

# CDP



## Research Update -- January 13, 2022

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<https://doi.org/10.1002/jts.22781>

**Effectiveness of cognitive behavioral conjoint therapy for posttraumatic stress disorder (PTSD) in a U.S. Veterans Affairs PTSD clinic.**

Nicole D. Pukay-Martin, Steffany J. Fredman, Colleen E. Martin, Yunying Le, Alison Haney, Connor Sullivan, Candice M. Monson, Kathleen M. Chard

Journal of Traumatic Stress

First published: 23 December 2021

Cognitive behavioral conjoint therapy (CBCT) for posttraumatic stress disorder (PTSD) is a 15-session conjoint treatment for PTSD designed to improve PTSD symptoms and enhance intimate relationship functioning. Numerous studies of CBCT for PTSD document improvements in patient PTSD and comorbid symptoms, partner mental health, and relationship adjustment. However, little is known about its effectiveness in real-world clinical settings. Using an intention-to-treat sample of couples who participated in CBCT for PTSD in an outpatient U.S. Veterans Affairs (VA) PTSD clinic (N = 113), trajectories of session-by-session reports of veterans' PTSD symptoms and both partners' relationship happiness were examined. Across sessions, there were significant reductions in veteran-rated PTSD symptoms,  $d = -0.69$ , and significant increases in veteran- and partner-rated relationship happiness,  $ds = 0.36$  and  $0.35$ , respectively. Partner ratings of veterans' PTSD symptoms increased before significantly decreasing,  $d = -0.24$ . Secondary outcomes of veteran and partner relationship satisfaction,  $ds = 0.30$  and  $0.42$ , respectively; veteran and partner depressive symptoms,  $ds = -0.75$  and  $-0.29$ , respectively; and partner accommodation of PTSD symptoms,  $d = -0.44$ , also significantly improved from pre- to posttreatment. The findings suggest that CBCT for PTSD was effective for decreasing PTSD and comorbid symptoms in veterans, as well as for improving relationship functioning and partners' mental health, among a sample of real-world couples seeking treatment in a VA PTSD specialty clinic.

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<https://doi.org/10.1002/jts.22786>

**Imaginal exposure processing during Concurrent Treatment of PTSD and Substance Use Disorders using Prolonged Exposure (COPE) therapy: Examination of linguistic markers of cohesiveness.**

Erin M. Gandelman, Steven A. Miller, Sudie E. Back

Journal of Traumatic Stress

First published: 03 January 2022

Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE) is an integrated, evidence-based treatment that results in significant reductions in posttraumatic stress disorder (PTSD) and substance use disorder (SUD) severity. Emotional processing theory suggests that successful prolonged exposure-based treatments should result in more cohesive trauma narratives due to better integration and organization of trauma memory into cognitive conceptualizations of fear. Therefore, we hypothesized that language used by patients would become more cohesive over time and increased language cohesion would be related to larger reductions in PTSD and SUD outcomes. Broadly, language cohesion refers to several linguistic devices that help establish and cohere meaning throughout spoken and written discourse (e.g., increased use of transition words like “and,” “then,” and “but”). This was the first known study to examine changes in language related to both PTSD and SUD severity during COPE treatment. The sample included 28 military veterans with current comorbid PTSD/SUD enrolled in a larger COPE study. A text analysis program, Coh-Metrix, was used to analyze language cohesiveness. No language cohesion variables significantly changed over time. Narrativity levels significantly moderated change in PTSD outcomes. Adversative connectives significantly moderated change in SUD outcomes. The findings illuminate potential processes underlying successful COPE treatment. Less use of language conveying a narrative and more use of contrast-indicative words (e.g., but, whereas) was associated with larger reductions in PTSD and SUD outcomes during treatment. These results contribute to the extant literature on associations between trauma exposure, language, and emotional processing.

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**Military traumatic brain injury: a challenge straddling neurology and psychiatry.**

Ling-Zhuo Kong, Rui-Li Zhang, Shao-Hua Hu & Jian-Bo Lai

Military Medical Research

Published: 06 January 2022

Military psychiatry, a new subcategory of psychiatry, has become an invaluable, intangible effect of the war. In this review, we begin by examining related military research, summarizing the related epidemiological data, neuropathology, and the research achievements of diagnosis and treatment technology, and discussing its comorbidity and sequelae. To date, advances in neuroimaging and molecular biology have greatly boosted the studies on military traumatic brain injury (TBI). In particular, in terms of pathophysiological mechanisms, several preclinical studies have identified abnormal protein accumulation, blood–brain barrier damage, and brain metabolism abnormalities involved in the development of TBI. As an important concept in the field of psychiatry, TBI is based on organic injury, which is largely different from many other mental disorders. Therefore, military TBI is both neuropathic and psychopathic, and is an emerging challenge at the intersection of neurology and psychiatry.

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<https://doi.org/10.1001/jamanetworkopen.2021.40880>

### **Association of e-Cigarette Use With Discontinuation of Cigarette Smoking Among Adult Smokers Who Were Initially Never Planning to Quit.**

Kasza, K. A., Edwards, K. C., Kimmel, H. L., Anesetti-Rothermel, A., Cummings, K. M., Niaura, R. S., Sharma, A., Ellis, E. M., Jackson, R., Blanco, C., Silveira, M. L., Hatsukami, D. K., & Hyland, A.

JAMA Network Open

December 28, 2021

#### Key Points

##### Question

Is e-cigarette use associated with discontinuation of cigarette use among smokers initially not planning to ever quit?

##### Findings

In this US nationally representative cohort study of 1600 adult daily cigarette smokers

who did not initially use e-cigarettes and had no plans to ever quit smoking, subsequent daily e-cigarette use was significantly associated with an 8-fold greater odds of cigarette discontinuation compared with no e-cigarette use.

### Meaning

These findings call for consideration of smokers who are not planning to quit when evaluating the risk-benefit potential of e-cigarettes for smoking cessation in the population.

### Abstract

#### Importance

Cigarette smokers not planning to quit are often overlooked in population studies evaluating the risk-benefit potential of electronic nicotine delivery products (e-cigarettes).

