



## **Research Update -- September 4, 2025**

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- Links of Interest
- Resource of the Week: Barriers to Care (Psychological Health Center of Excellence)

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<https://doi.org/10.1001/jamanetworkopen.2025.27395>

### **Suicidal Behavior in US Army Special Operations Forces.**

Naifeh, J. A., Ursano, R. J., Shor, R., Mash, H. B., Aliaga, P. A., Fullerton, C. S., Kao, T. C., Sampson, N. A., Kessler, R. C., & Stein, M. B.

JAMA Network Open

Published Online: August 15, 2025

## Key Points

### Question

Does suicide risk differ for US Army special operations forces (SOF) operators (elite soldiers trained in unconventional warfare), SOF support personnel (soldiers who assist operators and SOF missions), and all other soldiers?

### Findings

In this cohort study with 48 103 189 person-months (PM) from regular enlisted soldiers, including 980 406 PM from SOF operators and 1 780 514 PM from SOF support soldiers, SOF operators had lower rates of suicide ideation and suicide attempt than other soldiers but similar rates of suicide death, even after adjusting for sociodemographic and career differences.

### Meaning

These findings suggest that although operators are less likely than other soldiers to engage in suicidal behavior, it is more likely to be fatal when they do.

## Abstract

### Importance

Research on suicide risk among the US Army's elite special operations forces (SOF) has been extremely limited.

### Objective

To examine suicidal behaviors during the Iraq and Afghanistan war in the 2 major SOF elements: operators (ie, elite soldiers trained in unconventional warfare), and support personnel (ie, soldiers who assist operators and SOF missions).

### Design, Setting, and Participants

This retrospective cohort study of administrative data identified all operator, support, and other regular Army enlisted person-months from 2004 through 2012 with a first nonfatal suicide attempt and an equal-probability control sample. Separate case-control samples were drawn to examine suicide death and suicide ideation. Analyses were carried out from July 8, 2024, to May 27, 2025.

### Exposure

Serving as an SOF operator or support soldier.

## Main Outcomes and Measures

Suicide ideation and nonfatal suicide attempt were identified using International Classification of Diseases, Ninth Revision, Clinical Modification codes and Department of Defense Suicide Event Report records. Suicide death were identified using the Armed Forces Medical Examiner Tracking System. Sociodemographic, Army career, and mental health variables were constructed from administrative personnel and medical records.

## Results

The total weighted sample of regular Army enlisted soldiers was 48 103 189 person-months (41 717 105 male [86.7%]; mean [SD] age, 28.8 [8.6] years; 32 263 202 younger than aged 30 years [67.1%]). Operator suicide attempt crude rates were 70% lower than those of SOF support personnel (rate ratio [RR], 0.3; 95% CI, 0.2-0.3) and 90% lower than those of the total regular force (RR, 0.1; 95% CI, 0.1-0.2). Operator suicide ideation crude rates were 70% lower than rates for SOF support personnel (RR, 0.3; 95% CI, 0.2-0.3) and 80% lower than those of the total regular enlisted force (RR, 0.2; 95% CI, 0.1-0.2), whereas suicide death rates did not differ. The ratio of suicide attempts to suicide deaths was 2.1 (95% CI, 1.9-2.3) for operators, 7.6 (95% CI, 7.5-7.7) for support personnel, and 15.0 (95% CI, 15.0-15.0) for the total regular force. Adjusting for sociodemographic and Army career differences attenuated but did not eliminate operators' lower risk of suicide attempt and suicide ideation. In multivariable analyses, only 3 of 9 risk factors were associated with suicide attempt among both operators and support personnel: lower rank, past-year demotion, and mental health diagnosis during service. Odds were higher for female operators (OR, 7.4; 95% CI, 3.2-17.1). Sex was not associated with attempts among support personnel.

## Conclusions and Relevance

In this study of US regular Army enlisted soldiers during the Iraq and Afghanistan wars, SOF operators were less likely than other soldiers to engage in suicidal behavior, but it was more likely to be fatal when they did. Larger studies are needed to understand suicide risk among female operators.

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<https://doi.org/10.1037/ser0000988>

**Firearms, alcohol, suicide, and intimate partner violence perpetration among service members: Military partner experiences.**

Friedman, K., Mocerri-Brooks, J., Meza, K., Ho, R. A., Baker, J. C., Bryan, A. O., Bryan, C. J., Anestis, M. D., & Betz, M. E.

## Psychological Services

Advance online publication

U.S. Armed Forces members experience specific demands and stressors that lead to several risk factors of self-harm or harm against others. Military spouses face unique challenges as partners of service members and are often placed in a position to intervene in potentially harmful situations. This study aimed to use qualitative methods to explore military spouses' exposure to their active-duty partner's risk of violence perpetration, firearm suicide, and associated circumstances such as alcohol use and access to personally owned firearms. Participants were adult spouses/partners of active-duty service members, Reserve or Guard members, or recent Veterans (referred to as "military spouses"). Participants completed a 30- to 60-min in-depth interview. An inductive–deductive approach and pattern coding were used to identify trends and key themes. A total of 34 military spouses participated in interviews. Most participants were female (97.06%), White (76.47%), and non-Hispanic (88.24%). Nearly two thirds (61.76%) of participants reported that they and/or their spouse had access to at least one personally owned firearm within their home. Military spouses shared experiences with real-time crisis management related to harmful or hazardous alcohol use and threats of intimate partner violence and firearm suicide. Participants also noted several perceived barriers to prevention and intervention resources and strategies. Due to military spouses' significant exposure to their partner's suicidal behaviors and threat of violence perpetration, as well as the increased access to lethal means (i.e., firearms) and potential for harmful or hazardous alcohol use, existing prevention and intervention strategies may be insufficient. There are multiple intervention opportunities for health care providers to fill this gap. (PsycInfo Database Record (c) 2025 APA, all rights reserved)

