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## **Research Update -- October 27, 2022**

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- Resource of the Week: DOD Annual Report on Suicide in the Military: Calendar Year (CY) 2021

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<http://doi.org/10.1089/tmj.2021.0590>

## **Real-World Evaluation of a Large-Scale Blended Care-Cognitive Behavioral Therapy Program for Symptoms of Anxiety and Depression.**

Jocelynn T. Owusu, Pam Wang, Robert E. Wickham, Alethea A. Varra, Connie Chen, and Anita Lungu

Telemedicine and e-Health  
Oct 2022.1412-1420

### Introduction:

Prior studies have supported the effectiveness of blended interventions for anxiety and depression; however, outcomes research of large-scale blended interventions for these conditions is limited.

### Objective:

To investigate the outcomes of scaled-up blended care (BC) cognitive behavioral therapy (CBT), a program that combined video-based psychotherapy with internet CBT, for symptoms of anxiety and depression.

**Materials and Methods:** Participants were 6,738 U.S.-based adults with elevated symptoms of anxiety (Generalized Anxiety Disorder-7 [GAD-7]  $\geq 8$ ) and/or depression (Patient Health Questionnaire-9 [PHQ-9]  $\geq 10$ ) at baseline who received BC-CBT as an employer-offered mental health benefit. The primary outcomes, anxiety (GAD-7) and depression (PHQ-9) symptoms, were routinely measured in the program. Recovery and reliable improvement in outcomes were calculated, and growth curve models evaluated change in outcomes during treatment and the effects of engaging in psychotherapy sessions on outcomes.

### Results:

On average, participants received treatment for 7.6 (standard deviation = 6.2) weeks. By the end of care, 5,491 (81.5%) participants had reliable improvement in either anxiety or depression symptoms; in addition, 5,535 (82.1%) fell below the clinical threshold for either anxiety or depression symptoms (i.e., recovered). Declines in anxiety and depression symptoms were statistically significant over the course of BC-CBT (both  $p$ 's  $< 0.01$ ), with the rate of decline significantly decreasing for each outcome as treatment progressed (both  $p$ 's  $< 0.01$ ). Each psychotherapy session completed was

significantly associated with lower anxiety and depression symptoms during the week of the session and the subsequent week (all p's < 0.01).

#### Conclusions:

This real-world study provides evidence that scaled-up BC-CBT can be effective in the treatment of symptoms of anxiety and depression.

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<https://doi.org/10.1080/08995605.2022.2120312>

### **Service and demographic factors, health, trauma exposure, and participation are associated with adjustment for former Australian Defense Force members.**

Kylie Carra, Michael Curtin, Tracy Fortune & Brett Gordon

Military Psychology

Published online: 19 Oct 2022

Approximately 50% of transitioning service members report difficulty adjusting to civilian life. However, there is limited research exploring factors that influence adjustment for former Australian Defence Force (ADF) members. The aim of this study was to investigate the influence of demographic and service-related characteristics, trauma exposure, health, and participation in meaningful occupations on adjustment for former ADF members. One hundred and ninety-eight former ADF members completed a voluntary, online survey containing validated self-report measures for adjustment, health, and exposure to combat and military sexual trauma. Participation in meaningful occupations was assessed using open-ended questions and a rating scale for frequency of participation. A more difficult adjustment was reported by participants who had completed operational service, reported exposure to combat and/or military sexual trauma, had poor physical health and were discharged for medical reasons. Other characteristics associated with a difficult adjustment included emotional distress, involuntary discharge, age category 30–49 years, final rank of Senior Noncommissioned Officer/Warrant Officer or below, and discharge 6–8 years previously. Employment, voluntary work and care, and social and community interaction were associated with an easier adjustment. Screening tools that consider health, age, deployment type, final rank, type of discharge and exposure to combat or military sexual trauma may be helpful to identify and refer high risk individuals to employment, rehabilitation or transition support programs.

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<https://doi.org/10.1080/08995605.2022.2131187>

**Resilience in Army STARRS: Evaluating psychometrics of a multi-dimensional resilience measure.**

Kayla Reed-Fitzke, Anthony J. Ferraro, James M. Duncan, Armeda S. Wojciak, Alexis Hamilton & Hilary D. Pippert

Military Psychology

Published online: 21 Oct 2022

As policymakers and the U.S. military continue to place an emphasis on the resilience of servicemembers, it is critical to utilize psychometrically sound and valid scales to measure resilience. Using two independent samples of Army soldiers-in-training, this study explored the measurement of resilience in the Army Study to Assess Risk and Resilience among Servicemembers (Army STARRS) New Soldier Study Component (NSS). Exploratory factor analysis (EFA) was used to identify the factor structure of a measure of resilience within the Army STARRS NSS. Confirmatory factor analysis (CFA) was then used to confirm the factor structure, then internal reliability was assessed. Convergent validity of the identified resilience factors was examined using two-tailed bivariate correlations. The EFA identified a three-factor structure of a measure of resilience. The CFA confirm the first-order three-factor structure of stress tolerance, positive orientation, and social resources. Each factor was uniquely distinct from measures of the likelihood of generalized anxiety disorder and major depressive disorder, lifetime stressful events, and social network. Findings highlights the utility of a three-factor aggregate measure of resilience in the Army STARRS NSS and provide practitioners with a more nuanced picture of the role of resilience among soldiers-in-training.

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<https://doi.org/10.1093/milmed/usac298>

**The Psychological Consequences of Combat Injury Among U.S. Navy Health Care Personnel.**

MacGregor, A. J., Zouris, J. M., Dougherty, A. L., & Dye, J. L.

Introduction:

Military health care personnel face numerous risks to mental health, including those associated with combat injury, although no study has described combat injuries within this subgroup or assessed their impact on mental health outcomes.

Materials and methods:

Male U.S. Navy-enlisted health care personnel, or corpsmen, with combat injury were identified from clinical records. Noninjured corpsmen were matched to injured corpsmen with a 4:1 ratio on year of deployment end or injury and location (Iraq or Afghanistan). The final study population included 2,025 corpsmen (405 injured and 1,620 noninjured). Mental health disorders assessed included posttraumatic stress disorder (PTSD), anxiety, adjustment, mood, and substance abuse disorders. Stratified Cox models were used for analysis while controlling for additional covariates, and injury severity was evaluated as a predictor.

