

# CDP



## Research Update -- June 17, 2021

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- A Network Analysis of DSM-5 Posttraumatic Stress Disorder Symptoms and Event Centrality.
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- Latent Profiles of Comorbid Depression as Predictors of PTSD Treatment Outcome.
- Links of Interest
- Resource of the Week: 2020 Report on Suicide Mortality in the Canadian Armed Forces (1995 to 2019) (Directorate of Mental Health (DMH), Canadian Forces Health Services)

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<https://doi.org/10.1016/j.sleep.2021.05.046>

## **Effects of pre-bedtime blue-light exposure on ratio of deep sleep in healthy young men.**

Masao Ishizawa, Takuya Uchiumi, Miki Takahata, Michiyasu Yamaki, Toshiaki Sato

Sleep Medicine

Available online 8 June 2021

### Highlights

- Electronic media that generate blue-light have become widespread due to the development of electronic devices.
- The effect of blue-light irradiation before bedtime on objective and subjective changes was investigated.
- The use of blue-light equipment may influence of alternation of sleep quality, especially decrease in deep sleep.

### Abstract

This study aimed to investigate the effects of pre-bedtime blue-light exposure on ratio of deep sleep and sleep quality. In this study, 11 healthy young men were exposed to three conditions for 1 h before bedtime: 1) incandescent light, 2) blue-light, or 3) blue light-blocking glasses on. The following morning, subjective sleep quality was measured using the Oguri–Shirakawa–Azumi Sleep Inventory. Sleep time, ratio of sleep, ratio of deep sleep, and body movements during sleep were measured using a mat sleep-scan (sleep scan, SL- 504; TANITA Corp., Japan) and an ambulatory portable sleep study system (LS-140; Fukuda Denshi Co. Ltd., Japan). Ratio of deep sleep was significantly decreased in the blue-light exposure group compared to the groups with incandescent light and blue light-blocking glasses ( $p < 0.01$ ), There were no differences noted in sleep time or body movements among the three groups. These results suggest that blue-light exposure affects sleep quality by reducing the ratio of deep sleep.

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<https://doi.org/10.1016/j.sleep.2021.05.043>

**Comorbid Insomnia and Sleep Apnea: mechanisms and implications of an underrecognized and misinterpreted sleep disorder.**

Miguel Meira e Cruz, Meir Kryger, Charles Morin, Luciana Palombini, ... David Gozal

Sleep Medicine

Available online 8 June 2021

Highlights

- COMISA is a prevalent condition.
- COMISA is associated with increased morbidity and mortality.
- Daytime symptoms of COMISA result from a balance of OSA and Insomnia related daytime symptoms.
- COMISA may present with many challenges to clinicians.

Abstract

Sleep-disordered breathing (SDB) and insomnia have long been recognized as important sleep disrupters often associated with increased morbidity and mortality. Although they are often seen as divergent conditions, mainly because their cardinal symptoms (excessive daytime sleepiness, and sleep loss) differ, these two sleep disorders present with many common symptoms, which may hinder diagnosis and treatment. In addition to possible bidirectional pathways between SDB and insomnia, other factors such as circadian timing may play a role. In this paper, we review the mechanisms, differential clinical aspects, and implications of Comorbid Insomnia and Sleep Apnea, sometimes termed COMISA.

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<https://doi.org/10.1001/jamanetworkopen.2021.13031>

**Association of Social and Behavioral Risk Factors With Mortality Among US Veterans With COVID-19.**

J. Daniel Kelly, MD, MPH; Dawn M. Bravata, MD; Stephen Bent, MD; et al

JAMA Network Open

June 9, 2021

## Key Points

### Question

Are social and behavioral risk factors associated with mortality in US veterans with COVID-19?

### Findings

In this cohort study of 27 640 veterans who received a positive test result for COVID-19, risk factors such as housing problems, financial hardship, alcohol use, tobacco use, and substance use were not associated with higher mortality.

### Meaning

This study found no association between social and behavioral risk factors and death from COVID-19 in an integrated VA health system; such a system is known to transcend social vulnerabilities and has the potential to be a model of support services for households and at-risk populations in the US.

## Abstract

### Importance

The US Department of Veterans Affairs (VA) offers programs that reduce barriers to care for veterans and those with housing instability, poverty, and substance use disorder. In this setting, however, the role that social and behavioral risk factors play in COVID-19 outcomes is unclear.

### Objective

To examine whether social and behavioral risk factors were associated with mortality among US veterans with COVID-19 and whether this association might be modified by race/ethnicity.

### Design, Setting, and Participants

This cohort study obtained data from the VA Corporate Data Warehouse to form a cohort of veterans who received a positive COVID-19 test result between March 2 and September 30, 2020, in a VA health care facility. All veterans who met the inclusion criteria were eligible to participate in the study, and participants were followed up for 30 days after the first SARS-CoV-2 or COVID-19 diagnosis. The final follow-up date was October 31, 2020.

### Exposures

Social risk factors included housing problems and financial hardship. Behavioral risk factors included current tobacco use, alcohol use, and substance use.

## Main Outcomes and Measures

The primary outcome was all-cause mortality in the 30-day period after the SARS-CoV-2 or COVID-19 diagnosis date. Multivariable logistic regression was used to estimate odds ratios, clustering for health care facilities and adjusting for age, sex, race, ethnicity, marital status, clinical factors, and month of COVID-19 diagnosis.

## Results

Among 27 640 veterans with COVID-19 who were included in the analysis, 24 496 were men (88.6%) and the mean (SD) age was 57.2 (16.6) years. A total of 3090 veterans (11.2%) had housing problems, 4450 (16.1%) had financial hardship, 5358 (19.4%) used alcohol, and 3569 (12.9%) reported substance use. Hospitalization occurred in 7663 veterans (27.7%), and 1230 veterans (4.5%) died. Housing problems (adjusted odds ratio [AOR], 0.96; 95% CI, 0.77-1.19;  $P = .70$ ), financial hardship (AOR, 1.13; 95% CI, 0.97-1.31;  $P = .11$ ), alcohol use (AOR, 0.82; 95% CI, 0.68-1.01;  $P = .06$ ), current tobacco use (AOR, 0.85; 95% CI, 0.68-1.06;  $P = .14$ ), and substance use (AOR, 0.90; 95% CI, 0.71-1.15;  $P = .41$ ) were not associated with higher mortality. Interaction analyses by race/ethnicity did not find associations between mortality and social and behavioral risk factors.

