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Research Update -- March 3, 2022

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The Culture of Alcohol in the U.S. Military: Correlations With Problematic Drinking Behaviors and Negative Consequences of Alcohol Use.

Meadows SO, Beckman R, Engel CC, Jeffery DD

Excessive alcohol use, especially binge and heavy drinking, represents a serious threat to force readiness across the Department of Defense. Though these behaviors are a matter of individual service member choice, they are influenced by perceptions of the culture of alcohol use in the military. This paper uses data from the 2018 Health Related Behaviors Survey of Active Duty service members to explore associations between perceived alcohol culture and excessive alcohol use, any serious drinking consequences, risky driving behaviors, productivity loss due to drinking, absenteeism, and presenteeism. Results from multivariate logistic regression reveal a strong, positive correlation between positive perceptions of drinking culture in the military and all outcomes. Targeting perceptions of the drinking culture is one way the military can reduce excessive and unhealthy use of alcohol and negative sequelae.

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Interpersonal trauma histories and relationship functioning among LGB Veteran couples seeking PTSD treatment.

Katerine Rashkovsky, Ingrid Solano, Chandra Khalifian, Leslie A. Morland & Kayla Knopp

Lesbian, gay, and bisexual (LGB) Veterans report greater emotional distress, trauma exposure, and PTSD rates than both LGB civilians and non-LGB Veterans. Traumatic experiences impact intimate relationships, potentially placing LGB Veterans at higher risk of relationship dysfunction secondary to trauma and PTSD. However, limited research has examined links between relationship functioning and trauma histories

among couples with one or more LGB-identifying partners. In this exploratory study, participants include 21 couples from a larger treatment study comprising a PTSD-diagnosed Veteran and their significant other in which at least one partner identified as LGB. Variables included trauma experiences, PTSD symptom severity, and relationship satisfaction. A descriptive analysis revealed high relationship satisfaction despite high interpersonal trauma rates among both PTSD-diagnosed Veterans and their partners. Further, we found different patterns of relationship functioning depending on whether a participant had experienced sexual assault. These initial analyses present novel data on trauma in treatment-seeking LGB veteran couples and provide an important basis for future research on couple-based mental health treatments for this population.

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Moral injury, mental health and behavioural health outcomes: A systematic review of the literature.

Hall, N. A., Everson, A. T., Billingsley, M. R., & Miller, M. B.

Despite a burgeoning of research on moral injury in the past decade, existing reviews have not explored the breadth of consequences and the multitude of pathways through which moral injury and potentially morally injurious experiences (PMIEs) influence mental and behavioural health outcomes. This study aimed to identify associations between moral injury on mental and behavioural health. Literature searches of psychological and medical databases were conducted through April 2020. Eligible studies measured moral injury or PMIEs, and health outcomes (e.g., depression, substance use and suicidality). Fifty-seven publications representing 49 separate samples were included. Studies examined the impact of moral injury on post-traumatic stress disorder (PTSD) (n = 43); depression (n = 32); anxiety (n = 15); suicide (n = 15); substance use (n = 14); and 'other' health outcomes, including pain, burnout, sleep disturbance and treatment-seeking behaviours (n = 11). The majority of studies found significant positive associations between moral injury-related constructs, mental health and behavioural health outcomes; however, the majority were also cross-sectional and focused on military samples. Proposed mediators included lack of social support, negative cognitions and meaning-making. Moderators included self-compassion, pre-deployment mental health education and mindfulness. Moral injury is associated with a

variety of negative health outcomes. Research is needed to determine the mechanisms by which moral injury may influence these outcomes over time.

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Predictors of treatment failure among patients with gunshot wounds and post-traumatic stress disorder.

Kuchyn, I. L., & Horoshko, V. R.

Background:
The 82.1% treatment failure of post-traumatic stress disorder (PTSD), associated with gunshot wounds, is related to high incidence of chronic pain syndrome as well as resistance to the PTSD treatment. Defining treatment failure predictors among the PTSD patients with gunshot extremity wounds and the following therapy would improve treatment outcomes.

Methods:
A total of 218 patients completed the study. The Mississippi Scale for Combat-Related PTSD (M-PTSD) was used for assessment of the treatment outcome rate. The risk relation between treatment failure and factors was assessed by a univariate or multivariate logistic regression method, with the model accuracy measured by the AUC - Area under the ROC curve. The odds ratio (OR) was considered for the qualitative factor assessment.

Results:
The predictors of the PTSD treatment failure among the patients with gunshot wounds to the extremities are: 1) anesthesia type: the risk of failure is higher with the general anesthesia compared to the regional (p = 0.002), OR = 0.30 (95% CI 0.13-0.69) and the regional one with sedation (p = 0.004), OR = 0.30 (95% CI 0,14-0.65); 2) severe postoperative pain: the risk of treatment failure rises with increased pain intensity assessed by the visual analogue scale (p = 0.02), OR = 3.2 (95% CI 1.2-8.3).

