

# Research Update -- September 10, 2020

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- Virtual Trauma-Focused Therapy for Military Members, Veterans, and Public Safety Personnel with Post-Traumatic Stress Injury: A Systematic Scoping Review.
- Posttraumatic Stress Disorder Symptom Clusters in Service Members Predict New-Onset Depression Among Military Spouses.
- Preventing Suicide Through Better Firearm Safety Policy in the United States.
- Neuroinflammatory Biomarkers Associated With Mild Traumatic Brain Injury History in Special Operations Forces Combat Soldiers.
- Association Between Positive Results on the Primary Care–Posttraumatic Stress Disorder Screen and Suicide Mortality Among US Veterans.
- Links of Interest
- Resource of the Week -- NCCIH Clinical Digest: Anxiety and Complementary Health Approaches (National Center for Complementary and Integrative Health)

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#### https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770146

## Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic.

Ettman CK, Abdalla SM, Cohen GH, Sampson L, Vivier PM, Galea S.

JAMA Network Open 2020; 3(9) https:/doi.org/10.1001/jamanetworkopen.2020.19686

Key Points

Question

What is the burden of depression symptoms among US adults during the coronavirus disease 2019 (COVID-19) pandemic compared with before COVID-19, and what are the risk factors associated with depression symptoms?

#### Findings

In this survey study that included 1441 respondents from during the COVID-19 pandemic and 5065 respondents from before the pandemic, depression symptom prevalence was more than 3-fold higher during the COVID-19 pandemic than before. Lower income, having less than \$5000 in savings, and having exposure to more stressors were associated with greater risk of depression symptoms during COVID-19.

#### Meaning

These findings suggest that there is a high burden of depression symptoms in the US associated with the COVID-19 pandemic and that this burden falls disproportionately on individuals who are already at increased risk.

#### Abstract

#### Importance

The coronavirus disease 2019 (COVID-19) pandemic and the policies to contain it have been a near ubiquitous exposure in the US with unknown effects on depression symptoms.

#### Objective

To estimate the prevalence of and risk factors associated with depression symptoms among US adults during vs before the COVID-19 pandemic.

#### Design, Setting, and Participants

This nationally representative survey study used 2 population-based surveys of US adults aged 18 or older. During COVID-19, estimates were derived from the COVID-19 and Life Stressors Impact on Mental Health and Well-being study, conducted from March 31, 2020, to April 13, 2020. Before COVID-19 estimates were derived from the National Health and Nutrition Examination Survey, conducted from 2017 to 2018. Data were analyzed from April 15 to 20, 2020.

#### Exposures

The COVID-19 pandemic and outcomes associated with the measures to mitigate it.

#### Main Outcomes and Measures

Depression symptoms, defined using the Patient Health Questionnaire-9 cutoff of 10 or higher. Categories of depression symptoms were defined as none (score, 0-4), mild (score, 5-9), moderate (score, 10-14), moderately severe (score, 15-19), and severe (score,  $\geq 20$ ).

#### Results

A total of 1470 participants completed the COVID-19 and Life Stressors Impact on Mental Health and Well-being survey (completion rate, 64.3%), and after removing those with missing data, the final during–COVID-19 sample included 1441 participants (619 participants [43.0%] aged 18-39 years; 723 [50.2%] men; 933 [64.7%] non-Hispanic White). The pre–COVID-19 sample included 5065 participants (1704 participants [37.8%] aged 18-39 years; 2588 [51.4%] women; 1790 [62.9%] non-Hispanic White). Depression symptom prevalence was higher in every category during COVID-19 compared with before (mild: 24.6% [95% CI, 21.8%-27.7%] vs 16.2% [95% CI, 15.1%-17.4%]; moderate: 14.8% [95% CI, 12.6%-17.4%] vs 5.7% [95% CI, 4.8%-6.9%]; moderately severe: 7.9% [95% CI, 6.3%-9.8%] vs 2.1% [95% CI, 1.6%-2.8%]; severe: 5.1% [95% CI, 3.8%-6.9%] vs 0.7% [95% CI, 0.5%-0.9%]). Higher risk of depression symptoms during COVID-19 was associated with having lower income (odds ratio, 2.37 [95% CI, 1.26-4.43]), having less than \$5000 in savings (odds ratio, 1.52 [95% CI, 1.02-2.26]), and exposure to more stressors (odds ratio, 3.05 [95% CI, 1.95-4.77]).

#### Conclusions and Relevance

These findings suggest that prevalence of depression symptoms in the US was more than 3-fold higher during COVID-19 compared with before the COVID-19 pandemic. Individuals with lower social resources, lower economic resources, and greater exposure to stressors (eg, job loss) reported a greater burden of depression symptoms.

Post–COVID-19 plans should account for the probable increase in mental illness to come, particularly among at-risk populations.

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https://pubmed.ncbi.nlm.nih.gov/32081595/

Associations between Augmentee Status, Deployment Stress Preparedness and Depression, Post-Traumatic Stress Disorder, and Binge Drinking in U.S. Servicewomen.

Cucciare, M. A., Mengeling, M. A., Han, X., Torner, J., & Sadler, A. G.

Womens Health Issues May-Jun 2020; 30(3): 207-213 https://doi.org/10.1016/j.whi.2020.01.002

#### Background:

Being deployed without one's home unit (individual-augmentee) and low perceived deployment preparedness are risk factors for mental health symptoms and substance use in male service members. However, these relationships have not been examined specifically in U.S. servicewomen. This study sought to fill this gap by examining associations between augmentee status and deployment stress preparedness (independent variables) and depression, probable post-traumatic stress disorder (PTSD), and binge drinking (dependent variables) in a sample of U.S. servicewomen.