## Conclusions and Relevance

Results of this study showed that, in an integrated health system such as the VA, social and behavioral risk factors were not associated with mortality from COVID-19. Further research is needed to substantiate the potential of an integrated health system to be a model of support services for households with COVID-19 and populations who are at risk for the disease.

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<https://doi.org/10.1001/jamapsychiatry.2021.1221>

## **Effect of Matching Therapists to Patients vs Assignment as Usual on Adult Psychotherapy Outcomes: A Randomized Clinical Trial.**

Michael J. Constantino, PhD; James F. Boswell, PhD; Alice E. Coyne, MS; et al

JAMA Psychiatry  
June 9, 2021

## Key Points

### Question

Can assigning patients to therapists with empirically determined strengths in treating the patients' specific mental health problem(s) (ie, measurement-based matching) improve the outcomes of naturalistic psychotherapy compared with case assignment as usual?

### Findings

In this 2-arm, double-blind randomized clinical trial including 48 therapists and 218 outpatients, measurement-based matching promoted significantly greater reductions in patients' general symptomatic and functional impairment, global psychological distress, and domain-specific impairment on patients' most elevated presenting problem over 16 weeks postintake.

### Meaning

In this study, mental health care was enhanced by prospectively assigning patients to empirically good-fitting therapists, which requires minimal disruptions within a mental health care system.

## Abstract

### Importance

Psychotherapists possess strengths and weaknesses in treating different mental health problems, yet performance information is rarely harnessed in mental health care (MHC). To our knowledge, no prior studies have tested the causal efficacy of prospectively matching patients to therapists with empirically derived strengths in treating patients' specific concerns.

### Objective

To test the effect of measurement-based matching vs case assignment as usual (CAU) on psychotherapy outcomes.

### Design, Setting, and Participants

In this randomized clinical trial, adult outpatients were recruited between November 2017 and April 2019. Assessments occurred at baseline and repeatedly during treatment at 6 community MHC clinics in Cleveland, Ohio. To be eligible, patients had to make their own MHC decisions. Of 1329 individuals screened, 288 were randomized. Excluding those who withdrew or provided no assessments beyond baseline, 218 patients treated by 48 therapists were included in the primary modified intent-to-treat analyses.

## Interventions

Therapist performance was assessed pretrial across 15 or more historical cases based on patients' pre-post reporting across 12 problem domains of the routinely administered Treatment Outcome Package (TOP). Therapists were classified in each domain as effective (on average, patients' symptoms reliably improved), neutral (on average, patients' symptoms neither reliably improved nor deteriorated), or ineffective (on average, patients' symptoms reliably deteriorated). Trial patients were randomly assigned to good-fitting therapists (matched group) or were assigned to therapists pragmatically (CAU group). There were multiple match levels, ranging from therapists being effective on the 3 most elevated domains reported by patients and not ineffective on any others (highest) to not effective on the most elevated domains reported by patients but also not ineffective on any domain (lowest). Therapists treated patients in the matched and CAU groups, and treatment was unmanipulated.

## Main Outcomes and Measures

General symptomatic and functional impairment across all TOP domains (average z scores relative to the general population mean; higher scores indicate greater impairment), global distress (Symptom Checklist-10; higher scores indicate greater distress), and domain-specific impairment on each individual's most elevated TOP-assessed problem.

## Results

Of 218 patients, 147 (67.4%) were female, and 193 (88.5%) were White. The mean (SD) age was 33.9 (11.2) years. Multilevel modeling indicated a match effect on reductions in weekly general symptomatic and functional impairment ( $\gamma_{110} = -0.03$ ; 95% CI,  $-0.05$  to  $-0.01$ ;  $d = 0.75$ ), global distress ( $\gamma_{110} = -0.16$ ; 95% CI,  $-0.30$  to  $-0.02$ ;  $d = 0.50$ ), and domain-specific impairment ( $\gamma_{110} = -0.01$ ; 95% CI  $-0.01$  to  $-0.006$ ;  $d = 0.60$ ), with no adverse events.

## Conclusions and Relevance

Matching patients with therapists based on therapists' performance strengths can improve MHC outcomes.

## Trial Registration

ClinicalTrials.gov Identifier: NCT02990000

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<https://doi.org/10.1080/87568225.2021.1926034>

### **Homecoming and College Transition Narratives of Student Military Veterans.**

Michael A. Mahoney, Jeffrey A. Rings, Basilia C. Softas-Nall, Tabitha Alverio & Deon M. Hall

Journal of College Student Psychotherapy  
Published online: 07 Jun 2021

The purpose of this qualitative study was to explore the homecoming and college transition narratives constructed by student veterans in order to help college clinicians a) to more holistically understand these veterans and their experiences, b) to more fully enter their phenomenological worlds, and c) to form more genuine and effective therapeutic relationships with them. Twelve student veteran participants were interviewed, and six common themes emerged from the analysis. Theoretical and clinical implications are provided, as well as more practical recommendations for college clinicians on how to increase campus-wide support and inclusivity for their student veterans.

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<https://doi.org/10.1002/jcad.12374>

### **Mental Health Care Experiences of Trans Service Members and Veterans: A Mixed-Methods Study.**

Megan J. Doughty Shaine, Deanna N. Cor, Andrew J. Campbell, Abbey L. McAlister

Journal of Counseling & Development  
First published: 08 June 2021

We explored mental health care experiences of trans service members and veterans (TSMVs) through a mixed-methods, convergent parallel design. Quantitative survey data from 50 TSMVs were analyzed using paired-samples t tests to identify differences in perceived stigma and barriers to care in accessing services from nonmilitary versus military-affiliated or Veteran's Health Administration providers (MVAPs). We conducted semistructured interviews with 10 participants, exploring their lived experiences in accessing mental health care from both nonmilitary providers and MVAPs. Integrated mixed-methods results indicate TSMVs are more concerned about anti-trans stigma

when accessing care from MVAPs, whereas logistical concerns inform access to nonmilitary providers. Key themes shaping participants' mental health care experiences were (a) access to trans competent care, (b) fear/fear of consequences, (c) therapeutic relationship, (d) transition-related factors, and (e) military systems and culture. Implications for training and practice are discussed.

