

Research Update -- February 20, 2025

What's Here:

- Making Progress in Clinical Trials for Suicide Prevention: A Review.
- Pre-Service Predictors of New-Onset Alcohol Misuse in Male United States Marines.
- Cannabis Policies, Cannabis, and Opioids in Suicide and Undetermined Intent Death.
- Suicides and Overdoses at Work: Census of Fatal Occupational Injuries, 2011– 2022.
- Mental Health of Residents of Ukraine Exposed to the Russia-Ukraine Conflict.
- Injury Rates Among Children With Autism Spectrum Disorder With or Without Attention-Deficit/Hyperactivity Disorder.
- Attention-Deficit/Hyperactivity Disorder-A Diagnosis Too Important to Ignore.
- Moral Injury: Religious and Spiritual Struggles Among Survivors of Intimate Partner Sexual Violence in the USA.
- Determining demographic and previous suicide risk factors associated with developing a plan for suicide with a firearm.
- Residual symptoms following trauma-focused treatment for comorbid posttraumatic stress disorder and major depressive disorder.
- Links of Interest
- Resource of the Week Center for the Study of Traumatic Stress: Fact Sheets

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Making Progress in Clinical Trials for Suicide Prevention: A Review.

Wilkinson, S. T., Bryan, C. J., Alphs, L. D., Canuso, C. M., Ostacher, M. J., Price, R. B., Bloch, M. H., Zarate, C. A., & Rhee, T. G.

JAMA Psychiatry February 12, 2025

Importance

Suicide is a public health crisis, and despite renewed efforts to confront this problem, suicide rates continue to rise in the US. While suicide prevention encompasses a broad array of strategies, treatment development is lagging. Within this realm, clinical trials are the criterion standard for evaluating safety and efficacy of new treatments.

Observations

Most clinical trials conducted among patients with mental illness have excluded patients at risk of suicide. Historical reasons for this include regulatory challenges, liability concerns, ethical questions, discomfort working directly with high-risk patients, and the belief that research is too risky for individuals at elevated risk for suicide.

Conclusions and Relevance

Several considerations are provided for investigators in the design of trials targeting atrisk populations, including thoughtful selection of study outcome, use of time-to-event design and analysis (which may simultaneously satisfy ethical concerns and scientific aims), enrolling an enriched sample (eg, among patients recently discharged from the hospital), and provision of usual care in the comparator group. Caution should be exercised to avoid excessive or unreasonable safety requirements, which may lead participants to minimize self-report of suicidal ideation or to drop out of trials. Where possible, regulatory bodies (institutional review boards [IRBs] and data and safety monitoring boards) should consult with or include as members those with direct clinical experience with this high-risk population. An important ethical principle for IRB members and other regulators to consider is that suicide-related events are expected in this clinical population.

https://doi.org/10.1016/j.amepre.2024.10.016

Pre-Service Predictors of New-Onset Alcohol Misuse in Male United States Marines.

Andrew J. MacGregor, Amber L. Dougherty, Zeina G. Khodr, Jennifer McAnany, Cameron T. McCabe, James M. Zouris, Yohannes G. Haile, Patricia Rohrbeck

American Journal of Preventive Medicine Volume 68, Issue 3, March 2025, Pages 437-445

Introduction

U.S. military personnel have a high prevalence of alcohol misuse, which can adversely affect force readiness. The objective of this study was to identify pre-service predictors of new-onset alcohol misuse among male Marines.

Methods

Data for this retrospective cohort study were collected from male U.S. Marines who completed a baseline survey at the beginning of military training from 2013 to 2021 and a standard health assessment 12–36 months later (n=28,337). An Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) score ≥4 indicated alcohol misuse. Independent predictors of alcohol misuse were evaluated using a modified Poisson regression to calculate adjusted risk ratios (aRRs) and 95% Cls. Analyses were conducted between 2022 and 2024.

Results

The incidence of new-onset alcohol misuse was 16.3% (n=4,632). In the final multivariable model, the strongest predictor of new-onset alcohol misuse was turning 21 years old during the study period (aRR=3.70; 95% CI=3.40, 4.03). Pre-service tobacco use (aRR=1.32; 95% CI=1.22, 1.43) and some pre-service alcohol use (AUDIT-C score 1–3: aRR=1.32; 95% CI=1.24, 1.40) were also associated with new-onset alcohol misuse.