Results:

Injuries primarily involved the head/neck (73.8%) and extremities (45.7%), and overall injury severity was mostly mild-to-moderate (85.9%). Injured relative to noninjured corpsmen had greater risk of PTSD (risk ratio [RR] 2.45, 95% confidence interval [CI] 2.05 to 2.94), anxiety disorder (RR 1.61, 95% CI 1.32 to 1.96), adjustment disorder (RR 1.88, 95% CI 1.55 to 2.27), mood disorder (RR 1.44, 95% CI 1.16 to 1.79), and substance abuse (RR 1.48, 95% CI 1.14 to 1.91). More severe injuries yielded stronger associations with PTSD (RR 3.57, 95% CI 2.48 to 5.14), anxiety disorder (RR 2.53, 95% CI 1.74 to 3.69), and adjustment disorder (RR 2.17, 95% CI 1.44 to 3.27).

Conclusions:

U.S. Navy corpsmen are at risk of combat injury and associated mental health disorders. Injured corpsmen should be screened for mental health problems in the acute phase postinjury, during their remaining time in theater, and after returning home. Future research should address how combat injury compares with other stressors that health care personnel experience and whether the psychological consequences of these injuries (e.g., PTSD) negatively impact work performance and increase risk of burnout.

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<https://doi.org/10.1016/j.jpsychires.2022.08.009>

### **Moral injury and chronic pain in veterans.**

Ranney, R. M., Maguen, S., Bernhard, P. A., Holder, N., Vogt, D., Blosnich, J. R., & Schneiderman, A. I.

Journal of Psychiatric Research  
2022 Nov; 155: 104-111

Posttraumatic stress disorder (PTSD) and chronic pain are highly prevalent and comorbid among veterans. Moral injury (MI), which results from traumatic experiences that conflict with deeply held moral beliefs, is also associated with pain. However, relationships between different types of exposures to potentially morally injurious events (PMIEs) and pain have not yet been investigated. In the current study, we investigated these relationships between exposure to PMIEs (betrayal, witnessing, and perpetration) and different types of pain (joint pain, muscle pain, and overall pain intensity), while controlling for other relevant variables (including PTSD symptoms, combat exposure, adverse childhood experiences, age, gender, and race/ethnicity). We also examined gender differences in these associations. Participants were 11,871 veterans drawn from a nationwide, population-based survey who self-reported exposure to PMIEs, PTSD symptoms, frequency of adverse childhood experiences, combat exposure, sociodemographic information, past six-month joint pain, past six-month muscle pain, and past week overall pain intensity. Population weighted regression models demonstrated that PMIEs were not significantly associated with joint or muscle pain, but that betrayal was associated with past week overall pain intensity, even when controlling for all other variables. Models investigating men and women separately found that for women, betrayal was associated with joint pain and pain intensity, but for men, betrayal was not associated with any pain outcome. These findings suggest that it may be especially important to assess betrayal when treating patients with a history of trauma and chronic pain.

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<https://doi.org/10.1111/jgs.17918>

### **Traumatic disclosures in the life stories of older Vietnam era veterans.**

Sager, Z., Nathan, S., Doherty, K., Pless Kaiser, A., King, K. D., Topor, D. R., Morrison, N. R., & Moye, J.

Background:

Eliciting life stories is an important component of person-centered care that may aid in understanding how an individual's unique background and narrative impacts their health. Such life stories, especially when gathered from older military Veterans, may include traumatic events, raising the urgency that clinicians be prepared to provide care that is trauma-informed and ensure Veteran's experiences are acknowledged and treated effectively.

Methods:

We examined the prevalence and type of potentially traumatic and/or adverse life events spontaneously shared by 231 older Veterans participating in a life story intervention while receiving care within the U.S. Veterans Health Administration system. Veteran life stories were extracted from the electronic medical record and deductive qualitative content analysis was used to code potentially traumatic or adverse life experiences based on a codebook adapted from the Brief Trauma Questionnaire and Adverse Childhood Experience questionnaire.

Results:

A majority (71.0%) of Veterans described at least one traumatic disclosure in their life story. Among narratives with a disclosure of any type, more than half (53.0%) included descriptions of combat trauma, 21.5% noted a history of life-threatening illness, and 9.5% reported having been in a serious accident. Fewer noted adverse childhood experiences (19.5%).

Conclusions:

Elicitation of life stories among older Veterans may advance person-centered care and life stories frequently include disclosure of potentially traumatic and/or adverse life events. These findings underscore the normative experience of traumatic events among older Veterans and highlight the importance of developing age-sensitive trauma-informed care competencies.

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<https://pubmed.ncbi.nlm.nih.gov/36250491/>

**Suicide behavior among heterosexual, lesbian/gay, and bisexual active component service members in the U.S. Armed Forces.**

Beymer, M., Nichols, N., Watkins, Y., Jarvis, P., Ambrose, F., Shafir, C., & Jeffery, D.

MSMR

2022 Jul 1; 29(7): 19-24

Lesbian, gay, and bisexual (LGB) individuals are at a particularly high risk for suicidal behavior in the general population of the United States. This study aims to determine if there are differences in the frequency of lifetime suicide ideation and suicide attempts between heterosexual, lesbian/gay, and bisexual service members in the active component of the U.S. Armed Forces. Self-reported data from the 2015 Department of Defense Health-Related Behaviors Survey were used in the analysis. Multivariable logistic regression demonstrated that lesbian/gay and bisexual service members were more likely to report past suicide ideation when compared to heterosexual service members (adjusted odds ratio [AOR] for lesbian/gay: 1.79; 95% CI:1.14-2.82; AOR for bisexual: 2.33; 95% CI: 1.56-3.49). Similar results were observed for past suicide attempt for lesbian/gay (AOR: 2.29; 95% CI: 1.15-4.57) and bisexual SMs (AOR: 2.04; 95% CI: 1.24-3.38). Despite disparities in suicide ideation and attempt by sexual orientation, a majority of service members' behavioral health questionnaires do not assess sexual orientation. Clinical screenings of suicide risk in military settings should factor in sexual orientation to more comprehensively assess association between sexual orientation and suicidal behavior in this population.

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<https://doi.org/10.1016/j.jpsychires.2022.09.010>

**Frequency and correlates of suicidal ideation and behaviors in treatment-seeking Post-9/11 Veterans.**

Rauch, S., Steimle, L. N., Li, J., Black, K., Nylocks, K. M., Patton, S. C., Wise, A., Watkins, L. E., Stojek, M. M., Maples-Keller, J. L., & Rothbaum, B. O.