Conclusions:
The analysis showed that administration of general anesthesia compared to the regional

one (regardless of the sedation) and high postoperative pain intensity are associated with higher risk of the PTSD treatment failure among patients with gunshot wounds to the extremities. The preference of regional anesthesia and postoperative pain control may potentially improve the treatment outcomes.

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Combat Experience, New-Onset Mental Health Conditions, and Posttraumatic Growth in U.S. Service Members.

Jacobson, I. G., Adler, A. B., Roenfeldt, K. A., Porter, B., LeardMann, C. A., Rull, R. P., & Hoge, C. W.

Objective:
Studies examining posttraumatic growth (PTG) rely on surveys evaluating PTG in relation to prior traumatic experiences, resulting in psychometric problems due to the linkage of the dependent and independent variables. Few studies have assessed PTG following combat deployment while also controlling for mental health problems.

Method:
Longitudinal data on PTG, combat experience, and mental health were examined among U.S. Millennium Cohort Study deployers (n = 8732). Scores from a short-form (SF) version of the PTG inventory assessing current-state beliefs (C-PTGI-SF) independent of any predictor variables were assessed at time 1 (T1), before deployment, and change in scores were assessed approximately 3 years later after deployment at time 2 (T2). All participants screened negative for posttraumatic stress disorder (PTSD) and depression at T1.

Results:
Combat deployment severity was associated with a worsening of C-PTGI-SF scores at T2 among participants with moderate C-PTGI-SF scores at T1. A positive screen for comorbid PTSD/depression was associated with a worsening of C-PTGI-SF scores at T2 among participants with moderate or high C-PTGI-SF scores at T1. At T2, a strong inverse correlation was found between C-PTGI-SF scores and PTSD ($r = -0.38$) and

depression (-0.41). Only 5% of participants who screened positive for a mental health problem at T2 (23/517) also experienced positive growth.

Conclusions:
These results challenge the clinical utility of the PTG construct. While PTG may be a useful framework for supporting trauma recovery on an individual basis, PTG does not appear to be distinct and independent from the negative psychological impact of traumatic experiences.

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Moderators of Cognitive Behavioral Treatment for Insomnia on Depression and Anxiety Outcomes.

Mirchandaney, R., Barete, R. & Asarnow, L.D.

Purpose of Review
With a focus on reviewing adequately powered randomized controlled trials, we present recent research on the potential of cognitive behavioral therapy for insomnia (CBT-I) to improve depression and anxiety outcomes among patients with insomnia and one of the following comorbid psychiatric disorders: major depressive disorder (MDD), generalized anxiety disorder (GAD), or posttraumatic stress disorder (PTSD). We also examine potential moderators of CBT-I on depression and anxiety outcomes in this population.

Recent Findings
Despite high comorbidity rates, current behavioral and pharmacological treatments for MDD, GAD, and PTSD do not substantially target or improve insomnia symptoms; residual insomnia is exceedingly common even among patients who experience remission. Insomnia plays a critical role in the onset and maintenance of depression and anxiety, and treating insomnia with CBT-I may improve global outcomes for patients with MDD, GAD, and PTSD.

Summary
CBT-I is superior to traditional depression/anxiety treatment in improving insomnia symptoms among patients with comorbid psychiatric disorders. Results are mixed on

whether CBT-I (either alone or augmented with depression/anxiety treatment) is effective in improving overall MDD, GAD, and PTSD outcomes. Evening circadian preference and depression/anxiety symptom severity may moderate the effect of CBT-I on depression and anxiety outcomes.

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Cannabis Use in a Cohort of Healthcare-Seeking United States Military Veterans With Persisting Symptoms After Mild Traumatic Brain Injury: Preliminary Observations.

Brandon Utter, PharmD, C Alan Anderson, MD, Christopher M Filley, MD, James P Kelly, MD, Catharine Johnston-Brooks, PhD, David B Arciniegas, MD

Introduction
Cannabis products, including cannabidiol (CBD) and tetrahydrocannabinol (THC), are increasingly easy to procure and use across the United States. The 2018 National Survey on Drug Use and Health (NSDUH) reported a past-month cannabis use rate of 8.6% among adults 26 years of age or older in the U.S. general population. Cannabis use is commonly reported by U.S. Military Veterans with histories of mild traumatic brain injury (mTBI) receiving services at the Marcus Institute for Brain Health (MIBH), a specialty interdisciplinary clinic serving this population. The aims of this study are to describe the frequency and characteristics of cannabis product use among Veterans evaluated at MIBH and to compare the rate of cannabis use in this group to that in the general and Veteran populations reported in the 2018 NSDUH.

Materials and Methods
Study data were collected as part of MIBH clinical assessments between January 2018 and December 2019, which included the evaluation of the current use of cannabis products. Affirmative cannabis use responses were clarified with inquiries about the frequency of use, method of administration, product ingredients (i.e., THC and/or CBD), and reason(s) for use.