## Impact Statement

Military spouses are often the first to recognize and respond to crises involving their service member partners, including suicide risk and intimate partner violence, frequently compounded by access to firearms and alcohol use. This study highlighted the critical, yet unsupported, role spouses play in real-time crisis management and identified key barriers—including fear of repercussions—that may prevent them from seeking help. Findings underscore the need for targeted, trauma-informed interventions that not only support service members but also prioritize the health, safety, and well-being of their spouses. (PsycInfo Database Record (c) 2025 APA, all rights reserved)

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<https://doi.org/10.1016/j.psychres.2025.116654>

## **Traumatic Brain Injury and Suicidal Thoughts and Behaviors among Post-9/11 Veterans: Investigating Longitudinal Change and Interactions with Mental Health.**

Bernanke, A., Kimbrel, N. A., VA Mid-Atlantic MIRECC Workgroup, Beckham, J. C., & Bourassa, K. J.

Psychiatry Research  
Volume 351, September 2025, 116654

### Highlights

- Traumatic brain injury (TBI) and suicidal thoughts and behaviors (STBs) were assessed in 823 post-9/11 veterans assessed twice over 12 years.
- Both lifetime TBIs and deployment-specific TBI counts were associated with greater increases in STBs.
- These associations remained when controlling for baseline depression and PTSD symptoms.
- Our results highlight the importance of assessing TBI when screening for STBs.

### Abstract

Veterans die by suicide at almost twice the rate of non-veterans, and risks for suicide can be further increased after sustaining traumatic brain injury (TBI). This is notable, given that over 20 % of post-9/11 Veterans are estimated to have experienced TBI. Better understanding risk for suicidal thoughts and behaviors (STBs) would allow for improved screening processes and targeted treatment approaches. In this study, we use data from 823 veterans who served after September 11, 2001 and participated in the VISN 6 MIRECC's Post-Deployment Mental Health Study. In total, 511 (62.1 %) veterans reported at least one TBI during their lifetime and 241 (29.3 %) reporting at least one TBI during military deployment. Veterans had more STBs at baseline if they also reported more lifetime TBIs ( $\beta = 0.45$ , CI [0.18, 0.72],  $p < .001$ ) or deployment TBI ( $\beta = 0.53$ , CI [0.16, 0.90],  $p = .005$ ). When examining change over 12 years, veterans showed greater increases in STBs if they reported more lifetime TBIs ( $\beta = 0.34$ , CI [0.12, 0.55],  $p = .002$ ) or deployment TBI ( $\beta = 0.62$ , CI [0.33, 0.91],  $p < .001$ ). These associations remained when accounting for baseline mental health conditions (depressive symptoms, posttraumatic stress disorder symptoms, and lifetime trauma burden). All reported results accounted for age, gender, self-reported race/ethnic group,

and education. Findings suggest that TBI is associated with increases in STBs and emergence of STBs over time. To better differentiate risk, screening measures and treatment for STBs should consider whether brain injury occurred in combat.

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<https://doi.org/10.1016/j.amepre.2025.108076>

## **Preventing intimate partner murder-suicide: A case-control study of suicidal males in abusive relationships.**

Julie M Kafka, Vivian H Lyons, Angel Cheung, Laurie M Graham, Millan A AbiNader, Avanti Adhia, Ayah Mustafah, Frederick P Rivara

American Journal of Preventive Medicine  
Available online 27 August 2025, 108076

### **Introduction**

Murder-suicide is a rare but serious public health problem. It often occurs in the context of intimate partner violence (IPV); 62% of murder-suicides in the US involve killing an intimate partner. The goal of this study was to identify risk indicators for intimate partner murder-suicide among suicidal males with a history of perpetrating IPV.

### **Methods**

This case-control study used National Violent Death Reporting System (NVDRS) data, 2019-2020. Cases were intimate partner murder-suicides committed by males. Controls were males who perpetrated IPV but who died by suicide without killing their partner. The research team reviewed text summaries from NVDRS to code detailed information about each event. Analyses estimated the adjusted odds of intimate partner murder-suicide using generalized estimating equations and were completed in November 2024.

### **Results**

Among 478 matched case/control pairs, firearm use (aOR:5.3), and decedent military history (aOR:1.8) were associated with increased odds of perpetrating intimate partner murder-suicide. Prior involvement in a domestic violence protection order (aOR:0.4) and previously established suicide risk indicators (e.g., appearing depressed [aOR:0.4], prior suicide attempts [aOR:0.2], disclosed suicidal intent [aOR: 0.2]) were associated with decreased odds of intimate partner murder-suicide.

## Conclusions

Among suicidal males perpetrating IPV, several factors differentiated the risk for murder-suicide relative to suicide-only. Improving accessibility and implementation of domestic violence protection orders while removing firearms from people who are perpetrating IPV may prevent intimate partner murder-suicide. There may also be opportunities to screen for and jointly address suicidality and IPV perpetration across military, healthcare, legal, and child welfare settings.

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<https://doi.org/10.1080/15377903.2025.2511613>

## **School Support for Military-Connected Families: Teacher and Counselor Perspectives.**

Nicholson, J. H., Drew, A. L., Steggerda, J. C., Gladstone, S., Cavell, T. A., Herrera, C., ... Spencer, R.