#### Methods:

A community sample of service women from the Midwest, including both veterans and those serving at the time of data collection (N = 991), completed structured telephone interviews. Logistic regression was used to examine associations between augmentee status, deployment stress preparedness, and the likelihood of reporting depression, probable PTSD, and binge drinking after controlling for covariates.

#### Results:

Findings showed that U.S. servicewomen in the Reserve/Guard who deployed as individual-augmentees were more likely to screen positive for depression, report probable PTSD, and disclose recent binge drinking than servicewomen in the Reserve/Guard deployed with their home unit. Also, among servicewomen deployed as individual-augmentees, those in the Reserve/Guard were more likely to report binge drinking than servicewomen in the active component. No statistically significant associations between deployment stress preparedness and mental health symptoms or binge drinking were observed.

Conclusions:

Servicewomen in the Reserve/Guard who deployed as individual-augmentees may be at increased risk for depression, probable PTSD, and hazardous drinking when compared with their active component and Reserve/Guard peers deployed with their home units.

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#### https://pubmed.ncbi.nlm.nih.gov/32317136/

# Perceived Stress Mediates the Association between Deployment Sexual Trauma and Nicotine Dependence in Women Veterans.

Gross, G. M., Colon, R., Bastian, L. A., & Hoff, R.

Womens Health Issues May-Jun 2020; 30(3): 214-220 https://doi.org/10.1016/j.whi.2020.03.001

Background:

Rates of smoking and related health consequences are higher for women veterans as compared with their civilian counterparts, and trauma is a known risk factor associated with smoking. Military sexual trauma is prevalent among women veterans and associated with deleterious health outcomes, including tobacco use. However, research has not examined variables that may explain this association. The purpose of the present study was to examine the association between deployment sexual trauma (DST; military sexual trauma that occurs during deployment) and nicotine dependence, and whether perceived stress is a potential explanatory variable (i.e., mediator) in this relationship.

#### Methods:

Cross-sectional associations and Hayes mediation models were examined using baseline interview data from the Survey of Experiences of Returning Veterans sample (352 recently returned women veterans).

#### Results:

DST was associated with postdeployment nicotine dependence and greater perceived

stress. Further, perceived stress was a significant mediator between DST and binary nicotine dependence (indirect effect [standard error] of DST on nicotine dependence through perceived stress, 0.04 [0.01]; 95% confidence interval, 0.01-0.07; odds ratio, 1.04; p < .01) when controlling for education.

Conclusions:

Findings suggest that perceived stress may be a clinical target for decreasing nicotine dependence among women veterans who have experienced DST.

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#### https://onlinelibrary.wiley.com/doi/10.1111/sltb.12685

Shared correlates of prescription drug misuse and severe suicide ideation among clinical patients at risk for suicide.

Logan J, Ertl A, Rostad W, Herbst J, Ashby Plant E.

Suicide and Life-Threatening Behavior First published: 28 August 2020 https://doi.org/10.1111/sltb.12685

#### Objective

Unintentional drug overdose and suicide have emerged as public health problems. Prescription drug misuse can elevate risk of overdose. Severe suicidal ideation increases risk of suicide. We identified shared correlates of both risk factors to inform cross-cutting prevention efforts.

#### Methods

We conducted a cross-sectional study using the Military Suicide Research Consortium's Common Data Elements survey; 2012–2017 baseline data collected from 10 research sites were analyzed. The sample included 3962 clinical patients at risk of suicide. Factors examined in relation to the outcomes, prescription drug misuse and severe suicidal ideation, included demographic characteristics and symptoms of: hopelessness; anxiety; post-traumatic stress disorder; alcohol use; other substance use; prior head/neck injury; insomnia; and belongingness. Poisson regression models with robust estimates provided adjusted prevalence ratios (aPRs) and 97.5% confidence intervals (CIs).

# Results

Medium and high (vs. low) levels of insomnia were positively associated with prescription drug misuse (aPRs p < 0.025). Medium (vs. low) level of insomnia was positively associated with severe suicidal ideation (aPR: 1.09; CI: 1.01–1.18). Medium and high (vs. low) levels of perceived belongingness were inversely associated with both outcomes (aPRs p < 0.025).

## Conclusions

Research should evaluate whether addressing sleep problems and improving belongingness can reduce prescription drug misuse and suicidal ideation simultaneously.

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https://www.sciencedirect.com/science/article/abs/pii/S0005789420301192

# Does Adding the Dialectical Behavior Therapy Prolonged Exposure (DBT PE) Protocol for PTSD to DBT Improve Outcomes in Public Mental Health Settings? A Pilot Nonrandomized Effectiveness Trial with Benchmarking.

Melanie S. Harned, Sara C. Schmidt, Kathryn E. Korslund, Robert J. Gallop

Behavior Therapy Available online 1 September 2020 https://doi.org/10.1016/j.beth.2020.08.003

Highlights

- A nonrandomized trial compared DBT vs. DBT + DBT PE in 35 patients with PTSD.
- Treatment occurred in 4 public mental health agencies under usual care conditions.
- DBT PE was acceptable, feasible, and safe to deliver.
- Adding DBT PE to DBT enhanced PTSD and secondary outcomes.
- The magnitude of clinical change was smaller than in prior efficacy studies.

