

# Research Update -- September 15, 2022

### What's Here:

- Combining a stellate ganglion block with prolonged exposure therapy for posttraumatic stress disorder: A nonrandomized clinical trial.
- The impact of prior head injury on outcomes following group and individual cognitive processing therapy among military personnel.
- Mechanisms of quality-of-life improvement in treatment for alcohol use disorder.
- Digital bibliotherapy as a scalable intervention for suicidal thoughts: A randomized controlled trial.
- The effect of time on task, sleep deprivation, and time of day on simulated driving performance.
- The natural history of insomnia: high sleep reactivity interacts with greater life stress to predict the onset of acute insomnia.
- Sleep spindle dynamics suggest over-consolidation in post-traumatic stress disorder.
- Associations of Depression, Anxiety, Worry, Perceived Stress, and Loneliness Prior to Infection With Risk of Post-COVID-19 Conditions.
- Institutional Betrayal and Closeness Among Women Veteran Survivors of Military Sexual Trauma: Associations with Self-Directed Violence and Mental Health Symptoms.
- Military Traumatic Brain Injury: The History, Impact, and Future.
- An Examination of Suicide Exposure and Fearlessness about Death on Suicide Risk among Active Duty Service Members, Veterans, and Civilians.

- The suicide of Private Danny Chen: An interpersonal theory perspective.
- Current War in Ukraine: Lessons from the Impact of War on Combatants' Mental Health during the Last Decade.
- The "trauma pitch": How stigma emerges for Iraq and Afghanistan veterans seeking disability compensation.
- Resilience enhancing programs in the U.S. military: An exploration of theory and applied practice.
- Gender Disparities in Active Duty Air Force Parents' Childcare Access: Pre-Pandemic Costs, Utilization, and Career Impacts.
- Systematic Review of Religiosity's Relationship with Suicidality, Suicide Related Stigma, and Formal Mental Health Service Utilization among Black Americans.
- Behavioral health and treatment-seeking behaviors among deployed vs. nondeployed service members: How impactful is deployment on well-being?
- Factors Influencing the Salience of Military/Veteran Identity Post Discharge: A Scoping Review.
- Long-term effectiveness of a prolonged exposure-based intensive outpatient program for veterans with posttraumatic stress disorder.
- The effect of war injury and combat deployment on military wives' mental health symptoms.
- Invisible wounds: Suturing the gap between the neurobiology, conventional and emerging therapies for posttraumatic stress disorder.
- Addressing moral injury in the military.
- Effects of Cannabis on PTSD Recovery: Review of the Literature and Clinical Insights.
- A significant U-shaped association between physical activity level and posttraumatic stress disorder in U.S. military Veterans: Results from the 2019– 2020 National Health and Resilience in Veterans Study.
- Links of Interest
- Resource of the Week Leveraging diversity for military effectiveness: Diversity, inclusion and belonging in the UK and US Armed Forces (RAND)

#### https://doi.org/10.1002/jts.22873

# Combining a stellate ganglion block with prolonged exposure therapy for posttraumatic stress disorder: A nonrandomized clinical trial.

Peterson, A. L., Straud, C. L., Young-McCaughan, S., McCallin, J. P., Hoch, M., Roux, N. P., Koch, L., Lara-Ruiz, J., Roache, J. D., Hein, J. M., & Blount, T. H., for the STRONG STAR Consortium

Journal of Traumatic Stress First published: 01 September 2022

Prolonged exposure therapy (PE) is an efficacious treatment for active duty service members and veterans with posttraumatic stress disorder (PTSD). However, PE is sometimes associated with high dropout rates, limited tolerability, and temporary symptom exacerbation during treatment. Stellate ganglion blocks (SGBs) are an emerging treatment that has the potential to enhance outcomes for PTSD when combined with trauma-focused psychotherapy. To date, no study of which we are aware has examined the potential additive benefits of SGB injections when administered in conjunction with trauma-focused behavioral treatment for PTSD. Thus, we conducted a nonrandomized clinical trial to evaluate the use of an SGB combined with massed PE therapy for combat-related PTSD. Participants (N = 12) were treated with 10 daily 90min PE sessions delivered over 2 weeks and received a single SGB injection between Sessions 1 and 2. PE sessions lasted 90 min each. Participants reported a mean posttreatment PTSD symptom reduction of 32 points on the PTSD Checklist for DSM-5 (PCL-5), Hedges' gs = 1.28–2.80. Most participants (90.9%) demonstrated clinically significant change on the PCL-5 (i.e., ≥10 points) by the final treatment session and 50.0% no longer met the diagnostic criteria for PTSD per the Clinician-Administered PTSD Scale for DSM-5 at 1-month follow-up. Adverse events for the combined treatment were consistent with those previously reported for standalone SGB and PE. This combined treatment approach provides promising results for improving the tolerability of trauma-focused therapies, reducing symptom severity, and increasing PTSD remission rates.

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#### https://doi.org/10.1002/jts.22870

# The impact of prior head injury on outcomes following group and individual cognitive processing therapy among military personnel.