Results
Among 163 MIBH patients (92.6% male), 72 (44.2%) endorsed cannabis product use

during the month preceding the clinical assessment. Cannabis users were significantly younger than nonusers. The frequency of past-month cannabis use was significantly greater than that reported in the comparably aged NSDUH survey general and Veteran populations (44.2% vs. 8.6% and 44.2% vs. 7.7%, respectively, both $P < .00001$). Among the 72 MIBH patients reporting cannabis use, 62 (86.1%) reported THC or combination product use, and 10 (13.9%) reported CBD product use. Concurrent medication use, including psychotropic medications use, did not differ significantly between cannabis users and nonusers.

Conclusions
Self-reported cannabis use is significantly higher in the MIBH population than in similarly aged individuals in the general population and significantly more frequent among younger than older members of this cohort. Self-reported reasons for cannabis use in this cohort included mTBI-associated neuropsychiatric symptoms, sleep disturbances, and pain for which standard treatments (both pharmacologic and nonpharmacologic) provided insufficient relief and/or produced treatment-limiting adverse events. However, cannabis use did not provide sufficient improvement in those symptoms to obviate the need for further evaluation and treatment of those problems at MIBH or to replace, in part or in whole, standard medications and other treatments for those problems. Further study of cannabis use, including standardized individual cannabinoid (i.e., THC and CBD) and whole-plant cannabis preparations, in this and similar cohorts is needed to more fully understand the drivers, benefits, risks, and safety of cannabis use in this and in similar Veteran populations, as well as the potential pharmacological and/or nonpharmacological therapeutic alternatives to cannabis use.

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Wingman-Connect Program increases social integration for Air Force personnel at elevated suicide risk: Social network analysis of a cluster RCT.

Peter A. Wyman, Trevor A. Pickering, Anthony R. Pisani, Ian Cero, ... Steven E. Pflanz

Highlights
- Wingman-Connect increased social network integration for Airmen in trained units.

- Network integration increased most for Airmen at elevated suicide risk.
- At-risk Airmen had 53% average gain in valued connection nominations from others.
- Wingman-Connect built enhanced suicide protection into unit relationship networks.

Abstract

U.S. military suicides are increasing and disrupted relationships frequently precede them. Group-level interventions are needed that reduce future suicide vulnerability among healthy members and also ameliorate risk among those already suicidal. We examined whether our Wingman-Connect Program (W-CP) strengthened Air Force relationship networks and socially integrated at-risk members. Air Force personnel classes in training were randomized to W-CP or active control (cluster RCT), followed up at 1 and 6 months (94% and 84% retention). Data were collected in 2017–2019 and analyzed in 2020–2021. Participants were 1485 male and female Airmen in 215 technical training classes. W-CP training involved strengthening group bonds, skills for managing career and personal stressors, and diffusion of healthy norms. Active control was stress management training. Primary outcomes were social network metrics based on Airmen nominations of valued classmates after 1 month. Baseline CAT-SS >34 defined elevated suicide risk. W-CP increased social network integration, with largest impact for Airmen already at elevated suicide risk (n = 114, 7.7%). For elevated risk Airmen, W-CP improved all network integration metrics, including 53% average gain in valued connection nominations received from other Airmen (RR = 1.53, 95% CI = 1.12, 2.08) and eliminated isolation. No elevated risk Airmen in W-CP were isolates with no valued connections after 1-month vs. 10% among controls (P < .035). In contrast to at-risk controls, at-risk W-CP Airmen increased connections after intervention. W-CP's effect on a key indicator, ≥2 connections, was still greater 2–4 months after classes disbanded (6-months). Wingman-Connect Program built enhanced suicide protection into unit relationship networks and counteracted standard drift towards disconnection for at-risk Airmen, despite no explicit content targeting connections specifically to at-risk Airmen. Findings support a growing case for the unique contribution of group-level interventions to improve social health of broader military populations while also ameliorating risk among individuals already at elevated suicide risk.

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Some Parents Survive and Some Don't: The Army and the Family as "Greedy Institutions".

Eiko Strader, Margaret Smith

The military and the family are "greedy institutions" that require the full attention of their members. Being aware of the tension between work and family, the United States military has developed family support policies that are more generous than legally required to ensure personnel readiness. However, family formation remains a major obstacle for recruitment, retention, and integration of women. Using administrative data, this research shows that fathers were more likely to leave prematurely for family reasons than childless men, particularly among non-Hispanic Black and American Indian/Alaska Native men. However, women who gave birth while in service were much less likely to leave for work–family reasons than childless women, while the same could not be said for women who joined as mothers and had no additional children. The results reflect the gendered logic of the organization and the narrow conceptualization of work–family conflict, both of which perpetuate gender-role stereotypes.

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Predictors of PTSD Treatment Retention and Response: A Systematic Review.