Journal of Psychiatric Research

2022 Nov; 155: 559-566

**Objective:**

Post-9/11 U.S. veterans and servicemembers are at increased risk for suicide, indicating an important need to identify and mitigate suicidal ideation and behaviors in this population.

**Method:**

Using data modeling techniques, we examined correlates of suicidal ideation and behavior at intake in 261 Post-9/11 veterans and servicemembers seeking mental health treatment.

**Results:**

Our sample endorsed high rates of suicidal ideation and behavior. Approximately 40% of our sample scored in a range on the Suicide Behaviors Questionnaire-Revised (SBQ-R), indicating high clinical risk for suicide. Results from multivariate analyses indicate that greater state and/or trait depression severity, greater anger and anger expression, less impulse control, and lower rank were consistently associated with suicidal ideation and behavior across our models. Negative posttraumatic thoughts about the self, gender, and military branch of service were also significantly associated with suicidal ideation and behavior.

**Conclusions:**

Suicidal ideation and behaviors are common in veterans seeking mental health treatment. State and/or trait depression, anger and impulse control were predictors of increased risk for suicidal ideation and behavior across models. Consistencies and differences across models as well as limitations and practical implications for the findings are discussed.

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<https://doi.org/10.1016/j.jpsychires.2022.08.001>

**Identifying factors associated with elevated suicidal intent among U.S. military veterans.**

Nichter, B., Na, P. J., Stanley, I. H., Marx, B. P., Herzog, S., Moynahan, V., Hill, M. L., Norman, S. B., & Pietrzak, R. H.

Journal of Psychiatric Research  
2022 Nov;1 55: 68-74

### Objective:

Suicidal intent is a risk factor for engagement in suicidal behavior, use of violent means, and suicide mortality. Yet, scarce research has examined factors associated with suicidal intent among U.S. military veterans, a population at high risk for suicide. This study examined vulnerability factors associated with suicidal intent in a population-based sample of U.S. 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 estimated the prevalence of current suicidal intent (i.e., veterans' report that they would likely attempt suicide in the future) and examined factors most strongly associated with suicidal intent.

### Results:

Forty-nine veterans (1.4%; 95% confidence interval = 1.0-1.8%) reported suicidal intent. Recurrent past-year suicidal ideation ( $\geq 2$  times), low dispositional gratitude, current depression, current insomnia, childhood sexual abuse, and a prior suicide attempt were most strongly associated with suicidal intent (7.1-50.1% of the total explained variance). Veterans with several of these co-occurring factors were at highest risk for suicidal intent; of veterans with 0,  $\geq 1$ ,  $\geq 2$ ,  $\geq 3$ , and  $\geq 4$  of these factors, 0.1%, 4.4%, 10.8%, 19.5%, and 28.1% reported suicidal intent, respectively.

### Discussion:

Specific vulnerability factors, particularly when co-occurring, may increase veterans' intention of attempting suicide. Findings underscore the importance for clinicians to continuously assess suicidal intent when working with this population, particularly as veterans' reports of suicidal thinking increases.

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<https://doi.org/10.1016/j.janxdis.2022.102606>

### **Changes in guilt cognitions in intensive PTSD treatment among veterans who experienced military sexual trauma or combat trauma.**

Enya A. Meade, Dale L. Smith, Mauricio Montes, Sonya B. Norman, Philip Held

Journal of Anxiety Disorders  
Volume 90, August 2022, 102606

## Highlights

- This study examined changes in guilt cognitions during intensive PTSD treatment.
- Veterans reported significant improvements across all guilt cognition domains.
- Changes in hindsight bias/responsibility produced the largest effect size.
- Improvements in guilt cognitions predicted PTSD and depression symptom reductions.

## Abstract

Unresolved trauma-related guilt has been identified as a factor that can intensify posttraumatic stress disorder PTSD symptomology and is associated with many negative mental health outcomes. Evidence-based treatments, such as Cognitive Processing Therapy (CPT), have been shown to successfully reduce trauma-related guilt. However, less is known about how trauma-related guilt cognitions change over the course of PTSD treatment and, more specifically, intensive PTSD treatments. The current study examined whether guilt cognitions (i.e., hindsight bias/responsibility, insufficient justification, wrongdoing) changed over the course of a 3-week CPT-based intensive treatment program (ITP), whether guilt cognition changes predicted PTSD and depression symptom reductions over time, and whether guilt cognition changes and their association with PTSD and depression symptom changes differed based on whether they worked on combat trauma or military sexual trauma. Data were collected from 360 veterans enrolled in a 3-week ITP. Results from linear mixed effects models suggested that trauma-related guilt cognitions reduced significantly over the course of treatment ( $p < .001$ ), changes in wrongdoing ( $p = .032$ ) and hindsight bias/responsibility ( $p = .003$ ) were significant predictors of PTSD symptom reductions and hindsight bias/responsibility ( $p = .032$ ) was the only significant predictor of depression symptom reduction. Overall differences in guilt cognitions over time based on cohort type were only significant for insufficient justification ( $p = .001$ ). These findings suggest that changes in hindsight bias/responsibility demonstrated the largest effect size ( $d = 0.1.14$ ), implying that hindsight bias/responsibility may be one of the most important guilt cognitions to target. This study also highlights the importance of the relationship between trauma-related guilt and PTSD and depression symptoms. Future research should examine whether changes in guilt cognitions precede changes in PTSD and depression symptoms, and if addressing certain types of guilt cognitions is more important to achieving PTSD and depression symptom reductions.

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<https://doi.org/10.1016/j.janxdis.2022.102607>

**Exposure therapy for PTSD in military populations: A systematic review and meta-analysis of randomized clinical trials.**

Carmen P. McLean, Hannah C. Levy, Madeleine L. Miller, David F. Tolin

Journal of Anxiety Disorders  
Volume 90, August 2022, 102607

Military populations are disproportionately affected by posttraumatic stress disorder (PTSD) and may experience less benefit from first line psychotherapies for PTSD relative to civilians. We examined the efficacy of exposure therapy among Veterans and active duty military personnel across various control conditions and tested potential treatment-related, demographic, and clinical moderators. Randomized controlled trials of exposure-based therapies for PTSD in military populations were identified from a recent meta-analysis and through PsycINFO and Medline. Nineteen studies met inclusion criteria and were included in the meta-analysis (total N = 2905). Exposure therapy had medium to large effects compared to waitlist and treatment as usual, a small effect compared to non-trauma-focused therapy, and no effect relative to other trauma-focused therapy. The overall effect was similar at post-treatment and follow up. The effect size for exposure was larger in studies with younger participants, more women, fewer participants with comorbid major depression, and fewer participants taking psychiatric medication. Effect sizes were not impacted by treatment length or type, participant race or ethnicity, comorbid substance use, Veteran versus active duty status, or study risk of bias. Findings document the variable efficacy of exposure therapy in military populations across comparator types and point to several potentially important moderators of outcome that should be examined in future research.