#### Objective

To evaluate whether e-cigarette use is associated with discontinuing cigarette smoking among smokers who were initially never planning to quit.

#### Design, Setting, and Participants

This cohort study used US nationally representative data from the longitudinal Population Assessment of Tobacco and Health Study (waves 2-5 conducted between October 2014 and November 2019), with participants evaluated in 3 pairs of interviews. Adult daily cigarette smokers initially not using e-cigarettes and with no plans to ever quit smoking for good (2489 observations from 1600 individuals) were included.

#### Exposures

e-Cigarette use (ie, daily use, nondaily use, or no use) at follow-up interview among smokers not using e-cigarettes at baseline interview.

#### Main Outcomes and Measures

The main outcomes were discontinuation of cigarette smoking (ie, no cigarette smoking) and discontinuation of daily cigarette smoking (ie, no daily cigarette smoking) at follow-up interview. Generalized estimating equations were used to evaluate the association between the exposure and each outcome, controlling for demographic characteristics and cigarettes smoked per day at baseline interview; all estimates were weighted.

#### Results

The weighted population of adult daily cigarette smokers who were not using e-cigarettes and had no plans to ever quit smoking, based on data from 1600 participants,

was 56.1% male (95% CI, 53.4%-58.7%), 10.1% Hispanic (95% CI, 8.2%-12.3%), 10.1% non-Hispanic Black (95% CI, 8.7%-11.7%), 75.6% non-Hispanic White (95% CI, 72.9%-78.2%), and 4.2% of other non-Hispanic race (95% CI, 3.3%-5.4%); 29.3% were aged 55 to 69 years (95% CI, 26.2%-32.6%), 8.9% were aged 70 years or older (95% CI, 6.8%-11.5%), 36.8% did not graduate from high school (95% CI, 34.1%-39.6%), 55.2% had an annual household income of less than \$25 000 (95% CI, 52.3%-58.1%), 37.6% smoked 20 to 29 cigarettes per day (95% CI, 34.7%-40.6%), and 12.7% smoked 30 or more cigarettes per day (95% CI, 10.9%-14.7%). Overall, 6.2% of the population (95% CI, 5.0%-7.5%) discontinued cigarette smoking. Discontinuation rates were higher among those who used e-cigarettes daily (28.0%; 95% CI, 15.2%-45.9%) compared with not at all (5.8%; 95% CI, 4.7%-7.2%; adjusted odds ratio [aOR], 8.11; 95% CI, 3.14-20.97). Furthermore, 10.7% (95% CI, 9.1%-12.5%) discontinued daily cigarette smoking, with higher rates of discontinuation observed among those who used e-cigarettes daily (45.5%; 95% CI, 27.4%-64.9%) compared with not at all (9.9%; 95% CI, 8.2%-11.8%; aOR, 9.67; 95% CI, 4.02-23.25). Nondaily e-cigarette use was not associated with cigarette discontinuation (aOR, 0.53; 95% CI, 0.08-3.35) or daily cigarette discontinuation (aOR, 0.96; 95% CI, 0.44-2.09).

#### Conclusions and Relevance

In this cohort study, daily e-cigarette use was associated with greater odds of cigarette discontinuation among smokers who initially had no plans to ever quit smoking. These findings support the consideration of smokers who are not planning to quit when evaluating the risk-benefit potential of e-cigarettes for smoking cessation in the population.

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#### **Excessive Daytime Sleepiness and Associated Factors in Military Search and Rescue Personnel.**

Akter, R., Larose, T. L., Sandvik, J., Fonne, V., Meland, A., & Wagstaff, A. S.

Aerospace Medicine and Human Performance  
2021 Dec 1; 92(12): 975-979

#### BACKGROUND:

Abnormal excessive daytime sleepiness (EDS) has been reported worldwide, but too little is known about EDS and its determinants in Search and Rescue (SAR)

populations. We aimed to determine the prevalence of abnormal EDS and contributing factors among Royal Norwegian Air Force (RNoAF) SAR helicopter personnel.

#### METHODS:

In this cross-sectional study, a total of N = 175 RNoAF SAR personnel completed an electronic survey including socio-demographic and lifestyle questions. The Epworth Sleepiness Scale (ESS) was used as both a continuous and categorical outcome variable to measure EDS.

#### RESULTS:

Abnormal EDS defined by ESS was found in 41% of the participants in this study. We observed no associations between socio-demographic and lifestyle factors and abnormal EDS in this study.

#### DISCUSSION:

There is a high prevalence of abnormal EDS in the current RNoAF SAR population. Despite this elevated level of fatigue, we did not find that the socio-demographic and lifestyle factors assessed in this study were associated with abnormal EDS in RNoAF SAR helicopter personnel. Also unusually, the study cohort did not demonstrate higher scores in factors found to change ESS scores in similar study populations (e.g., caffeine use, tobacco use, exercise level). Further research is required to investigate other factors (organizational, operational) that may be associated with abnormal EDS in this and other SAR populations.

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<https://doi.org/10.1016/j.jsat.2021.108708>

### **Experiences of stigma in hospitals with addiction consultation services: A qualitative analysis of patients' and hospital-based providers' perspectives.**

Hoover, K., Lockhart, S., Callister, C., Holtrop, J. S., & Calcaterra, S. L.

Journal of Substance Abuse Treatment  
2021 Dec 27; 108708

#### Background:

Addiction consultation services (ACS) provide evidence-based treatment to hospitalized patients with substance use disorders (SUD). Expansion of hospital-based addiction care may help to counteract the stigma that patients with SUD experience within the



health care system. Stigma is among the most impactful barriers to seeking care and adhering to medical advice among people with SUD. We aimed to understand how the presence of an ACS affected patients' and hospital-based providers' experiences with stigma in the hospital setting.

#### Methods:

We conducted a qualitative study utilizing focus groups and key informant interviews with hospital-based providers (hospitalists and hospital-based nurses, social workers, pharmacists). We also conducted key informant interviews with patients who received care from an ACS during their hospitalization. An interprofessional team coded and analyzed transcripts using a thematic analysis approach to identify emergent themes.