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<https://doi.org/10.1080/0312407X.2021.1874030>

## **Clinician Perspectives of the Evidence Underpinning Suicide Risk Assessment: A Mixed Methods Study.**

Kellie Grant, Louisa Whitwam, Jennifer Martin, Jennifer White & Terry Haines

Australian Social Work

Published online: 06 Jun 2021

In recent years, suicide risk assessment has become the subject of a vigorous academic debate, due in part to several meta-analyses that have cast doubt on the accuracy of risk categorisation. Little is known about how clinicians make sense of this academic debate. However, it is anticipated that it may pose a tension due to organisational expectations that multidisciplinary health professionals, including social workers, assess and manage suicide risk. As part of a larger mixed methods study to be reported elsewhere, we conducted a qualitative study aiming to explore clinician perspectives on the evidence underpinning suicide risk assessment before and after being presented with the results of two meta-analyses. Findings highlight three modes of reasoning: academic, emotive, and experiential. Perceptions of accuracy of assessing suicide risk at baseline interviews and after hearing the evidence were influenced by heuristics and cognitive biases.

### **IMPLICATIONS**

- Mental health practitioners, including social workers, employed in mental health settings may be more likely to use experiential reasoning to inform their practice in suicide risk assessment.
- Social work practitioners in general health settings may be more likely to use academic reasoning when making decisions about suicide risk assessment.

- Further research is required on how social workers and other mental health professionals can best respond to the crisis of suicide.

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<https://doi.org/10.1016/j.jpsychires.2021.06.012>

## **Factors associated with multiple suicide attempts in a nationally representative study of U.S. military veterans.**

Brandon Nichter, Shira Maguen, Lindsey L. Monteith, Lorig Kachadourian, ... Robert H. Pietrzak

Journal of Psychiatric Research  
Volume 140, August 2021, Pages 295-300

### Objective

Veterans with a history of multiple suicide attempts are at increased risk for suicide mortality relative to those with a single attempt. However, little is known about factors that differentiate veterans who attempt suicide once compared to more than once. This study examined factors that distinguish single suicide attempters (SSA) from multiple suicide attempters (MSA) in a nationally representative sample of U.S. military veterans.

### Methods

Data were analyzed from the 2019–2020 National Health and Resilience in Veterans Study, which surveyed a representative sample of 4069 U.S. veterans. Analyses: (a) estimated the lifetime prevalence of SSA and MSA; and (b) examined factors that differentiated veterans with a SSA from MSA.

### Results

The lifetime prevalences of SSA and MSA were 1.9% and 2.0%. The strongest correlates of MSA were history of lifetime depression (odds ratio [OR], 2.45; 95% confidence interval [CI], 1.43–8.35), non-suicidal self-injury (OR, 3.28; 95% CI, 1.27–8.45), drug use disorder (OR, 4.0; 95% CI, 1.67–9.54), and marital status (OR, 0.40, 95% CI, 0.18–0.87), which accounted for 15.5%–41.4% of the total explained variance in MSA.

### Discussion

Half of military veterans who have attempted suicide in the United States report more than one attempt, suggesting that suicide attempts are not a one-time occurrence for a

substantial proportion of veterans. Veterans who attempt suicide more than once show more deliberate self-harm behavior and have greater psychiatric comorbidities relative to single attempters. Implications for future

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<https://doi.org/10.1007/s10591-021-09588-4>

### **National Guard Couples Communicating During Deployment: The Challenge of Effective Connection.**

Blow, A.J., Farero, A.M., Ufer, L.

Contemporary Family Therapy  
Published 06 June 2021

Communication during a combat deployment has changed significantly in current times. Couples can now communicate with each other frequently and through multiple modes. Despite this greater availability of communication options, there remain unanswered questions related to how healthy deployment communication is best achieved between couples, particularly regarding navigating the uncertainty of deployment. In this qualitative study, we report on the experiences of 31 National Guard couples who endured a combat deployment in support of Operation Enduring Freedom. Couples were interviewed three months after the soldier returned from deployment. Through the lens of relational turbulence theory, we provide a conceptual framework related to effective and non-effective deployment communication, along with structural communication barriers in the military that may negatively affect the mental well-being of partners. Finally, we provide recommendations to guide couples through these difficult deployments.

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<https://doi.org/10.1016/j.jpsychires.2021.06.004>

### **Resilience to traumatic stress in U.S. military veterans: Application of a novel classification approach in a nationally representative sample.**

Cassie Overstreet, Jason C. DeViva, Ananda Amstadter, Elissa McCarthy, ... Robert H. Pietrzak

Resilience has been of particular interest to researchers and clinicians focused on response to trauma. In the current study, we employed a novel, discrepancy-based psychiatric resilience (DBPR) analytic approach to operationalizing resilience and examined its relation to potentially protective psychosocial factors in a nationally representative sample of U.S. veterans (N = 2704). Cumulative lifetime trauma burden, severity of PTSD symptoms, and protective factors such as personality characteristics (e.g., conscientiousness), protective psychosocial characteristics (e.g., purpose in life), and social connectedness (e.g., secure attachment style) were assessed. PTSD Checklist (PCL) scores were regressed onto cumulative trauma burden for the entire sample and a predicted PCL score was generated for each veteran. Resilience was operationalized as a lower actual relative to predicted PCL score. Results of a relative importance analysis revealed that somatic symptoms (22.5% relative variance explained [RVE]), emotional stability (22.4% RVE), and a secure attachment style (14.1%) explained the majority of the variance in resilience scores. These results demonstrate the utility of a DBPR approach to operationalizing resilience in U.S. military veterans. They also identify potentially modifiable psychosocial factors that may be bolstered in prevention and treatment efforts designed to mitigate the negative effects of trauma and promote resilience in this population.