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<https://doi.org/10.1016/j.janxdis.2022.102605>

**Moral injury events and behavioral health outcomes among American veterans.**

Shaddy K. Saba, Jordan P. Davis, Daniel S. Lee, Carl Andrew Castro, Eric R. Pedersen

Journal of Anxiety Disorders  
Volume 90, August 2022, 102605

Among American veterans, the behavioral health impact of potentially morally injurious experiences (PMIEs) has recently garnered attention. There is heterogeneity in the types of experiences that are classified as PMIEs, and different PMIEs may be differentially associated with various outcomes. We aimed to explore heterogeneity in PMIEs among veterans, and whether PMIE classes are differentially associated with several behavioral health outcomes (i.e., symptoms of posttraumatic stress disorder, depression, anxiety, and anger). Data were from a survey study of veteran health attitudes and behavior (N=1004). We employed a Latent Class Analysis approach to identify sub-groups of participants with similar PMIE response patterns on the Moral Injury Events Scale and to determine the relationship between class membership and behavioral health outcomes. A 4-class solution best fit our data, with classes including (1) high all, (2) witnessed transgressions, (3) troubled by failure to act, and (4) moderate all. There was a link between class membership and behavioral health, with the high all class and moderate all classes consistently reporting especially poor outcomes. Our results are in line with cumulative stress models suggesting exposure to multiple forms of adversity may place individuals at particular risk of poor health and functioning. Clinicians working with veterans should screen for exposure to the full range of PMIE types and be prepared to address the multitude of behavioral health impacts.

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<https://doi.org/10.1080/08995605.2022.2093599>

## **Identifying and mitigating moral injury risks in military behavioral health providers.**

Erika L. King & Lataya E. Hawkins

Military Psychology

Published online: 15 Jul 2022

The term “moral injury” was initially used to describe the multifaceted pain that service members feel after perpetrating, witnessing, or failing to prevent acts that conflict with their moral codes. More recently the term has been used to describe healthcare providers’ pain stemming from their experiences serving on the frontlines of the healthcare system when: a medical error causes serious harm to patients, systems continuously impede their abilities to provide proper care, or providers assess that they have acted in ways that conflict with their professional ethics or oaths to “do no harm.” This article explores moral injury risk at the intersection of military service and healthcare by examining challenges that military behavioral healthcare providers face.

Leveraging moral injury definitions previously applied to service members (personal or witnessed transgressions) and in two healthcare contexts (“second victim” to adverse client outcomes and system-driven moral distress), as well as literature on ethical challenges in military behavioral health, this paper uncovers situations that may amplify military behavioral health providers’ risks for moral injury. It concludes by offering policy and practice recommendations germane to military medicine aimed at alleviating pressures military behavioral healthcare providers face and mitigating moral injuries’ potential ripple effects on provider wellness, retention and care quality.

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<https://doi.org/10.1177/10783903221108765>

### **Trauma Center Trauma-Sensitive Yoga Versus Cognitive Processing Therapy for Women Veterans With PTSD Who Experienced Military Sexual Trauma: A Feasibility Study.**

Zaccari B, Sherman ADF, Higgins M, Ann Kelly U

Journal of the American Psychiatric Nurses Association

First published online July 14, 2022

#### Background:

Posttraumatic stress disorder (PTSD) is a common sequela to military sexual trauma (MST) among women veterans. Yoga has shown promise in research examining its benefit for symptoms and sequela of PTSD.

#### Aims:

The objective of this study was to evaluate the feasibility of a randomized controlled trial (RCT) of Trauma Center Trauma-Sensitive Yoga (TCTSY) for women veterans with PTSD related to MST.

#### Method:

In this feasibility study, the final sample included women veterans (n = 41) with PTSD related to MST accessing health care in a Veterans Affairs Health Care System in the southeast United States; the majority were African American (n = 33; 80.5%). Interventions used established protocols of 10 weekly sessions of group TCTSY versus 12 weekly sessions of group Cognitive Processing Therapy (CPT). PTSD was assessed via clinical interview and participant report. Additional data collection included multiple participant-reported outcomes commonly associated with PTSD and

psychophysiological measures. We also collected data regarding participant satisfaction and feasibility-related feedback from participants and providers.

**Results:**

Feasibility and acceptability were evaluated via demand, practicality, fidelity, and acceptability. This was measured by expressed interest, attendance, program completion, barriers to care and satisfaction with treatment, and satisfaction with interventions and data collection.

**Conclusions:**

Results indicate the RCT design and TCTSY implementation were feasible; a full-scale RCT was subsequently conducted to determine efficacy of the experimental intervention. Recommendations for successful research strategies are provided.

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<https://doi.org/10.1037/trm0000396>

**Trauma, psychopathic traits, and mental health outcomes: A propensity score matching approach between service member and civilian samples.**

Batastini, A. B., Lester, M. E., Poindexter, E., & Bozeman, A. R.

Traumatology

Advance online publication

A large body of research has been dedicated to examining the antecedents, determinants, and consequences of trauma exposure, particular among those who have served in the U.S. armed forces. Emerging research suggests that psychopathic traits may play a protective role. Yet, no known studies have examined the relationships between trauma exposure, components of psychopathy, posttraumatic symptoms, general mental health, and suicidal ideation. In addition, few studies directly compare military- and nonmilitary-experienced participants. Using propensity score matching, 114 participants (57 military and 57 civilian) were statistically matched based on age, race, and gender. Reported trauma exposure was associated with poorer general psychiatric functioning and increased posttraumatic stress disorder symptoms but was unrelated to historical suicidal ideation. Conversely, psychopathic traits were associated with improved psychiatric functioning and fewer posttraumatic stress disorder symptoms; however, certain facets of psychopathy (primarily those associated with meanness and disinhibition) were the most protective. Military status did not enhance



the relationships between trauma exposure and adverse outcomes. Clinical implications, study limitations, and research initiatives aimed at better understanding the nuances of trauma-related responses and mental health are discussed. Identifying which risk and protective factors are unique (or not) to service members can inform the need for tailored interventions. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