#### Results:

Sixty-two hospital-based providers participated in six focus groups or eight interviews. Twenty patients participated in interviews. Four themes emerged relating to the experiences of stigma reported by hospital-based providers and hospitalized patients with SUD: (1) past experiences in the health care system propagate a cycle of stigmatization between hospital-based providers and patients; (2) documentation in medical charts unintentionally or intentionally perpetuates enacted stigma among hospital-based providers resulting in anticipated stigma among patients; (3) the presence of an ACS reduces enacted stigma among hospital-based providers through expanding the use of evidenced-based SUD treatment and reframing the SUD narrative; (4) ACS team members combat the effects of internalized stigma by promoting feelings of self-worth, self-efficacy, and mutual respect among patients with SUD.

#### Conclusions:

An ACS can facilitate destigmatization of hospitalized patients with SUD by incorporating evidence-based SUD treatment into routine hospital care, by providing and modeling compassionate care, and by reframing addiction as a chronic condition to be treated alongside other medical conditions. Future reductions of stigma in hospital settings may result from promoting greater use of evidence-based treatment for SUD and expanded education for health care providers on the use of non-stigmatizing language and medical terminology when documenting SUD in the medical chart.

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<https://doi.org/10.1093/pm/pnab204>

## **Differential Pain Presentations Observed across Post-Traumatic Stress Disorder Symptom Trajectories after Combat Injury.**

Giordano, N. A., Richmond, T. S., Farrar, J. T., 'Trip' Buckenmaier Iii, C. C., Gallagher, R. M., & Polomano, R. C.

Pain Medicine

2021 Nov 26; 22(11): 2638-2647

### **Objective:**

This study evaluated the association between pain outcomes and post-traumatic stress disorder (PTSD) symptom trajectories after combat-related injury, while adjusting for receipt of regional anesthesia (RA) soon after injury.

### **Methods:**

The PTSD symptom trajectories of N = 288 combat-injured service members were examined from within a month of injury up to two-years after. Linear mixed-effects models evaluated the association between PTSD symptom trajectories and average pain and pain interference outcomes while adjusting for receipt of RA during combat casualty care.

### **Results:**

Four PTSD trajectories were characterized: resilient, recovering, worsening, and chronic. Differential pain presentations were associated with PTSD symptom trajectories, even after adjusting for receipt of RA. Compared to those with a resilient PTSD symptom trajectory, individuals presenting with chronic PTSD trajectories were estimated to experience average pain scores 2.61 points higher (95% CI: 1.71, 3.14). Participants presenting with worsening ( $\beta = 1.42$ ; 95% CI: 0.77, 1.78) and recovering PTSD trajectories ( $\beta = 0.65$ ; 95% CI: 0.09, 1.08) were estimated to experience higher average pain scores than participants with resilient PTSD trajectories. Significant differences in pain interference scores were observed across PTSD trajectories. Receiving RA was associated with improved pain up to two years after injury ( $\beta = -0.31$ ; 95% CI: -0.90, -0.04), however no statistically significant association was detected between RA and PTSD trajectories.

### **Conclusions:**

Chronic and worsening PTSD trajectories were associated with greater pain intensity and interference following combat injury even when accounting for receipt of early RA

for pain management. These findings underscore the need to jointly assess pain and PTSD symptoms across the trauma care continuum.

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<https://doi.org/10.1093/pm/pnab087>

## **Relationship Between Post-Traumatic Stress Disorder Symptoms and Chronic Pain-Related Symptom Domains Among Military Active Duty Service Members.**

Li, H., Flynn, D. M., Highland, K. B., Barr, P. K., Langford, D. J., & Doorenbos, A. Z.

Pain Medicine

2021 Dec 11 ;22(12): 2876-2883

### Objective:

This study examined the relationships between symptom domains relevant to post-traumatic stress disorder (PTSD) diagnosis, PTSD screening, and chronic pain-related symptoms (pain intensity, pain interference, physical function, fatigue, depression, anxiety, anger, satisfaction with social roles) experienced by active duty military service members with chronic pain.

### Design:

Cross-sectional study.

### Setting:

This study was conducted at the Interdisciplinary Pain Management Center (IPMC) at Madigan Army Medical Center between 2014 and 2018.

### Subjects:

Active duty service members receiving care at IPMC (n = 2745) were included in this study.

### Methods:

Independent sample t test was conducted to compare pain intensity and pain-related measures of physical, emotional, and social functioning among patients with and without a PTSD diagnosis or PTSD positive screen ( $\geq 3$  symptoms). Relative weight analysis was used to identify the relative importance of each PTSD symptom cluster (e.g., intrusion, avoidance, hyperarousal, emotional numbness) to pain and related domains.

#### Results:

Approximately 27.9% of the patients had a positive screen for PTSD, and 30.5% of the patients had a PTSD diagnosis. Patients with PTSD diagnosis and positive screening had higher pain interference and lower physical function and social satisfaction scores ( $P < 0.001$ ) and had increased anger, anxiety, fatigue, and depression scores ( $P < 0.001$ ). Emotional numbness accounted for the largest proportion of variance in average pain intensity, pain interference, and psychological functioning, and avoidance accounted for the largest proportion of variance in physical function.

#### Conclusion:

To improve treatment effectiveness and overall functioning for active duty military patients, integrated treatment and therapies targeted to reducing chronic pain and PTSD symptoms (focus on emotional numbness and avoidance) are recommended.

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<https://doi.org/10.1037/ser0000587>

### **What matters to psychology trainees when making decisions about internship and postdoctoral training sites: Differences between racial/ethnic minority and White VA trainees.**

Cheng, Z. H., Fujii, D., Wong, S. N., Davis, D. M., Rosner, C. M., Chen, J. A., Bates, J., & Jackson, J.