Margaret A. Maglione, Christine Chen, Meghan Franco, Mahlet Gizaw, Nima Shahidinia, Sangita M. Baxi, Susanne Hempel

This systematic review synthesizes the evidence on pretreatment patient characteristics and program features associated with treatment retention, response, and remission in military populations with posttraumatic stress disorder (PTSD). The authors searched numerous databases and bibliographies of systematic reviews and retrieved full texts of all studies on the efficacy or effectiveness of PTSD interventions in military population; two reviewers screened texts for relevant outcomes and reports of predictors. Reviewers abstracted data and assessed each study's risk of bias. Results from studies reporting on the same potential predictor and outcome were pooled via meta-analysis where possible. Results of multivariate models were described narratively.

Eighty-four articles reporting on 70 studies met inclusion criteria; 21 were rated good quality, 33 were rated fair, and 16 were rated poor, using the Quality in Prognostics Studies (QUIPS) instrument. Quality of evidence was low or insufficient for most patient and treatment characteristics due to inconsistent results, imprecision, potential publication bias, and study limitations.

High-quality evidence indicates that length of stay is the strongest predictor of treatment response and that more severe PTSD is associated with lower response. Moderate-quality evidence indicates that older age is associated with better retention, that worse baseline mental health and more combat experience are associated with lower response to treatment, and that individual therapy (versus group therapy) is associated with greater response. Low-quality evidence supports a negative association of participation in atrocities with treatment response. Predictors of remission were rarely assessed.

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Post-Admission Cognitive Therapy for a Transgender Service Member With a Recent Suicidal Crisis: A Case Study of Gender-Affirming Care.

Rebecca L. Kauten, Sarah P. Carter, Max Stivers, Laura A. Novak, ... Marjan Ghahramanlou-Holloway

Highlights
- Transgender individuals who served in the military have disparities in suicidal risk.
- Case study of a transgender servicewoman participating in suicide-focused treatment.
- Case illustrates addressing minority stressors within suicide-focused treatment.
- Participant reported reduced severity of suicidal ideation and related symptoms.

Abstract
While elevated suicide risk in the American military and veteran population has led to the development of targeted interventions, the increased risk of suicidal ideation and

behavior among transgender and gender diverse (TGD) Service members requires that interventions address suicide risk within the context of minority stressors and gender-affirming care. This case study presents Jordan (an alias), a transgender Service member who received inpatient psychiatric treatment following a suicide attempt precipitated by distress relating to gender dysphoria, minority status, and associated stressors. Jordan completed Post-Admission Cognitive Therapy (PACT; Ghahramanlou-Holloway, Cox, & Greene, 2012), a cognitive-behavioral intervention targeting suicide risk among military personnel and dependents psychiatrically hospitalized following a suicidal crisis. Within the context of PACT, Jordan's treatment included identifying and addressing distress related to minority stressors (externalized stigma, internalized transphobia, anticipated rejection, gender concealment) using gender-affirming best practices. Marked changes in Jordan's self-report measures from baseline to follow-up, as well as qualitative changes reported by Jordan, demonstrate that she felt comfortable, safe, and ready to be discharged from the inpatient unit after completing PACT treatment and gaining exposure to the skills necessary to help prevent and/or manage future suicidal crises. Treatment implications and recommendations for addressing suicide risk within the context of gender-affirming care and prevalent minority stressors are discussed.

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Family-Involved Mental Healthcare Among OEF/OIF Veterans With and Without PTSD Using VHA Administrative Records.

Kelly L. Harper, Johanna Thompson-Hollands, Terence M. Keane, Brian P. Marx

Highlights
- Only 8.4% of veterans received a family-involved therapy visit.
- More severe PTSD symptoms were associated with family-involved therapy visits.
- Black veterans were less likely to receive family-involved therapy.

Abstract
Prior research indicates that veterans are interested in including family members in healthcare and that family-inclusive mental health treatment can improve treatment

outcomes. Consequently, the Veterans Health Administration's (VHA) directive require providers to offer family-inclusive mental health services to veterans. However, the extent to which veterans engage in family-inclusive mental health services at VHA remains unclear. Using data from a longitudinal registry of male and female veterans with and without PTSD, we examined the extent to which veterans included family members in their mental healthcare and predictors of engagement in family-involved therapy visits using VHA administrative records over a 5-year timespan. Of the 1,329 veterans who received mental health care during the study, 8.4% received a family therapy visit and the number of visits per veteran ranged from 1 to 34. Results from logistic regressions indicate that relative to White veterans, Black veterans were 61% less likely to receive a family-involved therapy visit. Married veterans or veterans living with a partner and veterans with poor romantic relationship functioning, were more likely to receive a family-involved therapy visit. These findings indicate that only a small percentage of veterans received a family therapy visit across 5 years. Efforts to understand barriers to family-involved therapy visits and strategies to increase engagement in family-involved visits may improve clinical outcomes and promote patient-centered care.

