistent with mutual maintenance models and a lack of significant interpersonal findings suggestive of resiliency in this unique population.

Perspective

We characterized chronic pain in the offspring of Canadian Armed Forces Members/Veterans with chronic pain and examined dyadic relationships between PTSD symptoms and chronic pain interference. Findings revealed that PTSD symptoms and pain interference were related within Veterans and offspring, but no dyadic relationships were found, which could reflect resiliency.

<https://doi.org/10.1002/jts.23032>

Dispositional mindfulness moderates the links between potentially morally injurious event exposure and symptoms of anxiety and depression but not suicidal ideation.

Elizabeth L. Wetzler, Ryan G. Erbe, James F. M. Cornwell, Michael D. Wood

Journal of Traumatic Stress

Volume 37, Issue 4, August 2024, Pages 574-585

Exposure to potentially morally injurious events (PMIEs) is a pervasive threat for military service members and may be associated with symptoms of anxiety, depression, and suicidal ideation. However, coping mechanisms, such as mindfulness, may ameliorate symptoms and improve recovery. Two studies were conducted to test dispositional mindfulness as a moderator of the links between PMIEs, as assessed using the Moral Injury Events Scale (i.e., total score and Self-Transgression, Other-Transgression, and Betrayal subscale scores), and symptoms of anxiety, depression, and suicidal ideation among different samples of active-duty soldiers in garrison. In Sample 1 (N = 310), mindfulness buffered the links between PMIE exposure and symptoms of both anxiety, $\Delta R^2 = .02$, and depression, $\Delta R^2 = .03$. In Sample 2 (N = 669), mindfulness moderated the link between the MIES Betrayal subscale and anxiety symptoms, $\Delta R^2 = .01$. The results suggest that dispositional mindfulness may be a protective factor against some of the negative impacts of PMIE exposure. Further implications are discussed.

<https://doi.org/10.1037/ser0000833>

Effectiveness of the massed delivery of unified protocol for emotional disorders within an intensive outpatient program for military service members and veterans.

Sherrill, A. M., Mehta, M., Patton, S. C., Sprang Jones, K., Hellman, N., Chrysoferidis, J., Yasinski, C. W., Rothbaum, B. O., & Rauch, S. A. M.

Psychological Services
2024; 21(3), 649–657

Recent evidence supports the implementation of massed delivery of disorder-specific treatments in the military service member and veteran population. However, many treatment settings serve patients with a wide range of diagnoses, and often patients present with comorbid conditions. Growing evidence suggests transdiagnostic cognitive behavioral treatments are effective for a wide range of emotional disorders and may reduce barriers to access. Little is known about the feasibility and outcomes of the massed delivery of transdiagnostic treatments. The present study examined real-world outcomes of a 2-week intensive outpatient program using the Unified Protocol for emotional disorders (UP-IOP). The sample included military service members and veterans diagnosed with a range of emotional disorders, namely trauma- and stressor-related disorders, unipolar depressive disorders, and anxiety disorders. The present study examined outcomes of UP-IOP (depression, trauma-related symptom severity, and emotion dysregulation). Participants included all patients who sought UP-IOP in its first 15 months of operation (N = 117). A diagnosis of posttraumatic stress disorder (PTSD) was an exclusion criterion because the site had an established PTSD-specific IOP treatment option. Findings indicate UP-IOP was feasible, had 94% patient retention, and was effective in reducing symptom severity (Cohen's $d = 0.76$ for depression symptom severity, Cohen's $d = 0.80$ for trauma-related symptom severity). There was no observed reduction in emotion dysregulation over the 2-week course of treatment. The intensive transdiagnostic approach resulted in effective symptom reduction in an accelerated timeframe while minimizing patient attrition. These findings indicate massed delivery of transdiagnostic cognitive behavioral therapy (CBT) treatments should continue to be explored, especially for this population.

<https://doi.org/10.1080/08995605.2024.2376931>

The collective effects of work, family, and mental health on military career intentions among active-duty and national guard and reserve soldiers.

Tidwell, A. L., & Lucier-Greer, M.

Military Psychology

Published online: 31 Jul 2024

This study examined diverse predictors of military career intentions, specifically whether to stay in the military or leave, and differences based on duty status (i.e. active-duty versus National Guard or Reserve [NG/R] Service members). The combined perspectives of the personal choice model of military retention and family systems theory suggest that work factors (i.e. unit support, morale), family factors (i.e. work-family balance, romantic relationship quality), and mental health (i.e. depressive symptoms) simultaneously influence Service members' military career intentions. Understanding how these factors together impact different dimensions of retention, namely, intentions to stay and intentions to leave, and whether they have a similar impact based on duty status are needed next steps. With data from the Army Study to Assess Risk and Resilience (Army STARRS; N = 3,506 Soldiers), path models examined the direct and indirect paths through which these factors contributed to Soldiers' intentions to remain and intentions to leave. Then, a multigroup mediation analysis explored possible model differences based on duty status. Unit support and work-family balance directly and indirectly contributed to intentions to remain and/or leave through romantic relationship quality, depressive symptoms, and morale. Few differences emerged between active-duty and NG/R Soldiers. In sum, work factors, family factors, and depressive symptoms worked together simultaneously to explain Soldiers' military career intentions. Military leadership, at multiple levels, is encouraged to promote supportive work environments and work-family balance. Practitioners may reinforce mental health resources to promote retention.