Journal of Applied School Psychology  
2025; 41(3), 192–221

Military-connected (MC) students and their families endure frequent moves and other transitions and disruptions that directly impact school experiences and can take a significant emotional toll. Previous studies have provided valuable insights into the needs and experiences of MC students in the school context and schools' efforts to support MC families. However, the perspectives of teachers and counselors supporting and working with MC students are relatively understudied as are interactions among school staff and MC parents. This study sought to understand educators' and school counselors' perceptions of and efforts to support MC students and parents. Focus group interviews were conducted with 39 elementary and middle-school teachers and counselors about their experiences supporting MC students and parents. A thematic analysis resulted in the following themes: (a) distinctive characteristics, experiences, and needs of MC students and parents; (b) easing transitions by fostering connections; (c) leveraging and tailoring existing supports to meet the needs of MC students and parents; (d) the importance of communication; and (e) deployments as times of heightened support need. Findings illustrate teachers' and counselors' myriad formal and informal approaches to supporting this population and highlight the critical roles of communication with MC parents and collaboration among various school personnel, including school psychologists.



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<https://doi.org/10.1080/02699052.2025.2491787>

**Feasibility and efficacy of a group intervention to develop social support and resilience in family members of individuals with TBI.**

Hanks, R. A., Simpson, G., Waldron Perrine, B., Rapport, L. J., Kotasek, R., & Millis, S.

Brain Injury

2025- 39(10), 859–866

**Objective**

Evaluate the clinical utility of the Strength 2 Strength (S2S) program to compare the effectiveness of a 1-day intensive intervention to the 5-week intervention, with regard to improving resilience and social support in families and friends of persons with TBI.

**Methods**

Thirty-three participants received the 1-day, 5-h intervention, and 32 participants received the 5-week, 2-h intervention. Eighteen participants were waitlist controls. Outcome measures included the Connor-Davidson Resilience Scale, Family Resilience Scale, Social Provision Scale, and a 6-item questionnaire to assess satisfaction with the intervention and self-care.

**Results**

Feasibility and efficacy of the S2S intervention was demonstrated. It did not increase resilience, but it kept social support stable during the COVID-19 pandemic. The control group showed decreases in social support.

**Conclusions**

Clinical utility of the program in friends and families of those with TBI was evident and prevented deterioration in social support. Participant satisfaction was supported by the small attrition rate. Similar effects were associated with the brief and longer versions of the intervention, indicating that this type of intervention was carried out in an efficient manner for those who are already struggling to juggle the many needs of being a care partner.

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<https://doi.org/10.1177/10778012231216714>

**Department of the Air Force Family Advocacy Program: Exploring the Impact of an Antiviolence Intervention Program for Women.**

Larance, L. Y., Miller, S. L., Collins, P., & Liu, L.

Violence Against Women  
2025; Volume 31, Issue 2

This mixed-methods study explores the impact of the Vista curriculum, a trauma-informed antiviolence intervention program for women who have used force in their intimate relationships, delivered by the Department of the Air Force Family Advocacy Program clinicians. Questions sought to understand any changes in personal growth, self-awareness, beliefs, and relationship interaction skills for 62 cisgender women. Findings suggest that women gained personal growth, self-awareness, and increased relationship tools. Women identified the positive impact cofacilitator support and non-judgment had on them and their ability to heal from their experiences and increase their awareness of viable non-forceful alternatives. Policy and practice implications are discussed.

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<https://doi.org/10.1016/j.jbi.2025.104848>

**Machine learning applications related to suicide in military and Veterans: A scoping literature review.**

Zhang, Y., Wei, Y., Wang, Y., Xiao, Y., Poropatich, C. R. R. K., Haas, G. L., Zhang, Y., Weng, C., Liu, J., Brenner, L. A., Bjork, J. M., & Peng, Y.

Journal of Biomedical Informatics  
Volume 167, July 2025, 104848

**Objective**

Suicide remains one of the main preventable causes of death among service members and veterans. Early detection and accurate prediction are essential components of effective suicide prevention strategies. Machine learning techniques have been explored in recent years with a specific focus on the assessment and prediction of multiple suicide-related outcomes, showing promising advancements. This study aims

to assess and summarize current research and provides a comprehensive review regarding the application of machine learning techniques in assessing and predicting suicidal ideation, attempts, and mortality among members of military and veteran populations.

## Methods

A keyword search using PubMed, IEEE, ACM, and Google Scholar was conducted, and the PRISMA protocol was adopted for relevant study selection. Peer-reviewed original research in English targeting the assessment or prediction of suicide-related outcomes among service members and veteran populations was included. 1,110 studies were retrieved, and 32 satisfied the inclusion criteria and were included.

## Results

Thirty-two articles met the inclusion criteria. Despite these studies exhibiting significant variability in sample characteristics, data modalities, specific suicide-related outcomes, and the machine learning technologies employed, they consistently identified risk factors relevant to mental health issues such as depression, post-traumatic stress disorder (PTSD), suicidal ideation, prior attempts, physical health problems, and demographic characteristics. Machine learning models applied in this area have demonstrated reasonable predictive accuracy and have verified, on a large scale, risk factors previously detected by more manual analytic methods. Additional research gaps still exist. First, many studies have overlooked metrics that distinguish between false positives and negatives, such as positive predictive value and negative predictive value, which are crucial in the context of suicide prevention policies. Second, more dedicated approaches to handling survival and longitudinal data should be explored. Lastly, most studies focused on machine learning methods, with limited discussion of their connection to clinical rationales.

## Conclusion

In sum, machine learning analyses have identified risk factors associated with suicide in military populations, which span a wide range of psychological, biological, and sociocultural factors, highlighting the complexities involved in assessing suicide risk among service members and veterans. Some differences were noted between males and females. The diversity of these factors also demonstrates that effective prevention strategies must be comprehensive and flexible.