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Concurrent and prospective links between sleep disturbance and repetitive negative thinking: Specificity and effects of cognitive behavior therapy for insomnia.

Rebecca C. Cox, Bunmi O. Olatunji

Sleep and circadian rhythm disturbance are increasingly recognized in anxiety-related disorders; however, the links between sleep and circadian rhythms and specific transdiagnostic processes evident in these disorders and their treatment have not been delineated. The present study examined the associations between chronotype, insomnia symptoms, and repetitive negative thinking (RNT) using a two-study approach. Study 1 examined concurrent and prospective associations between chronotype, insomnia symptoms, and RNT in a community sample. Study 2 then examined change in RNT following cognitive behavior therapy for insomnia (CBTI). The findings of Study 1 showed that evening chronotype and higher insomnia symptoms were concurrently

associated with higher RNT in the community sample; however, only eveningness prospectively predicted increased RNT over 5 months, controlling for depression symptoms. Study 2 found that RNT decreased following CBTI, and decreased eveningness and insomnia symptoms were associated with decreased RNT, controlling for change in depression symptoms. Together these findings highlight the role of sleep and circadian rhythms in RNT. The implications for conceptualizing the etiology and treatment of anxiety-related disorders characterized by RNT are discussed.

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https://doi.org/10.1007/s11136-022-03092-4

Clinical utility of PTSD, resilience, sleep, and blast as risk factors to predict poor neurobehavioral functioning following traumatic brain injury: A longitudinal study in U.S. military service members.

Rael T. Lange, Louis M. French, Jason M. Bailie, Victoria C. Merritt, Cassandra L. Pattinson, Lars D. Hungerford, Sara. M. Lippa & Tracey A. Brickell

Purpose
This study examined the clinical utility of post-traumatic stress disorder (PTSD), low resilience, poor sleep, and lifetime blast exposure as risk factors for predicting future neurobehavioral outcome following traumatic brain injury (TBI).

Methods
Participants were 591 U.S. military service members and veterans who had sustained a TBI (n = 419) or orthopedic injury without TBI (n = 172). Participants completed the Neurobehavioral Symptom Inventory, PTSD Checklist, and the TBI-Quality of Life (TBI-QOL) scale at baseline and follow-up.

Results
Using the four risk factors at baseline, 15 risk factor combinations were examined by calculating odds ratios to predict poor neurobehavioral outcome at follow-up (i.e., number of abnormal scores across five TBI-QOL scales [e.g., Fatigue, Depression]). The vast majority of risk factor combinations resulted in odds ratios that were considered to be clinically meaningful (i.e., ≥ 2.5) for predicting poor outcome. The risk factor combinations with the highest odds ratios included PTSD singularly, or in

combination with poor sleep and/or low resilience (odds ratios = 4.3–72.4). However, poor sleep and low resilience were also strong predictors in the absence of PTSD (odds ratios = 3.1–29.8).

Conclusion
PTSD, poor sleep, and low resilience, singularly or in combination, may be valuable risk factors that can be used clinically for targeted early interventions.

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Trajectories of suicidal ideation following separation from military service: Overall trends and group differences.

Claire A. Hoffmire PhD, Shelby Borowski PhD, Brandon J. Griffin PhD, Shira Maguen PhD, Dawne Vogt PhD

Background
Although the transition out of military service is a high-risk time for suicidal ideation (SI), a paucity of research examines the development of SI during this transition process and veteran subgroups at risk for SI as they readjust to civilian life.

Methods
A population-based, longitudinal post-9/11 veteran cohort reported SI frequency at 3, 9, 15, 21, and 27 months post-separation using the Patient Health Questionnaire-9. We identified distinct trajectories of SI over time (i.e., classes) using latent class growth analysis and examined demographic and military service predictors of class membership overall and by gender using multinomial logistic regression.

Results
Four SI trajectories that were similar across genders were identified: resilient (90.1%), delayed onset (5.0%), remitting (2.7%), and chronic (2.2%). Younger age, minority race/ethnicity, medical and other (vs. honorable) separation types, and Veterans Health Administration service utilization were associated with increased odds of assignment to a higher-risk trajectory (delayed onset, remitting, and/or chronic vs. resilient), whereas

continued service in the National Guard/Reserves and officer rank was associated with lower odds of assignment to a higher-risk trajectory.

Conclusions
Findings regarding veterans at greatest risk for SI following military separation can inform targeted assessment and early intervention efforts.

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Morally injurious combat events as an indirect risk factor for postconcussive symptoms among veterans: The mediating role of posttraumatic stress.

Kinney, A. R., Gerber, H. R., Hostetter, T. A., Brenner, L. A., Forster, J. E., & Stephenson, R. O.