Psychological Services  
Advance online publication

It is projected that by 2045, racial/ethnic minorities in the U.S. will become the majority. Unfortunately, the numbers of racial/ethnic minority psychologists have not kept up with population trends. This discrepancy poses challenges for many psychology training sites, including the Department of Veterans Affairs (VA). There is a lack of data on what factors are important for psychology applicants, including racial/ethnic minority trainees when they are considering internship and postdoctoral training sites. This quality improvement project surveyed 237 VA psychology trainees (59% psychology interns, 32.5% psychology postdoctoral fellows, 69.6% White, 9.3% multiracial, 6.8% Asian American or Pacific Islander, 5.1% Black/African American, 4.2% Latinx American, 0.8% Native American, 0.8% Middle Eastern) to study what factors are important when considering training sites. Results indicated that overall, racial/ethnic minority and White

trainees endorsed similar primary factors when considering training programs. Site related factors (e.g., perceived workload, training opportunities) and future work related factors (e.g., ease of licensure, obtaining a first job) were top considerations regardless of race/ethnicity. The groups diverged in secondary factors with racial/ethnic minorities desiring infusion of diversity in training more than White applicants and White applicants considering quality of life factors such as extracurricular opportunities and convenience of daily living more important than racial/ethnic minority applicants. Qualitative data indicated applicants perceived VA training sites to be more welcoming and offer more opportunities for learning about diversity than non-VA sites. Recommendations for recruiting psychology trainees in general, and then specifically for racial/ethnic minority applicants are discussed. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

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<https://doi.org/10.1177/08862605211055082>

### **Comparing Veterans with Posttraumatic Stress Disorder Related to Military Sexual Trauma or Other Trauma Types: Baseline Characteristics and Residential Cognitive Processing Therapy Outcomes.**

Christ NM, Blain RC, Pukay-Martin ND, Petri JM, Chard KM.

Journal of Interpersonal Violence  
First Published November 17, 2021

The Veterans Health Administration (VHA) has called for improved assessment and intervention for survivors of military sexual trauma (MST) to mitigate deleterious sequelae, including posttraumatic stress disorder (PTSD). Research on the impact of MST-related PTSD (MST-IT) on men is limited, and few studies have examined the differential effects of treatment across genders and MST-IT. Additionally, studies have utilized varying definitions of MST (e.g., sexual assault only vs. including sexual harassment), contributing to disparate outcomes across studies. Utilizing data from 343 veterans seeking residential cognitive processing therapy (CPT) for PTSD in VHA, this study examined the impact of MST-IT and gender on differences in demographic characteristics; pre-treatment severity of PTSD (overall and clusters), depression, and negative posttraumatic cognitions (NPCs); and post-treatment severity of these variables after accounting for pre-treatment severity. Results from 2x2 factorial ANOVAs found no differences in pre-treatment depression or overall PTSD by MST-IT, gender, or their interaction; however, MST-IT survivors presented with greater pre-treatment avoidance, global NPCs, and self-blame. Results from hierarchical linear regression

models found only pre-treatment symptom severity significantly predicted post-treatment severity for overall PTSD and all NPCs. These findings suggest veteran survivors of MST-IT appear to benefit similarly from CPT delivered in a VHA residential PTSD program compared to veterans with other index traumas, regardless of gender. Although there were minimal post-treatment differences in PTSD and NPCs by MST-IT status and gender, residual symptoms related to negative cognitions and mood appear to differ across gender and MST-IT status. Specifically, in individuals without MST-IT, post-treatment PTSD symptoms of negative alterations in cognition and mood were higher in men than women. Moreover, women with MST-IT reported more symptoms of depression than both men with MST-IT and women without MST-IT. These findings suggest depressive symptoms decrease through residential PTSD treatment differentially by MST-IT status and gender and warrant further examination.

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<https://doi.org/10.1002/jts.22729>

### **Secondary individual outcomes following multicouple group therapy for posttraumatic stress disorder: An uncontrolled pilot study with military dyads.**

Alexandra Macdonald, Steffany J. Fredman, Daniel J. Taylor, Kristi E. Pruiksma, Tabatha H. Blount, Brittany N. Hall-Clark, Brooke A. Fina, Katherine A. Dondanville, Jim Mintz, Brett T. Litz, Stacey Young-McCaughan, Yunying Le, August I. C. Jenkins, Candice M. Monson, Jeffrey S. Yarvis, Terence M. Keane, Alan L. Peterson, for the Consortium to Alleviate PTSD

Journal of Traumatic Stress

First published: 20 November 2021

Cognitive-behavioral conjoint therapy (CBCT) for posttraumatic stress disorder (PTSD) has demonstrated efficacy for improving PTSD and comorbid symptoms and relationship adjustment. To enhance treatment efficiency and scalability, we developed a 2-day, abbreviated, intensive, multicouple group version of CBCT for PTSD (AIM-CBCT for PTSD). Prior work demonstrated that AIM-CBCT for PTSD was associated with reductions in PTSD and comorbid symptoms in a sample of 24 post-9/11 active duty military or veteran couples who received the treatment in a retreat format over a single weekend. The current study investigated secondary outcomes regarding trauma-related cognitions, psychosocial impairment, and insomnia. For trauma-related cognitions, reductions were nonsignificant and small at 1-month follow-up,  $d_s = -0.14$  to  $-0.32$ . However, by 3-month follow-up, there were significant, medium effect size

reductions in total trauma-related cognitions,  $d = -0.68$ , and negative views of self and others,  $ds = -0.64$  and  $-0.57$ , respectively, relative to baseline. There was also a nonsignificant, small-to-medium effect-size reduction in self-blame,  $d = -0.43$ ,  $p = .053$ , by 3-month follow-up. For psychosocial impairment, there were significant and medium-to-large and large effect size reductions by 1- and 3-month follow-ups,  $ds = -0.73$  and  $-0.81$ , respectively. There were nonsignificant, small effect size reductions in insomnia at both 1- and 3-month follow-ups relative to baseline,  $ds = -0.30$  and  $-0.34$ , respectively. These findings suggest that AIM-CBCT for PTSD is associated with reductions in maladaptive posttraumatic cognitions and psychosocial impairment but that adjunctive interventions may be needed to address insomnia.