Conclusions

Multiple pre-service predictors were associated with new-onset alcohol misuse in male Marines. These findings should be considered when screening for alcohol misuse and developing clinical interventions to mitigate adverse impacts of alcohol misuse in the military.

https://doi.org/10.1016/j.amepre.2024.11.009

Cannabis Policies, Cannabis, and Opioids in Suicide and Undetermined Intent Death.

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American Journal of Preventive Medicine Volume 68, Issue 3, March 2025, Pages 475-484

Introduction

Suicides and deaths of undetermined intent frequently involve cannabis or opioids, yet the relationships between cannabis and opioids, and cannabis policies and cannabis or opioid involvement in these deaths, are not well-characterized. Additionally, although there have been substantial changes to cannabis policies, there have been conflicting findings on relationships between changing cannabis policies and cannabis-involved or opioid-involved deaths.

Methods

This was a repeated, cross-sectional study of decedents using restricted access data from the National Violent Death Reporting System from 2003 to 2018 and the Cannabis Policy Scale. The following associations were assessed among decedents from suicide and deaths of undetermined intent using mixed effects logistic regression: (1) relationships between cannabis involvement and opioid involvement; (2) relationships between cannabis policies and cannabis involvement; and (3) relationships between cannabis policies and opioid involvement. Analyses were conducted from 2021 to 2022.

Results

States contributing to National Violent Death Reporting System increased in number from 7 to 41 throughout the study period, and the final sample included 68,924 decedents of suicide and undetermined intent. Cannabis involvement was associated with increased odds of opioid involvement (AOR=1.29, 95% CI=1.22, 1.37). A 10% increase in Cannabis Policy Scale, representing a more restrictive cannabis policy environment, was associated with reduced odds of cannabis involvement (AOR=0.87, 95% CI=0.84, 0.90) and opioid involvement (AOR=0.88, 95% CI=0.85, 0.91).

Conclusions

These findings do not support the idea that cannabis policy liberalization and/or

cannabis use are likely to be useful strategies to reduce cannabis or opioid involvement in deaths of suicide and undetermined intent.

https://doi.org/10.1016/j.amepre.2024.11.015

Suicides and Overdoses at Work: Census of Fatal Occupational Injuries, 2011–2022.

Hope M. Tiesman, Scott Hendricks

American Journal of Preventive Medicine Volume 68, Issue 3, March 2025, Pages 527-534

Introduction

The worsening life expectancy of middle-aged White Americans due to suicides and substance overdoses has been hypothesized to be caused by various societal conditions. Work is a social determinant of health, but its role in this demographic shift has not been examined. This article describes the characteristics and trends of suicides and overdose fatalities occurring in U.S. workplaces among all workers between 2011 and 2022.

Methods

Data originated from the Census of Fatal Occupational Injury database. Fatality rates were calculated using the Current Population Survey. Fatality rates were calculated and compared among demographic and occupational groups. Annual rates were modeled with a first-order auto-regressive linear regression to account for serial correlation. Analyses were conducted in 2023–2024.

Results

Between 2011 and 2022, the rate of workplace overdose fatality rates increased from 0.05 per 100,000 workers to 0.33—an increase of 560%. Workplace suicide rates were relatively stable (0.19 per 100,000 to 0.17). Most industries and occupations experienced significant increases in workplace overdose rates and nonsignificant decreases in workplace suicide rates. The largest workplace overdose rates occurred in the transportation and warehousing industry (0.47, 95% CI=0.27, 0.67) and farming, fishing, and forestry occupations (0.68, 95% CI=0.27, 1.08).

Conclusions

Fatal workplace suicides and substance overdoses have different trends and impact industries, occupations, and demographic groups differently. The rise in workplace overdoses deserve immediate attention.

https://doi.org/10.1001/jamanetworkopen.2024.59318

Mental Health of Residents of Ukraine Exposed to the Russia-Ukraine Conflict.

An, J., Wang, T., Chen, B., Oleksiyenko, A., & Lin, C.

JAMA Network Open February 13, 2025

Key Points

Question

What is the association between war exposure and civilians' mental health during the ongoing Russia-Ukraine conflict?