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<https://doi.org/10.5664/jcsm.10074>

### **Acute sleep interventions as an avenue for treatment of trauma-associated disorders.**

Kevin M. Swift, PhD , Connie L. Thomas, MD , Thomas J. Balkin, PhD , Emily G. Lowery-Gionta, PhD , Liana M. Matson, PhD

Journal of Clinical Sleep Medicine  
Published Online: September 1, 2022

Scientific evidence that acute, posttrauma sleep disturbances (eg, nightmares and insomnia) can contribute significantly to the pathogenesis of trauma-induced disorders is compelling. Sleep disturbances precipitating from trauma are uniquely predictive of daytime posttrauma symptom occurrence and severity, as well as subsequent onset of mental health disorders, including post-traumatic stress disorder. Conversely, adequate sleep during the acute posttrauma period is associated with reduced likelihood of adverse mental health outcomes. These findings, which are broadly consistent with what is known about the role of sleep in the regulation of emotion, suggest that the acute posttrauma period constitutes a “window of opportunity” during which treatment of sleep disturbances may be especially effective for preventing or mitigating progression of aberrant psychophysiological processes. At this point, the weight of the scientific evidence supporting this possibility warrants initiation of clinical trials to confirm the benefits of targeted prophylactic sleep enhancement, and to establish treatment guidelines as appropriate.

See also:

[No time to waste! Acute sleep interventions after trauma](#) (commentary)

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<https://doi.org/10.1016/j.cbpra.2022.06.005>

## **Clinical and Administrative Insights From Delivering Massed Trauma-Focused Therapy to Service Members and Veterans.**

Edward C. Wright, Jennifer Schuster Wachen, Cynthia Yamokoski, Tara Galovski, ...  
Sheila A.M. Rauch

Cognitive and Behavioral Practice  
Available online 16 July 2022

### Highlights

- Massed, evidence-based psychotherapies for PTSD have proliferated since 2010.
- A variety of massed formats show low dropout and significant symptom improvements.
- There are unique advantages for both patients and providers to condensing treatment.
- The time-limited nature of massed treatment creates specific challenges as well.

### Abstract

Despite strong evidence of their effectiveness in reducing symptoms of posttraumatic stress disorder (PTSD), prolonged exposure therapy (PE) and cognitive processing therapy (CPT) remain challenging for some service members and veterans to access and complete. Delivering PE and CPT in time-condensed or “massed” formats may reduce barriers to receiving care. PE and CPT have now been implemented across a range of tempos (e.g., multiple sessions per day across 1 week, one session per day for 3 weeks) and to multiple target populations, in a variety of contexts from individual therapy alone to full intensive outpatient programs. A massed format of treatment delivery has advantages for both patients and providers, including quicker time to recovery, less opportunity for avoidance, and improved treatment completion rates. The time-limited nature of massed treatment also creates accompanying challenges, such as less time to practice homework and greater impact when factors delay or disrupt progress. This paper discusses lessons learned from providers across diverse settings who are experienced in both delivering massed PE and CPT and managing such programs, primarily with military populations.

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## **Intensive Cognitive Processing Therapy Associated With Reduced PTSD Treatment Dropout in a Case-Controlled Study of Treatment-Seeking Veterans.**

Harrison R. Weinstein, Erika M. Roberge, Suzanne C. Parker

Cognitive and Behavioral Practice

Available online 30 June 2022

### Highlights

- Treatment-seeking veterans were offered intensive CPT as routine care.
- Patients were twice as likely to complete intensive versus standard CPT.
- Intensive patients were more likely to achieve clinically significant improvement.
- Intensive CPT patients completed treatment in 34 versus 126 days for standard CPT.
- Design limitations hinder the generalizability of these findings.

### Abstract

Cognitive Processing Therapy (CPT) is an empirically supported psychotherapy for posttraumatic stress disorder (PTSD). The complex issue of treatment attrition is a frequently cited concern regarding CPT and other evidence-based psychotherapies for PTSD. The current study investigated the feasibility and effectiveness of “intensive” CPT, a treatment-consistent modification of CPT in which sessions are conducted more frequently than standard protocol. Fifty-four military veterans (20% female; Mage = 46; 80% Caucasian) seeking outpatient treatment for PTSD were included in this study. Patients who elected to receive intensive CPT (n = 27) were matched with archival records of individuals who received standard CPT (n = 27). Patients across treatment conditions were matched based on baseline symptom severity as measured by the PTSD Checklist for DSM-5 (PCL-5; MPCL-5 = 52.61). Treatment outcomes were compared and longitudinal multilevel modeling was used to compare rate of symptom change over time. Patients who elected to engage in intensive CPT were twice as likely to complete treatment (88.9%) as those who received standard CPT (44.4%),  $X^2(1, N = 54) = 12.00, p = .001$ . On average, intensive CPT patients completed treatment in about 25% of the time as standard CPT patients (33.8 days vs. 125.7 days). Patients in intensive CPT also demonstrated greater benefit: 81.4% reported a clinically significant improvement in PCL-5 scores compared to 51.8% of those in standard CPT,  $X^2(1, N = 54) = 5.33, p = .020, \phi = -0.314$ . Intensive and standard CPT performed comparably in regard to final PCL-5 score, change over time, and screening cutoff. In addition, there were no differences in treatment outcomes based on licensure status of the provider nor

whether treatment was delivered in person or virtually. Intensive CPT represents a novel, treatment-consistent adaptation that was utilized to treat a group of veterans with PTSD with minimal treatment dropout. Patients who elected to engage in more frequent treatment were more likely to complete treatment, did so in one quarter of the time, and reported similar to better treatment outcomes. Providers may consider encouraging their patients to participate in treatment as frequently as they are able. However, preliminary findings are based on a nonrandom sample and design limitations temper conclusions.

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<https://doi.org/10.1016/j.cbpra.2022.04.005>

### **Brief Imaginal Exposure for PTSD: Trajectories of Change in Distress.**

Lori A. Zoellner, Elizabeth A. Lehinger, Peter L. Rosencrans, Sarah M. Cornell-Maier, ...  
Michele A. Bedard-Gilligan

Cognitive and Behavioral Practice

Available online 3 June 2022

#### Highlights:

- Brief daily imaginal exposure only can be an effective treatment for PTSD.
- Distress during imaginal exposure decreased linearly and predicted better outcome.
- Mechanism of action may mirror extinction processes seen in full prolonged exposure.
- Clinically, daily sessions may build on one another and facilitate gains.
- Viable option for settings where brief PTSD treatment is needed.