<https://doi.org/10.1037/ser0000788>

Upstream suicide prevention in the U.S. Army: Noncommissioned officers' perspectives.

Ayer, L., Holliday, S., Beckman, R., Jaycox, L. H., Elinoff, D., Ramchand, R., Agniel, D., Hoch, E., & Wagner, L.

Psychological Services
2024; 21(3), 435–443

The goal of this study was to examine the factors associated with Army noncommissioned officer (NCO) experiences, attitudes, and behaviors in their role of identifying potential suicide risk factors in their fellow soldiers. To better understand the perspectives of NCOs, an anonymous survey was administered to 2,468 Army NCOs. Descriptive statistics and linear regressions were conducted to compare subgroups of NCOs. Most (71%) Army NCOs have received many (11 or more) hours of suicide prevention training, but training in soft skills that may be important for the gatekeeper role was less consistently reported. Active Component soldiers reported greater confidence in their intervention skills (Cohen's $d = 0.25$) and fewer logistical barriers (e.g., time and space to talk) to intervening with at-risk soldiers (Cohen's $d = 0.80$) compared to Reserve and National Guard soldiers. Formal coursework in mental health areas like psychology or chaplaincy was associated with a greater level of confidence in intervention skills (Cohen's $d = 0.23$) and in more frequent intervention behavior (Cohen's $d = 0.13$). Army NCO trainings should be modified to better equip soldiers with the soft skills (e.g., active listening skills and verbally and nonverbally conveying nonjudgment/acceptance and empathy) needed to have effective conversations with soldiers about suicide risk factors and other sensitive topics. Strategies used within mental health education, which appears to be a strength for NCO gatekeepers, could be used to achieve this goal. Reserve and Guard NCOs may need additional supports and tailored trainings to better fit their operational context. (PsyInfo Database Record (c) 2024 APA, all rights reserved)

Impact Statement

This study sheds light on key gaps in training for Army NCOs who are relied upon for detecting and addressing suicide risk factors when they first arise in soldiers. Specifically, "soft skills" such as nonverbal communication and active listening skills require further development for most soldiers to feel confident and equipped to serve in this role. (PsyInfo Database Record (c) 2024 APA, all rights reserved)

<https://doi.org/10.1016/j.jad.2024.06.101>

Empirical clustering to identify individuals for whom insomnia is more closely related to suicidal ideation.

Tubbs, A. S., Perlis, M. L., Killgore, W. D. S., Karp, J. F., Grandner, M. A., & Fernandez, F. X.

Journal of Affective Disorders
Volume 362, 1 October 2024, Pages 36-44

Highlights

- Three algorithms converged on 3 clusters of lifetime suicidal ideators.
- Clusters were defined by psychiatric severity (modest vs. elevated vs. severe).
- Insomnia was linked to current ideation most in those with modest severity.
- Insomnia alone may matter more for suicide risk in less severe populations.

Abstract

Background

Although the effect sizes are modest, insomnia is consistently associated with suicidal thoughts and behaviors. Subgroup analyses can efficiently identify for whom insomnia is most relevant to suicidal ideation. To improve clinical case identification, the present study sought to identify subclusters of lifetime suicidal ideators for whom insomnia was most closely related to current suicidal ideation.

Methods

Data on N = 4750 lifetime suicidal ideators were extracted from the Military Suicide Research Consortium's Common Data Elements. Data on sociodemographic characteristics, severity and history of suicidal thoughts and behaviors, and related clinical characteristics were clustered by unsupervised machine learning algorithms. Robust Poisson regression estimated cluster by insomnia associations with current suicidal ideation.

Results

Three clusters were identified: a modest symptom severity cluster (N = 1757, 37.0 %), an elevated severity cluster (N = 1444 30.4 %), and a high severity cluster (N = 1549 32.6 %). In Cluster 1, insomnia was associated with current suicidal ideation (PRR 1.29 [1.13–1.46]) and remained significant after adjusting for sociodemographic and clinical covariates. In Cluster 2, insomnia was associated with current suicidal ideation (PRR

1.14 [1.01–1.30]), but not after adjusting for sociodemographic and clinical covariates. In Cluster 3, insomnia was associated with current suicidal ideation (PRR 1.12 [1.03–1.21]) and remained significant after adjusting for sociodemographic covariates, but not clinical covariates.

Limitations

Cross-sectional design, lack of diagnostic data, non-representative sample.