Findings

This survey study, using data from 7 nationally representative surveys (2015-2022) with 14 140 respondents, found that severe war damage was associated with significantly increased likelihood of suicidal thoughts by 2.2 percentage points and feelings of helplessness by 4.9 percentage points compared with moderate damage. Individuals with higher levels of wealth, male respondents (for suicidal thoughts), female respondents (for helplessness), respondents with higher levels of education, and younger individuals were particularly vulnerable.

Meaning

These findings suggest that war exposure was associated with significant mental health challenges.

Abstract

Importance

Quantifying the association between the ongoing Russia-Ukraine war and Ukrainians' mental health is crucial for guiding reconstruction and rebuilding efforts in the postwar period.

Objective

To examine the association between war exposure and civilians' mental health in both the short and medium term and the potential channels through which these associations occur.

Design, Setting, and Participants

This cohort study used data from 7 nationally representative surveys conducted by the Kyiv International Institute of Sociology between December 4, 2015, and July 18, 2022. Six surveys were conducted before the war and one during the ongoing conflict in July 2022. Each survey included approximately 2000 respondents aged 18 to 95 years in 110 localities.

Exposure

The magnitude of war damage exposure was represented by an indicator variable set to 1 if an oblast (province) experienced severe war damage and 0 if the damage was moderate at the time of the survey. The classification of severe or moderate damage was based on the economic losses incurred.

Main Outcomes and Measures

The main outcomes were respondents' self-reported thoughts of suicide and feelings of helplessness, both represented as dummy variables.

Results

The sample included 14 140 respondents, with 3933 (27.8%) exposed to severe war damage and 10 207 (72.2%) to moderate war damage. These included 8174 female respondents (57.8%), with an overall mean (SD) age of 48.9 (16.8) years. The differences in the likelihood of reporting suicidal thoughts and feelings of helplessness between areas with severe vs moderate war damage increased by 2.2 percentage points (β estimate, 0.022 [SE, 0.006]; 95% CI, 0.009-0.036) and 4.9 percentage points (β estimate, 0.049 [SE, 0.019]; 95% CI, 0.009-0.088), respectively. Subsample analyses revealed that male respondents were more vulnerable to suicidal thoughts (β estimate, 0.030 [SE, 0.013]; 95% CI, 0.004-0.056), while female respondents were more at risk of feelings of helplessness (β estimate, 0.063 [SE, 0.024]; 95% CI, 0.013-0.113).

Conclusions and Relevance

In this survey study of war exposure, bombing was associated with increased mental health concerns among civilians, including a higher likelihood of suicidal thoughts and feelings of helplessness, which may hinder postwar recovery. These findings suggest that policymakers should prioritize creating job opportunities and ensuring a safe living environment to support citizens' recovery in the aftermath of conflict.

https://doi.org/10.1001/jamanetworkopen.2024.59029

Injury Rates Among Children With Autism Spectrum Disorder With or Without Attention-Deficit/Hyperactivity Disorder.

Shmueli, D., Razi, T., Almog, M., Menashe, I., & Mimouni Bloch, A.

JAMA Network Open February 10, 2025

Key Points

Question

Are children with autism spectrum disorder (ASD), with or without attention-deficit/hyperactivity disorder (ADHD), at increased risk for physical injuries?

Findings

In this population-based cohort study of 325 412 children, we found that children with ASD, irrespective of comorbid ADHD, had a similar emergency department visit rate due to injuries compared with typically developing children and a lower rate than that of children with ADHD without ASD. Furthermore, children with ASD without ADHD had lower rates of animal-inflicted and orthopedic injuries than typically developing children.

Meaning

These findings suggest that children with ASD have a lower risk for certain injuries than children with ADHD.

Abstract

Importance

Injuries are a major cause of morbidity and mortality among children with neurodevelopmental conditions. Identifying injuries associated with this vulnerable population could inform specific preventive actions.

Objective

To compare the injury risk among children with autism spectrum disorder (ASD), attention-deficit/hyperactivity disorder (ADHD), or coexisting ASD and ADHD with children with typical development (TD).

Design, Setting, and Participants

This population-based cohort study involved 325 412 children born between 2005 and 2009, followed up until the end of 2021. Data analysis was conducted from February 2 to November 14, 2023. The study data were extracted from the Clalit Health Service (CHS) database, which contains comprehensive clinical and sociodemographic data on all members of the CHS admitted to the emergency departments (EDs) of all hospitals in Israel during the study period. Children who were members of CHS born between 2005 and 2009 were classified into 4 groups: ASD, ADHD, ASD and ADHD, and TD (control).