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<https://doi.org/10.1002/cpp.2625>

### **Changes in Intolerance of Uncertainty over the course of treatment predict Posttraumatic Stress Disorder symptoms in an inpatient sample.**

Amalia Badawi, Zachary Steel, Merrylord Harb, Christopher Mahoney, David Berle

Clinical Psychology & Psychotherapy

First published: 10 June 2021

Intolerance of uncertainty (IU) is the inability to tolerate distress that arises in response to the absence of important information. The level of IU has been investigated across various psychological disorders however few studies have examined IU in trauma-affected samples. We aimed to investigate the relationship between IU and posttraumatic stress disorder (PTSD) across the course of treatment. Participants (n = 106) had a diagnosis of PTSD and were from first responder, military, and occupational

injury backgrounds. Participants completed self-report questionnaires pre- and post-engagement in an inpatient group trauma-informed psychoeducation and skills (TIPS) intervention. Regression analyses indicated that decreases in overall and inhibitory IU were associated with decreases in PTSD severity overall and at the symptom cluster level. However, prospective IU was only associated with changes in the re-experiencing, avoidance and arousal PTSD symptom clusters. Our findings are congruent with the nascent literature indicating that IU may be a maintaining factor for PTSD, suggesting clinical relevance for attendance to IU within the course of treatment.

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<https://doi.org/10.1002/jts.22696>

### **Sleep Quality Improvements After MDMA-Assisted Psychotherapy for the Treatment of Posttraumatic Stress Disorder.**

Ponte, L., Jerome, L., Hamilton, S., Mithoefer, M.C., Yazar-Klosinski, B.B., Vermetten, E. and Feduccia, A.A.

Journal of Traumatic Stress  
First published: 10 June 2021

Sleep disturbances (SDs) are among the most distressing and commonly reported symptoms in posttraumatic stress disorder (PTSD). Despite increased attention on sleep in clinical PTSD research, SDs remain difficult to treat. In Phase 2 trials, 3,4-methylenedioxymethamphetamine (MDMA)-assisted psychotherapy has been shown to greatly improve PTSD symptoms. We hypothesized that MDMA-assisted psychotherapy would improve self-reported sleep quality (SQ) in individuals with PTSD and be associated with declining PTSD symptoms. Participants in four studies ( $n = 63$ ) were randomized to receive 2–3 sessions of active MDMA (75–125 mg;  $n = 47$ ) or placebo/control MDMA (0–40 mg,  $n = 16$ ) during all-day psychotherapy sessions. The PSQI was used to assess change in SQ from baseline to the primary endpoint, 1–2 months after the blinded sessions. Additionally, PSQI scores were measured at treatment exit (TE) and 12-month follow-up. Symptoms of PTSD were measured using the CAPS-IV. At the primary endpoint, CAPS-IV total severity scores dropped more after active MDMA than after placebo/control ( $-34.0$  vs.  $-12.4$ ),  $p = .003$ . Participants in the active dose group showed more improvement in SQ compared to those in the control group (PSQI total score  $\Delta M = -3.5$  vs.  $0.6$ ),  $p = .003$ . Compared to baseline, SQ had improved at TE,  $p < .001$ , with further significant gains reported at 12-month follow-up (TE to 12-months  $\Delta M = -1.0$ ),  $p = .030$ . Data from these randomized controlled

double-blind studies provide evidence for the beneficial effects of MDMA-assisted psychotherapy in treating SDs in individuals with PTSD.

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<https://doi.org/10.1016/j.sleep.2021.06.001>

## **Sex Differences within Symptom Subtypes of Mild Obstructive Sleep Apnea.**

Jonna L. Morris, Diego R. Mazzotti, Daniel J. Gottlieb, Martica H. Hall

Sleep Medicine

Available online 9 June 2021

### Highlights

- Symptom subtypes in mild OSA were similar to previous studies of moderate-severe OSA: excessive daytime sleepiness, moderate daytime sleepiness, disturbed sleep, and minimal symptoms.
- Relative to men, women were more likely to be in the disturbed sleep subtype, the excessively sleepy subtype, and less likely to be in the moderately sleepy subtype.
- Women and men were equally represented in the minimal symptoms subtype.
- High symptom burden is found within every category of OSA severity, but may be experienced differently between men and women.

### Abstract

#### Objectives

Prior studies have identified symptom subtypes of moderate to severe (AHI >15) obstructive sleep apnea (OSA). They have not yet been consistently examined in those with mild OSA (AHI 5-15 events/hour). This is important as women are more likely than men to present with mild OSA and may present with different OSA symptoms. The objectives of this study were to determine 1) symptom subtypes in mild OSA and 2) if there are sex differences in the distribution of subtypes.

#### Methods

The sample included men (n=921) and women (n=797) with mild OSA, aged 39-90 years, evaluated with a single night of in-home polysomnography as part of the Sleep Heart Health Study. Latent class analysis determined symptom subtypes. Testing for sex differences relative to OSA severity and symptom subtype used chi-squared test for independence. Bonferroni corrected z-tests compared column proportions.

## Results

Symptom subtypes of mild OSA were not significantly different than those identified in prior studies of moderate-severe OSA ( $p > .05$ ): minimally symptomatic (36.4%), disturbed sleep (11.6%), moderately sleepy (37%), and excessively sleepy (15%),  $p > .05$ . Sex differences within the symptom subtypes were significant [ $\chi^2(df = 3) = 30.04$ ,  $p < .001$ , Cramer's  $V = .132$ ]. Relative to men, women were more likely to be in the disturbed sleep subtype ( $p < .05$ ), and the excessively sleepy subtype ( $p < .05$ ) while less likely to be in the moderately sleep ( $< .05$ ) subtype. Women and men were equally represented in the minimal symptoms subtype ( $p > .05$ ).

## Conclusions

Results suggest symptom reporting among individuals with mild OSA differs as a function of sex. These data have important clinical implications for screening men and women for OSA.