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<https://doi.org/10.1016/j.whi.2021.10.007>

### **Benefits of Cognitive Behavioral Therapy for Insomnia for Women Veterans with and without Probable Post-Traumatic Stress Disorder.**

Gwendolyn C. Carlson, PhD, Monica R. Kelly, PhD, Michael Mitchell, PhD, Karen R. Josephson, MPH, Sarah Kate McGowan, PhD, Najwa C. Culver, PhD  
Morgan Kay, PhD, Cathy A. Alessi, MD, Constance H. Fung, MD, MSHS, Donna L. Washington, MD, MPH, Alison Hamilton, PhD, MPH, Elizabeth M. Yano, PhD, MSPH, Jennifer L. Martin, PhD

Women's Health Issues

Published: November 20, 2021

#### Objective

This study compared the benefits of cognitive-behavioral therapy for insomnia for sleep, mental health symptoms, and quality of life (QoL) in a sample of women veterans with and without probable post-traumatic stress disorder (PTSD) comorbid with insomnia disorder.

#### Methods

Seventy-three women veterans (30 with probable PTSD) received a manual-based 5-week cognitive-behavioral therapy for insomnia treatment as part of a behavioral sleep intervention study. Measures were completed at baseline, posttreatment, and 3-month follow-up. Sleep measures included the Insomnia Severity Index, Pittsburgh Sleep Quality Index, sleep efficiency measured by actigraphy, and sleep efficiency and total sleep time measured by sleep diary. Mental health measures included the PTSD



Checklist-5, nightmares per week, Patient Health Questionnaire-9, and Generalized Anxiety Disorder-7 scale. QoL was measured with the Short Form-12. Linear mixed models compared changes over time across groups. Independent t tests examined PTSD symptom changes in women veterans with probable PTSD.

### Results

Both groups demonstrated improvements across sleep ( $p$ s < .001–.040), mental health symptoms ( $p$ s < .001), and QoL measures ( $p$ s < .001). The probable PTSD group reported greater improvements in diary sleep efficiency ( $p$  = .046) and nightmares per week ( $p$  = .001) at post-treatment and in total sleep time ( $p$  = .029) and nightmares per week ( $p$  = .006) at follow-up. Most participants with probable PTSD experienced clinically significant reductions in PTSD symptoms at post-treatment (66.7%) and follow-up (60.0%). Significant reductions in intrusive and arousal/reactivity symptoms were maintained at follow-up.

### Conclusions

Cognitive-behavioral therapy for insomnia improves insomnia, mental health symptoms and QoL among women veterans, with greater improvement in those with probable PTSD.

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<https://doi.org/10.1002/jts.22761>

### **Posttraumatic stress disorder and relationship functioning: Examining gender differences in treatment-seeking veteran couples.**

Kayla Knopp, Elizabeth R. Wrape, Rachel McInnis, Chandra E. Khalifian, Katerine Rashkovsky, Shirley M. Glynn, Leslie A. Morland

Journal of Traumatic Stress

First published: 20 November 2021

Posttraumatic stress disorder (PTSD) symptoms are robustly associated with intimate relationship dysfunction among veterans, but most existing research has focused on male veterans and their female partners. Links between PTSD and relationship functioning may differ between female-veteran couples and male-veteran couples. The current study used actor-partner interdependence models (APIMs) to test the associations between PTSD symptoms (i.e., veteran self-report or significant others' collateral-report) and each partner's reports of six domains of relationship functioning,



as well as whether these links were moderated by the gender composition of the couple. Data were from 197 mixed-gender couples (N = 394 individuals) who completed baseline assessments for a larger randomized controlled trial of a couple-based PTSD treatment. Significant others' collateral PTSD reports were associated with their own ratings of relationship satisfaction, negotiation, psychological aggression, sexual pleasure, and sexual desire frequency,  $|\beta|s = .19-.67$ , and with veterans' ratings of negotiation and sexual desire frequency,  $|\beta|s = .20-.48$ . In contrast, veterans' self-reported PTSD symptoms were only associated with their own ratings of psychological aggression,  $\beta = .16$ . Gender moderated the associations between significant others' collateral PTSD reports and five of the six outcome variables; findings from exploratory subgroup analyses suggested links between reported PTSD symptoms and relationship functioning were generally more maladaptive for male-veteran couples, whereas female veterans showed more neutral or even helpful impacts of higher partner-perceived PTSD symptoms. These findings have implications for clinicians treating relational impacts of PTSD and emphasize the need for further research with female-veteran couples.

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<https://doi.org/10.1002/jts.22757>

### **Effect of patient characteristics on posttraumatic stress disorder treatment retention among veterans: A systematic review.**

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

Journal of Traumatic Stress

First published: 20 November 2021

To identify baseline patient characteristics (i.e., demographic and psychological factors, military background) associated with better posttraumatic stress disorder (PTSD) treatment retention among veterans, we conducted a systematic review. After an electronic database search for studies of PTSD treatment in veterans, two reviewers independently screened the literature for eligibility, abstracted study-level information, and assessed risk of bias. As most studies used multivariate models to assess multiple potential predictors of retention simultaneously, the results were described narratively. The GRADE approach, adapted for prognostic literature, was used to assess the overall quality of evidence (QoE). In total, 19 studies reported in 25 publications met the inclusion criteria (n = 6 good quality, n = 9 fair quality, n = 4 poor quality). Definitions of

treatment completion and dropout varied, and some studies lumped different therapy approaches together. Older age and higher treatment expectations were associated with better retention (moderate QoE). In 5 of 6 studies, baseline PTSD severity was not associated with retention, and the remaining study reported an association between better retention and more severe PTSD symptoms; the presence of more co-occurring psychiatric disorders was associated with better retention (moderate QoE). QoE was low or insufficient to support conclusions for any other characteristics due to inconsistent results, imprecision, potential publication bias, possible study population overlap, study limitations, or lack of studies. More research is needed regarding the associations between modifiable factors (e.g., motivation, barriers, expectations) and retention, and consistent definitions of treatment completion and minimally adequate treatment should be adopted throughout the field.

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<https://doi.org/10.1037/trm0000355>

### **The effect of military service and trauma exposure on resilience.**

Sanborn, A. J. B., Yalch, M. M., & Bongar, B.