Main Outcomes and Measures

Negative binomial regression models were used to assess incidence rate ratios (IRRs) of ED visits between the study groups and the control group. These models were adjusted for birth year, sector, and socioeconomic status. IRRs for specific injuries were also assessed. The statistical significance of IRRs was assessed using 95% CIs.

Results

A total of 325 412 children (163 183 boys [50%]) were included in the study. Children with ASD, ADHD, or both had significantly higher ED visit rates than children with TD (IRR, 1.48 [95% CI, 1.42-1.55], 1.45 [95% CI, 1.39-1.52], and 1.29 [95% CI, 1.28-1.30], respectively). Children with ADHD had also higher rates of ED visits due to physical injuries compared with controls (IRR, 1.18 [95% CI, 1.16-1.20]), whereas children with ASD with or without ADHD did not (IRR, 0.96 [95% CI, 0.89-1.05] and 0.91 [95% CI, 0.83-1.00], respectively). A focused analysis of the injury profiles revealed that children with ASD or comorbid ASD and ADHD had higher rates of ingestion and inhalation injuries (IRR, 1.57 [95% CI, 1.06-2.25] and 1.80 [95% CI, 1.28-2.48], respectively) and lower rates of orthopedic injuries (IRR, 0.78 [95% CI, 0.69-0.89] and 0.83 [95% CI, 0.74-0.93], respectively), and animal-inflicted injuries (IRR, 0.44 [95% CI, 0.22-0.79] and 0.92 [95% CI, 0.60-1.35], respectively) than controls.

Conclusions and Relevance

In this large cohort study, different types of injury were associated with children with ASD and ADHD. The causes underlying these associations should be further investigated to develop effective approaches for injury reduction among these children.

https://doi.org/10.1001/jamanetworkopen.2024.53407

Attention-Deficit/Hyperactivity Disorder-A Diagnosis Too Important to Ignore. (Invited Commentary)

Courtenay K.

JAMA Network Open February 12, 2025

Awareness of attention-deficit/hyperactivity disorder (ADHD) among the general public is higher today than ever before, along with an enhanced knowledge of autism through the discourse on neurodivergence in social media and other sources. As a neurodevelopmental condition with its origins in childhood, ADHD is associated with the other neurodevelopmental conditions of autism, intellectual disabilities, and tic disorders, and may present as a comorbid disorder as recognized in the Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition). In clinical practice, ADHD may not be considered in either childhood or in adulthood because of misdiagnosis, where alternative but potentially erroneous diagnoses are made, or the diagnosis is simply missed. Both may incur serious consequences for the patient, resulting in harm either through inappropriate prescription of medication or not providing effective treatments for the disorder.

https://doi.org/10.1007/s10943-025-02267-w

Moral Injury: Religious and Spiritual Struggles Among Survivors of Intimate Partner Sexual Violence in the USA.

Kanter, R. L., Hoffman, K. R., & Hassija, C. M.

Journal of Religion and Health Published: 13 February 2025

Intimate partner sexual violence (IPSV) has significant psychological consequences, yet no research has examined the relationship between IPSV and moral injury—a distinct form of bio-psycho-social-spiritual distress. This study explored IPSV, moral injury, religious and spiritual struggles (R/SS), purity culture beliefs (PCB), and psychological distress among Christian women in the USA (N = 210). Results revealed significant

relationships between study variables. While the gender roles subscale of PCB moderated the link between IPSV and R/SS, the shame and guilt subscale did not. Further, R/SS significantly mediated the association between IPSV and moral injury, and moral injury (self– and other-directed) mediated the relationship between IPSV and psychological distress. These findings underscore the need for interventions to address the moral and spiritual dimensions of IPSV.

https://doi.org/10.1016/j.jpsychires.2024.12.019

Determining demographic and previous suicide risk factors associated with developing a plan for suicide with a firearm.

Bond, A. E., Gerry, S., Bryan, C. J., & Anestis, M. D.

Journal of Psychiatric Research Volume 182, February 2025, Pages 1-3

Objective

Examine demographic factors associated with developing a plan for suicide with a firearm among a sample of military service members, veterans, and adult dependents.