#### Abstract

Preliminary evidence shows that brief, condensed imaginal exposure only interventions can be effective in the treatment of PTSD, but we need to understand its mechanisms of action. Consistent with extinction learning and retrieval processes, the present study examined whether a pattern of between-session distress reduction observed during standard prolonged exposure (PE) therapy would be observed and predict outcome. Sixty-three patients with PTSD were enrolled in two clinical trials using our treatment protocol consisting of six daily 50-min sessions focusing on imaginal exposure and processing only. Individual patient trajectories of distress reduction were examined over the course of the five imaginal exposure sessions (Sessions 2-6). Overall, significant linear distress reduction was observed for anticipatory ( $d = 1.18$ ), peak ( $d = 1.83$ ), and ending imaginal exposure distress ( $d = 1.21$ ). Consistent with extinction learning, the

steeper slope of peak distress ( $d = 1.03$ ) and end distress ( $d = 0.68$ ) across imaginal exposure sessions strongly predicted decreases in PTSD symptoms. Distress reduction across sessions was predicted by higher baseline avoidance and hyperarousal but not reexperiencing symptoms. This condensed format of daily 50-min sessions without in vivo exposure may be operating via similar extinction learning processes as longer protocols. Our clinical observations suggest that the brief daily format may offer the advantage of allowing each session to build on the previous one to promote meaningful shifts in the retrieval of the trauma memory. Brief imaginal exposure and processing may be a viable option for PTSD patients in settings where brief interventions are needed. Understanding potential change processes and baseline predictors of change brings us closer toward precision medicine in treating PTSD.

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<https://doi.org/10.1093/milmed/usac218>

### **Patient and Treatment Characteristics Associated With Receipt of Core Patient-Reported Outcome Measures in VA Mental Health.**

Edward P Liebmann, PhD, Sandra G Resnick, PhD, Karen L Austin, MPH, Jenefer M Jedele, PhD, MSc

Military Medicine

Published: 16 July 2022

#### **Objective**

Measurement-based care (MBC) has been implemented in Veterans Affairs since 2016 and is increasingly used in other mental health care organizations. Little quantitative research exists that assesses patient-level barriers and facilitators of MBC. This study examines correlates of receiving patient-reported outcome measures (PROMs) among veterans receiving both psychotherapy and pharmacotherapy (Both), psychotherapy only (Psychotherapy), and pharmacotherapy only (Pharmacotherapy).

#### **Methods**

Data on PROM administration were obtained for a 12-month period for 1,726,578 veterans who initiated outpatient mental health care during fiscal year 2019. Clinical, treatment, and PROM data were extracted from the electronic health record. Logistic regression was used to model the association between veteran and treatment characteristics and PROM administration.

## Results

Thirty-two percent of veterans in Both, 26.0% in Psychotherapy, and 8.8% in Pharmacotherapy received at least one PROM. The probability of PROM administration was positively associated with the number of treatment encounters during the fiscal year 2019. Major depressive, generalized anxiety, and other depressive disorders were associated with an increased probability of PROM administration. Psychotic disorders, personality disorders, older age, dementia, and electronic health record suicide risk flag were associated with decreased odds of PROM administration across treatment types.

## Conclusions

Rates of PROM administration differ depending on the type of treatment received. The probability of PROM administration is influenced by the frequency of encounters and, to a lesser extent, having a diagnosis congruent with symptoms assessed in the set of PROMs considered. Consistent with hypotheses from the MBC implementation literature, potential indicators of clinical severity and cognitive impairment decrease the likelihood of PROM utilization.

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<https://doi.org/10.1016/j.drugalcdep.2022.109574>

## **The associations between traumatic experiences and subsequent onset of a substance use disorder: Findings from the World Health Organization World Mental Health surveys.**

Louisa Degenhardt, Chrianna Bharat, Meyer D. Glantz, Evelyn J. Bromet, ... Bogdan Wojtyniak

Drug and Alcohol Dependence

Volume 240, 1 November 2022, 109574

## Highlights

- Most respondents experienced at least one lifetime traumatic experience (71.0%).
- Traumas involving loved ones were most common (38.3%).
- Lifetime substance use disorder more common among those with trauma (14.5% v. 5.1%).
- Most trauma groups associated with increased odds of substance use disorder onset.

- Interpersonal- & sexual-relationship violence associations persist long after first exposure.

## Abstract

### Aim

Exposure to traumatic events (TEs) is associated with substance use disorders (SUDs). However, most studies focus on a single TE, and are limited to single countries, rather than across countries with variation in economic, social and cultural characteristics. We used cross-national data to examine associations of diverse TEs with SUD onset, and variation in associations over time.

### Methods

Data come from World Mental Health surveys across 22 countries. Adults (n = 65,165) retrospectively reported exposure to 29 TEs in six categories: “exposure to organised violence”; “participation in organised violence”; “interpersonal violence”; “sexual-relationship violence”; “other life-threatening events”; and those involving loved ones (“network traumas”). Discrete-time survival analyses were used to examine associations with subsequent first SUD onset.

### Results

Most (71.0%) reported experiencing at least one TE, with network traumas (38.8%) most common and exposure to organised violence (9.5%) least. One in five (20.3%) had been exposed to sexual-relationship violence and 26.6% to interpersonal violence. Among the TE exposed, lifetime SUD prevalence was 14.5% compared to 5.1% with no trauma exposure. Most TE categories (except organised violence) were associated with increased odds of SUD. Increased odds of SUD were also found following interpersonal violence exposure across all age ranges (ORs from 1.56 to 1.78), and sexual-relationship violence exposure during adulthood (ORs from 1.33 to 1.44), with associations persisting even after >11 years.

### Conclusion

Sexual and interpersonal violence have the most consistent associations with progression to SUD; increased risk remains for many years post-exposure. These need to be considered when working with people exposed to such traumas.