Traumatology

Advance online publication

Research suggests that military personnel are more resilient than civilians, but there are few studies on why this may be. Resilience may be a function of simply being a soldier (e.g., via selection or training) or may be a result of surviving traumatic experiences inherent in the job. However, there is little research into the degree to which military status and trauma exposure influence resilience. In this study, we address this by examining the effects of military service membership and trauma exposure on resilience in a sample of military personnel and civilian adults (N = 252). Results indicated that those who were either military members or endorsed trauma exposure were on average more resilient than those who did not. However, whereas trauma exposure increased the resilience of civilians, it contributed only minimally to military personnel's resilience. In effect, civilians exposed to trauma "caught up" to soldiers with respect to resilience. These findings are consistent with previous research suggesting that military personnel are on average more resilient than civilians, with the caveat that civilians who survive trauma have the potential to be just as a resilient. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

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<https://doi.org/10.1177/24705470211061347>

## **Temporal Sequencing of Mental Health Symptom Severity and Suicidal Ideation in Post-9/11 Men and Women Veterans Who Recently Separated from the Military.**

Lawrence, K. A., Vogt, D., Nigam, S., Dugan, A. J., Slade, E., & Smith, B. N.

Chronic Stress

2021 Nov 24; 5: 24705470211061347

### Background:

Despite some evidence for gender differences in associations between military veterans' mental health and suicidal ideation (SI), gender-specific prospective studies are lacking. The aims of this prospective study were to: (1) examine gender differences in veterans' initial status and trajectories of mental health severity and SI status and (2) identify temporal sequencing of mental health predictors of SI.

### Methods:

Surveys of 1035 US veterans were administered at 3 time-points (T1, T2, T3) over a 7-year period following military separation, with an initial assessment within 2 years of military separation.

### Results:

Men reported higher baseline PTSD and alcohol misuse severity than women. No baseline gender difference in SI prevalence was detected. Baseline gender differences in mental health severity were maintained over time. For both men and women, remittance of SI was more likely from T1 to T2 than from T2 to T3 while chronic SI was more likely from T2 to T3. The strongest predictors of T3 SI were prior SI followed by alcohol misuse, depression, and PTSD severity with stronger effects for T2 predictors than T1.

### Conclusion:

The maintenance of baseline gender differences throughout trajectories of mental health predictors of SI supports the need for ongoing gender-specific mental health services. Current governmental interorganizational efforts are focused on suicide prevention during the first year after military service completion. Our findings indicate a need to extend mental health screening and treatment beyond the early post-military period to reduce risk and recurrence of SI for both men and women.

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<https://doi.org/10.1002/jts.22758>

**Associations between residual hyperarousal and insomnia symptoms in veterans following a 2-week intensive outpatient program for posttraumatic stress disorder.**

Kaloyan S. Tanev, Elyse A. Lynch, Allyson M. Blackburn, Douglas Terry, Elizabeth M. Goetter, Edward C. Wright, Carina Gupta, Cory E. Stasko, Tom Spencer

Journal of Traumatic Stress

First published: 22 November 2021

Many returning military service members and veterans who were deployed following the September 11, 2001, terrorist attacks (9/11) suffer from posttraumatic stress disorder (PTSD) and insomnia. Although intensive treatment programs for PTSD have shown promise in the treatment of PTSD symptoms, recent research has demonstrated that sleep disturbance shows little improvement following intensive trauma-focused treatment. The aim of the present study was to evaluate changes in self-reported insomnia symptoms among veterans and service members following participation in a 2-week intensive program for PTSD. We further aimed to investigate if residual PTSD symptoms, specifically hyperarousal, were associated with residual insomnia symptoms. Participants (N = 326) completed self-report assessments of insomnia, PTSD symptoms, and depressive symptoms at pre- and posttreatment. At pretreatment, 73.9% of participants (n = 241) met the criteria for moderate or severe insomnia, whereas at posttreatment 67.7% of participants (n = 203) met the criteria. Results of paired t tests demonstrated statistically significant differences between pre- and posttreatment Insomnia Severity Index scores; however, the effect size was small,  $d = 0.34$ . Analyses revealed that posttreatment hyperarousal symptoms were associated with posttreatment insomnia. These findings suggest that although an intensive program for service members and veterans with PTSD may significantly reduce insomnia symptoms, clinically meaningful residual insomnia symptoms remain. Further research is warranted to elucidate the association between residual hyperarousal and insomnia symptoms following intensive trauma-focused treatment.

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<https://doi.org/10.1037/ser0000583>

**A clinician/researcher partnership to understand patterns and predictors of trauma-focused psychotherapy and nontrauma-focused psychotherapy use among veterans with PTSD.**

Possemato, K., Steiger, S., Sindoni, M., Moe, R., Higham, J., & Tubbs, C.

Psychological Services  
Advance online publication

Post-traumatic stress disorder (PTSD) is common in veterans, and trauma-focused evidence-based psychotherapies (TF-EBP) have the strongest evidence for reducing PTSD and improving functioning. However, most veterans with PTSD do not receive TF-EBP. Extensive research focuses on why this gap between scientific recommendations and clinician practice exists. This study adds a unique perspective by reporting on a program evaluation that was jointly designed and implemented by Veterans Affairs researchers and PTSD Clinic providers to increase shared understanding about patterns and predictors of TF-EBP and non-TF-EBP use and interpret results in light of clinic contextual factors. The evaluation describes the psychotherapy utilization patterns of 242 veterans' who were referred to the PTSD clinic and investigates what patient characteristics predict psychotherapy use over the next year. Most veterans (87%) received psychotherapy: 27% received at least one session of TF-EBP and 14% received an adequate dose of TF-EBP. Veterans who started TF-EBP were significantly more likely to receive eight sessions compared to veterans getting non-TF-EBP. Core PTSD symptoms predicted more psychotherapy use, while negative beliefs about oneself/the world predicted less psychotherapy use. Clinicians were more likely to recommend TF-EBP when veterans endorsed feeling guilt/shame in reaction to their emotions. Referral from integrated primary care-mental health providers rather than specialty mental health providers predicted more overall psychotherapy sessions. Clinicians interpret results in line with contextual factors that promote delivery of non-TF-EBP. More clinician engagement in the research process can improve the clinical relevance of research and help bridge the gap between scientific and practice. (PsychoInfo Database Record (c) 2021 APA, all rights reserved)