# Abstract

The Dialectical Behavior Therapy Prolonged Exposure (DBT PE) protocol improves DBT's effects on PTSD in research settings, but its effectiveness in community settings is largely unknown. This pilot nonrandomized controlled trial examined DBT with and

without DBT PE in four public mental health agencies. Patients (N = 35, 12-56 years old, 80.0% female, 64.7% racial/ethnic minorities, 44.1% sexual minorities) had PTSD, were receiving DBT, and completed assessments every four months over one year. Sixteen patients (45.7%) initiated DBT PE, 19 (54.3%) did not, and dropout did not differ between groups (31.3% vs. 26.3%). The primary barrier to initiating DBT PE was clinician turnover (57.9% of non-initiators). After adjusting for confounds, DBT PE initiators (g = 1.1) and completers (g = 1.4) showed a greater reduction in PTSD than patients who received DBT only (g = 0.5; p's < .05). Rates of reliable improvement in PTSD were 71.4% (DBT PE completers), 53.8% (DBT PE initiators), and 31.3% (DBT). Similar patterns were observed for posttraumatic cognitions, emotion dysregulation, general psychological distress, and limited activity days. There was no worsening of self-injurious behavior or crisis service use among patients who received DBT PE. Benchmarking analyses indicated comparable feasibility, acceptability, and safety, but a smaller magnitude of clinical change, than in efficacy studies. Results require replication in a randomized trial but suggest that DBT PE can be transported effectively to community settings.

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https://www.sciencedirect.com/science/article/pii/S1697260020300545

# Prevalence of depression during the COVID-19 outbreak: A meta-analysis of community-based studies.

Juan Bueno-Notivol, Patricia Gracia-García, Beatriz Olaya, Isabel Lasheras, ... Javier Santabárbara

International Journal of Clinical and Health Psychology Available online 31 August 2020 https://doi.org/10.1016/j.ijchp.2020.07.007

#### Introduction

COVID-19 pandemic, declared on March 11, 2020, constitute an extraordinary health, social and economic global challenge. The impact on people's mental health is expected to be high. This paper sought to systematically review community-based studies on depression conducted during the COVID-19 and estimate the pooled prevalence of depression.

#### Method

We searched for cross-sectional, community-based studies listed on PubMed or Web of

Science from January 1, 2020 to May 8, 2020 that reported prevalence of depression. A random effect model was used to estimate the pooled proportion of depression.

#### Results

A total of 12 studies were included in the meta-analysis, with prevalence rates of depression ranging from 7.45% to 48.30%. The pooled prevalence of depression was 25% (95% CI: 18% – 33%), with significant heterogeneity between studies (I2 = 99.60%, p < .001).

### Conclusions

Compared with a global estimated prevalence of depression of 3.44% in 2017, our pooled prevalence of 25% appears to be 7 times higher, thus suggesting an important impact of the COVID-19 outbreak on people's mental health. Addressing mental health during and after this global health crisis should be placed into the international and national public health agenda to improve citizens' wellbeing.

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https://www.tandfonline.com/doi/abs/10.1080/23279095.2020.1810690

# An interdisciplinary approach to the screening, diagnosis, and treatment of OEF/OIF Veterans with mild traumatic brain injury.

Jenna L. Gress Smith, Nicole A. Roberts, Dominika Borowa & MaryLu Bushnell

Applied Neuropsychology: Adult Published online: 02 Sep 2020 https://doi.org/10.1080/23279095.2020.1810690

#### Objective

To implement an Integrated TBI Screening Clinic (ITSC) during the mandatory TBI evaluation process at the Department of Veterans Affairs. Referral outcomes were examined regarding Veterans who were determined to need a full neuropsychological evaluation versus those for whom mental health treatment was clinically indicated. Correlations among cognitive measures, posttraumatic stress disorder (PTSD), anxiety, depression, and insomnia symptoms were also examined.

#### Method

This study was a retrospective chart review study that included 138 Veterans seen between 2011 and 2014 in a post-deployment primary care clinic. Descriptive statistics

and correlations were completed using the: screening Module of the Neuropsychological Assessment Battery (S-NAB), PTSD Checklist-Military version (PCL-M), Beck Depression Inventory-II (BDI-II), Beck Anxiety Inventory (BAI), and Insomnia Severity Index (ISI).

#### Results

19.8% of Veterans required a referral for a full neuropsychological exam and 72.7% were referred for additional mental health services (with some Veterans being referred to both). Significant correlations were found among higher PTSD, depression, anxiety symptoms, with poorer attention and memory (all p < .05). Only PTSD was significantly correlated with poorer executive functioning (r = 0.19, p < .05).

### Conclusion

Integration of a multidisciplinary neuropsychological screening exam during a primary care visit with OEF/OIF Veterans may assist in better delineating symptoms.

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https://www.tandfonline.com/doi/abs/10.1080/21635781.2020.1812454

# The Nature and Structure of the Military Suicide Research Consortium's Common Data Elements.

Anna R. Gai, Fallon Ringer, Katherine Schafer, Sean Dougherty, Matthew Schneider, Kelly A. Soberay, Peter M. Gutierrez, Thomas E. Joiner, Katherine Anne Comtois & E. Ashby Plant

Military Behavioral Health Published online: 31 Aug 2020 https://doi.org/10.1080/21635781.2020.1812454

# Objective

To describe the development, application, and benefits of a set of common data elements (CDE) utilized by the Military Suicide Research Consortium (MSRC).

# Approach:

Civilian and military suicide research experts selected items from measures representing a broad range of suicide-specific constructs, and created new items for certain constructs. The resulting CDE were included in the protocols of all studies funded by MSRC. Principal investigators upload their CDE to a secure repository available for use by other researchers.