Conclusion

Insomnia appears more closely related to current suicidal ideation among modest severity individuals than other subgroups. Future work should use prospective designs and more comprehensive risk factor measures to confirm these findings.

<https://doi.org/10.1177/08862605241265425>

Moral Injury and Its Consequences Among Combat Veterans: Preliminary Findings on the Role of Moral Judgment.

Dor Faigenbloom, Gadi Zerach, and Yossi Levi-Belz

Journal of Interpersonal Violence

First published online August 10, 2024

Exposure to potentially morally injurious events (PMIEs) among combat veterans has been acknowledged as a significant stressful combat event that may lead to various mental health problems, including depression and moral injury (MI), outcomes of shame and guilt. Recent studies have examined both risk and protective factors that can contribute to PMIEs and their consequences. However, while the general level of one's moral judgment is a logical contributor to moral injuries, it has yet to be examined empirically. In the current study, we examined the unique impact of moral judgment levels on the experience of PMIEs among combat veterans. We also examined the moderating role of moral judgment in the relationship between PMIEs and MI outcomes and depressive symptoms. A volunteer sample of 70 male Israeli combat veterans completed self-report questionnaires and a moral judgment task in a cross-sectional design study. Our findings indicate that moral judgment contributed to higher levels of perceiving others' actions as transgressive (PMIE-Other), above and beyond combat exposure. Moreover, we found that moral judgment has a moderating role in the link between PMIEs and their negative outcomes: Among veterans with higher levels of

moral judgment, the association between PMIEs and their expressions was stronger than for those with lower levels of moral judgment. Our finding highlights the unique contribution of moral judgment level to PMIEs and their mental health consequences. It can be cautiously suggested that moral judgment should be viewed as a pre-recruitment risk factor that can help identify those at greater risk for mental health problems following exposure to PMIEs.

<https://doi.org/10.1080/10615806.2024.2387607>

When we fail to live up to our own standards: the relationship between self-discrepancy and moral injury.

James, K. E., McKimmie, B. M., & Maccallum, F.

Anxiety, Stress, & Coping

Published online: 08 Aug 2024

Background

Moral injury is a potentially debilitating outcome of exposure to events involving transgressions against an individual's moral code. It is often observed in the context of PTSD; however, treatments that do not differentiate the two are often ineffective for moral injury, suggesting different mechanisms contribute to the conditions. The most widely accepted model of moral injury proposes an important role for self-discrepancy processes in generating and maintaining event-related distress, but this has yet to be examined.

Methods

This study recruited 172 adults online who had been exposed to a potentially morally injurious event in the previous 5 years. Participants completed measures of event-related distress, PTSD, depression, and anxiety, as well as a self-discrepancy task involving subjective representations of their ideal, ought, and feared selves.

Results

Multiple regression analyses found a small but significant relationship between self-discrepancy and event-related distress, with higher levels of ought self-discrepancy independently predicting higher event-related distress scores.

Conclusions

This study provides the first empirical evidence of the relationship between self-discrepancy and moral injury. We identified the ought self as a domain of self-discrepancy salient to moral injury, further differentiating moral injury from PTSD.

<https://doi.org/10.1002/smi.3377>

Being a parent of a soldier is a challenging experience - stress, anxiety, and depression among parents of Israeli soldiers.

Savitsky, B., & Shvartsur, R.

Stress & Health

Volume 40, Issue 4, August 2024, e3377

At any given moment, a notable proportion of parents worldwide have at least one child serving in the military. The aim of this study is to assess the prevalence of depression, anxiety, and stress in the sample of parents of Israeli soldiers and to assess the difference in this prevalence by type of service (combat vs. non-combat) and other demographic characteristics of parents and soldiers. A cross-sectional study of a convenience sample of 202 Israeli parents who were interviewed during January-September 2023. Depression Anxiety Stress Scale (DASS-21) was used to measure the emotional states of depression, anxiety, and stress (with cut-off points of ≥ 5 , ≥ 4 , and ≥ 8 , respectively). Having depression, anxiety, or stress was defined as psychological distress. Parents' demographics and child's service characteristics were included in the multivariable logistic regression model, with psychological distress as a dependent variable. Almost a quarter (22.8%) of parents experienced distress, defined as having high depression, anxiety, or stress score. In a multivariable model, combat service (vs. non-combat) was significantly associated with distress: parents of combat soldiers were four times more likely to report distress than parents of non-combat soldiers (OR = 3.9; 95% CI: 1.3–11.8). Highly classified service preventing the child from sharing information with the parents was significantly associated with distress (OR = 2.6; 95% CI: 1.2–5.3). Most distressed parents (78.3%) did not seek professional help, with the vast majority of those seeking assistance were female. Given the substantial proportion of parents suffering from mental distress found in this study, especially parents of combat soldiers and those serving in highly classified positions, healthcare professionals should be aware of parents' difficulties, be proactive in gathering information about their mental well-being, and be prepared to provide professional help.