Wachen, J. S., Mintz, J., LoSavio, S. T., Kennedy, J. E., Hale, W. J., Straud, C. L., Dondanville, K. A., Moring, J., Blankenship, A. E., Vandiver, R., Young-McCaughan, S., Yarvis, J. S., Peterson, A. L., Resick, P. A., for the STRONG STAR Consortium

Journal of Traumatic Stress First published: 29 August 2022

This study examined the impact of a history of head injury (HHI) on posttraumatic stress disorder (PTSD) and depression symptoms in active duty military personnel following group and individual cognitive processing therapy (CPT). Data for these secondary analyses were drawn from a clinical trial comparing group and individual CPT. Service members (N = 268, 91.0% male) were randomized to 12 sessions of group (n = 133) or individual (n = 135) CPT. Most participants (57.1%) endorsed a deployment-related HHI, 92.8% of whom reported currently experiencing symptoms (CES) related to the head injury (i.e., HHI/CES). Patients classified as non-HHI/CES demonstrated large, significant improvements in PTSD symptom severity in both individual and group therapy, ds = 1.1, p < .001. Patients with HHI/CES status showed similar significant improvements when randomized to individual CPT, d = 1.4, p < .001, but did not demonstrate significant improvements when randomized to group CPT, d = 0.4, p =.060. For participants classified as HHI/CES, individual CPT was significantly superior to group CPT, d = 0.98, p = .003. Symptoms of depression improved following treatment, with no significant differences by treatment delivery format or HHI/CES status. The findings of this clinical trial subgroup study demonstrate evidence that group CPT is less effective than individual CPT for service members classified as HHI/CES. The results suggest that HHI/CES status may be important to consider in selecting patients for group or individual CPT; additional research is needed to confirm the clinical implications of these findings.

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https://doi.org/10.1037/ccp0000750

### Mechanisms of quality-of-life improvement in treatment for alcohol use disorder.

Carlon, H. A., Hurlocker, M. C., & Witkiewitz, K.

Journal of Consulting and Clinical Psychology 2022; 90(8), 601–612

# Objective:

For individuals in alcohol use disorder (AUD) treatment, many argue that holistic indicators such as quality of life (QoL) should be more consistently used in addition to drinking-related indicators. QoL increases from pre- to post-AUD treatment, but the mechanisms are unclear. The present study examined the roles of positive and negative affect in QoL change during AUD treatment and additionally explored the relationship between QoL change and medication adherence.

# Method:

We examined the mediating roles of end-of-treatment positive affect (i.e., vigor) and negative affect (i.e., stress and tension) in the relationship between baseline (BL) and 26-week QoL among participants in the Combined Pharmacotherapies and Behavioral Interventions for Alcohol Dependence study randomized to medication management (MM; n = 468) or medication management plus combined behavioral intervention (MMCBI; n = 479) for AUD. We also explored whether changes in QoL were associated with medication adherence.

# Results:

Change in psychological health QoL was mediated by increased vigor (i.e., positive affect) and decreased stress, and change in environmental QoL was mediated by decreased stress. There were also differences by treatment group, with stress mediating changes in environmental QoL among participants in MM, and vigor mediating changes in psychological health QoL among participants in MMCBI. Medication adherence was not associated with greater QoL after controlling for posttreatment alcohol use.

# Conclusions:

The present study identified potential mechanisms of QoL change in AUD treatment, thus contributing to the growing knowledge surrounding alternative indicators of treatment success for AUD treatment and recovery. Targeting affective states and stress during treatment may improve QoL and recovery outcomes for persons with AUD. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

#### https://doi.org/10.1037/ccp0000752

# Digital bibliotherapy as a scalable intervention for suicidal thoughts: A randomized controlled trial.

Franz, P. J., Mou, D., Kessler, D. T., Stubbing, J., Jaroszewski, A. C., Ray, S., Cao-Silveira, V. B., Bachman, S., Schuster, S., Graupensperger, D., Alpert, J. E., Porath, M., & Nock, M. K.

Journal of Consulting and Clinical Psychology 2022; 90(8), 626–637

### Objective:

Suicide is a major public health concern in the United States, but few effective and scalable interventions exist to help those with suicidal thoughts. We hypothesized that reading first-person narratives about working through suicidal thoughts would reduce the desire to die among adults and that this effect would be mediated by increased perceived shared experience and optimism.

### Method:

Using a randomized waitlist-controlled trial, we tested the effect of digital narrativebased bibliotherapy among 528 adults visiting a social media platform dedicated to providing mental health support. Participants were randomized to either a treatment condition (n = 266), in which they read one suicide narrative per day for 14 days or to a waitlist control condition (n = 262). The primary outcome was a measure of desire to die assessed daily for the 14-day trial period and at 2-week follow-up. Results: Participants in the treatment condition reported lower desire to die than participants in the control condition during the 14-day trial period ( $\beta$  = -0.26, p = .001) and at 2-week follow-up (t = -2.82, p = .005). Increased perceived shared experience (indirect effect b = -0.55, p < .001) and optimism (indirect effect b = -0.85, p < .001) mediated the effect of treatment on desire to die.

# Conclusions:

Digital narrative-based bibliotherapy may be an effective intervention for those at risk for suicide, and may work in part by increasing feelings of perceived shared experience and optimism. Future research is needed to test the generalizability of these results to other platforms, groups, and conditions. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

# https://doi.org/10.1093/sleep/zsac167

# The effect of time on task, sleep deprivation, and time of day on simulated driving performance.

Isabella Marando, Raymond W Matthews, Linda Grosser, Crystal Yates, Siobhan Banks

### Sleep

Volume 45, Issue 9, September 2022, zsac167

Sleep deprivation and time of day have been shown to play a critical role in decreasing ability to sustain attention, such as when driving long distances. However, a gap in the literature exists regarding external factors, such as workload. One way to examine workload is via modulating time on task. This study investigated the combined effect of sleep deprivation, time of day, and time on task as a workload factor on driving performance. Twenty-one participants (18-34 years, 10 females) underwent 62 h of sleep deprivation within a controlled laboratory environment. Participants received an 8h baseline and 9.5-h recovery sleep. Every 8 h, participants completed a Psychomotor Vigilance Task (PVT), Karolinska Sleepiness Scale (KSS), 30-min monotonous driving task and NASA-Task Load Index (TLX). Driving variables examined were lane deviation, number of crashes, speed deviation and time outside the safe zone. Workload was measured by comparing two 15-min loops of the driving track. A mixed model ANOVA revealed significant main effects of day and time of day on all driving performance measures (p < .001). There was a significant main effect of workload on lane deviation (p < .05), indicating that a longer time on task resulted in greater lane deviation. A significant main effect of day (p < .001) but not time of day for the NASA-TLX, PVT and KSS was found. Time on task has a significant further impact on driving performance and should be considered alongside sleep deprivation and time of day when implementing strategies for long-distance driving.