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<https://doi.org/10.1080/15551393.2021.1907189>

## **Mired in Shadows: The U.S. Army's Campaign to Encourage Mental Health Treatment.**

T. Scott Randall

Visual Communication Quarterly

Published online: 10 Jun 2021

The United States Armed Forces have been in continuous conflicts since September 11, 2001. For the veterans returning from combat deployments, the human costs have been immense and long lasting. Each of the military departments has developed media campaigns to encourage mental health treatment. This essay introduces the rhetorical issues associated with mental disability as part of the broader genre of disability rhetorics. It then examines the media developed by the U.S. Army in its campaign to encourage mental health treatment by employing the schema of analysis developed by Sonja Foss and situating it within the works on visual rhetoric by Rosemarie Garland-Thomson, Kimberly Emmons, and Riki Thompson. The article next contextualizes the images used by the Army into the cultural environment faced by soldiers. Finally, it concludes that far from encouraging all soldiers to seek mental health treatment, the Army's media campaign is stigmatizing the majority of those it seeks to assist.



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<https://doi.org/10.1371/journal.pone.0253207>

## **Phenotypes of caregiver distress in military and veteran caregivers: Suicidal ideation associations.**

RE Delgado, K Peacock, CP Wang, MJ Pugh

PLoS ONE

Published: June 11, 2021

The United States (US) has been at war for almost two decades, resulting in a high prevalence of injuries and illnesses in service members and veterans. Family members and friends are frequently becoming the caregivers of service members and veterans who require long-term assistance for their medical conditions. There is a significant body of research regarding the physical, emotional, and social toll of caregiving and the associated adverse health-related outcomes. Despite strong evidence of the emotional toll and associated mental health conditions in family caregivers, the literature regarding suicidal ideation among family caregivers is scarce and even less is known about suicidal ideation in military caregivers. This study sought to identify clusters of characteristics and health factors (phenotypes) associated with suicidal ideation in a sample of military caregivers using a cross-sectional, web-based survey. Measures included the context of caregiving, physical, emotional, social health, and health history of caregivers. Military caregivers in this sample ( $n = 458$ ) were mostly young adults ( $M = 39.8$ ,  $SD = 9.9$ ), caring for complex medical conditions for five or more years. They reported high symptomology on measures of pain, depression, and stress. Many (39%) experienced interruptions in their education and 23.6% reported suicidal ideation since becoming a caregiver. General latent variable analyses revealed three distinct classes or phenotypes (low, medium, high) associated with suicidality. Individuals in the high suicidality phenotype were significantly more likely to have interrupted their education due to caregiving and live closer (within 25 miles) to a VA medical center. This study indicates that interruption of life events, loss of self, and caring for a veteran with mental health conditions/suicidality are significant predictors of suicidality in military caregivers. Future research should examine caregiver life experiences in more detail to determine the feasibility of developing effective interventions to mitigate suicide-related risk for military caregivers.

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<https://doi.org/10.3928/00485713-20210510-01>

## **The Use of Telemedicine for Patients with Mental Illness and COVID-19 Infection.**

Panagiota Caralis, MD, JD

Psychiatric Annals

Published Online: June 01, 2021

The coronavirus disease 2019 (COVID-19) pandemic has significantly impacted the health of the public. Social distancing and quarantining during the pandemic have affected mental health as well. This study set out to determine the impact of COVID-19 and the use of telemedicine on managing patients with mental illness. It evaluates the impact of the COVID-19 infection on 403 patients who are United States military veterans: 160 patients with chronic mental illnesses and 243 without mental illness. The patients were observed remotely using a telehealth clinic until they were free of COVID-19 symptoms or tested negative for coronavirus RNA. Telemedicine was used successfully to manage patients with mental illness and acute COVID-19 infections. These patients maintained their therapeutic engagement using telephone or video-on-demand encounters. The use of this technology allowed for follow-up visits over an extended period of time, including resolution of their symptoms, re-test results, and management of their comorbidities. The outcomes of their infections mirrored those of patients without preexisting mental illness. They did require more intense psychiatric interventions, primarily with medications, but no hospitalizations for mental health occurred. Although the pandemic has several elements known to impact greatly on mental health (social illness, loneliness, fear, and uncertainty), the effect on patients with COVID-19 infection and mental illness diagnosis does not appear to cause psychiatric decompensation. Telemedicine offered a means for more intense engagement on follow-up of these patients, which may have played a role. Because of the small numbers in this study and the unique resources available for veterans, more extensive study is required to determine the effect of the pandemic in patients with mental illness who are not veterans.

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<https://doi.org/10.1093/milmed/usab205>

## **Investigation of the Relationship Between Frequency of Blast Exposure, mTBI History, and Post-traumatic Stress Symptoms.**

David A Lieb, MD, Sorana Raiciulescu, MS, Thomas DeGraba, MD, Chandler Sours Rhodes, PhD

Military Medicine

Published: 11 June 2021

### Introduction

Post-traumatic stress disorder (PTSD) and mild traumatic brain injury (mTBI) are common conditions among military personnel that frequently co-occur. This study investigated relationships between self-reported blast exposure, mTBI history, and current post-traumatic stress (PTS) symptoms in a population of active duty service members ( $n = 202$ ) from the Intensive Outpatient Program at the National Intrepid Center of Excellence.

### Materials and Methods

Participants were divided into four mTBI groups (0, 1, 2, and 3+) and four blast exposure groups (0-10, 11-100, 101-1,000, and 1,000+). Self-reported lifetime mTBI and blast history were obtained via the Ohio State University TBI Identification Method. PTSS severity was obtained via the PTSD Checklist-Civilian version (PCL-C). Several secondary measures of depression, anxiety, chronic mTBI symptoms, and sleep were also assessed.

### Results

The total PCL-C scores differed significantly between mTBI groups, with significant differences detected between the 0/1 mTBI groups and the 3+ mTBI groups. Similar group differences were noted across the three PCL-C subgroup scores (avoidance, re-experiencing, and hyperarousal); however, when comparing the proportion of group participants meeting DSM-IV criteria for each symptom cluster, significant differences between mTBI groups were only noted for avoidance ( $P = .002$ ). No group differences were noted in PTS symptom severity or distribution between blast groups.