Objective:
Psychosocial factors, including combat-related distress (e.g., posttraumatic stress disorder [PTSD]), contribute to postconcussive symptoms (PCS) among veterans with mild traumatic brain injury (mTBI). However, research on risk factors for PCS has focused solely on life-threatening combat experiences, neglecting the morally injurious dimension of combat-related trauma and associated implications for treatment. Morally injurious events (MIEs) are associated with PTSD symptoms among veterans, a robust risk factor of PCS. Nonetheless, the interplay between MIEs, PTSD symptoms, and PCS remains poorly understood. We sought to investigate MIEs as an indirect risk factor for PCS among Veterans with mTBI.

Method:
This cross-sectional study of 145 veterans with mTBI used path analysis to investigate whether PTSD symptoms mediated the relationship between MIEs (transgressions and betrayals) and PCS (mood-behavioral, vestibular-sensory, and cognitive domains) among 145 veterans with mTBI. We used the Moral Injury Event Scale, PTSD Checklist—Civilian Version, and Neurobehavioral Symptom Inventory to measure MIEs, PTSD, and PCS, respectively.

Results:
Perceived transgressions were indirectly associated with mood-behavioral (β = .21, p = .005), vestibular-sensory (β = .17, p = .005), and cognitive PCS (β = .20, p = .005), as mediated by PTSD. Greater transgressions were associated with more severe PTSD (β = .27, p = .003), and greater PTSD was associated with more severe mood-behavioral (β = .79, p < .001), vestibular-sensory (β = .64, p < .001), and cognitive PCS (β = .73, p < .001). Betrayals were not indirectly associated with PCS.

Conclusions:
Findings offer preliminary support for responses to MIEs being a modifiable risk factor for PCS among veterans. Interventions designed to foster veterans' recovery by targeting the unique emotions and beliefs associated with MIEs may be indicated.

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Factors Related to Exclusion in the U.S. Army.

Kintzle S, Alday E, Clomax A, Barak MM, Castro CA

The promotion of inclusion in the U.S. Army requires an understanding of how and why exclusion occurs. As exclusion can have deleterious impacts at both and individual and organizational level, reducing exclusive behaviors can have positive effects on Soldiers and the Army. To explore exclusion in the Army, 19 focus groups were conducted with 120 active-duty enlisted Soldiers. Two rounds of thematic analysis revealed four themes related to exclusion. Participants indicated exclusion to be often based on low or bad performance, personality factors that were identified as different or toxic, cliques within the Army unwilling to welcome others, and gender, with both men and women identifying exclusionary behaviors toward women within and outside of the work environment. Research findings offer insight into how and why exclusion occurs and how such behaviors can be addressed in the U.S. Army including training and addressing cultural and systemic barriers to inclusion.

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Transition from Military Service: Mental Health and Well-being Among Service Members and Veterans with Service-connected Disabilities.

Gary R. Bond PhD, Monirah Al-Abdulmunem MS, Robert E. Drake MD, PhD, Lori L. Davis MD, Thomas Meyer MBA, Daniel M. Gade PhD, B. Christopher Frueh PhD, Ross B. Dickman MBA & Daniel R. Ressler BA

Transitioning from military service is stressful for veterans with service-connected disabilities seeking civilian employment. This descriptive study examined self-assessed mental health, well-being, and substance use of men and women shortly before or after transition from US military service, compared to norms from community and military samples. As part of a prospective study evaluating an innovative employment program, researchers interviewed 229 current and former service members with service-connected disabilities transitioning from U.S. military service. Compared to published norms, respondents reported significantly poorer outcomes on 5 of 6 standardized measures, indicating less life satisfaction, poorer mental health, more symptoms of depression and posttraumatic stress disorder, and greater financial distress. In the previous year, 42% were prescribed opioid medications, over twice the annual opioid prescription rate of 19% in the general US population. Systematic strategies are needed to ensure access for transitioning veterans with serious behavioral health issues to appropriate evidence-based practices.

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Prediction of Suicide Attempts Using Clinician Assessment, Patient Self-report, and Electronic Health Records.

Nock MK, Millner AJ, Ross EL, et al.

Key Points

Question

What is the best method to predict which patients presenting to the emergency department will make a suicide attempt within 1 and 6 months after the visit?

Findings

This prognostic study of 1818 patients found that prediction of suicide attempts in the 1 month and 6 months after a patient visited an emergency department was significantly improved using machine learning models applied to data from a brief patient self-report scale, especially when supplemented with data from patients' electronic health records and/or clinicians' assessments.

Meaning

This study suggests that clinicians can improve their ability to identify patients at high risk of suicide by using data from a brief patient self-report scale and electronic health records.

Abstract

Importance

Half of the people who die by suicide make a health care visit within 1 month of their death. However, clinicians lack the tools to identify these patients.

Objective

To predict suicide attempts within 1 and 6 months of presentation at an emergency department (ED) for psychiatric problems.

Design, Setting, and Participants

This prognostic study assessed the 1-month and 6-month risk of suicide attempts among 1818 patients presenting to an ED between February 4, 2015, and March 13, 2017, with psychiatric problems. Data analysis was performed from May 1, 2020, to November 19, 2021.