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**Associations among PTSD symptoms, fear of emotion, and couple communication difficulties: A between-person dyadic analysis.**

Fredman, S. J., Lee, J., Le, Y., Taverna, E., & Marshall, A. D.

Behaviour Research and Therapy  
Volume 184, January 2025, 104666

**Highlights**

- Individuals with higher PTSD symptoms report greater fear of their emotions.
- Those with greater fear of emotion report more dysfunctional couple communication.
- Women whose male partners have higher PTSD symptoms report more fear of emotion.
- Men with higher PTSD symptoms report more self-demand/partner-withdraw communication.

**Abstract**

This study investigated between-person associations among PTSD symptoms, fear of emotion, and perceived couple communication difficulties in a dyadic context among 64 trauma-exposed, mixed gender community couples ( $N = 128$  individuals) using the Actor-Partner Interdependence Mediation Model. Individuals with higher PTSD symptoms endorsed greater fear of their emotions ( $\beta_{\text{Men}} = .72$ ;  $\beta_{\text{Women}} = .49$ ), and those with greater fear of their emotions reported lower levels of constructive couple communication ( $\beta_{\text{Men}} = -.19$ ;  $\beta_{\text{Women}} = -.21$ ) and higher levels of self-demand/partner-withdraw communication ( $\beta_{\text{Men}} = .20$ ;  $\beta_{\text{Women}} = .25$ ) and partner-demand/self-withdraw communication ( $\beta_{\text{Men}} = .26$ ;  $\beta_{\text{Women}} = .33$ ) with their partners. Additionally, women whose partners had higher PTSD symptoms endorsed greater fear of their emotions ( $\beta = .30$ ). The most robust indirect PTSD-communication links were between (a) individuals' PTSD symptoms and their perceptions of partner-demand/self-withdraw communication when accounting for associations with fear of their emotions and (b) men's PTSD symptoms and women's perceived partner-demand/self-withdraw communication accounting for associations with women's fear of their emotions. Men with higher PTSD symptoms also reported greater self-demand/partner-withdraw communication ( $\beta = .28$ ), independent of their fear of emotion. Couple-based treatments for PTSD that promote emotional tolerance and are sensitive to gender differences in how PTSD symptoms relate to each partner's perception of the man-demand/woman-withdraw communication pattern may improve trauma survivors' relationship functioning.

and increase the potential for relationships to serve as a conduit for recovery from PTSD.

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<https://doi.org/10.1093/milmed/usaf142>

## **Risk and Protective Factors Associated With Adjustment to Military Relocation: A Pilot Study.**

Nassif, T. H., Britt, T. W., & Adler, A. B.

Military Medicine

Published: 28 April 2025

### **Introduction**

Military relocations represent an opportunity for growth and a potential risk in terms of psychological adjustment. Although relocation is common in the military, little research has examined associated risk and protective factors. This study examined relocation stressors and facilitators and how they related to 3 forms of adjustment: loneliness, perceived stress, and work satisfaction. Since the first relocation experience may be particularly challenging, this study also compared relocation stressors and facilitators between soldiers arriving at their first duty station and those with previous relocation experience.

### **Materials and Methods**

Active duty soldiers ( $n = 242$ ) at 2 U.S. military installations participated in an anonymous survey on military relocation. Relocation risk and protective factors were assessed using the Relocation Stressor Scale and the Relocation Facilitator Scale developed for this study. Primary outcomes included loneliness, perceived stress, and work satisfaction. To examine the extent to which the relocation stressor and facilitator scales predicted adjustment outcomes, hierarchical multiple regressions were conducted accounting for rank, marital status, having children, and first duty station.

### **Results**

Over half of participants rated relocation stressors related to affordable housing, loss of social support, moving logistics, and adjustment of the soldier's family and spouse as at least "somewhat stressful." Regarding relocation facilitators, a majority agreed that leaders and unit members were helpful after relocation. However, less than half reported that leaders and unit members were welcoming before relocation and only 1 in 3 reported their sponsor was helpful. Relocation stressors predicted more loneliness,

more perceived stress, and less work satisfaction after adjusting for rank, marital status, having children, and first duty station. Likewise, relocation facilitators predicted less loneliness, less perceived stress, and more work satisfaction, after adjusting for the same demographics. Soldiers at their first duty station of assignment also reported higher levels of relocation stressors than those with prior relocation experience ( $P < .001$ ); there was no difference between these 2 groups in terms of relocation facilitators ( $P = .297$ ).

## Discussion

The findings offer insight into relocation stressors and facilitators and suggest the need to consider the stress of relocation from both a practical standpoint and an emotional one. Since the association between relocation variables and adjustment was evident even after accounting for rank, marital status, children, and first duty station, the results also suggest that intervening to address relocation stressors and enhance the level of relocation facilitators is important regardless of a soldier's specific demographics. Nonetheless, soldiers experiencing their first relocation may understandably require more support in addressing their relocation stressors. While limited by cross-sectional self-report data from only 2 military posts, this study produced the first military Relocation Stressor Scale and Relocation Facilitator Scale. Taken together, results suggest steps that leaders, unit members, and the organization can take to help incoming soldiers better adjust to their new unit.

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<https://doi.org/10.1007/s10899-025-10385-z>

## **Barriers to Gambling Treatment Among American Military Personnel: A Qualitative Study.**

Vana, N., Kraus, S. W., Way, B. M., Jennings, T. L., & Gavriel-Fried, B.