### Conclusions

This study demonstrates an association between lifetime mTBI history and PTS symptom severity and distribution but failed to identify the significant group in self-reported symptoms between the blast exposure groups. Results suggest that additional research is needed to understand the neurobiological mechanism behind these associations and the need for the development of precise assessment tools that are able to more accurately quantify significant lifetime sub-concussive and blast exposures experienced by service members in training and combat operations.

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<https://doi.org/10.1016/j.cct.2021.106478>

**Massed versus standard prolonged exposure for posttraumatic stress disorder in Australian military and veteran populations (RESTORE): Study protocol for a non-inferiority randomized controlled trial.**

Lisa Dell, Alyssa M. Sbisa, Meaghan O'Donnell, Peter W. Tuerk, ... David Forbes

Contemporary Clinical Trials

Available online 10 June 2021

Posttraumatic stress disorder (PTSD) can be a severe problem, affecting veterans and military personnel at higher rates than the general community. First-line treatment for PTSD, prolonged exposure (PE), is typically delivered weekly for 10–12 weeks, however this duration can pose a barrier to accessing and completing the treatment, particularly for current serving military. This paper presents the RESTORE trial protocol, the first randomized controlled trial of massed PE therapy outside of the United States and by an independent research group. One hundred and thirty-five Australian Defence Force members and veterans (18–80 years) who meet criteria for PTSD related to a military trauma will be randomly allocated to one of two conditions: standard PE (SPE; 10 weekly 90-min sessions) or massed PE (MPE; 10 daily 90-min sessions). Across eight sites, patients will be assessed at pre-treatment, and at 4 weeks, 12 weeks, and 12 months post-treatment commencement. The primary outcome is clinician-measured and self-reported PTSD symptom severity at the 12 week assessment. We hypothesize that MPE will be as effective as SPE in reducing PTSD severity at 12 weeks post-treatment commencement. The adaptation and testing of evidence-based interventions is critical to reduce barriers to treatment uptake among veterans and military personnel. Outcomes of this study have the potential to result in international, cross-service uptake and delivery of this rapid treatment for veterans and military members, as well as civilians, thereby improving clinical outcomes for patients and their families.

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<https://doi.org/10.1002/jts.22625>

## **Best Available Evidence on Communicative First Aid Interventions by Laypeople for Preventing and Relieving Posttraumatic Stress Disorder–Related Symptomatology Following Traumatic Events.**

Niels De Brier, Vere Borra, Kim Dockx, Hans Scheers, Stijn Stroobants, Emmy De Buck, Karen Lauwers, Philippe Vandekerckhove

Journal of Traumatic Stress

Vol. 34, No. 3, June 2021, Pages: 538-550

Trauma-exposed individuals are at risk of developing mental health problems, including posttraumatic stress disorder (PTSD). As an exposed individual's friend or family member may be the first person to provide posttrauma relief, informing and training laypeople in psychosocial first aid may benefit mental health outcomes of trauma-exposed individuals. We aimed to (a) collect the best available evidence on communication as a first aid intervention in assisting individuals following traumatic events and (b) formulate practical recommendations. Systematic literature searches were conducted in three databases (March 2019). Following study selection, the extracted data were tabulated and synthesized narratively. The evidence was appraised according to the GRADE methodology and evaluated by a multidisciplinary expert panel to formulate recommendations for practice. Out of 1,724 articles, no experimental studies were identified, showing a complete lack of high-quality controlled studies on the efficacy of communicative practices. However, when lower-quality study designs were included, nine cross-sectional studies constituted the best available evidence. The studies suggested that positive communication by family members,  $r = -.38$ ,  $aOR = 0.26$ ,  $\beta = -.22$ ,  $p < .001$ – $p < .05$ , and expressive coping by the victim,  $\beta = -.62$ ,  $p < .001$ , were associated with PTSD diagnosis and/or symptom severity; however, the evidence was of very low certainty. The expert panel took the methodological limitations into account when formulating weak practical recommendations. Cross-sectional studies currently provide the best possible evidence for developing guidelines on psychosocial first aid. High-quality controlled studies are needed to establish causal associations and identify the most effective interventions.

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<https://doi.org/10.1002/jts.22664>

## **A Network Analysis of DSM-5 Posttraumatic Stress Disorder Symptoms and Event Centrality.**

Melissa. G. Guineau, Payton. J. Jones, Benjamin. W. Bellet, Richard. J. McNally

Journal of Traumatic Stress

Vol. 34, No. 3, June 2021, Pages: 654-664

The centrality of a traumatic event to one's autobiographical memory has been associated with posttraumatic stress disorder (PTSD) symptom severity. In the present study, we investigated the associations between specific features of event centrality (EC), as measured using the Centrality of Event Scale, and specific symptoms of PTSD. We computed a cross-sectional graphical lasso network of PTSD symptoms and specific features of EC in a sample of trauma-exposed individuals (n = 451), many of whom met the clinical threshold for a PTSD diagnosis. The graphical lasso revealed intrusive memories, negative trauma-related feelings, and the perception that the traumatic event was central to one's identity to be influential nodes. Viewing the future through the lens of one's trauma exposure was the EC feature most strongly linked to PTSD. Among all PTSD symptoms, blaming oneself or others for the traumatic event showed the strongest link to EC. The network was stable, allowing for reliable interpretations. Future longitudinal research is needed to clarify the associations among EC features and PTSD symptoms over time.

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<https://doi.org/10.1016/j.beth.2021.01.002>

## **Exposure Therapy Beliefs and Utilization for Treatment of PTSD: A Survey of Licensed Mental Health Providers.**

Alexander C. Kline, Alexandra B. Klein, Alexandra R. Bowling, Norah C. Feeny

Behavior Therapy

Volume 52, Issue 4, July 2021, Pages 1019-1030

### Highlights

- About half of providers (55%) reported using prolonged exposure in PTSD treatment.