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https://doi.org/10.1093/sleep/zsac149

The natural history of insomnia: high sleep reactivity interacts with greater life stress to predict the onset of acute insomnia.

Jamie L Walker, Ivan Vargas, Christopher L Drake, Jason G Ellis, Alexandria Muench, Michael L Perlis

# Sleep Volume 45, Issue 9, September 2022, zsac149

# Study Objectives

Prior research suggests that some individuals have a predisposition to experience insomnia following acute stressors (i.e. sleep reactivity). The present study was a proof of concept and specifically aimed to provide additional empirical evidence that the link between stressful life events and the onset of acute insomnia is moderated by sleep reactivity.

# Methods

About 1,225 adults with a history of good sleep (Mage = 53.2 years, 68% female, 83% white) were recruited nationwide for an online study on sleep health. Participants completed surveys to assess sleep reactivity (baseline), sleep patterns (daily sleep diary), and stressful life events (weekly survey). All daily and weekly measures were completed for a one-year period. Sleep diary data were used to identify sleep initiation/maintenance difficulties, including whether they met criteria for acute insomnia at any point during the one-year interval.

# Results

Participants with high sleep reactivity compared to low sleep reactivity were at 76% increased odds of developing acute insomnia during the one-year interval. In general, greater weekly stressful life events were associated with greater insomnia during the subsequent week. Those participants with high sleep reactivity demonstrated a stronger relationship between weekly stressful life events and insomnia, such that they reported the greatest levels of insomnia following weeks where they experienced a greater number of stressful life events.

# Conclusions

These results further support the sleep reactivity model of insomnia, and specifically, provide evidence that sleep reactivity predicts the incidence of acute insomnia in a sample of participants with no history of insomnia.

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### https://doi.org/10.1093/sleep/zsac139

Sleep spindle dynamics suggest over-consolidation in post-traumatic stress disorder.

Anna C van der Heijden, Winni F Hofman, Marieke de Boer, Mirjam J Nijdam, Hein J F van Marle, Ruud A Jongedijk, Miranda Olff, Lucia M Talamini

Sleep,

Volume 45, Issue 9, September 2022, zsac139

Devastating and persisting traumatic memories are a central symptom of post-traumatic stress disorder (PTSD). Sleep problems are highly co-occurrent with PTSD and intertwined with its etiology. Notably, sleep hosts memory consolidation processes, supported by sleep spindles (11–16 Hz). Here we assess the hypothesis that intrusive memory symptoms in PTSD may arise from excessive memory consolidation, reflected in exaggerated spindling. We use a newly developed spindle detection method, entailing minimal assumptions regarding spindle phenotype, to assess spindle activity in PTSD patients and traumatized controls. Our results show increased spindle activity in PTSD, which positively correlates with daytime intrusive memory symptoms. Together, these findings provide a putative mechanism through which the profound sleep disturbance in PTSD may contribute to memory problems. Due to its uniform and unbiased approach, the new, minimal assumption spindle analysis seems a promising tool to detect aberrant spindling in psychiatric disorders.

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https://doi.org/10.1001/jamapsychiatry.2022.2640

# Associations of Depression, Anxiety, Worry, Perceived Stress, and Loneliness Prior to Infection With Risk of Post-COVID-19 Conditions.

Wang, S., Quan, L., Chavarro, J. E., Slopen, N., Kubzansky, L. D., Koenen, K. C., Kang, J. H., Weisskopf, M. G., Branch-Elliman, W., & Roberts, A. L.

JAMA Psychiatry 2022 Sep 7

Key Points Question Is psychological distress before SARS-CoV-2 infection associated with risk of COVID-19–related symptoms lasting 4 weeks or longer, known as post–COVID-19 conditions?

# Findings

This cohort study found that among participants who did not report SARS-CoV-2 infection at baseline (April 2020) and reported a positive SARS-CoV-2 test result over 1 year of follow-up (N = 3193), depression, anxiety, perceived stress, loneliness, and worry about COVID-19 were prospectively associated with a 1.3- to 1.5-fold increased risk of self-reported post–COVID-19 conditions, as well as increased risk of daily life impairment related to post–COVID-19 conditions.

### Meaning

In this study, preinfection psychological distress was associated with risk of post– COVID-19 conditions and daily life impairment in those with post–COVID-19 conditions.

# Abstract

### Importance

Few risk factors for long-lasting (≥4 weeks) COVID-19 symptoms have been identified.

# Objective

To determine whether high levels of psychological distress before SARS-CoV-2 infection, characterized by depression, anxiety, worry, perceived stress, and loneliness, are prospectively associated with increased risk of developing post–COVID-19 conditions (sometimes called long COVID).

### Design, Setting, and Participants

This prospective cohort study used data from 3 large ongoing, predominantly female cohorts: Nurses' Health Study II, Nurses' Health Study 3, and the Growing Up Today Study. Between April 2020 and November 2021, participants were followed up with periodic surveys. Participants were included if they reported no current or prior SARS-CoV-2 infection at the April 2020 baseline survey when distress was assessed and returned 1 or more follow-up questionnaires.

### Exposures

Depression, anxiety, worry about COVID-19, perceived stress, and loneliness were measured at study baseline early in the pandemic, before SARS-CoV-2 infection, using validated questionnaires.

# Main Outcomes and Measures

SARS-CoV-2 infection was self-reported during each of 6 monthly and then quarterly follow-up questionnaires. COVID-19–related symptoms lasting 4 weeks or longer and daily life impairment due to these symptoms were self-reported on the final questionnaire, 1 year after baseline.