Journal of Gambling Studies

Published: 24 April 2025

Gambling disorder (GD) poses a significant public health problem, with treatment access frequently hindered by barriers. This study sought to identify the unique internal and external barriers encountered by military personnel with GD using a qualitative descriptive method. Twenty-eight United States military veterans and service members (SMs) were recruited through purposeful sampling strategies and interviewed using a semi-structured interview format. Content analysis revealed two main themes:

“Emotional Suppression in Military Culture” reflecting military cultural norms that emphasize strength, discipline, and emotional control, which were internalized by the participants and created significant internal barriers; “Structural Ignorance of Gambling Problems” uncovers external barriers such as the normalization of gambling, insufficient recognition of gambling’s addictive nature within military and Veterans Affairs (VA) settings, and inadequate treatment options within the VA healthcare system. The study underscores the complex interplay between cultural norms and institutional practices and proposes policy recommendations to improve help-seeking behaviors for veterans and SMs.

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<https://doi.org/10.1037/abn0000935>

**Antecedents, reasons for, and consequences of suicide attempts: Results from a qualitative study of 89 suicide attempts among army soldiers.**

Nock, M. K., Jaroszewski, A. C., Deming, C. A., Glenn, C. R., Millner, A. J., Knepley, M., Naifeh, J. A., Stein, M. B., Kessler, R. C., & Ursano, R. J.

Journal of Psychopathology and Clinical Science  
2025; 134(1), 6–17

Most studies aimed at understanding suicidal behavior have focused on quantifying the associations between putative risk factors and suicidal behavior in comparative studies of cases and controls. The current study, in comparison, exclusively focused on cases—89 Army soldiers presenting for hospital care following a suicide attempt—and attempted to reveal the antecedents of, reasons for, and consequences of suicide attempts. This mixed-methods study using qualitative interviews and self-report surveys/interviews revealed that in most cases, the most recent onset of suicidal thoughts began shortly before the suicide attempt and were not disclosed to others, limiting opportunities for intervention via traditional approaches. The primary reason given for attempting suicide was to escape from psychologically aversive conditions after concluding that no other effective strategies or options were available. Participants reported both negative (e.g., self-view, guilt) and positive (e.g., learning new skills, receiving support) consequences of their suicide attempt—and described things they believe would have prevented them from making the attempt. These findings provide new insights into the motivational and contextual factors for suicidal behavior and highlight several novel directions for prevention and intervention efforts. (PsyInfo Database Record (c) 2025 APA, all rights reserved)

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<https://doi.org/10.1001/jamanetworkopen.2025.25708>

## **Adverse Childhood Experiences and Health at Age 50 Years in the National Child Development Study.**

Timmins, K. A., MacDonald, R., Beasley, M., & Macfarlane, G. J.

JAMA Network Open

Published Online: August 28, 2025

### **Key Points**

#### **Question**

What can we tell from the magnitudes of associations between adverse childhood experiences (ACEs) and different health outcomes at age 50 years?

#### **Findings**

In this cohort study of 16 321 participants in the National Child Development Study, ACEs showed associations of differing magnitude with individual health outcomes. The size and pattern of excess risk differed between men and women; however, severe pain and poor mental health showed the largest excess risks in both sexes.

#### **Meaning**

These findings suggest that ACEs may not have an indiscriminate association with later poor health and that a targeted approach may be warranted to address specific vulnerabilities (eg, severe pain), while broad-spectrum interventions remain important to ameliorate the influence of ACEs on multiple outcomes.

### **Abstract**

#### **Importance**

Most studies have reported associations between adverse childhood experiences (ACEs) and a single health outcome. It is therefore difficult to assess impacts holistically. Examining a broad range of health outcomes may help inform the targeting of interventions.

#### **Objective**

To quantify the modeled association of ACEs with several adult health outcomes within a single study.



## Design, Setting, and Participants

This cohort study using an outcome-wide approach was a secondary analysis of the National Child Development Study, a longitudinal birth cohort of people across the UK born during 1 week in 1958. Data from the follow-up survey at age 50 years were used. The data analysis was conducted between September and October 2024.

## Exposures

Fourteen ACEs from data collected throughout childhood (age 7, 11, and 16 years) and retrospectively (age 23, 33, and 44 years).

## Main Outcomes and Measures

Eleven outcomes (with prevalence  $\geq 5\%$ ) self-reported at age 50 years were examined using doubly robust estimation and included severe pain, poor mental health, asthma or bronchitis, hay fever or rhinitis, back problems, hearing problems, eyesight problems, hypertension, migraine, skin problems, and gastrointestinal problems. Risk differences were estimated between pseudopopulations (exposure to ACEs set at 100% vs 0%) with adjustment made for confounders at birth using inverse probability weights.

## Results

From a total of 17 638 people initially included in the birth cohort, 53% participated at age 50 years. Data for 16 321 participants (51.0% men) were analyzed. Adverse childhood experiences were associated with several health outcomes, with the largest risk differences (comparing exposed vs unexposed pseudopopulations) observed for severe pain and poor mental health. In men, the risk of severe pain was 8.70% vs 4.88%, respectively (risk difference, 3.82%; 95% CI, 2.23%-5.42%), and of poor mental health, 10.53% vs 6.68%, respectively (risk difference, 3.85%; 95% CI, 2.16%-5.85%). In women, the risks were 11.22% vs 7.53% (risk difference, 3.69%; 95% CI, 1.71%-5.67%) and 19.10% vs 12.59% (risk difference, 6.50%; 95% CI, 4.13%-8.88%), respectively. Experiencing 4 or more ACEs increased these risks. Migraine, hay fever or rhinitis, eyesight problems, and skin problems showed no association with ACEs. Abuse, neglect, and family conflict showed the most wide-ranging associations.

## Conclusions and Relevance

In this cohort study of ACEs and health conditions at age 50 years, the findings suggest that while broad-spectrum interventions remain important to ameliorate the influence of ACEs, a targeted approach that considers the types of ACEs may address specific vulnerabilities, particularly poor mental health and severe pain.