Results:

The CDE have been found to be valid, reliable, and of use for multiple applications beyond the design of the parent studies which generated them.

Conclusions:

The MSRC CDE expand the information available to inform suicide prevention and intervention among military personnel. They also improve the quality of the suicide data available in support of the DoD's goal of addressing the huge public health problem of suicide among service members.

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https://www.degruyter.com/view/journals/revneuro/ahead-of-print/article-10.1515-revneuro-2020-0006/article-10.1515-revneuro-2020-0006.xml

#### Depression in post-traumatic stress disorder.

Milen L. Radell, Eid Abo Hamza and Ahmed A. Moustafa

Reviews in the Neurosciences \ Published online: 31 Aug 2020 https://doi.org/10.1515/revneuro-2020-0006

Major depressive disorder (MDD) symptoms commonly occur after trauma-exposure, both alone and in combination with post-traumatic stress disorder (PTSD). This article reviews recent research on comorbidity between these disorders, including its implications for symptom severity and response to treatment. Despite considerable symptom overlap, the two disorders represent distinct constructs and depend, at least in part, on separate biological mechanisms. Both, however, are also clearly related to stress psychopathology. We recommend that more research focus specifically on the study of individual differences in symptom expression in order to identify distinct subgroups of individuals and develop targeted treatments. However, a barrier to this line of inquiry is the trend of excluding particular patients from clinical trials of new interventions based on symptom severity or comorbidity. Another obstacle is the overreliance on self-report measures in human research. We argue that developing computer-based behavioral measures in order to supplement self-report can help address this challenge. Furthermore, we propose that these measures can help tie findings from human and non-human animal research. A number of paradigms have been used to model MDD-and PTSD-like behavior in animals. These models remain valuable for understanding the biological basis of these disorders in humans and for identifying potential interventions, but they have been underused for the study of comorbidity. Although the interpretation of animal behavior remains a concern, we propose that this can also be overcome through the development of close human analogs to animal paradigms.

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#### https://onlinelibrary.wiley.com/doi/abs/10.1111/cpsp.12375

Family accommodation in PTSD: Proposed considerations and distinctions from the established transdiagnostic literature.

Lillian Reuman, Johanna Thompson-Hollands

Clinical Psychology: Science and Practice First published: 30 August 2020 https://doi.org/10.1111/cpsp.12375

Accommodation is widely documented and studied among internalizing disorders; however, the conceptualization and study of accommodation in the context of posttraumatic stress disorder (PTSD) is relatively nascent. PTSD entails many diagnostic criteria—including exposure to a distinct Criterion A event, emotional numbing, and anger—that may uniquely influence accommodation and merit special consideration. Our aim was to review the impact of accommodation in PTSD, compare and contrast accommodation in PTSD to other disorders with a strong empirical evidence base regarding accommodation, and highlight considerations unique to PTSD and associated implications for accommodation. We conclude by providing considerations for future research and practice.

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https://www.sciencedirect.com/science/article/abs/pii/S0165032720326756

Relationships between Chronic Pain and Mood Symptoms among Veterans with Bipolar Disorder.

Letitia E. Travaglini, Lorrianne Kuykendall, Melanie E. Bennett, Erica A. Abel, Alicia Lucksted

Journal of Affective Disorders Available online 1 September 2020 https://doi.org/10.1016/j.jad.2020.08.069

# Highlights

- Little is known about pain experiences among individuals with bipolar disorder.
- This qualitative study examined relationships between mood states, pain, and functioning.
- There was a clear, bidirectional relationship between increased pain and depressive episodes.
- With mania, pain was magnified with irritability, reduced with euphoria, or largely unnoticed.
- Functioning and quality of life was notably impaired by having comorbid pain and bipolar disorder.

# Abstract

### Background

Chronic pain is highly prevalent among individuals with mood disorders. While much is known about the relationship between pain and unipolar depression, little is known about pain experiences among people with bipolar disorder. This pilot study addresses this gap by examining pain and its relationship to mood and functioning in a sample of US military veterans with bipolar disorder.

# Methods

Qualitative interviews were conducted with 15 veterans with bipolar disorder and chronic pain who were recruited from outpatient services within a Veterans Affairs medical center.

#### Results

Veterans reported a bidirectional relationship between pain and bipolar depression. When discussing manic episodes, individuals' experiences varied between notable reductions in pain (usually in euphoric states), increases in pain (usually in angry/irritable states), and feeling disconnected from pain. Many reported that increased activity when manic contributed to worse pain after an episode. Veterans clearly articulated how these connections negatively affected their functioning and quality of life.

#### Limitations

This was a small, retrospective study that included a non-random sample of veteran participants from one VA medical center. All veterans were engaged in outpatient mental health care, so the majority reported that their mood has been well-stabilized through medications and/or psychotherapy.

## Conclusions

Chronic pain experiences appear to be related to depressive and manic mood states and significantly affects functioning and quality of life in Veterans with bipolar disorder. This study highlights the need to assess chronic pain among veterans with bipolar disorder, as changes in mood could have significant implications for functioning and pain management.

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https://www.sciencedirect.com/science/article/abs/pii/S016503272032704X

# Cognitive Behavioral Social Rhythm Group Therapy versus Present Centered Group Therapy for Veterans with Posttraumatic Stress Disorder and Major Depressive Disorder: A Randomized Controlled Pilot Trial.