### Results

Of 54 960 participants, 38.0% (n = 20 902) were active health care workers, and 96.6% (n = 53 107) were female; the mean (SD) age was 57.5 (13.8) years. Six percent (3193 participants) reported a positive SARS-CoV-2 test result during follow-up (1-47 weeks after baseline). Among these, probable depression (risk ratio [RR], 1.32; 95% CI = 1.12-1.55), probable anxiety (RR = 1.42; 95% CI, 1.23-1.65), worry about COVID-19 (RR, 1.37; 95% CI, 1.17-1.61), perceived stress (highest vs lowest quartile: RR, 1.46; 95% CI, 1.18-1.81), and loneliness (RR, 1.32; 95% CI, 1.08-1.61) were each associated with post–COVID-19 conditions (1403 cases) in generalized estimating equation models adjusted for sociodemographic factors, health behaviors, and comorbidities. Participants with 2 or more types of distress prior to infection were at nearly 50% increased risk for post–COVID-19 conditions (RR, 1.49; 95% CI, 1.23-1.80). All types of distress were associated with increased risk of daily life impairment (783 cases) among individuals with post–COVID-19 conditions (RR range, 1.15-1.51).

### Conclusions and Relevance

The findings of this study suggest that preinfection psychological distress may be a risk factor for post–COVID-19 conditions in individuals with SARS-CoV-2 infection. Future work should examine the biobehavioral mechanism linking psychological distress with persistent postinfection symptoms.

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### https://doi.org/10.1080/15299732.2022.2120152

Institutional Betrayal and Closeness Among Women Veteran Survivors of Military Sexual Trauma: Associations with Self-Directed Violence and Mental Health Symptoms.

Lindsey L. Monteith, Nicholas Holder, Christe'An D. Iglesias & Ryan Holliday

Journal of Trauma & Dissociation Published online: 07 Sep 2022

Institutional betrayal is defined as harm caused by an institution to an individual in the context of trust and dependence. High institutional betrayal is associated with poorer health outcomes, and high levels of trust, dependence, or identification with the institution (institutional closeness) may exacerbate the negative effects of institutional betrayal. While military sexual trauma is prevalent among women Veterans and

associated with high rates of institutional betrayal, studies of the impact of military sexual trauma-related institutional betrayal have been limited in size and scope and have not examined the potential role of institutional closeness. We conducted a secondary analysis of national survey data collected from women Veterans who screened positive for military sexual trauma (n = 229). Hierarchical logistic and linear regression were used to examine associations between predictor variables (institutional betrayal, institutional closeness, and their interaction) and outcomes of interest and adjusted for age, education, and military sexual assault history. Institutional betrayal was associated with increased odds of suicidal ideation and suicide attempt during or following military service, as well as more severe symptoms of depression and posttraumatic stress disorder (PTSD). Institutional betrayal was not associated with non-suicidal self-injury or lifetime substance misuse. Counter to hypotheses, institutional closeness did not moderate relationships between institutional betrayal and mental health symptoms or self-directed violence. Results underscore the necessity of preventing and addressing institutional betrayal among women Veterans who experience military sexual trauma.

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### https://doi.org/10.1089/neu.2022.0103

### Military Traumatic Brain Injury: The History, Impact, and Future.

Lindberg, M. A., Moy Martin, E. M., & Marion, D. W.

Journal of Neurotrauma 2022 Sep; 39(17-18)

This review examines how lessons learned from United States military conflicts, beginning with the United States Civil War through the engagements in Iraq and Afghanistan, have shaped current traumatic brain injury (TBI) care in the United States military, influenced congressional mandates and directives, and led to best practices in caring for the warfighter. Prior to the most recent war, emphasis was placed on improving the surgical and medical care of service members (SM) with severe and especially penetrating brain injuries. However, during the Iraq and Afghanistan conflicts, also known as the Global War on Terrorism (GWOT), blast injury from improvised explosive devices most often caused mild TBI (mTBI), an injury that was not always recognized and was labelled the "signature wound" of the GWOT. This has led to extensive research on objective diagnostic technologies for mTBI, the association of mTBI with post-traumatic stress disorder (PTSD), and the long term consequences of

mTBI. Here we summarize the key findings and most important advances from those efforts, and discuss the way forward regarding future military conflicts.

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### https://doi.org/10.1080/13811118.2020.1868365

# An Examination of Suicide Exposure and Fearlessness about Death on Suicide Risk among Active Duty Service Members, Veterans, and Civilians.

Soberay, K. A., Cerel, J., Brown, M. M., & Maple, M.

Archives of Suicide Research 2022 Jul-Sep; 26(3):1198-1218

Suicide exposure is associated with an increased risk for suicide. There is limited research on the mechanisms that increase this risk. This study aims to: (1) compare suicide exposure and associated variables in veteran, active duty, and civilian participants, (2) examine the extent to which fearlessness about death and suicide risk factors differ as a function of group membership and suicide exposure, and (3) determine the degree to which relationship to the decedent, perceived closeness, and reported impact of the death are associated with fearlessness about death and suiciderelated outcomes. 1,533 participants were included, of whom 48% of active duty service members, 65% of veterans, and 58% of civilians reported knowing someone who died by suicide. A series of regressions were conducted. There were group differences by military service on the suicide exposure variables. Furthermore, there were significant main effects for military service group and suicide exposure on the outcome variables. In general, civilians reported greater suicide risk and active duty service members reported greater fearlessness about death. Fearlessness about death mediated the associations between perceived closeness and a history of suicide attempts. The loss of a military colleague to suicide was found to be unique and distinguishable from other important relationships. Results suggest the need to consider suicide exposure and closeness as salient variables associated with fearlessness about death and suicide risk factors. Inquiring about suicide exposure, closeness to the decedent, fearlessness about death, and beyond familial losses to suicide may indicate important avenues of intervention.