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<https://doi.org/10.1016/j.drugalcdep.2022.109623>

## **The association between recreational cannabis use and posttraumatic stress disorder: A systematic review and methodological critique of the literature.**

Terrell A. Hicks, Angela J. Zaur, Jared W. Keeley, Ananda B. Amstadter

Drug and Alcohol Dependence  
Volume 240, 1 November 2022, 109623

### Highlights

- Individuals with PTSD are more likely to use cannabis recreationally compared to those without PTSD.
- Prior research investigated unidirectional, opposed to bidirectional, associations between recreational cannabis use and PTSD.
- The bidirectional association between recreational cannabis use and PTSD is potentially predictive.
- Standardized assessment techniques are more established for the PTSD compared to the recreational cannabis use.

### Abstract

#### Background

Given recent changes in the legal status of cannabis, the risks and benefits associated with its use have become an important public health topic. A growing body of research has demonstrated that posttraumatic stress disorder (PTSD) and recreational cannabis use (RCU) frequently co-occur, yet findings are inconsistent (e.g., direction of effect) and methodological variability makes comparison across studies difficult.

#### Methods

We conducted a comprehensive systematic review of all studies (N = 45) published before May 2020 regarding etiologic models of co-occurring RCU and PTSD, as well as provided a methodological critique to inform suggestions for future research initiatives.

#### Results

Findings indicate that a majority of studies (n = 37) demonstrated a significant association between RCU and PTSD. Findings provide evidence for the self-medication and high-risk models posited to explain co-occurring RCU and PTSD despite variability in assessment of RCU, which includes commonly used non-standardized self-report questions.



## Conclusion

The association between RCU and PTSD is likely bidirectional. Results inform clinicians and researchers working in the mental health and cannabis use fields how the variability in findings on the association between RCU and PTSD may be attributable, in part, to methodological issues that permeate the extant literature pertaining to RCU and PTSD.

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<https://doi.org/10.1177/00031224221110535>

## **Femininity Anchors: Heterosexual Relationships and Pregnancy as Sites of Harassment for U.S. Servicewomen.**

Stephanie Bonnes

American Sociological Review

First published online July 17, 2022

This article draws on in-depth interviews with 50 U.S. servicewomen to advance sociological understandings of gender, femininity, and harassment. Recognizing that women are targeted with harassment throughout their military careers, I analyze specific episodes of harassment to examine organizational and interactional meanings and the power dynamics embedded in these instances. This article explains why servicemen escalate harassment toward women who are pregnant or who enter heterosexual relationships. In a militarized context that already denigrates femininity, I argue that men impose gendered and sexualized meanings on women's life-course events to limit women's organizational inclusion. These events, such as pregnancy and engagement or marriage to a heterosexual partner, serve as "femininity anchors" that tether women to femininity within a hyper-masculine environment. Femininity anchors present serious interactional and individual consequences for women as they attempt to navigate the gendered terrain of the U.S. military. Aside from eliciting moments of elevated sexual and nonsexual harassment, femininity anchors restrict women's acceptance as real servicemembers and negatively affect their military careers. In highlighting the negative treatment women receive due to femininity anchors, I demonstrate how the specific ways gender is embedded in an organization shapes patterns of harassment and exclusion.

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<https://doi.org/10.1037/ser0000690>

### **Impact of substance use disorders on employment for veterans.**

Sprong, M. E., Hollender, H., Paul, E., Gilbert, J., Weber, K., Garakani, A., & Buono, F. D.

Psychological Services  
Advance online publication

Approximately 1.1 million veterans meet criteria for substance use disorders (SUDs) with 1 in 4 struggling with illicit drugs, 4 in 5 struggling with alcohol use, and 1 in 13 struggling with both. The purpose of this study was to examine the impact of SUDs on closure status (exiting with employment, did not exit with employment) for veterans served in a Department of Veterans Affairs' Veterans Health Administration (VHA) vocational rehabilitation (VR) program. Data (N = 2,620) from a VHA VR program in the Veterans Integrated Service Network 12 network were obtained for the purpose of the present study and consisted of veterans enrolled from 2012 to 2018. Findings showed that veterans without SUDs were more likely to exit with employment, and veterans enrolled in transitional work and community-based employment were more likely to exit with employment compared to those within supported employment (SE). Given that SE helps to serve veterans with the most severe psychological or medical conditions (e.g., active psychosis, schizophrenia, bipolar disorder, spinal cord injury, traumatic brain injury), findings suggest veterans are more successful with less serious mental health conditions. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

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<https://doi.org/10.1037/tra0001286>

### **PTSD symptom severity mediates the impact of war zone stress exposure on postdeployment physical health: The Fort Devens Gulf War veterans cohort.**

Vandiver, R. A., Wachen, J. S., Spiro, A., Kaiser, A. P., Tyzik, A. L., & Smith, B. N.

Psychological Trauma: Theory, Research, Practice, and Policy  
Advance online publication

Abstract

Objective: Exposure to traumatic events is associated with increased risk for negative

physical health outcomes, but more work is needed to advance understanding of the mechanisms underlying this relationship. As military deployments frequently involve trauma exposure, this issue has clear implications for veteran populations. This longitudinal study examined the role of mental health symptomatology (i.e., PTSD, depression, and anxiety) in the association between war zone stress and postdeployment physical health in Gulf War veterans. Method: Data were collected in three waves over 7 years from a sample of 2,929 (92% male) Army personnel who were deployed to the 1990–1991 Gulf War. Structural equation modeling (SEM) was used to examine the associations linking war zone stress exposure reported at deployment return with subsequent physical health 6 to 7 years later, including the postdeployment onset of health symptoms and conditions and health functioning. The roles of PTSD, depression, and anxiety symptom severity as potential risk mechanisms linking stress exposure with later health outcomes were examined. Results: Self-reported higher stress exposure was linked with greater severity of PTSD, depression, and anxiety symptoms. SEM analyses revealed that PTSD symptom severity was the only significant mediator of stress exposure on subsequent physical health. Conclusion: Findings support the unique and significant role of PTSD in the development of physical health problems in the wake of war zone stress for Gulf War veterans. These results suggest that targeted PTSD interventions could reduce or prevent future physical health problems that can result from trauma exposure and mental health sequelae linked to military service. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

#### Impact Statement

In a longitudinal study following 2,929 U.S. Army personnel who were deployed in the 1990–1991 Gulf War, PTSD was demonstrated to be a mediating link between warzone stress exposure and the onset of physical health symptoms and conditions, as well as to lower health functioning in the years following Gulf War deployment. This study is one of a growing number of investigations to examine the long-term effects of war zone stress exposure using longitudinal data. Study findings demonstrate that if war zone-related PTSD remains untreated, it could continue to negatively affect health over the years and decades following deployment. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