Patricia L. Haynes, Sarah B. Burger, Monica Kelly, Sarah Emert, ... M. Tracie Shea

Journal of Affective Disorders Available online 7 September 2020 https://doi.org/10.1016/j.jad.2020.09.009

# Highlights

- Cognitive Behavioral Social Rhythm Therapy (CBSRT) is a group therapy designed for veterans with posttraumatic stress disorder, depression, and sleep disturbances
- This pilot randomized controlled trial compared CBSRT versus Present Centered Therapy
- CBSRT had higher rates of attendance than Present Centered Therapy
- There were few differences between conditions on psychiatric and sleep symptoms
- Both group therapies improved symptoms but not to levels of remission

#### Abstract

#### Background

Cognitive Behavioral Social Rhythm Group Therapy (CBSRT) is a chronobiologicallyinformed group therapy designed to stabilize social rhythms in veterans with comorbid combat-related PTSD and major depressive disorder (MDD). This randomized controlled pilot trial is the first to examine feasibility and preliminary efficacy of group CBSRT as compared to group Present Centered Therapy (PCT), a well-characterized active attention, psychotherapy condition.

#### Methods

A total of 43 male veterans with combat-related PTSD, MDD, and disruptions in sleep or daily routine were randomly assigned to CBSRT or PCT. Therapy was provided weekly in a group modality for 12 weeks. Follow-up feasibility and gold-standard PTSD, MDD, and subjective/objective sleep assessments were conducted at post-treatment, 3 months, and 6 months post-treatment.

#### Results

Feasibility results demonstrated that veterans assigned to CBSRT had higher rates of attendance than veterans assigned to PCT. Both CBSRT and PCT were associated with improvements in PTSD and MDD symptoms, sleep efficiency, and number of awakenings; there were no differences between group therapies on these indices. Veterans in the CBSRT group had a greater reduction in the number of nightmares than veterans in the PCT group.

#### Limitations

Preliminary results must be qualified by the small sample size.

#### Conclusions

Group CBSRT may be more feasible for veterans than PCT. Both CBSRT and PCT were associated with improvements in psychiatric symptoms with few differences between conditions. CBSRT is a promising new group therapy that may help address the high-rate of PTSD therapy attrition in combat veterans.

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https://link.springer.com/article/10.1007/s10880-020-09741-5

Strategies for Managing Chronic Pain, Chronic PTSD, and Comorbidities: Reflections on a Case Study Documented over Ten Years. Carol Cronin Weisfeld & Kim Dunleavy

Journal of Clinical Psychology in Medical Settings Published 05 September 2020 https://doi.org/10.1007/s10880-020-09741-5

Chronic pain and chronic PTSD are often comorbid sequelae in patients who have experienced life-threatening experiences such as combat, assaults, or motor vehicle accidents, presenting lifelong challenges for patients and for medical management in all settings. This article briefly reviews four models for exploring the interrelationships of chronic pain and chronic PTSD. The article presents a longitudinal case study, documented over 10 years, of a patient with chronic back pain, and delayed-onset chronic PTSD related to sexual trauma experienced as a young adult. Data from the case study are examined for evidence in support of the chronic pain/chronic PTSD models. There is evidence to support all four models, with considerable evidence supporting the Mutual Maintenance Model (Sharp & Harvey, in Clinical Psychology Review 21(6): 857–77, 2001). Data show significant recovery over time from both conditions with improvements in function, work, and relationships, in response to Psychodynamic Therapy (PDT), Cognitive Behavioral Therapy (CBT), and hypnotic interventions, physical therapy, and pilates-based exercise. Notably, both chronic conditions were addressed simultaneously, with providers working collaboratively and sharing information through the patient. Emphasis is on non-pharmaceutical rehabilitative trauma-informed and patient-centered approaches to care.

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https://www.sciencedirect.com/science/article/abs/pii/S0165032720326690

The relationship between meaning in life and post-traumatic stress symptoms in US military personnel: A meta-analysis.

Ian C. Fischer, Mackenzie L. Shanahan, Adam T. Hirsh, Jesse C. Stewart, Kevin L. Rand

Journal of Affective Disorders Available online 2 September 2020 https://doi.org/10.1016/j.jad.2020.08.063 Highlights

- A meta-analytic review of the relationship between meaning in life and post-traumatic stress symptoms.
- Results revealed a significant relationship with a moderate effect size.
- Theoretical, research, and clinical implications with future directions are discussed.

#### Abstract

#### Background

Subjective meaning in life has been theorized to play a critical role in the adjustment to traumatic events. However, its association with post-traumatic stress symptoms has not been quantitatively reviewed.

#### Methods

Informed by Park's integrated meaning-making model and evidenced-based psychological treatments for post-traumatic stress disorder, the goals of this metaanalysis were to: (1) to determine the direction and magnitude of the association between meaning in life and post-traumatic stress symptoms; and (2) to examine potential moderators of this association (i.e., age, sex, race, marital status, type of trauma, and meaning in life conceptualization). CINAHL, Embase, PILOT, PsycINFO, PubMed, and Web of Science core collection databases were searched.

#### Results

A random-effects meta-analysis was conducted on 26 associations (N = 9,751). A significant, moderate, negative relationship was found between meaning in life and post-traumatic stress symptoms (r = -0.41; 95% CI: -0.47 to -0.35, k = 25). No significant moderators were detected.

#### Conclusions

Findings suggest that meaning in life plays a crucial role in adjustment to traumatic events. Development and testing of randomized controlled trials to determine whether increases in meaning in life result in reductions of post-traumatic stress in US military personnel may facilitate ongoing efforts aimed at recovery from trauma.