### https://doi.org/10.1080/07481187.2021.1972365

### The suicide of Private Danny Chen: An interpersonal theory perspective.

Schuman, D. L., Buchanan, S., Boehler, J., & Flaherty, C.

Death Studies 2022; 46(10): 2467-2476

Despite considerable prevention and intervention efforts, military suicide rates have increased. Although most research on active-duty military suicide has focused on combat exposure, evidence shows that bullying, hazing, and race are understudied risk factors for military suicide. According to the interpersonal theory of suicide, thwarted belongingness, perceived burdensomeness, and acquired capability are necessary components for enacting a suicide death. In this theoretically-based interpersonal case analysis of the suicide death of Private Danny Chen, an American soldier of Chinese descent, we explore how bullying, hazing, and race may have intersected with other vulnerabilities to result in his death.

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#### https://doi.org/10.3390/ijerph191710536

# Current War in Ukraine: Lessons from the Impact of War on Combatants' Mental Health during the Last Decade.

Haydabrus, A., Santana-Santana, M., Lazarenko, Y., & Giménez-Llort, L.

International Journal of Environmental Research and Public Health 2022 Aug 24; 19(17): 10536

Ukrainian Military Hospital retrospective analysis during a decade of conflicts (3995 records) unveils specific mental health ICD-10-CM distribution per rank and the longlasting impact of active conflict or trench warfare. Most hospitalizations in all years of observation were among soldiers. Anxiety-related disorders have been present since 'peacetime', mainly among professional soldiers and high ranks, pointing to the need for rank-tailored psychological training in skills to reduce the anxiety burden. High frequency of psychoactive substance use emerged with acute conflicts and in nonprofessional soldiers during wartime. This dictates the need to strengthen the selection of military personnel, considering the tendency to addiction. Military operations multiply the hospitalizations in psychiatric hospitals. The data warn about a 'need for free beds effect', which is worse for soldiers. This is relevant to estimating and planning the need for hospital resources for the current situation where the general population has been recruited for defense. In the current war, tightening the rules of sobriety in units and up to a ban on the sale of alcoholic beverages in areas where hostilities are taking place is recommended. The specific impact on nonprofessional soldiers is relevant to the current war, with the general population of Ukraine recruited for defense and combat.

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### https://doi.org/10.1371/journal.pone.0267424

The "trauma pitch": How stigma emerges for Iraq and Afghanistan veterans seeking disability compensation.

Hooyer K.

# PLoS One 2022 Aug 31; 17(8): e0267424

Posttraumatic Stress Disorder continues to be a highly stigmatized disease for the veteran population and stigma, experienced as a mark of discredit or shame, continues to be identified as the main deterrent in treatment seeking. Little attention has been paid to how the process of obtaining service-connected disability status can amplify veterans' perceptions of being stigmatized. The following ethnographic study identified how combat veterans experienced stigma in processing through Veterans Affairs care and the effects of linking a Posttraumatic Stress Disorder diagnosis with disability compensation. Stigma was identified in two inter-related areas: 1) the structural level in the Veterans Affairs disability claims process and 2) the individual level in interactions with Veterans Affairs service providers. Findings based on veterans' narratives suggest that the disability claims process, requiring multiple repetitions of personal trauma, coupled with perceptions of institutional stigmas of malingering, created bureaugenic effects: a worsening of symptoms caused by bureaucratic protocols intended to help veterans. This process influenced first time treatment users of the Veterans Affairs by deterring treatment-seeking behavior but was not found to affect veterans who had already initiated treatment. Despite the experience of stigma and commodification of their suffering through disability and diagnostic screening, veterans still sought disability compensation. Veterans viewed this compensation as acknowledgment of their loss and validation of their sacrifice.

#### https://doi.org/10.1080/08995605.2022.2086418

# Resilience enhancing programs in the U.S. military: An exploration of theory and applied practice.

Sarah A. McInerney, Edward Waldrep & Charles C. Benight

Military Psychology Published online: 13 Jun 2022

U.S. service members are at an enhanced risk for developing mental disorders. To address these challenges, while promoting operational readiness and improving mental health outcomes, the Department of Defense directed each service component to develop and implement universal resilience enhancing programs. This paper provides a review of theoretical approaches conceptualizing resilience to trauma, including the theoretical foundations of programs currently in place. The resilience programs of U.S. Army, U.S. Air Force, U.S. Navy and U.S. Marine Corps are described, and available program effectiveness data are reviewed. Gaps between theory and practice are identified and an alternative method of assessing psychological readiness in Army units that is informed by resilience theory is offered as one way to address these gaps and scientific concerns. By comprehensively assessing the stressors affecting Soldiers at regular intervals, military leaders may be able to better identify and mitigate stressors in a systematic way that bolsters individual and unit psychological fitness. An enhanced psychological readiness metric stands to strengthen the validity of current resilience programs, bring clarity to the mechanisms of resilience, and provide a novel way for leaders to promote readiness in their units. Application of this metric within the infrastructure of existing reporting systems stands to improve mental health outcomes for Service Members, enhance the psychological readiness of the force, and reduce healthcare costs over time.

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https://doi.org/10.1177/0095327X221094646

Gender Disparities in Active Duty Air Force Parents' Childcare Access: Pre-Pandemic Costs, Utilization, and Career Impacts. EL King, H Myint, TR Gardner, MR Mitchell, KA Beitz

Armed Forces & Society First published online June 13, 2022

Past reports indicate that enduring Department of Defense (DoD) childcare shortfalls may disproportionately affect women, but details regarding gender effects are unknown. This exploratory study sought to uncover the military childcare system's pre-pandemic state by analyzing two Air Force (AF) survey datasets—the 2017 AF Community Feedback Tool and 2020 AF Childcare Survey—to examine gender gaps in active duty AF parents' childcare access, cost and utilization, and perceptions of childcare impacts on career progression and retention. Results reveal that women—particularly those in the lowest ranks with less time on station—report more difficulties accessing childcare than male counterparts. Furthermore, fathers paid nothing for childcare and relied on spouses for childcare at higher rates, while mothers paid for care, relied on DoD childcare programs, were on DoD waitlists, reported childcare-related career impacts, and reported childcare affected their retention decisions at higher rates. Policy recommendations to improve childcare across the force are discussed.