<https://doi.org/10.1177/0095327X241259080>

Risk Factors for Homelessness Among Post-9/11 Era Veterans.

Metraux, S., Kolaja, C. A., Crone, B., Byrne, T., Rull, R. P., & Porter, B.

Armed Forces & Society

First published online July 25, 2024

his study examined the associations between a broad range of individual characteristics and homelessness among 49,323 post-9/11 era Veterans. Questions concerning the roles of premilitary, military and post military factors in Veteran's vulnerability to homelessness have persisted despite the considerable attention given to Veteran homelessness, and has highlighted the absence of longitudinal studies that could contribute to the empirical understanding of risk and protective factors among this population. The Veterans in this study group completed Millennium Cohort Study surveys during their military service and subsequently, when they transitioned back to civilian life. Among these Veterans, 1,071 (2.2%) reported becoming homeless after separating from the military. Results from multivariate models provide limited empirical support for direct links between aspects of military service and homelessness that are widely used to explain why Veterans become homeless. Instead, many risk factors for homelessness found here mirror risk factors among the general population. We also find a persistent association between sexual orientation and risk for homelessness, and decreased risk for homelessness among female Veterans. These findings challenge popular conceptions of why Veterans become homeless and contribute to understanding the dynamics of becoming homeless among this current Veteran cohort.

<https://doi.org/10.1080/08995605.2024.2351750>

How military-related stress and family relationships are associated with perceptions of work-family impact for married male service members with adolescent children.

Farnsworth, M. L., & O'Neal, C. W.

Family members' perceptions of challenges associated with military life can spillover to their relationships with one another and, in turn, inform service members' beliefs of how their work impacts family life. The current study examined connections between active-duty fathers', civilian mothers', and adolescents' perceptions of military-related stress, adolescents' perceptions of quality of family relationships (i.e. parent-adolescent relationships), and service members' perceived work-family impact (specifically work-related guilt and work-related enrichment). To examine these associations, a path analysis with secondary cross-sectional data was estimated using data from 228 Army families (each with an active-duty father, civilian mother, and adolescent offspring). The findings suggested that service members' perceptions of military-related stress and adolescents' relationship quality with both parents were related to service members' work-family impact, specifically work-related enrichment. Such associations highlight the importance of high-quality parent-adolescent relationships for active-duty fathers' work-family impact, which has implications for military families but, more broadly, for service members' readiness and retention.

<https://doi.org/10.1002/eat.24217>

Emotional dysregulation moderates the relation between perceived stress and emotional eating in adolescent military dependents.

Spinner, H., Thompson, K. A., Bauman, V., Lavender, J. M., Thorstad, I., Schrag, R., Sbrocco, T., Schvey, N. A., Ford, B., Ford, C., Wilfley, D. E., Jorgensen, S., Klein, D. A., Quinlan, J., Yanovski, J. A., Haigney, M., & Tanofsky-Kraff, M.

International Journal of Eating Disorders
2024; 57(7), 1609–1615

Objective

Adolescent children of US service members (i.e., military-dependent youth) face unique stressors that increase risk for various forms of disinhibited eating, including emotional eating. Difficulties with adaptively responding to stress and aversive emotions may play an important role in emotional eating. This study examined emotion dysregulation as a potential moderator of the association between perceived stress and emotional eating in adolescent military dependents.

Method

Participants were military-dependent youth (N = 163, 57.7% female, Mage = 14.5 ± 1.6, MBMI-z = 1.9 ± 0.4) at risk for adult binge-eating disorder and high weight enrolled in a randomized controlled prevention trial. Prior to intervention, participants completed questionnaires assessing perceived stress and emotional eating. Parents completed a questionnaire assessing their adolescent's emotion dysregulation. Moderation analyses were conducted using the PROCESS macro in SPSS and adjusted for theoretically relevant sociodemographic covariates.

Results

The interaction between adolescent perceived stress and emotion dysregulation (parent-reported about the adolescent) in relation to adolescent emotional eating was found to be significant, such that higher emotion dysregulation magnified the association between perceived stress and emotional eating (p = .010). Examination of simple slopes indicated that associations between perceived stress and emotional eating were strongest for youth with above-average emotion dysregulation, and non-significant for youth with average or below-average emotion dysregulation.

Discussion

Findings suggest that greater emotion dysregulation may increase risk for emotional eating in response to stress among military-dependent youth at risk for binge-eating disorder or high weight. Improving emotion regulation skills may be a useful target for eating disorder prevention among youth who are at risk for emotional eating. Public Significance Prior research has shown that adolescent military dependents are at increased risk for eating disorders and high weight. The current study found that emotion dysregulation moderated the relationship between perceived stress and emotional eating among military-dependent youth. There may be clinical utility in intervening on emotion regulation for adolescent dependents at particular risk for emotional eating and subsequent eating disorders. (Psycho Database Record (c) 2024 APA, all rights reserved)

<https://doi.org/10.21061/jvs.v10i1.498>

Ways Rural Group Peer Support Experiences Support PTSD Care.