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https://academic.oup.com/sleep/advance-articleabstract/doi/10.1093/sleep/zsaa171/5901605

# Cognitive Behavioral Therapy for Insomnia among Young Adults Who are Actively Drinking: A Randomized Pilot Trial.

Mary Beth Miller, Chelsea B Deroche, Lindsey K Freeman, Chan Jeong Park, Nicole A Hall, Pradeep K Sahota, M.D, Christina S McCrae, Ph.D

Sleep Published: 04 September 2020 https://doi.org/10.1093/sleep/zsaa171

#### Study Objectives

More than half of young adults at risk for alcohol-related harm report symptoms of insomnia. Insomnia symptoms, in turn, have been associated with alcohol-related problems. Yet one of the first-line treatments for insomnia (Cognitive Behavioral Therapy for Insomnia, or CBT-I) has not been tested among individuals who are actively drinking. This study tested (a) the feasibility and short-term efficacy of CBT-I among binge-drinking young adults with insomnia and (b) improvement in insomnia as a predictor of improvement in alcohol use outcomes.

#### Methods

Young adults (ages 18-30y, 75% female, 73% college students) who met criteria for Insomnia Disorder and reported 1+ binge drinking episode (4/5+ drinks for women/men) in the past month were randomly assigned to five weekly sessions of CBT-I (n=28) or single-session sleep hygiene (n=28). All participants wore wrist actigraphy and completed daily sleep surveys for 7+ days at baseline, post-treatment, and one-month follow-up.

#### Results

Of those randomized, 43 (77%) completed post-treatment (19 CBT-I, 24 sleep hygiene) and 48 (86%) completed 1-month follow-up (23 CBT-I, 25 sleep hygiene). CBT-I participants reported greater post-treatment decreases in insomnia severity than those in sleep hygiene (56% vs 32% reduction in symptoms). CBT-I did not have a direct effect on alcohol use outcomes; however, mediation models indicated that CBT-I influenced change in alcohol-related consequences indirectly through its influence on post-treatment insomnia severity.

#### Conclusion

CBT-I is a viable intervention among individuals who are actively drinking. Research examining improvement in insomnia as a mechanism for improvement in alcohol-related consequences is warranted.

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#### https://preprints.jmir.org/preprint/22079

Jones C, Miguel-Cruz A, Smith-MacDonald L, Cruikshank E, Baghooi D, Kaur Chohan A, Laidlaw A, White A, Cao B, Agyapong V, Burback L, Winkler O, Sevigny PR, Dennett E, Ferguson-Pell M, Greenshaw A, Brémault-Phillips S

# Virtual Trauma-Focused Therapy for Military Members, Veterans, and Public Safety Personnel with Post-Traumatic Stress Injury: A Systematic Scoping Review.

JMIR Preprints 07/07/2020:22079 https://preprints.jmir.org/preprint/22079

A necessary shift from in-person to remote delivery of psychotherapy (e.g., teletherapy, eHealth, videoconferencing) has occurred due to the COVID-19 pandemic. A corollary benefit is potential fit in terms of the need for equitable and timely access to mental health (MH) services in remote and rural locations. COVID-19 may increase the need of Trauma-affected populations (TAPs), including public safety personnel (PSP; e.g., paramedics, police, fire, correctional officers), military members (MMs), and Veterans, for timely virtual-delivery services. There is a lack of evidence on the question of whether digital delivery of trauma-therapies for MMs, Veterans, and PSP leads to similar outcomes to in-person delivery. There is also a paucity of information on barriers and facilitators, and a lack of recommendations regarding virtual-delivery.

#### Objective:

To 1) evaluate the scope and quality of peer-reviewed literature on psychotherapeutic digital health interventions delivered remotely to MMs, Veterans, and PSP, and; 2) synthesize knowledge of needs, gaps, barriers to, and facilitators for virtual-assessment of and virtual-interventions for PTSI.

#### Methods:

Identification of relevant studies comprising searching Medline, Embase, APA Psycinfo,

CINAHL Plus with Full Text, and Military & Government Collection. Collation, analysis, summarizing, and reporting of results used the Critical Skills Appraisal Program (CASP) Qualitative Checklist, PEDro Scale, Level of Evidence Hierarchy, PRISMA-ScR, and narrative synthesis.

#### Results:

This review process yielded 38 studies for inclusion. Evidence for effectiveness of digital delivery of prolonged exposure therapy, cognitive processing therapy, Behavioural Activation Treatment with Therapeutic Exposure toMMs, Veterans, and PSP was rated Level 1a, while evidence for cognitive behavioral therapy was conflicting. The narrative synthesis indicated virtual delivery of these therapies can be as effective as in-person, but may reduce stigma and cost while increasing access to therapy. Issues of risk, safety, potential harms (suicidality, enabling avoidance), privacy, security, and the match between therapist, modality and patient warrant further consideration. There is a paucity of studies on influences of gender, racial and cultural factors that may result in differential outcomes, preferences, and/or needs. Investigation into additional therapies that may be suitable for digital delivery are needed.

### Conclusions:

Digital delivery of trauma therapies for MMs, Veterans, and PSP is a critical area for further research. Although promising evidence exists regarding the effectiveness of digital health within these populations, many questions remain and a cautious approach to more widespread implementation is warranted. Additional work is needed to address "the digital divide".

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22575

Posttraumatic Stress Disorder Symptom Clusters in Service Members Predict New-Onset Depression Among Military Spouses.

Walter, K.H., LeardMann, C.A., Carballo, C.E., McMaster, H.S., Donoho, C.J. and Stander, V.A.