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#### https://doi.org/10.1007/s11126-022-09985-4

# Systematic Review of Religiosity's Relationship with Suicidality, Suicide Related Stigma, and Formal Mental Health Service Utilization among Black Americans.

Blessing Fanegan, Ashley-Marie Berry, Jennifer Combs, Alexander Osborn, Reine Decker, Rosalie Hemphill & Drew Barzman

Psychiatric Quarterly Published: 14 June 2022

Rates of suicide have increased among Black Americans. Suicide is now the 3rd leading cause of death for Black Americans between the ages of 1–19 and the 4th leading cause of death for Black Americans aged 20–44. Due to the increasing need in the community, a marked increase in literature focusing on suicide in the Black community has been published since 2018. To build a better understanding of the current state of the literature on suicidality among Black Americans and to offer suggestions for further areas of research, a systematic review was conducted. Spirituality and religious beliefs are often an important cultural focus in the Black

community. Some religious beliefs pose potential unintended regarding the sanctity of life among Black Americans. The focus of this systematic review was religiosity's effect on suicidality among Black Americans. Religiosity was found to have a protective effect against suicidality among Black Americans while discouraging formal mental health services utilization. This systematic review also reveals a dearth of research on the relationship between religiosity and suicide related stigma. Areas for further research are mentioned, and religious institutions as mental health intervention centers are encouraged.

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### https://doi.org/10.1080/08995605.2022.2083468

# Behavioral health and treatment-seeking behaviors among deployed vs. nondeployed service members: How impactful is deployment on well-being?

Sarah Godby Vail, Rhodri Dierst-Davies, Danielle Kogut, Lauren Degiorgi Winslow, Jennifer Vargas, Patrick Koeppl & Kimberley Marshall-Aiyelawo

Military Psychology Published online: 15 Jun 2022

Increasing attention has been dedicated to studying behavioral health of non-deployed military personnel. This investigation explored the impacts of a variety of sociodemographic and health factors on key behavioral health outcomes among active duty personnel. A secondary analysis was conducted using 2014 Defense Health Agency Health Related Behaviors Survey data (unweighted n = 45,762, weighted n = 1,251,606). Three logistic regression models investigated factors associated with reporting symptomatology consistent with depression, anxiety, and stress. We found that after adjusting for sociodemographic and other health variables (e.g., sleep), deployment was associated with stress but not anxiety or depression. Although deployed personnel were more likely to report increased levels of stress overall, few differences with respect to the sources of stressors were identified. While behavioral health screening and treatment needs may differ for non-deployed and deployed personnel, programs to support mental and physical well-being among all service members should be robustly promoted.

#### http://doi.org/10.21061/jvs.v8i1.333

# Factors Influencing the Salience of Military/Veteran Identity Post Discharge: A Scoping Review.

Dolan, G., McCauley, M., & Murphy, D.

Journal of Veterans Studies 2022; 8(1), 231–246

Military/veteran identity is defined as the prominence of past military service, beliefs, and norms on an individual's post-military sense of self. The salience of this identity has been suggested to be a significant factor in how successful individuals transition to civilian life. However, the current body of research on what factors affect this identity is disparate. The aim of this scoping review was to evaluate the current research on the factors affecting the salience of military/veteran identity post discharge, i.e., the likelihood of individuals identifying as ex-military or veteran in a given situation/context. A review of the literature was conducted across PsycINFO, PsycARTICLES, SAGE Journals (Journal of Armed Forces & Society), and Medline using the keywords (Identit\* OR Self-concept\* OR "Sense of self") and (Military OR Veteran\* OR Soldier OR Army OR Forces) and (Discharge\* OR Reintegration OR Transition\*). An evaluation of the results led to 20 articles. Thirteen factors were extracted to form a Military/Veteran Identity Salience (MIS) model. Professionals are recommended to explore military/veteran identity using these 13 factors as guides, rather than assuming that their military/veteran identity is prominent for an individual. Further, additional quantitative research is recommended to evaluate how reliable/valid these factors are across a wider ex-military demographic, such as in other NATO countries aside from the US/UK.

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### https://doi.org/10.1016/j.jpsychires.2022.06.029

# Long-term effectiveness of a prolonged exposure-based intensive outpatient program for veterans with posttraumatic stress disorder.

Carly W. Yasinski, Laura E. Watkins, Jessica L. Maples-Keller, Katie A. Ragsdale, ... Barbara O. Rothbaum

Journal of Psychiatric Research Volume 152, August 2022, Pages 313-320 Empirically-supported psychotherapies for posttraumatic stress disorder (PTSD) are highly effective and recommended as first-line treatments, yet dropout rates from standard outpatient therapy are high. Intensive outpatient programs (IOPs) that provide these therapies in condensed format with complementary interventions show promise, as they have demonstrated similar efficacy and higher retention rates. The current study examined initial and long-term outcomes up to 12-months following a 2-week PTSD IOP involving daily prolonged exposure therapy (PE) and adjunctive interventions for veterans and military service members. Participants (N = 376) demonstrated high retention (91%) and large effect size reductions in self-reported PTSD and depression symptoms after two weeks. Small increases in symptoms occurred after 3 months but these stabilized and large reductions compared to baseline were maintained up to 12 months. Piecewise multilevel modeling indicated that demographic variables did not predict PTSD or depression symptom trajectories. Higher PTSD and depression severity at intake predicted higher symptomatology across timepoints and larger relative gains during treatment. Greater alcohol use prior to treatment was associated with higher PTSD symptomatology but did not affect the magnitude of gains. A history of childhood sexual abuse was associated with greater reduction in depression symptoms over treatment, although this effect faded over follow-up. Together these findings underscore the long-term effectiveness of a PE-based IOP across a diverse range of veterans and service members.