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<https://doi.org/10.1080/21635781.2022.2098884>

### **Military Marriages: Do Adaptive Processes Promote Marital Resilience?**

Lesleigh Pullman & Zhigang Wang

A variety of factors can influence job performance and retention of military personnel, including family-related stress and satisfaction. Maintaining satisfying romantic relationships can be challenging for all couples, but the military lifestyle adds unique challenges that military couples must overcome. Our study included 702 female civilian spouses of Canadian Armed Forces members. We examined a selection of enduring traits, emergent traits, relationship resources, military experiences, and nonmilitary circumstances to predict perceived marital stability and the mediating and interactive influence of adaptive processes. We found that adaptive processes mediated the relationship between select risk factors and perceived marital stability. A less insecure attachment style, a lower degree of financial instability, and fewer children were all associated with better adaptive processes, which was in turn associated with more perceived marital stability. Current deployment did not influence these results, nor did adaptive processes moderate the relationship between any risk factor and perceived marital stability. These findings suggest that promoting healthy and positive spousal interactions, communications, and support among military couples may mitigate the risk associated with a variety of military and nonmilitary challenges that military marriages face.

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### **Links of Interest**

New Air Force policy aims to better handle sexual harassment claims

<https://www.airforcetimes.com/news/your-air-force/2022/10/19/new-air-force-policy-aims-to-better-handle-sexual-harassment-claims/>

Active duty suicides dropped 15% in 2021, but overall trend is upward

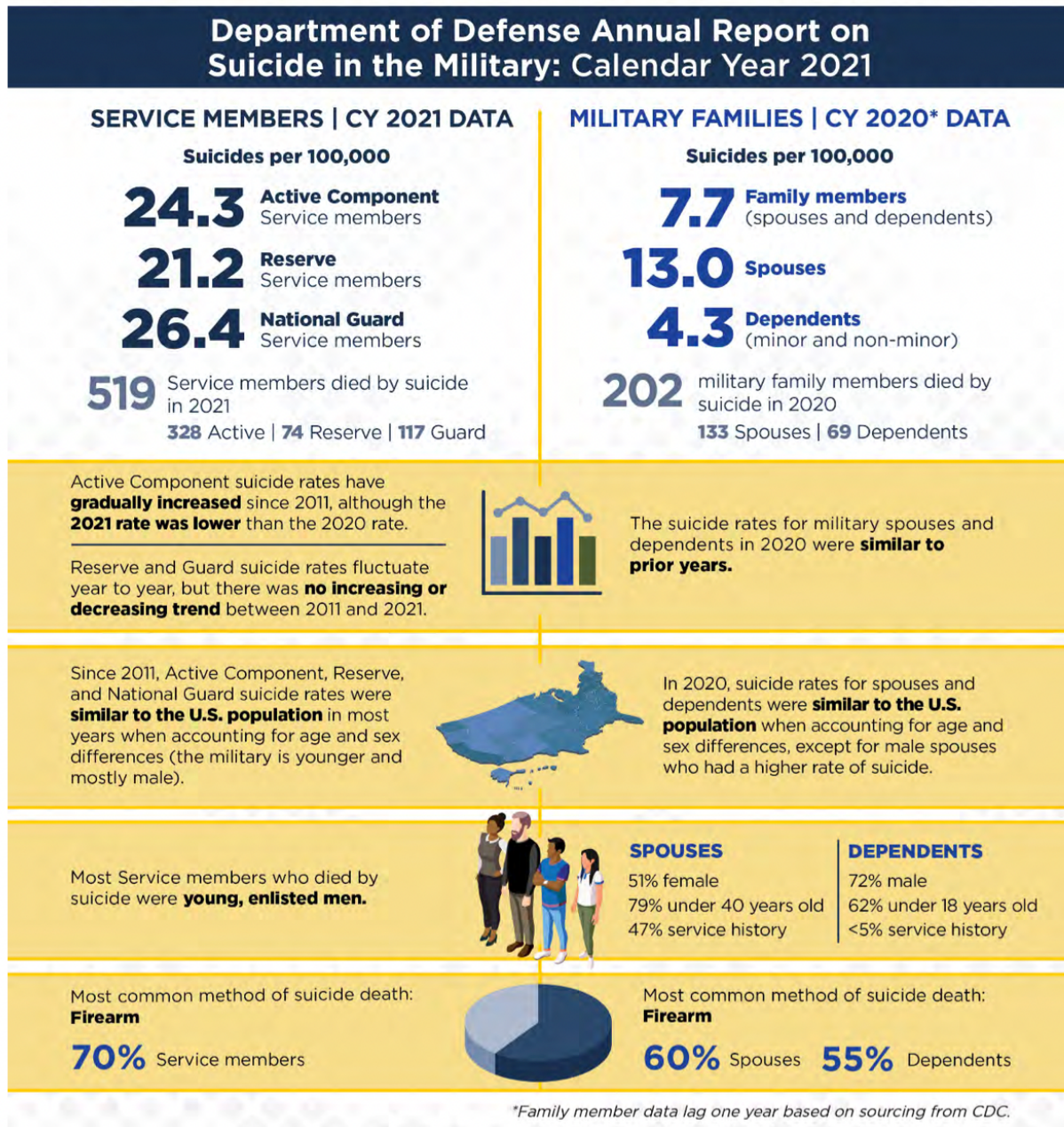
<https://www.militarytimes.com/news/your-military/2022/10/20/active-duty-suicides-dropped-15-in-2021-but-overall-trend-is-upward/>

National Guard leaders hope new tools and treatments will help downward trend of suicides in the ranks

<https://www.stripes.com/branches/army/2022-10-21/national-guard-troops-suicides-7766166.html>

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Resource of the Week: [DOD Annual Report on Suicide in the Military: Calendar Year \(CY\) 2021](#)



From [press release](#):

According to the report, in CY 2021, 519 Service members died by suicide with young, enlisted male Service members found to be at greatest risk. The Annual Report shows that the suicide rates for Active Component Service members have gradually increased since 2011, although the 2021 rate is lower than in

2020. Reserve and Guard suicide rates fluctuated year-to-year across 2011-2021, with no increasing or decreasing trend. Additionally, in CY 2020, the report found that 202 dependents died by suicide, including 133 spouses and 69 other dependents, and that firearms were the primary method of suicide death for both Service members and family members.

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