Kathryn J. Azevedo, Stephanie J. Glover, Elsa L. Gay, Steven E. Lindley

Group peer support (GPS) has been shown to improve engagement in mental healthcare for veterans, but little is known about ways rural veterans experience outpatient GPS. This study investigates the lived experience of veterans participating in GPS in the service area of two rural Northern California Veterans Health Administration (VHA) community-based outpatient clinics (CBOCs). Twenty-nine participants, who attended in-person GPS sessions for at least three months, were consented. Interview responses were digitally recorded, transcribed verbatim, and exported into Atlas.ti to conduct thematic analyses. A phenomenological inquiry revealed three prominent themes and related sub-themes listed in parentheses: (a) GPS encounters leverage shared experience to help participants unlearn detrimental cognitive patterns (conditioned reactivity, structural rigidity) where sustained participation may promote posttraumatic growth (comradery as healing); (b) participation facilitates connection to additional PTSD services (synergy, transformative, continuity of care); and (c) sessions provide therapeutic value that is distinct from clinical approaches (openness, evidenced-based therapy [EBT] experience, guidance versus holistic support). In this sample, GPS diminished social isolation, increased social connectivity, normalized participants' struggles, and helped guide emotion identification, coping, and processing of traumatic experiences. Study findings also illustrated the mechanisms by which participants may seek further multidisciplinary PTSD care within VHA. These findings inform the future design of GPS and can help VHA clinicians and policymakers plan and maximize services along the continuum of PTSD care.

<https://doi.org/10.1001/jamanetworkopen.2024.24076>

Diagnostic Accuracy of Mental Health Screening Tools After Mild Traumatic Brain Injury.

Gitaari, M., Mikolic, A., Panenka, W. J., & Silverberg, N. D.

JAMA Network Open

July 23, 2024

Key Points

Question

Can self-report screening tools accurately detect a major depressive episode, anxiety

disorder, and posttraumatic stress disorder (PTSD) after mild traumatic brain injury (mTBI)?

Findings

In this diagnostic study with 499 participants with mTBI, the Patient Health Questionnaire–9, Generalized Anxiety Disorder–7, and Primary Care PTSD Screen for the Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition) screening tools had acceptable diagnostic accuracy; the Generalized Anxiety Disorder–7 accurately identified not only anxiety disorders but also PTSD. In patients with persistent postconcussive symptoms, specificity was lower and mental health disorders were more common.

Meaning

These findings suggest that brief self-report tools can reliably screen for mental health disorders after mTBI.

Abstract

Importance

Mental health disorders are common after mild traumatic brain injury (mTBI) and likely exacerbate postconcussive symptoms and disability. Early detection could improve clinical outcomes, but the accuracy of mental health screening tools in this population has not been well established.

Objective

To determine the diagnostic accuracy of the Patient Health Questionnaire–9 (PHQ-9), Generalized Anxiety Disorder–7 (GAD-7), and Primary Care PTSD (Posttraumatic Stress Disorder) Screen for Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition) (DSM-5) (PC-PTSD-5) in adults with mTBI.

Design, Setting, and Participants

This diagnostic study was performed as a secondary analysis of a cluster randomized clinical trial. Self-report mental health screening tools (PHQ-9, GAD-7, and PC-PTSD-5) were administered online 12 weeks after mTBI and compared against a structured psychodiagnostic interview (Mini-International Neuropsychiatric Interview for DSM-5 (MINI)) over videoconference at the same time. Adults with mTBI (N = 537) were recruited from February 1, 2021, to October 25, 2022.

Main Outcomes and Measures

Presence of a major depressive episode, anxiety disorders, and PTSD were determined by a blinded assessor with the MINI. Diagnostic accuracy statistics were derived for the

PHQ-9, GAD-7, and PC-PTSD-5. Findings were disaggregated for participants with and without persistent postconcussion symptoms (PPCS) by International and Statistical Classification of Diseases, Tenth Revision criteria.

Results

Data were available for 499 of 537 trial participants, 278 (55.7%) of whom were female; the mean (SD) age was 38.8 (13.9) years. Each screening questionnaire had strong diagnostic accuracy in the overall sample for optimal cut points (area under the curve [AUC], ≥ 0.80 ; sensitivity, 0.55-0.94; specificity, 0.64-0.94). The AUC (difference of 0.01-0.13) and specificity (difference, 5-65 percentage points) were lower in those with PPCS present compared with PPCS absent, but the prevalence of at least 1 mental health disorder was 3 to 5 times higher in patients with PPCS present. The GAD-7 had slightly better performance than the PC-PTSD-5 for detecting PTSD (AUC, 0.85 [95% CI, 0.80-0.89] vs 0.80 [95% CI, 0.72-0.87]). The optimal cutoff on the PHQ-9 was 5 or more symptoms experienced on more than half of days; on the GAD-7, a total score of at least 7.