- Approximately two-thirds of providers (68%) reported training in exposure.
- Exposure beliefs and use differed by providers' training, background, and setting.
- Training in prolonged exposure also varied based on provider characteristics.
- Some providers reported negative exposure beliefs yet high utilization.

## Abstract

Exposure-based therapies for posttraumatic stress disorder (PTSD) and anxiety disorders remain underutilized, despite their effectiveness and widescale dissemination efforts. This study surveyed a broad range of licensed providers (N = 155) to examine rates at which prolonged exposure (PE) and other interventions are used to treat PTSD and to investigate provider characteristics linked to exposure beliefs and utilization. While 92.3% of clinicians reported understanding of or training in exposure, only 55.5% of providers reported use of PE to treat PTSD. Clinicians with current cognitive behavioral therapy (CBT) orientation, CBT training orientation, a doctoral degree, and training in PE endorsed greater likelihood of exposure utilization for PTSD ( $ps < .001$ ,  $ds = 0.82-1.98$ ) and less negative beliefs about exposure ( $ps < .01$ ,  $ds = 0.55-2.00$ ). Exposure beliefs also differed based on healthcare setting ( $p < .001$ ). Among providers trained in exposure ( $n = 106$ ), master's degree and non-CBT current theoretical orientation were associated with high utilization yet also negative beliefs. Results suggest exposure training, accurate beliefs, and utilization still lag among some groups of providers. Additionally, negative beliefs and misunderstanding of the exposure rationale may persist even among providers who are trained and report high utilization.

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<https://doi.org/10.1016/j.beth.2020.12.006>

## **Cross-Lagged Relationships Between Insomnia and Posttraumatic Stress Disorder in Treatment-Receiving Veterans.**

Dzenana Kartal, Hussain-Abdulah Arjmand, Tracey Varker, Sean Cowlshaw, ... Mark Hinton

Behavior Therapy

Volume 52, Issue 4, July 2021, Pages 982-994

## Highlights

- This study parsed the directionality of association between PTSD and insomnia over time.
- Results revealed a unique pattern of association during and following treatment.



- During the treatment period, PTSD symptoms significantly predicted insomnia symptoms.
- At 3 and 9 months posttreatment, insomnia symptoms persistently predicted PTSD symptoms.

#### Abstract

Insomnia is a risk factor for the development of posttraumatic stress disorder (PTSD) while it is also plausible that PTSD symptoms can maintain insomnia symptoms. The present study examined longitudinal bidirectional relationships between insomnia and PTSD symptoms in treatment-seeking veterans. Participants were 693 ex-serving members of the Australian Defence Force who participated in an accredited, hospital-based outpatient PTSD program. Participants completed self-reported assessments of PTSD and insomnia symptoms at four time points: intake, discharge, 3-month, and 9-months posttreatment follow-up.

Cross-lagged pathway analyses indicated significant bi-directional pathways between insomnia symptoms and PTSD symptoms at most time points. A final cross-lagged model between insomnia symptoms and the PTSD symptom clusters indicated that the PTSD symptom paths on insomnia symptoms, between intake and discharge, were attributable to reexperiencing PTSD symptoms. In contrast, across posttreatment follow-up time points there were significant paths of insomnia symptoms on all PTSD symptom clusters except from insomnia at 3-months to avoidance symptom at 9-months. PTSD symptoms and insomnia symptoms have bidirectional associations over time that may lead to the mutual maintenance or exacerbation of each condition following PTSD treatment. Where residual insomnia symptoms are present post-treatment, a sleep-focused intervention is indicated and a sequenced approach to treatment recommended.

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<https://doi.org/10.1016/j.beth.2020.12.005>

#### **Latent Profiles of Comorbid Depression as Predictors of PTSD Treatment Outcome.**

Mark S. Burton, Andrew A. Cooper, Patricia G. Mello, Norah C. Feeny, Lori A. Zoellner

Behavior Therapy

Volume 52, Issue 4, July 2021, Pages 970-981



## Highlights

- Latent profile analyses identified three classes of PTSD and depression comorbidity.
- Those in the low depression class showed high trauma-related avoidance.
- High symptom severity predicted greater PTSD reduction but lower remission rates.
- LPA class was a stronger predictor of treatment response than MDD diagnosis.

## Abstract

Posttraumatic stress disorder (PTSD) frequently co-occurs with major depressive disorder, and empirically supported PTSD treatments consistently improve depression. However, both diagnoses are heterogeneous and specific patterns of symptom overlap may be related to worse treatment outcome. Two hundred individuals with chronic PTSD participated in a doubly randomized preference trial comparing prolonged exposure and sertraline. Latent Profile Analysis was used to identify classes based on PTSD and depression symptoms prior to starting treatment. A three-class model best fit the data, with a high depression and PTSD severity class (distressed), a moderate depression and low PTSD avoidance class (depressive), and a low depression and high PTSD avoidance class (avoidant). The avoidant class showed the lowest rates of major depressive disorder diagnosis and transdiagnostic vulnerabilities to depression. Patients in the distressed class experienced more robust PTSD treatment response, with no differences between prolonged exposure and sertraline. These findings highlight the role of avoidance in nondepressed PTSD presentations while also demonstrating that co-occurring depression is not contraindicated in evidence-based PTSD treatment.

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## Links of Interest

Responding to Intimate Partner Violence During Telehealth Clinical Encounters

<https://jamanetwork.com/journals/jama/fullarticle/2780630>

Men's health focus on the mental, physical & emotional health aspects

<https://health.mil/News/Articles/2021/06/08/Mens-health-focus-on-the-mental-physical-emotional-health-aspects>

Service members and police are teaming up to stop suicide

<https://www.militarytimes.com/news/your-military/2021/06/15/service-members-and-police-are-teaming-up-to-stop-suicide/>

Military will pay toward in-home child care for some families in pilot program

<https://www.militarytimes.com/pay-benefits/2021/06/16/military-will-pay-toward-in-home-child-care-for-some-families-in-pilot-program/>

Homelessness among vets could spike as pandemic protections vanish, advocates warn

<https://www.militarytimes.com/veterans/2021/06/16/homelessness-among-vets-could-spike-as-pandemic-protections-vanish-advocates-warn/>

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**Resource of the Week: [2020 Report on Suicide Mortality in the Canadian Armed Forces \(1995 to 2019\)](#)**

From the Directorate of Mental Health (DMH), Canadian Forces Health Services:

**Introduction:**

Each death from suicide is tragic. Suicide prevention is an important public health concern and is a top priority for the Canadian Armed Forces (CAF). In order to better understand suicide in the CAF and refine ongoing suicide prevention efforts, the Canadian Forces Health Services annually examine suicide rates and the relationship between suicide, deployment and other potential suicide risk factors. This analysis, conducted by the Directorate of Mental Health (DMH), is an update covering the period from 1995 to 2019.