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<https://doi.org/10.1080/17439760.2021.1991452>

**Demographic, deployment and post-deployment experiences predict trajectories of meaning in life in OEF/OIF/OND veterans.**

C. L. Park, S. J. Sacco, S.W. Kraus, C. M. Mazure & R. A. Hoff

The Journal of Positive Psychology

Published online: 24 Nov 2021

Research consistently links U.S. military veterans' meaning in life to better mental health and well-being. Yet, because meaning in life is usually studied as a precursor of other aspects of wellbeing, much remains to be learned about veterans' meaning in life itself. Two key questions are (1) how well do veterans maintain a sense of meaning in life over time? and (2) what determines their sense of meaning in life over time? We sought to answer these questions across a one-year period in a sample of 542 Operation Iraqi Freedom/Operation Enduring Freedom/Operation New Dawn veterans following military service. Three distinct meaning trajectories were identified: (1) moderately high and stable, (2) low and increasing, and (3) low and decreasing, with group membership approximately 79%, 16% and 5%, respectively. Predictors of trajectory membership included demographic factors (i.e., gender and race), deployment experiences (i.e., combat exposure and aftermath, unit support, and meaningful engagement) and post-deployment resources (i.e., social support and religiousness). These results suggest that a substantial minority of veterans experience low and even declining meaning in life that may substantially impair their quality of life and well-being. Suggestions for identifying veterans vulnerable to low levels of life meaning and for interventions to increase meaning are provided.

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<https://doi.org/10.1037/ccp0000691>

**Estimating prevalence of PTSD among veterans with minoritized sexual orientations using electronic health record data.**

Shipherd, J. C., Lynch, K., Gatsby, E., Hinds, Z., DuVall, S. L., & Livingston, N. A.

Journal of Consulting and Clinical Psychology

2021; 89(10), 856–868

### Objective:

Questionnaire studies show people with minoritized sexual orientations (MSOs) face increased risk for conditions including posttraumatic stress disorder (PTSD). This study replicated Harrington et al.'s (2019) electronic health record probabilistic algorithm to evaluate lifetime PTSD prevalence in Veterans Health Administration (VHA)-using veterans.

### Method:

In 115,853 MSO veterans and a 1:3 matched (on sex assigned at birth, and age at and year of first VHA visit) sample of non-MSO veterans. Each veteran was given a probability of “likely PTSD” (0.0–1.0) and thresholds (e.g., 0.7) applied to minimize false positive classifications.

### Results:

Veterans with MSO were 2.35 times, CI [2.33, 2.38], more likely to have “likely PTSD” than veterans with non-MSO. The prevalence of “likely PTSD” using the rule-based International Classification of Diseases (ICD) approach was 40.8% among the MSO group compared to 22.0% among the non-MSO group after excluding those with bipolar or schizophrenia diagnoses and those with limited VHA engagement. Without those exclusions, prevalence was slightly higher in both groups (46.1% vs. 24.3%, respectively; prevalence ratio: 1.90). Despite increased prevalence of exposure to military sexual trauma (MST; MSO = 20.7%; non-MSO = 8.3%) and double “likely PTSD” among MSO veterans, they were less likely to have a service-connected PTSD disability than their matched non-MSO (MSO = 78.1%; non-MSO = 87.6%) comparators.

### Conclusions:

VHA-using veterans with MSO were twice as likely to have “likely PTSD” and exposure to MST than veterans with non-MSO. Veterans with MSO were less likely to be service connected for PTSD than non-MSO counterparts. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

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<https://doi.org/10.1080/08995605.2021.1976544>

**Suicidal ideation, suicide attempts, and suicide death among Veterans and service members: A comprehensive meta-analysis of risk factors.**



Katherine Musacchio Schafer, Mary Duffy, Grace Kennedy, Lauren Stentz, Jagger Leon, Gabriela Herrerias, Summer Fulcher & Thomas E. Joiner

Military Psychology

Published online: 24 Nov 2021

Suicide is the tenth leading cause of death in America. Particularly at risk, Veterans are 1.5 times more likely to die by suicide than non-Veterans, and the suicide rate among service members has risen over the last decade. In the present study, we (1) assessed risk factors for suicidal ideation, suicide attempts, and suicide death within and between Veterans and service members, (2) identified the most commonly studied and (3) the strongest risk factors for suicide-related outcomes among Veterans and service members, and (4) compared overall and risk factor-specific meta-analytic prediction of suicide-related outcomes in Veterans and service members, as determined in the present meta-analysis, to that of the general population. Authors harvested longitudinal effects predicting suicidal ideation, suicide attempts, or suicide deaths in Veterans or service members until May 1, 2020. Traumatic Brain Injury, substance/alcohol use disorders, prior Self-Injurious Thoughts and Behavior, PTSD, and depressive symptoms were among the most commonly studied risk factors. Anger/aggression was particularly strong risk factors, providing a source for future study and intervention efforts. When combined, risk factors conferred similar risk for suicide attempts and suicide death among Veterans, service members, and the general population. However, when analyzing p-values, factors conferred significantly more risk of suicidal ideation among Veterans and service members as compared to the general population. That is, p-values for risk factors were lower in an absolute sense but not necessarily to a statistically significant degree.

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<https://doi.org/10.1080/08995605.2021.1987084>

### **Movement behaviors associated with mental health among US military service members.**

Lilian G. Perez, Lu Dong, Robin Beckman & Sarah O. Meadows

Military Psychology

Published online: 24 Nov 2021



Compared to the general adult population, military service members experience an excess burden of mental health problems (e.g., posttraumatic stress disorder, PTSD). Physical activity, screen time, and sleep (i.e., movement behaviors) are independently associated with mental health, but their combined effects are poorly understood, particularly in military populations. We analyzed data from active component service members in the national 2018 Health Related Behaviors Survey (N = 17,166). Weighted gender-stratified logistic regression models examined the associations of meeting recommended/healthy levels of moderate-to vigorous physical activity (MVPA), screen time, and sleep duration – separately and in combination (none, some, all) – with PTSD, suicide ideation, and serious psychological distress. In both men and women, meeting sleep recommendations was associated with reduced odds of each outcome. Meeting MVPA recommendations was associated with lower odds of serious psychological distress only in men (OR = 0.76, 95% CI: 0.58–1.00). No/low screen time was associated with lower odds of suicide ideation only in women (OR = 0.66, 95% CI: 0.45–0.95). The odds of all three outcomes were lower in those who reported some or all (vs. none) recommended/healthy movement behaviors, with the lowest odds found in the “all” group, suggesting a possible dose-response relationship. Findings can help inform multiple behavior change interventions to improve service members’ psychological fitness and military readiness.