Conclusions and Relevance

The findings of this diagnostic study suggest that the PHQ-9, GAD-7 and PC-PTSD-5 accurately screen for mental health disorders in patients with mTBI. Future research should corroborate optimal test cutoffs for this population.

<https://doi.org/10.1016/j.amepre.2024.04.001>

Ranking the Ten Adverse Childhood Experiences: Long-Term Consequences to Health-Related Quality of Life.

Haomiao Jia PhD, Erica I. Lubetkin MD, MPH

American Journal of Preventive Medicine
Volume 67, Issue 2, August 2024, Pages 265-273

Introduction

This study compared the long-term harmful consequences of individual adverse childhood experiences (ACEs) to subsequent health-related quality of life (HRQOL) among U.S. adults.

Methods

Respondents were from the eleven U.S. states that included the optional ACE module questionnaire in the 2021 Behavioral Risk Factor Surveillance Systems (BRFSS). Relative importance (RI) was estimated for ten ACEs to respondents' self-rated general health (SRGH), physically unhealthy days (PUD), mentally unhealthy days (MUD), and activity limitation days (ALD). A variable's importance was measured as the average gains in R-squared after adding the variable to all sub-models. Statistical analysis was performed in 2023.

Results

After controlling for demographics, household mental illness was the most important ACE for SRGH, MUD, and ALD, with RIs of 16.4, 28.4 and 23.4, respectively. This ACE was ranked second for PUD (RI=17.8). Sexual abuse was ranked first for PUD (18.7), second for MUD (16.6) and ALD (20.9), and fifth for SRGH (10.4). Parental separation (RI ≤2.4) and incarcerated household member (2.8–5.4) were the least important ACEs for all 4 outcomes. Sexual abuse, parental separation, emotional abuse, and basic needs were not met were considerably more important among females while household mental illness and household substance abuse were more important among males.

Conclusions

This study highlight that certain ACEs play a greater role than others for HRQOL with certain ACEs having a greater relative importance according to sex. Additionally, a significant proportion of the long-term impacts of ACE to HRQOL was indirectly through the mediation effect of other explanatory variables.

<https://doi.org/10.1016/j.amepre.2024.03.009>

Veterans Crisis Line Contacts After the 988 Suicide and Crisis Lifeline Rollout.

Kiersten L. Strombotne, Yufei Li, Rachel Sayko Adams, Izabela D. Sadej, Melissa M. Garrido

American Journal of Preventive Medicine
Volume 67, Issue 2, August 2024, Pages 282-284

Introduction

This study identifies changes in Veterans Crisis Line (VCL) contact volume following the

988 National Suicide Prevention Hotline rollout, and examines changes in contact volume for self-identified Veterans.

Methods

VCL's Medora database was analyzed from July 2018 to June 2023, fitting linear interrupted time series models to forecast trends after the July 2022 rollout of the 988 Suicide Prevention Hotline. Data analysis was performed from 2023 to 2024.

Results

After the 988 rollout, average monthly VCL contact volume increased by 5,388 contacts (8.2%). The number of contacts self-identifying as Veterans increased by 2,739 (6.2%), while the percentage of self-identifying Veteran contacts who could be linked to VHA records declined by 3.8%.

Conclusions

The 988 rollout was associated with increased VCL contact volume and broad changes in the profile of users. This underscores the importance of crisis services in adapting to dynamic user needs and highlights the potential of national suicide prevention initiatives to reach diverse populations.

<https://doi.org/10.1001/jamanetworkopen.2024.22810>

Environmental Bright Light Exposure, Depression Symptoms, and Sleep Regularity.

Wallace, D. A., Redline, S., Sofer, T., & Kossowsky, J.

JAMA Network Open

July 17, 2024

Introduction

Bright light therapy (BLT) may treat depression symptoms,¹ but how light exerts mood-boosting effects is still under investigation. Here, we evaluate sleep regularity in the association between bright light and depression symptoms.

Methods

This cross-sectional study of 2011-2014 National Health and Nutrition Examination Survey (NHANES) data, representative of the noninstitutionalized US population,

included nonpregnant participants 18 years or older with valid light and actigraphy (wrist-worn GT3X+; ActiGraph) for bright light (time above lux threshold [TALT1000]) and sleep regularity index (SRI)² measures (eMethods in Supplement 1) and follows STROBE guidelines. Depression symptoms were measured with the Patient Health Questionnaire-9 (PHQ-9; scores range from 0 to 30, with higher scores indicating greater frequency of depression symptoms). This analysis used publicly available, deidentified data from NHANES, which was approved by the Ethics Review Board of the Centers for Disease Control and Prevention. All participants provided written informed consent.