Journal of Traumatic Stress First published: 03 September 2020 https://doi.org/10.1002/jts.22575 Military operations in Irag and Afghanistan have brought increased attention to posttraumatic stress disorder (PTSD) among service members and, more recently, its impact on spouses. Existing research has demonstrated that PTSD among service members is associated with depression among military spouses. In the current study, we extended these findings by using data from service member-spouse dyads enrolled in the Millennium Cohort Family Study for which the service member had evidence of PTSD (n = 563). Prospective analyses identified the association between PTSD symptom clusters reported by the service member and new-onset depression among military spouses. Over the 3-year study period, 14.4% of these military spouses met the criteria for new-onset depression. In adjusted models, service member ratings of symptoms in the effortful avoidance cluster, odds ratio (OR) = 1.61, 95% CI [1.03, 2.50], predicted an increased risk of new-onset depression among military spouses, whereas reexperiencing symptoms, adjusted OR = 0.57; 95% CI [0.32, 1.01], were marginally protective. These findings suggest that PTSD symptom clusters in service members differentially predict new-onset depression in military spouses, which has implications for treatment provision.

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### https://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.202000317

#### Preventing Suicide Through Better Firearm Safety Policy in the United States.

Jeffrey W. Swanson, Ph.D.

Psychiatric Services Published Online:v3 Sep 2020 https://doi.org/10.1176/appi.ps.202000317

The U.S. suicide rate continues to increase, despite federal investment in developing preventive behavioral health care interventions. Important determinants of suicide—social, economic, and circumstantial—have little or no connection to psychopathology. Firearm injuries account for over half of suicides, and firearm access is perhaps the most important modifiable determinant. Thus gun safety policy deserves special attention as a pathway to suicide prevention. This article summarizes arguments for several recommended statutory modifications to firearm restrictions at the state level. The policy challenge is to develop and implement evidence-based strategies to keep guns out of the hands of people at highest risk of suicide, without unduly infringing the rights of a large number of gun owners who are unlikely to harm anyone. Recommendations for states include expansion and refinement of legal criteria

prohibiting firearm purchase, possession, or access to better align with suicide risk, including prohibition for persons with brief involuntary psychiatric holds or repeated alcohol-impaired driving convictions; enactment of extreme risk protection order laws, which allow temporary removal of firearms from persons who are behaving dangerously, and entering purchase prohibition data for these persons in the FBI's background-check database; and adoption of an innovative policy known as precommitment against suicide as well as voluntary self-enrollment in the FBI's background-check database.

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#### https://pubmed.ncbi.nlm.nih.gov/32881763/

# Neuroinflammatory Biomarkers Associated With Mild Traumatic Brain Injury History in Special Operations Forces Combat Soldiers.

Jacob R Powell, Adrian J Boltz, Jamie P DeCicco, Avinash Chandran, Stephen M DeLellis, Marshall L Healy, Shawn F Kane, James H Lynch, Gary E Means, Anthony C Hackney, Jason P Mihalik

Journal of Head Trauma Rehabilitation Sep/Oct 2020; 35(5): 300-307 https://www.doi.org/10.1097/HTR.000000000000598.

#### Background:

Special Operations Forces (SOF) combat soldiers are frequently exposed to blast and blunt neurotrauma, most often classified as mild traumatic brain injury (mTBI). Repetitive mTBI may increase the risk of developing long-term neurological sequelae. Identifying changes in neuroinflammatory biomarkers before chronic conditions emerge could serve as preliminary evidence of developing neuropathology.

#### Objective:

To determine the effects of mTBI history, lifetime mTBI incidence, and recency on blood biomarker concentrations of axonal protein neurofilament light (NfL), glycolytic enzyme neuron-specific enolase (NSE), astrocyte-expressed S100 calcium-binding protein B (S100B), and neurotrophic cytokine interleukin-6 (IL-6) in healthy, active duty SOF combat soldiers.

#### Methods:

Self-reported mTBI history/recency and fasted blood samples were collected in this

cross-sectional study of 104 asymptomatic SOF combat soldiers. Biomarker concentrations were quantified using commercial enzyme-linked immunosorbent assays. Mann-Whitney U and Kruskal-Wallis tests were used to compare groups. Post hoc tests with appropriate corrections were conducted as warranted.

### Results:

Soldiers with mTBI history had higher NSE concentrations than those without (z = -2.60, P = .01). We also observed significant main effects of lifetime mTBI incidence on NSE ( $\chi(3) = 9.52$ , P = .02) and S100B ( $\chi(3) = 8.21$ , P = .04) concentrations and a significant main effect of mTBI recency on NfL concentration ( $\chi(2) = 6.02$ , P = .049).

### Conclusion:

The SOF combat soldiers with mTBI history had increased NSE. Longitudinal studies in this population are needed due to between-subject heterogeneity in biomarker concentrations. The NfL concentrations in our SOF combat soldiers-regardless of mTBI history or recency-were similar to values previously reported in civilian acute TBI patients.

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## https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770155

# Association Between Positive Results on the Primary Care–Posttraumatic Stress Disorder Screen and Suicide Mortality Among US Veterans.

Cooper SA, Szymanski BR, Bohnert KM, Sripada RK, McCarthy JF

JAMA Network Open Published: September 3, 2020 https://doi.org/10.1001/jamanetworkopen.2020.15707

Key Points Question Are positive results on the Primary Care–Posttraumatic Stress Disorder Screen associated with an increase in the risk of suicide mortality among veterans receiving care in the US Veterans Health Administration system and, if so, does this risk decrease over time?