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#### https://doi.org/10.1002/da.23274

The effect of war injury and combat deployment on military wives' mental health symptoms.

Stephen J. Cozza, Christin M. Ogle, Joscelyn E. Fisher, Jing Zhou, Rafael F. Zuleta, Carol S. Fullerton, Robert J. Ursano

Depression & Anxiety First published: 16 June 2022

Background

Although much has been learned about the physical and psychological impacts of deployment and combat injury on military service members, less is known about the effects of these experiences on military spouses.

### Methods

The present study examined self-reported mental health symptoms (using the Brief Symptom Inventory [BSI]-18 and the posttraumatic stress disorder [PTSD] Checklist [PCL-C]) in wives of service members who were combat-injured (CI; n = 60); noninjured with cumulative deployment longer than 11 months (NI-High; n = 51); and noninjured with cumulativel deployment less than 11 months (NI-Low; n = 53).

# Results

36.7% and 11.7% of CI wives endorsed above threshold symptoms on the PCL-C and overall BSI-18, respectively. Multivariate linear regressions revealed that being a CI wife was associated with higher PCL-C, overall BSI-18, and BSI-18 anxiety subscale scores compared to NI-Low wives in models adjusted for individual and family characteristics, as well as prior trauma and childhood adversities. Compared with the NI-High group, the CI group was associated with higher overall BSI-18 scores.

### Conclusions

While CI wives evidenced fewer mental symptoms than expected, these findings suggest a negative impact of service member's combat injury on wives' mental health above that attributable to deployment, highlighting the need for trauma-informed interventions designed to support the needs of military wives affected by combat injury.

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### https://doi.org/10.1016/j.euroneuro.2022.05.010

# Invisible wounds: Suturing the gap between the neurobiology, conventional and emerging therapies for posttraumatic stress disorder.

Xenia Gonda, Peter Dome, Berta Erdelyi-Hamza, Sandor Krause, ... Frank I. Tarazi

European Neuropsychopharmacology Volume 61, August 2022, Pages 17-29

A sharp increase in the prevalence of neuropsychiatric disorders, including major depression, anxiety, substance use disorders and posttraumatic stress disorder (PTSD) has occurred due to the traumatic nature of the persisting COVID-19 global pandemic. PTSD is estimated to occur in up to 25% of individuals following exposure to acute or chronic trauma, and the pandemic has inflicted both forms of trauma on much of the population through both direct physiological attack as well as an inherent upheaval to our sense of safety. However, despite significant advances in our ability to define and

apprehend the effects of traumatic events, the neurobiology and neuroanatomical circuitry of PTSD, one of the most severe consequences of traumatic exposure, remains poorly understood. Furthermore, the current psychotherapies or pharmacological options for treatment have limited efficacy, durability, and low adherence rates. Consequently, there is a great need to better understand the neurobiology and neuroanatomy of PTSD and develop novel therapies that extend beyond the current limited treatments. This review summarizes the neurobiological and neuroanatomical underpinnings of PTSD and discusses the conventional and emerging psychotherapies, pharmacological and combined psychopharmacological therapies, including the use of psychedelic-assisted psychotherapies and neuromodulatory interventions, for the improved treatment of PTSD and the potential for their wider applications in other neuropsychiatric disorders resulting from traumatic exposure.

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# https://doi.org/10.1136/bmjmilitary-2022-002128

# Addressing moral injury in the military.

Phelps, A. J., Adler, A. B., Belanger, S., Bennett, C., Cramm, H., Dell, L., Fikretoglu, D., Forbes, D., Heber, A., Hosseiny, F., Morganstein, J. C., Murphy, D., Nazarov, A., Pedlar, D., Richardson, J. D., Sadler, N., Williamson, V., Greenberg, N., Jetly, R., & Members of the Five Eyes Mental Health Research and Innovation Collaborative

BMJ Mil Health 2022 Jun 15; e002128

Moral injury is a relatively new, but increasingly studied, construct in the field of mental health, particularly in relation to current and ex-serving military personnel. Moral injury refers to the enduring psychosocial, spiritual or ethical harms that can result from exposure to high-stakes events that strongly clash with one's moral beliefs. There is a pressing need for further research to advance understanding of the nature of moral injury; its relationship to mental disorders such as posttraumatic stress disorder and depression; triggering events and underpinning mechanisms; and prevalence, prevention and treatment. In the meantime, military leaders have an immediate need for guidance on how moral injury should be addressed and, where possible, prevented. Such guidance should be theoretically sound, evidence-informed and ethically responsible. Further, the implementation of any practice change based on the guidance should contribute to the advancement of science through robust evaluation. This paper draws together current research on moral injury, best-practice approaches in the

adjacent field of psychological resilience, and principles of effective implementation and evaluation. This research is combined with the military and veteran mental health expertise of the authors to provide guidance on the design, implementation and evaluation of moral injury interventions in the military. The paper discusses relevant training in military ethical practice, as well as the key roles leaders have in creating cohesive teams and having frank discussions about the moral and ethical challenges that military personnel face.

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### https://doi.org/10.1007/s40429-022-00414-x

# Effects of Cannabis on PTSD Recovery: Review of the Literature and Clinical Insights.

Michele Bedard-Gilligan, Elizabeth Lehinger, Sarah Cornell-Maier, Ash Holloway & Lori Zoellner

Current Addiction Reports Published: 15 June 2022

#### Purpose of Review

Individuals with posttraumatic stress disorder (PTSD) may use cannabis to reduce symptoms yet are also at risk for developing problematic use. This review outlines theories, summarizes recent empirical studies, and discusses clinical implications of cannabis use and PTSD recovery.