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<https://doi.org/10.1093/milmed/usab497>

## **Physical Exercise as Treatment for PTSD: A Systematic Review and Meta-Analysis.**

Frida Björkman, PhD, Örjan Ekblom, PhD

Military Medicine

Published: 26 November 2021

### Introduction

Post-traumatic stress disorder (PTSD) is a cluster of physical and psychiatric symptoms following military or civilian trauma. The effect of exercise on PTSD symptoms has previously been investigated in several studies. However, it has not been fully determined what type of exercise most impacts PTSD symptoms. The aim of the present study was to systematically review the effects of different types of exercise on PTSD symptom severity and symptoms of coexisting conditions in adults.

## Materials and Methods

Electronic searches were conducted in the databases PubMed, APA PsycInfo, and SportDiscus, from database inception up until February 1, 2021. Inclusion criteria were randomized controlled trials published in English, participants having a PTSD diagnosis or clinically relevant symptoms, and participants randomly allocated to either a non-exercising control group or an exercise group. Data concerning the number of participants, age, exercise type and duration, PTSD symptom severity (primary outcome), and symptoms of coexisting conditions (secondary outcomes) were extracted. The subgroup analysis included high or low training dose, military trauma versus non-military trauma, the type of intervention (yoga versus other exercise), active or passive control condition, group training versus individual exercise, and study quality. The study quality and risk of bias were assessed using grading of recommendation assessment, development and evaluation (GRADE) guidelines. A meta-analysis was performed with a mixed-effects model and restricted maximum likelihood as model estimator, and effect size was calculated as the standardized difference in mean and 95% CI.

## Results

Eleven studies were included in the present review. Results showed a main random effect of exercise intervention (0.46; 95% CI: 0.18 to 0.74) and a borderline significant interaction between more voluminous (>20 hours in total) and less voluminous ( $\leq$ 20 hours in total) exercise interventions ( $P = .07$ ). No significant findings from the subgroup analysis were reported. The secondary outcome analysis showed a small but significant effect of exercise on depressive symptoms (0.20, 95% CI: 0.01 to 0.38), and a larger effect on sleep (0.51, 95% CI: 0.29 to 0.73). For substance use (alcohol and drugs combined) and quality of life, we found significant effects of 0.52 (95% CI: 0.06 to 0.98) and 0.51 (95% CI: 0.34 to 0.69), respectively. No significant effect was found for anxiety (0.18, 95% CI: -0.15 to 0.51), and no sign of publication bias was found.

## Conclusions

Exercise can be an effective addition to PTSD treatment, and greater amounts of exercise may provide more benefits. However, as there were no differences found between exercise type, possibly due to the inclusion of a low number of studies using different methodologies, further research should aim to investigate the optimal type, dose, and duration of activity that are most beneficial to persons with PTSD.

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## Links of Interest

Where each military branch stands on pronoun use in signature blocks

<https://www.militarytimes.com/off-duty/military-culture/2022/01/07/where-each-military-branch-stands-on-pronoun-use-in-signature-blocks/>

Tackling Concussions: NCAA-DOD CARE Consortium Battles Brain Injuries

<https://health.mil/News/Articles/2022/01/06/Tackling-Concussions-NCAA-DOD-CARE-Consortium-Battles-Brain-Injuries>

Waking Up Is Hard to Do

<https://www.usni.org/magazines/proceedings/2022/january/waking-hard-do>

Even with GI Bill, many student vets still need loans to afford college

<https://www.militarytimes.com/education-transition/2022/01/10/even-with-gi-bill-many-student-vets-still-need-loans-to-afford-college/>

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## Resource of the Week: [Military Families and Financial Readiness](#)

From the Congressional Research Service:

DOD identifies financial readiness as one of the major components of military family readiness and, ultimately, operational readiness. It has been defined as, “the state in which successful management of personal financial responsibilities supports a servicemember’s ability to perform their wartime responsibilities.” Congress, under its constitutional authority to regulate the military, has oversight for readiness issues and related DOD efforts. Over the past several decades, Congress and DOD have taken action through law and regulation to improve military readiness, including enhancing military consumer protections, increasing financial literacy of servicemembers and dependents, and providing direct financial support to the lowest-income or otherwise vulnerable families during times of need or national emergency.

While servicemember compensation compares favorably to civilian compensation for employees with the same levels of education and experience, total compensation is just one determinant of financial readiness. Financial readiness for military families also depends on other factors like budgeting, debt management, and sound financial planning. Certain aspects of military service

can make personal financial management more challenging (e.g., frequent or unpredictable deployment cycles and permanent change-of-station moves). Approximately 40% of the total DOD military force is 25 years old or younger. DOD survey data have found generally that junior enlisted servicemembers experience lower levels of financial well-being than officers. Data also suggest that Reserve Component (RC) members may experience financial instability at higher rates than active duty members; moreover, depending on their duty status, RC members may not be consistently eligible for the same military-specific consumer protections as their active duty counterparts.

**Table 1. Sample Comparison of Annual Basic Pay and RMC for Single Servicemembers**

2021

<b>Pay Grade and Years of Service</b>	<b>Annual Basic Pay</b>	<b>Estimated Annual RMC</b>
E-3 (enlisted) with under 2 years of service	\$25,247	\$48,844
E-7 (enlisted) with 16 years of service	\$58,741	\$91,534
O-2 (officer) with 2 years of service	\$53,312	\$83,454
O-4 (officer) with 12 years of service	\$96,800	\$136,000

**Source:** DOD, Selected Military Compensation Tables, January 1, 2021, Cash Allowance Tables by Pay Grade and Family Size.

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