<https://doi.org/10.1001/jamanetworkopen.2025.28709>

## **Differences in Trends of Firearm Suicide Among Older Adults, 2014 to 2023.**

Xuan, Z., Xuan, W. Y., & Kaplan, M. S.

JAMA Network Open

Published Online: August 25, 2025

Firearms are the leading method of suicide among adults aged 65 years or older. Older men are 13 times more likely to die by firearm suicide compared with older women. However, female gun ownership has surged in recent years, with nearly one-half of all new gun owners being women. This shift highlights the need to examine trends of firearm suicides among older adults.

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This cross-sectional study reveals an increasing trend of suicide deaths by firearm among older women. Although the firearm suicide rate and FS/S ratio among older men remain high, the trend among older women may have important long-term implications. The proportion of older adults in the US is projected to grow from 17.3% in 2022 to 21.6% by 2040, with women accounting for a larger share of this increase. Research has shown a steady decline in the FS/S ratio among women from 41.5% in 1991 to 35.3% in 2013. However, our analysis of data from 2014 to 2023 highlights a significant upward trend among older women, suggesting a narrowing sex gap in firearm suicide that aligns with changes in gun ownership demographics.

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<https://doi.org/10.1177/25785125251372061>

## **Age-related effects of cannabis and cannabinoids on brain and behavior.**

Murray CH, Cassarino J, Cooper ZD

Cannabis and Cannabinoid Research

Published Online: 28 August 2025

#### Introduction:

The effect of cannabis use on health is likely to depend on individual differences. In particular, there is a growing need to understand the impact of cannabis and delta-9-tetrahydrocannabinol (THC) on brain and behavioral health across the lifespan.

#### Materials and Methods:

We conducted a narrative review summarizing the effects of cannabis and THC across three stages of life: in utero, adolescence, and late adulthood. We also provide an up-to-date report on past 30-day cannabis use and risk perceptions from the National Survey on Drug Use and Health (NSDUH; 2002–2023) during pregnancy, adolescence, and late adulthood. We note that NSDUH data collected during 2020 and since 2021 are not directly comparable to earlier years due to shifts in data collection methods.

#### Results:

Recent epidemiological data indicate a potential reversal of both the escalating rates of cannabis use and low perceptions of risk among pregnant women and adolescents. Findings across preclinical and clinical studies support high perceptions of risk for individuals in utero and adolescence, when alterations in brain development indicate potential for susceptibility to neuropsychiatric disorders. The escalating rates of cannabis use and associated low perceptions of risk have shifted to the late adulthood population, which may face unique health risks associated with cannabis use.

#### Conclusions:

Our findings emphasize the necessity for clinical and policy recommendations to mitigate the risks associated with cannabis use and to enhance public understanding of its implications on neurodevelopmental and psychiatric disorders. Continued research and educational strategies are essential to address these evolving trends and reduce harm.

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<https://doi.org/10.1080/00332747.2025.2541532>

#### **Deployment-Related Moral Injury Contributes to Post-Discharge Depression and Anxiety Symptoms: A Six-Year Longitudinal Study Among Israeli Combat Veterans.**

Zerach, G., Ben-Yehuda, A., & Levi-Belz, Y.

## Background

Military personnel and active combatants are known to be at risk for perpetrating or witnessing acts that violate their moral code. These events, termed potentially morally injurious events (PMIEs), were found to be associated in cross-sectional studies with an increased risk of mental and behavioral health problems, such as depression and anxiety symptoms. However, the longitudinal contribution of deployment-related PMIEs and moral injury (MI) outcomes to depression and anxiety symptoms among veterans remain unclear, particularly during their initial years following discharge.

## Method:

Participants were 169 Israeli combat veterans who participated in a six-year longitudinal study with four measurement points (T1: 12 months before enlistment, T2: Six months following enlistment – pre-deployment, T3: 18 months following enlistment – post-deployment, and T4: 28 months following discharge). Participants' characteristics were assessed between 2019–2024 via semi-structured interviews (T1) and validated self-report measures (T2–T4).

## Results:

Exposure to PMIE-Self (i.e. self-perpetrated potentially morally injurious events) at T3 predicted severity of depressive symptoms (T4), and MI-outcomes of shame and trust-violation (T4) predicted both severity of depressive and anxiety symptoms (T4), above and beyond the pre-enlistment personal characteristics (T1), depressive and anxiety symptoms (T2 and T3), personality risk factors (T2) and combat exposure (T3).

## Conclusions:

Deployment-related PMIE experiences, especially PMIE-Self experiences, and MI outcomes, were found to be valid predictors of higher severity of depression and anxiety symptoms following discharge. Routine screening and targeted interventions should be available to combatants upon their discharge from the military, a transition identified as vulnerable to the consequences of moral injury.

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<https://doi.org/10.1177/00207640251360298>

**Moral context, coping strategies, and mental health outcomes among combat veterans.**

Cornwell, J. F., Wetzler, E. L., Wood, M. D., & Erbe, R. G.

International Journal of Social Psychiatry

First published online August 20, 2025

**Objective:**

Although research has been conducted on the influence of coping strategies on mental health, research has not investigated the relationships among moral context, the adoption of those strategies, and mental health outcomes.

**Design:**

Studies were designed to measure the effects of moral context (specifically, moral injury and ethical leadership) on the adoption of adaptive or maladaptive coping strategies and their subsequent mental health consequences.

**Method:**

Data was collected on 551 total military personnel, spanning two distinct survey administrations, who reported at least one combat deployment.