Main Outcomes and Measures

Suicide attempts 1 and 6 months after presentation to the ED were defined by combining data from electronic health records (EHRs) with patient 1-month (n = 1102) and 6-month (n = 1220) follow-up surveys. Ensemble machine learning was used to develop predictive models and a risk score for suicide.

Results

A total of 1818 patients participated in this study (1016 men [55.9%]; median age, 33

years [IQR, 24-46 years]; 266 Hispanic patients [14.6%]; 1221 non-Hispanic White patients [67.2%], 142 non-Hispanic Black patients [7.8%], 64 non-Hispanic Asian patients [3.5%], and 125 non-Hispanic patients of other race and ethnicity [6.9%]). A total of 137 of 1102 patients (12.9%; weighted prevalence) attempted suicide within 1 month, and a total of 268 of 1220 patients (22.0%; weighted prevalence) attempted suicide within 6 months. Clinicians' assessment alone was little better than chance at predicting suicide attempts, with externally validated area under the receiver operating characteristic curve (AUC) of 0.67 for the 1-month model and 0.60 for the 6-month model. Prediction accuracy was slightly higher for models based on EHR data (1-month model: AUC, 0.71; 6 month model: AUC, 0.65) and was best using patient self-reports (1-month model: AUC, 0.76; 6-month model: AUC, 0.77), especially when patient self-reports were combined with EHR and/or clinician data (1-month model: AUC, 0.77; and 6 month model: AUC, 0.79). A model that used only 20 patient self-report questions and an EHR-based risk score performed similarly well (1-month model: AUC, 0.77; 6 month model: AUC, 0.78). In the best 1-month model, 30.7% (positive predicted value) of the patients classified as having highest risk (top 25% of the sample) made a suicide attempt within 1 month of their ED visit, accounting for 64.8% (sensitivity) of all 1-month attempts. In the best 6-month model, 46.0% (positive predicted value) of the patients classified at highest risk made a suicide attempt within 6 months of their ED visit, accounting for 50.2% (sensitivity) of all 6-month attempts.

Conclusions and Relevance
This prognostic study suggests that the ability to identify patients at high risk of suicide attempt after an ED visit for psychiatric problems improved using a combination of patient self-reports and EHR data.

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Adverse childhood experiences, mental health, and relationship satisfaction in military couples.

Khalifian, C. E., Bosch, J., Knopp, K., Delay, C., Sohn, M. J., & Morland, L. A.

Journal of Family Psychology
Advance online publication

Adverse Childhood Experiences (ACEs) have been found to influence one's own mental health and relationship satisfaction in adulthood; however, the association between

one's own ACEs and their partner's individual and relationship functioning has not been explored. Veterans (n = 103) and their significant others (S-O; total N = 206) completed assessments on ACEs, depression, relationship satisfaction, and Posttraumatic Stress Disorder (PTSD) symptom severity as part of a baseline assessment in a treatment outcome study for veterans with PTSD and their S-Os. Actor Partner Interdependence Moderation Modeling (APIMoM) was conducted. Higher ACE score was positively related to PTSD for all participants. Female S-O's ACE score was positively related to their own depression, and male S-Os reported higher depression and lower relationship satisfaction when their partners reported a higher ACE score. Surprisingly, female veterans experienced higher relationship satisfaction when their S-Os reported a higher ACE score. ACEs are related differently to one's own and one's partner's mental health and relationship satisfaction and should be assessed when conducting couple's interventions. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

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https://doi.org/10.1037/ser0000611

Pilot outcomes of cognitive processing therapy implementation in military health system outpatient behavioral health clinics.

Skopp, N. A., Kaplan, D. A., Todd, B. L., Drell, M. B., & Pratt, K. M.

Psychological Services
Advance online publication

Enterprise data indicates that U.S. service members (SMs) with posttraumatic stress disorder (PTSD) may not receive an evidence-based treatment (EBT) or may receive an EBT with low fidelity to the core components. Successful delivery of EBTs requires provider training and ongoing supervision/consultation, adjustment of clinic processes and structure, and leadership support. The Department of Defense (DoD) Practice-Based Implementation (PBI) Network is a dedicated team of implementation science specialists that support the integration of EBTs into clinical practice in the Military Health System (MHS). The PBI Network conducted a Cognitive Processing Therapy (CPT) pilot to investigate the acceptability and feasibility of a novel trauma specialist implementation approach proposed by South Texas Research Organizational Network Guiding Studies on Trauma and Resilience (STRONG STAR). This approach, CPT Trauma Specialist (CPT-TS), called for training designated behavioral health (BH) therapists as the primary CPT providers in their clinics. In collaboration with the Uniformed Services University Center for Deployment Psychology, the PBI Network

provided training and consultation to 26 providers across 13 MHS BH clinics and supported ongoing facilitation. Despite provider interest and clinic leadership support, less than half of the pilot provider participants were able to meet the consultation and CPT delivery requirements for designation as a CPT trauma trained specialist. Prevalent implementation barriers included lack of adequate clinic resources, provider challenges balancing clinical and military-related duties, the need to focus on high-risk patients, and other military system-related constraints. These findings highlight the need for implementation scientists to examine alternatives to traditional training models and identify fidelity-consistent adaptations that allow for delivery of evidence-based care within highly constrained systems of care.