This analysis was conducted between March 2023 and May 2024. Associations between TALT1000, SRI, and PHQ-9 score were tested in weighted linear, quasi-Poisson, and logistic regression models adjusted for age, sex, race and ethnicity, season, employment, physical activity, sleep duration, body mass index (BMI), and serum cotinine (eMethods in Supplement 1). Sex differences were tested with weighted t tests. In exploratory analyses, associations between TALT1000 and vitamin D, vitamin D and SRI, and TALT1000 and SRI with vitamin D as a potential mediator were tested in weighted linear regression models. $P < .05$ was considered statistically significant. Analyses were performed in R, version 4.1.1 (R Foundation).

Results

There were 6639 participants included in the analysis (mean [SD] age, 49.41 [17.41] years; 52.2% female; self-reported 8.3% Mexican American, 4.4% non-Hispanic Asian, 11.3% non-Hispanic Black, 67.7% non-Hispanic White, 5.7% other Hispanic, and 2.6% other or multiracial). Male participants had greater TALT1000 and fewer depression symptoms than female participants (Table 1). Greater TALT1000 was associated with lower depression symptoms ($\beta = -0.19$; 95% CI, -0.34 to -0.04) but not more severe depression. TALT1000 was no longer associated with depression score after adjusting for SRI ($\beta = -0.11$; 95% CI, -0.26 to 0.04 ; $P = .13$). Longer duration in bright light was associated with more regular sleep ($\beta = 1.60$; 95% CI, 0.95 - 2.25). Likewise, more regular sleep was associated with a lower depression score ($\beta = -0.05$; 95% CI, -0.06 to -0.03) and lower odds of mild or more severe depression (OR = 0.98 ; 95% CI, 0.97 - 0.99) (Table 2). In exploratory analyses, more vitamin D was associated with greater TALT1000 and more regular sleep but not depression symptoms.

Discussion

In this study, greater sleep regularity partly explained the association between greater bright light exposure and lower depression symptoms. More vitamin D was associated with more regular sleep timing but not depression. Our findings align with prior population-based research, supporting reduced depression among those with greater

daytime light exposure.³ Bright light therapy can be effective at improving numerous mood outcomes,⁴ possibly through effects on sleep and the circadian system.⁵ Sleep regularity may be an important modifier of BLT² and relate to chronotype and phase angle of entrainment.⁶ However, sleep regularity is not often considered in BLT. The phase-shifting effect of light may be limited in people with irregular sleep schedules, requiring a larger dose or altered timing of light exposure. Irregular sleepers may benefit from a light intervention.²

This study has strengths and limitations. It used a nationally representative sample of adult participants with objective measures of individual light exposure, actigraphy, and vitamin D. This is a cross-sectional analysis, so causality cannot be ascertained, and associations may be bidirectional. Although we are unable to rule out that mood may also influence time spent outdoors and/or bright light avoidance, our results support the need for further prospective analyses to test the causality of these factors. Future studies of BLT should consider the role of sleep regularity.

<https://doi.org/10.1001/jamapsychiatry.2024.1796>

Exploration-Exploitation and Suicidal Behavior in Borderline Personality Disorder and Depression.

Tsypes, A., Hallquist, M. N., Ianni, A., Kaurin, A., Wright, A. G. C., & Dombrovski, A. Y.

JAMA Psychiatry

July 10, 2024

Key Points

Question

Is the inability to explore multiple alternatives and take advantage of the best options associated with suicidal behavior?

Findings

In 2 case-control studies of adults with borderline personality disorder and depression, inability to fully explore available options was associated with medically serious suicide attempts. In an ambulatory study, this pattern predicted suicidal ideation.

Meaning

The findings suggest that the inability to explore a full range of solutions in a state of

suicidal crisis may prevent one from discovering alternatives to attempting suicide; exploring novel ways to cope may help individuals build their safety plans.

Abstract

Importance

Clinical theory and behavioral studies suggest that people experiencing suicidal crisis are often unable to find constructive solutions or incorporate useful information into their decisions, resulting in premature convergence on suicide and neglect of better alternatives. However, prior studies of suicidal behavior have not formally examined how individuals resolve the tradeoffs between exploiting familiar options and exploring potentially superior alternatives.

Objective

To investigate exploration and exploitation in suicidal behavior from the formal perspective of reinforcement learning.

Design, Setting, and Participants

Two case-control behavioral studies of exploration-exploitation of a large 1-dimensional continuous space and a 21-day prospective ambulatory study of suicidal ideation were conducted between April 2016 and March 2022. Participants were recruited from inpatient psychiatric units, outpatient clinics, and the community in Pittsburgh, Pennsylvania, and underwent laboratory and ambulatory assessments. Adults diagnosed with borderline personality disorder (BPD) and midlife and late-life major depressive disorder (MDD) were included, with each sample including demographically equated groups with a history of high-lethality suicide attempts, low-lethality suicide attempts, individuals with BPD or MDD but no suicide attempts, and control individuals without psychiatric disorders. The MDD sample also included a subgroup with serious suicidal ideation.