**Results:**

Findings suggest that ethical leadership is associated with greater adaptive coping strategy adoption, while potentially morally injurious events (particularly self-transgression) are associated with greater maladaptive coping strategy adoption. Mediation analysis demonstrated that a significant portion of the effect of self-transgression on depression (95% CI [0.003, 0.038]) and anxiety (95% CI [0.004, 0.066]) is attributable to its attendant increase in maladaptive coping strategy adoption.

**Conclusions:**

This research suggests that moral context can lead to differential adoption of adaptive and maladaptive coping strategies. It also suggests that maladaptive coping strategies can account for a portion of the effect of self-transgression moral injury on depression and anxiety.

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<https://doi.org/10.12788/fp0573>

**Examining Moral Injury in Legal-Involved Veterans: Psychometric Properties of the Moral Injury Events Scale.**

Martin, W. B., Holder, N., Holliday, R., Jeon-Slaughter, H., & LePage, J. P.

Federal Practitioner

2025 April;42(4)s:S4-S11

#### Background:

Veterans comprise about 8% of the incarcerated US population. Legal system involvement may result in exposure to events that violate moral expectations (ie, moral injury). Currently, there are no validated measures for assessing legal-related moral injury.

#### Methods:

The goal of this study was to conduct a psychometric evaluation of an adapted version of the Moral Injury Events Scale (MIES) to assess moral injury among legal-involved individuals. This study collected demographic and clinical data via a semistructured survey. Veterans then completed the original and adapted versions of the MIES, the PTSD Checklist for DSM-5, and Personal Health Questionnaire-9.

#### Results:

One hundred veterans with a history of incarceration completed the MIES and an adapted version for legal-involved persons (MIES-LIP). More than 90% of participants reported potentially morally injurious experiences in the legal context. While confirmatory factor analysis did not support the proposed factor structure of the MIES-LIP, an exploratory factor analysis supported a 2-factor solution characterized by self- and other-directed moral injury.

#### Conclusions:

The MIES-LIP demonstrated strong psychometric properties, including good reliability and convergent validity, suggesting that legal-related moral injury is a salient and distinct phenomenon affecting legal-involved veterans. Future studies should consider the MIES-LIP as a tailored tool for legal-involved veterans.

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<https://doi.org/10.1002/jts.23160>

**Problematic anger in a treatment-seeking Canadian veteran population:  
Prevalence, assessment, and treatment implications.**

Roth, M. L., Wanklyn, S. G., Bird, B. M., Collins, E., Gargala, D., Houle, S. A., Forbes, D., Nazarov, A., & Richardson, J. D.

Journal of Traumatic Stress

Volume 38, Issue 4; August 2025; Pages 720-730

Anger is a natural, adaptive emotion that is culturally accepted in military settings. Problematic anger (i.e., intense anger paired with significant distress and functional impairment linked to) is gaining attention in military and veteran populations. This study examined problematic anger in 882 Canadian Armed Forces personnel and veterans referred to a specialized mental health clinic. Intake assessments included measures of anger, psychological conditions, and military and demographic variables. Approximately 63% of participants reported problematic anger. Respondents who endorsed problematic anger had higher rates of posttraumatic stress disorder (PTSD) symptom severity,  $d = 1.06$ ; depression,  $d = 0.82$ ; anxiety symptom frequency,  $d = 0.94$ ; and harmful drinking,  $d = 0.36$ ,  $ps < .001$ , compared to those who did not. Sequential linear regression analyses demonstrated that PTSD symptom severity,  $B_{adjusted} = 0.18$ , 95% CI [0.16, 0.20],  $R^2 = .37$ , and anxiety symptom frequency,  $B_{adjusted} = 0.55$ , 95% CI [0.49, 0.61],  $R^2 = .33$ , accounted for the largest proportion of the variance in problematic anger symptom severity. This is the first study to report on problematic anger in a Canadian military/veteran context, and the results suggest that almost two thirds of veterans endorsed problematic anger, which is higher than previously reported prevalence rates. This study is a starting point for better understanding risk and vulnerability factors for problematic anger among Canadian military personnel and veterans and clarifying the associations among problematic anger, PTSD, and anxiety symptoms. Implementing standardized screening for problematic anger may improve diagnostic precision, treatment planning, and outcomes.

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<https://doi.org/10.1177/10499091241291034>

### **Tailoring Hospice Care to the Veteran Population.**

Kommer, C. G., & Nadolny, A.

American Journal of Hospice and Palliative Medicine  
2024; 42(10): 1054-1060

United States Military Veterans are an increasingly elderly population, and more and more veterans are choosing hospice care at the end of life. These veterans, particularly if they served in combat, can bring unique management challenges and opportunities to a hospice team. This review highlights the physical and psychosocial traumas experienced by many veterans, and discusses how these issues can affect their hospice care. Traumatic injury-related issues such as chronic pain, neuropathic pain, insomnia, and chronic headaches can worsen for veterans at the end of life, and the psychological sequelae of these traumatic events such as Post-Traumatic Stress Disorder (PTSD), Chronic Anxiety, Substance Abuse, and increased risk of suicide can also be magnified during this time. This review details these and other commonly seen service-related comorbidities, and offers evidence-based recommendations regarding their diagnosis and treatment. In addition, it discusses what is important to veterans at the end of life, and provides suggestions on how hospice programs can individualize and optimize their care of this special population. Honoring their service and respecting their sacrifices are also important aspects of “Best Care” for veterans at the end of life, and this review provides suggestions on how to do so and includes a list of resources that can greatly assist hospice programs, veterans, and families in delivering the most respectful, comprehensive, and thoughtful care possible.