Methods

Participants (N = 2690) were current military service members, Veterans, and adult dependents. A binary logistic regression was used to examine demographic variables associated with having developed a plan for suicide with a firearm.

Result

A binary logistic regression indicates that men and those who identify as White had a significantly increased likelihood of having developed a plan for suicide with a firearm compared to another method.

Conclusion

Findings represent a meaningful, incremental addition to the literature, by providing insight into who is most likely to develop suicide plans involving a firearm. Health care providers should provide information on secure firearm storage to those whose identities align with our results in an effort to reduce access to firearms during a time of crisis.

https://doi.org/10.1016/j.jpsychires.2025.01.010

Residual symptoms following trauma-focused treatment for comorbid posttraumatic stress disorder and major depressive disorder.

Kline, A. C., Otis, N. P., Crocker, L. D., Glassman, L. H., Michael Hunt, W., & Walter, K. H.

Journal of Psychiatric Research Volume 182, February 2025, Pages 42-49

Highlights

- Service members with comorbid PTSD and MDD received CPT or BA + CPT.
- Types of PTSD and MDD residual symptoms did not differ between treatments.
- The most common residual PTSD symptoms were from the hyperarousal cluster.
- The most common residual MDD symptoms were sleep difficulties and low energy.
- Common residual symptoms generalized to service members with comorbid PTSD/MDD.

Abstract

Despite effective psychotherapy options for posttraumatic stress disorder (PTSD), some patients do not fully respond, and even among those reporting substantial improvement, residual symptoms following treatment are common. Psychiatric conditions frequently co-occur with PTSD, yet research on residual symptoms among comorbid samples is lacking. This study examined residual symptoms of PTSD and depression among 71 active duty service members with PTSD and comorbid major depressive disorder (MDD). As part of a clinical trial, participants were randomized to cognitive processing therapy (CPT) or a novel treatment designed to address PTSD and comorbid MDD, behavioral activation-enhanced CPT (BA + CPT). Analyses compared individual residual symptoms between treatments and groups based on PTSD and MDD diagnostic status at posttreatment. For both PTSD and MDD, the conditional probabilities for each residual symptom did not differ between CPT and BA + CPT, suggesting treatment type did not influence which symptoms persisted. For the 36 service members who lost their PTSD diagnosis at posttreatment, conditional probabilities of residual PTSD symptoms were highest for sleep problems, concentration difficulties, and hypervigilance; for MDD symptoms, conditional probabilities were highest for sleep problems, concentration difficulties, and low energy. These most common residual symptoms were identical for the 31 service members who lost their MDD diagnosis at posttreatment. Residual symptoms observed among service members with PTSD and comorbid MDD mirrored those commonly identified among single disorder PTSD or MDD samples. Identifying and addressing residual symptoms most meaningful to patients will maximize benefit from PTSD treatment.

Links of Interest

PTSD Bytes: Reducing suicide risk

https://news.va.gov/138194/ptsd-bytes-reducing-suicide-risk/

Connecting Veterans in the virtual world with technology https://news.va.gov/138213/connecting-veterans-virtual-world-technology/

Homegrown Trips: Desperate for PTSD Relief, Veterans Turn to Each Other for DIY Psychedelic Treatments

https://thewarhorse.org/veterans-suffering-with-ptsd-aid-each-other-with-psychedelic-treatment/

Study Reveals Nearly 300 New Depression Risk Factors Thanks to Wider Population Sample

https://jamanetwork.com/journals/jama/fullarticle/2830572

• <u>Trans-ancestry genome-wide study of depression identifies 697 associations</u> implicating cell types and pharmacotherapies

Standing Strong: Behavioral Health Response to Trauma at Fort Johnson https://www.dvidshub.net/news/490757/standing-strong-behavioral-health-response-trauma-fort-johnson

Resource of the Week - Center for the Study of Traumatic Stress: Fact Sheets

The Center for the Study of Traumatic Stress (CSTS) offers resources to help mental health providers and communities respond to disasters and other traumatic events. CSTS published new fact sheets and psychological first aid guides in response to the <u>January 30 plane crash</u> in Washington, DC and the <u>recent wildfires</u> in Southern California. These easy-to-use downloadable resources are available to the public, and free of charge.

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