Main Outcomes and Measures

Behavioral (model-free and model-derived) indices of exploration and exploitation, suicide attempt lethality (Beck Lethality Scale), and prospectively assessed suicidal ideation.

Results

The BPD group included 171 adults (mean [SD] age, 30.55 [9.13] years; 135 [79%] female). The MDD group included 143 adults (mean [SD] age, 62.03 [6.82] years; 81 [57%] female). Across the BPD ($\chi^2_3 = 50.68$; $P < .001$) and MDD ($\chi^2_4 = 36.34$; $P < .001$) samples, individuals with high-lethality suicide attempts discovered fewer options than other groups as they were unable to shift away from unrewarded options. In contrast,

those with low-lethality attempts were prone to excessive behavioral shifts after rewarded and unrewarded actions. No differences were seen in strategic early exploration or in exploitation. Among 84 participants with BPD in the ambulatory study, 56 reported suicidal ideation. Underexploration also predicted incident suicidal ideation ($\chi^2_1 = 30.16$; $P < .001$), validating the case-control results prospectively. The findings were robust to confounds, including medication exposure, affective state, and behavioral heterogeneity.

Conclusions and Relevance

The findings suggest that narrow exploration and inability to abandon inferior options are associated with serious suicidal behavior and chronic suicidal thoughts. By contrast, individuals in this study who engaged in low-lethality suicidal behavior displayed a low threshold for taking potentially disadvantageous actions.

Links of Interest

USU Center for Deployment Psychology Awarded Top Prize for Virtual Suicide Prevention Learning Tool

<https://news.usuhs.edu/2024/07/usu-center-for-deployment-psychology.html>

FDA rejects psychedelic MDMA as treatment for PTSD

<https://www.militarytimes.com/news/your-military/2024/08/09/fda-rejects-psychedelic-mdma-as-treatment-for-ptsd/>

SAMHSA Behavioral Health Resources for Hurricanes and Tropical Storms

<https://www.samhsa.gov/find-help/disaster-distress-helpline/disaster-types/hurricanes-tropical-storms>

The HIPAA Privacy Rule and Military Health Care: What Parents of Minors Need To Know

<https://newsroom.tricare.mil/News/TRICARE-News/Article/3714321/the-hipaa-privacy-rule-and-military-health-care-what-parents-of-minors-need-to>

Mental breaks prevent mental breakdowns

<https://www.airforcemedicine.af.mil/News/Display/Article/3859385/mental-breaks-prevent-mental-breakdowns/>

Coast Guard's mishandling of sexual misconduct cases is a moral failure, Senate report finds

https://www.stripes.com/branches/coast_guard/2024-08-07/coast-guard-sexual-assault-harassment-senate-14783347.html

- [A Pervasive Problem: Voices of Coast Guard Sexual Assault and Harassment Survivors](#)

Hundreds of Veteran advocates meet in Dayton to improve experience for transitioning military

<https://news.va.gov/133713/veteran-advocates-improve-military-transition/>

K.U.D.O.S gives military kids a glimpse of life during deployment

https://www.stripes.com/branches/air_force/2024-08-09/air-force-base-kids-program-14806765.html

DoD Announces Launch of Online Housing Feedback System

<https://www.defense.gov/News/Releases/Release/Article/3869103/dod-announces-launch-of-online-housing-feedback-system/>

DHA Veterinary Services Explains Updated CDC Dog Importation Guidelines

<https://www.health.mil/News/Dvids-Articles/2024/07/29/news477259>

Results from the 2023 National Survey on Drug Use and Health (NSDUH): Key Substance Use and Mental Health Indicators in the United States

<https://store.samhsa.gov/product/results-2023-nsduh/pep24-07-021>

Military cultural competence: A gateway to effective service provision

<https://militaryreach.auburn.edu/ffMilitaryCultureCompetence.jsp>

Moving in Childhood Contributes to Depression, Study Finds

<https://www.nytimes.com/2024/07/17/health/moving-childhood-depression.html>

Resource of the Week: [Suicide Prevention Awareness Month Communications Toolkit 2024](#)

From the Defense Suicide Prevention Office:

September is Suicide Prevention Month (SPM). The Department of Defense (DoD) marks SPM with a variety of activities, tools, and initiatives. To support the DoD's efforts, the Defense Suicide Prevention Office (DSPO) created the 2024 SPM Communications Toolkit that offers materials and suggestions to help you execute your communication initiatives during the month and throughout the year. As the DoD acknowledges suicide prevention is a year-round effort, the tools in the toolkit can be adapted for use during September and year-round.



Shirl Kennedy
Research Editor
HJF employee collaborating with Center for Deployment Psychology
DoD and Uniformed Service Contractor
Phone: (727) 537-6160
Email: shirley.kennedy.ctr@usuhs.edu



Henry M. Jackson Foundation for the Advancement of Military Medicine