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<https://doi.org/10.5152/pcp.2025.24989>

### **Augmented Reality 3MDR Therapy for the Treatment of PTSD and Comorbid Moral Injury: A Case Study.**

Lee Raboy, A., Jacob, V. D., Bellini, P., Ordek, V., Sessoms, P., Vermetten, E., & J Roy, M.

Psychiatry and Clinical Psychopharmacology

Published: 11 August 2025

Rates of veteran suicide, post-traumatic stress, and moral injury remain alarmingly high and continue to rise. While virtual reality and augmented reality technologies have shown promise in improving post-traumatic stress disorder (PTSD) severity, research on these innovative methods is still limited. Multi-modal memory desensitization and reconsolidation (3MDR), a cutting-edge therapy that combines Virtual Reality Exposure Therapy or Augmented Reality Exposure Therapy with a “walk and talk” therapy, has demonstrated significant potential in enhancing participant engagement and substantially reducing symptoms of PTSD and moral injury among combat veterans.



This case study highlights the novel use of 3MDR with an augmented reality head-mounted display for treating combat-related PTSD and moral injury, offering a new perspective on addressing these critical issues.

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## **Links of Interest**

Why No One Understands National Guard Families

<https://www.military.com/daily-news/2025/08/29/why-no-one-understands-national-guard-families.html>

Scammers present 'persistent threat' to troops, veterans, expert warns

<https://www.militarytimes.com/pay-benefits/mil-money/2025/08/28/scammers-present-persistent-threat-to-troops-veterans-expert-warns/>

USU Research Team Seeks to Improve Combat Trauma Care

<https://news.usuhs.edu/2025/08/usu-research-team-seeks-to-improve.html>

Genetic discovery in study of Special Forces soldiers shows potential for aiding their mental health

<https://www.stripes.com/branches/army/2025-08-27/special-forces-resiliency-rare-gene-variant-18895086.html>

Military spouse paid fellowship program expanding, with more money

<https://www.militarytimes.com/pay-benefits/mil-money/2025/08/27/military-spouse-paid-fellowship-program-expanding-with-more-money/>

Reducing suicide risk for rural Veterans

<https://news.va.gov/141834/reducing-suicide-risk-for-rural-veterans/>

Why ChatGPT Shouldn't Be Your Therapist

<https://www.scientificamerican.com/article/why-ai-therapy-can-be-so-dangerous/>

New center poised to advance AI innovation in PTSD treatment

<https://news.stanford.edu/stories/2025/08/create-center-ai-artificial-intelligence-ptsd-treatment>

What to Know About 7-OH, the New Vape Shop Hazard

<https://jamanetwork.com/journals/jama/fullarticle/2838093>

Staff perspective: Moral Distress and Moral Injury - How Prevalent Are They in U.S. Veterans?

<https://deploymentpsych.org/blog/staff-perspective-moral-distress-and-moral-injury-how-prevalent-are-they-us-veterans>

Staff Perspective: The Lingering Why

<https://deploymentpsych.org/blog/staff-perspective-lingering-why>

'Bad paper' discharge upgrades are taking too long. Can that be fixed?

<https://www.militarytimes.com/news/your-military/2025/08/29/bad-paper-discharge-upgrades-are-taking-too-long-can-that-be-fixed/>

- [Military Discharge: Actions Needed to Help Ensure Consistent and Timely Upgrade Decisions](#) (US GAO)

Military will now drug test troops for psychedelic mushrooms

<https://taskandpurpose.com/news/pentagon-psychedelic-mushrooms/>

Navy, DODEA to launch mental health counseling pilot for some students overseas

[https://www.stripes.com/theaters/asia\\_pacific/2025-08-28/navy-dodea-mental-health-counselors-18912004.html](https://www.stripes.com/theaters/asia_pacific/2025-08-28/navy-dodea-mental-health-counselors-18912004.html)

2025 National Recovery Month Toolkit

<https://www.samhsa.gov/about/digital-toolkits/recovery-month/toolkit>

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## **Resource of the Week: Barriers to Care**

From the Psychological Health Center of Excellence (PHCoE):

The Department of Defense (DOD) strives to better understand the barriers to care that service members face regarding mental health diagnoses and treatment. Seeking care early can help service members address mental health conditions before they worsen. Despite the benefits of seeking mental health care, approximately 60-70 percent of military personnel who experience mental health problems do not seek mental health services. This underutilization of services may be ascribed to many types of barriers to mental health.



## Barriers to Mental Health Care

Service members with mental health symptoms do not seek care for a variety of reasons from confidentiality concerns to stigma. This infographic describes the types of barriers to care and how they impact service members. [Download PDF](#)



## Barriers to Care: Career Concerns

Survey research suggests that up to 35 percent of service members believe receiving mental health treatment can negatively impact their careers. This resource describes career concerns that keep service members from seeking mental health care. [Download PDF](#)



## Barriers to Care: Mental Health and Deployment Concerns

Only a few mental health conditions or medications affect deployability. This infographic addresses mental health concerns and deployment. [Download PDF](#)



## Barriers to Care: Mental Health Confidentiality Concerns

This resource explains guidelines for confidentiality of mental health information in the military and how patients can work with their providers to help protect their information. [Download PDF](#)



## Barriers to Care: Security Clearance – Mental Health Section Endorsement and Treatment-Seeking Concerns

It is extremely rare to have a security clearance denied or revoked solely on the basis of reporting mental health conditions or treatment. This resource addresses concerns about mental health and security clearances and explains how seeking treatment may contribute favorably to eligibility decisions. [Download PDF](#)



## Mental Health Utilization and Promotions

Concerns about being promoted keep some service members from seeking mental health care. This infographic shares findings from a PHCoE evaluation into the consequences of seeking mental health care on promotion to the senior enlisted ranks. [Download PDF](#)

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