**Methods:**

This report describes crude suicide rates from 1995 to 2019, comparisons between the Canadian population and the CAF using Standardized Mortality Ratios (SMRs), and suicide rates by deployment history using SMRs and direct standardization. It also examines variation in suicide rate by environmental command, and uses data from Medical Professional Technical Suicide Reviews (MPTSR) to examine the prevalence of other suicide risk factors for suicide deaths that occurred in 2019.

**Results:**

Between 1995 and 2019, there were no statistically significant increases in the overall suicide rates. The number of Regular Force males that died by suicide was not statistically higher than that expected based on male suicide rates in the Canadian General Population (CGP) for each time period that was evaluated.

Rate ratios comparing Regular Force males with a history of deployment to those without this history did not establish a statistically significant link between deployment and increased suicide risk. The most recent findings (2015 – 2019) suggest that the suicide rate in those with a history of deployment was slightly higher but not statistically different when compared to those with no history of deployment (age-standardized suicide rate ratio: 1.13 [95% CI: 0.59, 2.16]). This is concordant with the 10-year (2005 – 2014) pattern which indicated that those with a history of deployment were possibly at a higher risk of suicide than those with no such history (age-adjusted suicide rate ratio: 1.46 [95% CI: 0.98, 2.18]).

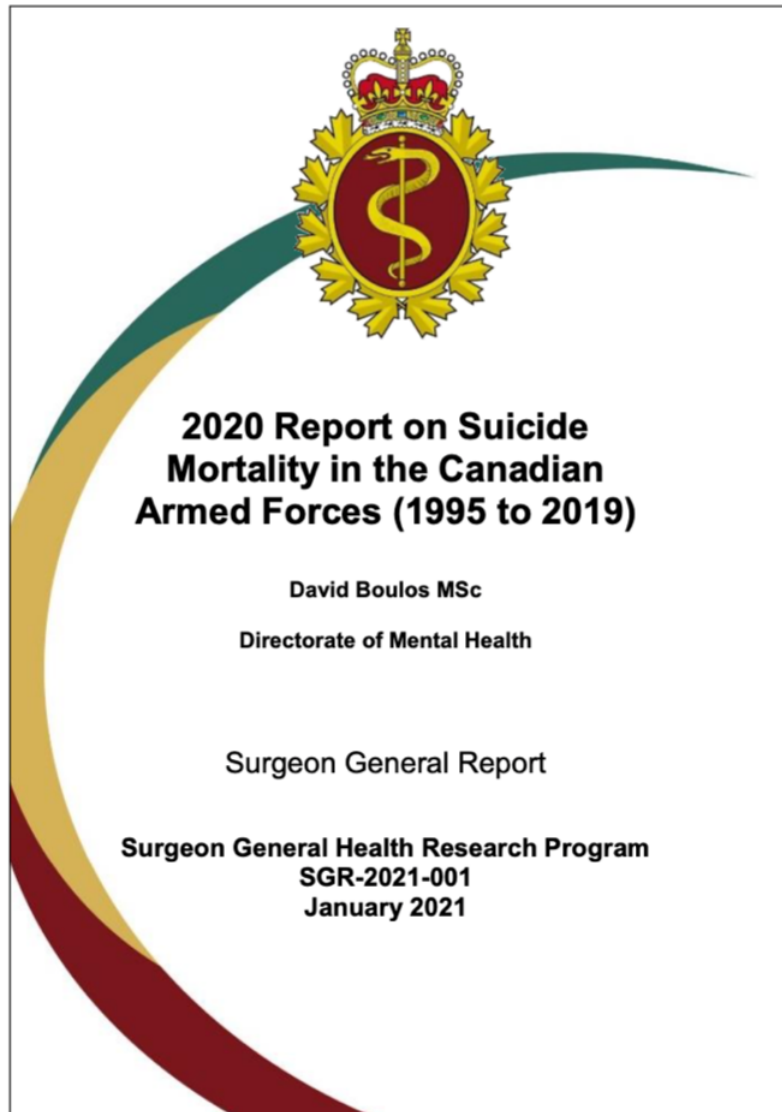
These rate ratios also highlighted that, since 2006 and up to and including 2019, being part of the Army command was associated with a higher risk of suicide relative to those who were part of the other environmental commands (age-standardized suicide rate ratio: 2.13 [95% CI: 1.62, 2.79]). The 3-year suicide rate moving average suggested that the gap between Army and non-Army command suicide rates appears to be narrowing. Regular Force males in the Army combat arms occupations had a statistically significant higher suicide rate (31.51/100,000 [95% CI: 25.18, 39.36]) compared to Regular Force males in other occupations (18.20/100,000 [95% CI: 15.31, 21.62]).

Results from the 2019 MPTSRs continue to support a multifactorial causal pathway (this includes biological, psychological, interpersonal, and socio-economic factors) for suicide rather than a direct link between single risk factors (such as Post-Traumatic Stress Disorder (PTSD) or deployment) and suicide. This was consistent with MPTSR findings from previous years.

#### Conclusions:

Suicide rates in the CAF did not increase with any statistical significance over the period of observation described in these findings, and after age standardization they were also not statistically higher than those in the Canadian general population. However, small numbers do limit the ability, or power, of statistical assessments to detect statistical significance. The increased risk in Regular Force males under Army command compared to those under non-Army commands is a finding that continues to be under observation by the CAF.

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