### **Recent Findings**

Although naturalistic studies and open trials find a relationship between cannabinoids and PTSD symptom reduction, methodological limitations preclude definitive conclusions. The only randomized controlled trial to date found cannabis had no greater effect on PTSD symptoms than placebo.

### Summary

Rigorous studies of the long-term impact of cannabis use on PTSD recovery are needed. Clinicians and researchers must weigh the potential therapeutic effect against the costs and risks associated with long-term cannabis use. Clinicians should consider all available PTSD treatment options, along with client level factors such as the function of cannabis use, motivation to change use, and the potential impact of cannabis on treatment engagement when making clinical recommendations.

# https://doi.org/10.1016/j.mhpa.2022.100460

# A significant U-shaped association between physical activity level and posttraumatic stress disorder in U.S. military Veterans: Results from the 2019–2020 National Health and Resilience in Veterans Study.

Thomas G. Adams, Emily Fenlon, Christopher Penn, Troy Hubert, Robert H. Pietrzak

Mental Health and Physical Activity Volume 23, October 2022, 100460

Highlights

- A U-shaped association between physical activity levels and a PTSD screen was found.
- Moderate activity level was associated with the lowest probability of PTSD.
- PTSD symptom clusters were differentially associated with physical activity levels.
- Intrusions, anhedonia, and externalizing behaviors were associated with activity levels.

# Abstract

# Objective

The present study sought to extend previous research by examining associations between physical activity levels, PTSD, and PTSD symptom clusters in a large, independent, nationally representative sample of U.S. military veterans.

# Methods

Using data from the 2019–2020 National Health and Resilience in Veterans Study (NHRVS), we examined relations between a comprehensive self-report measure of physical activity that reflects public health guidelines and a self-report measure of DSM-5-defined PTSD and a 7-factor model of PTSD symptom dimensions. A total of 3,875 participants completed all study measures. Post-stratification weights were applied to all analyses (weighted n = 3,732).

# Results

Quadratic logistic regression revealed a significant (p < .05) U-shaped association between physical activity levels (insufficient, moderate, and active) and a positive PTSD

screen. A moderate activity level was associated with the lowest likelihood of PTSD (3.8% adjusted probability) while an active level was associated with the highest likelihood of PTSD (7.8% adjusted probability). Multinomial logistic regression suggested that more severe posttraumatic intrusive symptoms, particularly nightmares, and anhedonic symptoms were associated with a significantly decreased probability of a moderate activity level (ps  $\leq$  .05, false discovery rate corrected).

### Conclusions

Findings suggest that a moderate physical activity level is associated with a lower likelihood of PTSD but that specific PTSD symptoms may be differentially associated with exercise behaviors. Candidate mechanisms and clinical implications of these findings are discussed.

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# Links of Interest

Making Space for Women Aboard Coast Guard Cutters Helps with Retention, Careers <u>https://seapowermagazine.org/making-space-for-women-aboard-coast-guard-cutters-helps-with-retention-careers/</u>

How bad is the lack of child-care? Ask these Florida military families <u>https://www.militarytimes.com/news/your-military/2022/09/08/how-bad-is-the-child-care-shortage-ask-florida-military-families/</u>

Army National Guard launches free child care for soldiers during drill weekends <u>https://www.stripes.com/theaters/us/2022-09-09/national-guard-soldiers-child-care-7269978.html</u>

'These Kids Are Dying' — Inside the Overdose Crisis Sweeping Fort Bragg https://www.rollingstone.com/culture/culture-features/inside-the-overdose-crisissweeping-fort-bragg-1396298/amp/

Nothing seemed to treat their depression. Then they tried ketamine <u>https://www.washingtonpost.com/wellness/2022/09/12/ketamine-depression-treatment-research/</u>

Women's Deployment Health Focus of Women's Equality Day Program https://www.dvidshub.net/news/428944/womens-deployment-health-focus-womensequality-day-program

# Resource of the Week – <u>Leveraging diversity for military effectiveness: Diversity,</u> inclusion and belonging in the UK and US Armed Forces

New, from the RAND Corporation:

# Key Findings

The UK and US Armed Forces can leverage diversity in three key aspects

- Enhancing organisational capacity for innovation, adaptation and quality of decision-making.
- Fostering external legitimacy, enhancing ability to project influence and improving engagement with partners, allies and other domestic and international audiences.
- Improving the Armed Forces' ability to attract, retain and foster skills needed to address current and evolving national security imperatives.

Diversity-related opportunities may best be maximised through recognising specific strategic priorities and requirements

• Identifying and operationalising the opportunities associated with diversity starts with characterising the strategic environment and associated strategic priorities shaping workforce-related requirements of the UK and US Armed Forces.

There are opportunities for the UK and US Armed Forces to further elevate diversity as a strategic enabler for military effectiveness

In order to operationalise diversity-related opportunities, the Armed Forces need to consider:

- How diversity can be effectively enabled through recruitment.
- How a diverse workforce can be effectively managed and rewarded.
- How the Armed Forces can continuously build their organisational capacity for effectively leveraging diversity.

# Recommendations

- Align ambition for leveraging diversity with addressing any barriers to inclusion.
- Further improve how diversity is enabled through recruitment, including by considering greater flexibility in military accession policies, leveraging diversity of recruiters, and fostering partnerships with civilian employers.
- Strengthen the ability of the Armed Forces to effectively reward and provide

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recognition to a diverse workforce.

• Build capacity across the Armed Forces, including through identifying how to effectively operationalise and support different diversity networks and harnessing good diversity management practices from beyond Defence.



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