Findings In this cohort study of 1 552 581 veteran patients receiving care in the US Veterans Health Administration system who were followed up through 2016, analyses of 1693 449 screens for posttraumatic stress disorder administered in 2014 indicated a statistically significant 58% increase in the risk of suicide mortality at 1 day after a positive screening result. This risk of suicide mortality decreased over time.

#### Meaning

The study's findings indicate that additional mental health and suicide risk assessment may be warranted after a patient receives a positive result on the Primary Care– Posttraumatic Stress Disorder Screen.

#### Abstract

#### Importance

Suicide rates are higher among veterans compared with nonveterans, and the prevalence of posttraumatic stress disorder (PTSD) is higher among veterans compared with the general adult population in the US. To date, no study has examined the association between PTSD screening results and suicide mortality among veterans.

#### Objective

To examine whether veterans receiving care in the US Veterans Health Administration (VHA) health system who had positive results on the Primary Care–Posttraumatic Stress Disorder Screen (PC-PTSD) had a greater risk of suicide mortality compared with those who had negative results and to assess whether such risk decreased over time.

#### Design, Setting, and Participants

Multivariable proportional hazards regression models were used to evaluate suicide mortality risk through December 31, 2016, among a cohort of veterans who received the PC-PTSD in the VHA health system. The VHA administers the PC-PTSD to patients nationwide, and screening results are routinely documented in the VHA Corporate Data Warehouse. The PC-PTSD includes 4 questions regarding PTSD symptoms, to which patients respond with either a positive (yes) or negative (no) answer. All patients who completed the PC-PTSD in 2014 and who did not have a diagnosis of PTSD in the year before screening were included in the analysis. A score of 3 or 4 on the PC-PTSD indicated a positive result, and a score of 0, 1, or 2 indicated a negative result. Data collection and analyses were performed from November 13, 2018, to June 18, 2019.

#### Exposures

Primary Care–Posttraumatic Stress Disorder Screen (PC-PTSD).

#### Main Outcomes and Measures

Suicide mortality risk, as assessed through data obtained from the US Veterans Affairs/Department of Defense Mortality Data Repository.

#### Results

A total of 1 693 449 PC-PTSDs were completed by 1 552 581 individual veteran patients in 2014. Most of the patients were White (73.9%), married (52.2%), male (91.1%), 55 years or older (62.5%), and had completed only 1 PC-PTSD (92.1%). In multivariable analyses, positive PC-PTSD results (ie, total scores of 3 or 4) were associated with a 58% increase in the risk of suicide mortality at 1 day after screening (hazard ratio [HR], 1.58; 95% CI, 1.19-2.10) and a 26% increase in the risk of suicide mortality at 1 year after screening (HR, 1.26; 95% CI, 1.07-1.48). A positive response on item 4 ("felt numb or detached from others, activities, or your surroundings") of the PC-PTSD was associated with a 70% increase in suicide mortality risk at 1 day after screening (HR, 1.27-2.28).

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#### Links of Interest

The Air Force has begun assigning airmen with child custody arrangements to duty near their kids

https://www.airforcetimes.com/news/your-air-force/2020/09/02/the-air-force-has-begunassigning-airmen-with-child-custody-arrangements-to-duty-near-their-kids/

Kundalini Yoga Is Helpful for Adults With Generalized Anxiety Disorder but not as Effective as Cognitive Behavioral Therapy

https://www.nccih.nih.gov/research/research-results/kundalini-yoga-is-helpful-for-adultswith-generalized-anxiety-disorder-but-not-as-effective-as-cognitive-behavioral-therapy

Health Care Workers and Suicide Risk

https://www.pdhealth.mil/news/blog/health-care-workers-and-suicide-risk

"I sought help when I needed it": Joint Chiefs vice chairman speaks out on mental health

https://www.militarytimes.com/news/your-army/2020/09/08/i-sought-help-when-ineeded-it-joint-chiefs-vice-chairman-speaks-out-on-mental-health/ During pandemic, growth of U.S. adults with mental health issues jumps to 53 percent <u>https://www.washingtonpost.com/health/covid-worry-stress-mental-health/2020/09/04/609c0dc2-ee03-11ea-99a1-71343d03bc29\_story.html</u>

PREVENTS aimed at reducing Service Member and Veteran suicide <u>https://health.mil/News/Articles/2020/09/09/PREVENTS-aimed-at-reducing-Service-Member-and-Veteran-suicide</u>

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#### Resource of the Week -- <u>NCCIH Clinical Digest: Anxiety and Complementary</u> <u>Health Approaches</u>

From the National Center for Complementary and Integrative Health:

Researchers are studying a variety of complementary health approaches to see whether they might be helpful for occasional anxiety or anxiety disorders. There is some evidence that mindfulness and other forms of meditation, music, relaxation techniques, and melatonin may be efficacious for anxiety, especially anxiety associated with medical procedures or chronic medical problems. However, there is not enough evidence on other complementary health approaches for anxiety to draw definitive conclusions about their efficacy.

This issue of the digest provides a summary of current research on several complementary health approaches for anxiety, including mind and body practices and natural products.

Home > Health Information > Provider > Digest > Anxiety and Complementary Health Approaches



# Anxiety and Complementary Health Approaches

August 2020

Researchers are studying a variety of complementary health approaches to see whether they might be helpful for occasional anxiety or anxiety disorders. There is some evidence that mindfulness and other forms of meditation, music, relaxation techniques, and melatonin may be efficacious for anxiety, especially anxiety associated with medical procedures or chronic medical problems. However, there is not enough evidence on other complementary health approaches for anxiety to draw definitive conclusions about their efficacy.

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