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Treating the Effects of Military Sexual Trauma through a Theater-Based Program for U.S. Veterans.

Alisha Ali, Stephan Wolfert, Ingrid Lam, Patricia Fahmy, Amna Chaudhry & Jessica Healey

The goal of this article is to examine the experience and aftermath of military sexual trauma (MST) among U.S. women Veterans with a particular emphasis on the therapeutic benefits of giving voice to their experience in an all-Veteran trauma treatment called the DE-CRUIT program. The DE-CRUIT program uses a feminist framework of human connection in combination with narrative elements from drama and theater. The therapeutic process of this treatment program is described by outlining the specific benefits of its feminist underpinnings and through the use of a case example of an MST survivor who participated in this treatment. We describe the ways that a treatment program can play a role in supporting women Veterans not only in dealing with the effects of MST, but also in connecting to the #MeToo movement.

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A communal intervention for military moral injury.

Chris J. Antala, Peter D. Yeomans, Kelly Denton-Borhaug & Scott A. Hutchinson

The Moral Injury Group (MIG) at the Corporal Michael J. Crescenz (Philadelphia) VA Medical Center (CMCVAMC) is an example of collaborative care between chaplains and psychologists that engages religious, academic, and not-for-profit communities, as well as the media and other organizations external to the healthcare context. The intervention is primarily informed by a unique conceptualization: the moral injury (MI) of individual veterans is rooted in the unfair distribution of appropriate moral pain and best addressed through communal intervention that facilitates broader moral engagement and responsibility. MI is a public health issue that arises from the unfair distribution of appropriate moral pain and is sourced by the sedimentary layers of structural violence in US institutions related to war, and US war-culture. Preventing veteran suicide and promoting public health requires a larger social analysis and more broad-based, collective and collaborative understanding of, and response to, US war-culture, extending responsibility for MI care and prevention beyond individual veterans in health care institutions and clinical settings to US society.

Links of Interest

A brief introduction on anger. How anger can impact your life and the people around you. (video)
https://health.mil/News/Gallery/Videos/2022/02/11/Anger

Dramatic increase in mental health services to other-than-honorable discharge Veterans
https://blogs.va.gov/VAntage/100460/dramatic-increase-in-mental-health-services-to-other-than-honorable-discharge-veterans/

Army seeks to rein in Alaska suicides by connecting with soldiers one by one
https://www.stripes.com/branches/army/2022-02-25/us-army-seeks-to-rein-in-alaska-suicides-mission-100-5149828.html

Transition Readiness: Supporting Youth with Disabilities
https://militaryreach.auburn.edu/FamilyStoryDetails?rexsourceid=5c050a00-ad37-4f12-a419-6b4e236d25b8

PTSD and Relationships
https://www.ptsd.va.gov/family/effect_relationships.asp

'Center of the veteran homelessness universe': VA resumes homeless count with focus on vets in Los Angeles
https://www.stripes.com/veterans/2022-02-28/veterans-affairs-homeless-los-angeles-count-mcdonough-5180572.html

An idiot's guide to what service members are called in every branch (video)
https://taskandpurpose.com/video/guide-what-service-members-called/

Staff Perspective: Military Couples Communication: Recommendations for Managing Expectations and Communication While Deployed
https://deploymentpsych.org/blog/staff-perspective-military-couples-communication-recommendations-managing-expectations-and

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Resource of the Week: Brain Injury Awareness Month

> The Military Health System (MHS) recognizes March as Brain Injury Awareness Month to increase traumatic brain injury (TBI) awareness and improve health care providers' ability to identify, care for, and treat service members and veterans affected by TBI. During Brain Injury Awareness Month, the Traumatic Brain Injury Center of Excellence (TBICoE) and the MHS will promote the theme "Be TBI Ready"—recognizing that health care providers and others in the military community need to be aware of the latest educational trainings, research, fact sheets, and other available resources to prevent, diagnose, and treat TBI. The month will focus on the work of TBI stakeholders whose roles are to:
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> - Learn about TBI prevention, recognition, support, recovery, and reintegration.
> - Increase awareness about TBICoE, its state-of-the-science research, and its many resources for health care providers, service members, veterans, and caregivers.

Shirl Kennedy, BS, MA
Research Editor
Henry M. Jackson Foundation employee collaborating with Center for Deployment Psychology
Office: (727) 537-6160
Email: shirley.kennedy.ctr@usuhs.edu