

CDP



Research Update – April 30, 2026

What's Here:

- Pituitary hormone abnormalities following military-related traumatic brain injuries.
- Associations between health-related behaviors and self-reported cognitive symptoms in U.S. military personnel injured on deployment.
- The mediating role of psychological capital in the relationship between moral injury and resilience among mental health professionals during wartime.
- Sleep Impairment and Chronic Pain in the Military: A Scoping Review.
- Military service and depression risk among American adults: a cross-sectional analysis based on NHANES data from 2011 to 2023.
- Gender, headache frequency, and headache intensity predict psychosocial functioning and quality of life in a sample of United States combat veterans.
- Reflections on Ethical Leadership: Organizational Ethics and Moral Injury.
- Moral Injury in the DSM-5-TR: Syndrome Spectrum vs. Categorical Disorder.
- Effects of General and Sexual Aggression on the Job, Health and Psychological Outcomes of Women Reservists in the U.S. Armed Forces.
- Combat injury, pain, and mental health outcomes in US Army service members.
- Adverse Childhood Experiences and Treatment-Resistant Depression.
- Cannabis and Mental Health: A Review.
- Integrating Physical Activity Into Routine Psychiatric Care: A Review.
- Efficacy and Safety of Psilocybin in Treatment-Resistant Major Depression: The EPISODE Randomized Clinical Trial.

- Psychedelic Therapy vs Antidepressants for the Treatment of Depression Under Equal Unblinding Conditions: A Systematic Review and Meta-Analysis.
- Long-Term Trends in Pediatric Self-Injury in High-Income Countries: A Systematic Review and Meta-Analysis.
- Long-Term Outcomes of an Internet-Based Cognitive Behavior Therapy Intervention for Tinnitus: Follow-Up Analysis of a Nonrandomized Clinical Trial.
- Prevalence of Thoughts of Shooting Others Among US Adults.
- Clinical Characteristics of Combat Crewmen.
- Adolescent Responses to Coercive Requests for Sexual Images.
- Sleep Health Dimensions From Wearables and Transdiagnostic Mental Health in Young Adolescents.
- Overtriage and Undertriage of Children Presenting to the Emergency Department for Behavioral Health.
- Alignment of Large Language Model Responses With Human Therapists in Motivational Interviewing.
- Links of Interest
- Resource of the Week – How to Understand a Research Study: A guide for non-scientists who want to read research publications (Johns Hopkins University Bloomberg School of Public Health)

<https://doi.org/10.1016/j.ghir.2026.101687>

Pituitary hormone abnormalities following military-related traumatic brain injuries.

Herodes, M., & Garcia, J. M.

Growth Hormone & IGF Research
Volume 83, March 2026, 101687

Highlights

- Military blast exposure drives high TBI rates and increases risk of post-traumatic hypopituitarism (PTHP).
- Growth hormone deficiency is the most common though other pituitary hormone disorders also occur after military TBI.
- Though mechanisms differ, PTHP treatment for military TBI presumably aligns with civilian care; studies remain scarce.
- PTHP care in military populations is challenging; comorbidities delay diagnosis and hinder treatment outcomes.
- More research is needed to establish the safety and efficacy of hormone replacement in this population.

Abstract

Pituitary hormone abnormalities are not uncommon among individuals who have sustained a traumatic brain injury (TBI), particularly among the military population which has a higher prevalence of lifetime TBI due to the risks associated with a military career. The diagnosis and treatment of these hormone abnormalities (also known as post-traumatic hypopituitarism or PTHP) is further complicated by numerous comorbidities (discussed below) endemic among individuals with a history of military service whose symptoms are similar to those of PTHP. This updated review discusses the unique pathophysiology of military-related TBI due to high frequency of blast TBI and multiple lifetime TBI, comorbidities within military and Veteran populations, and how these factors influence and are influenced by PTHP, including updated findings on military TBI incidence and PTHP prevalence.

<https://doi.org/10.1016/j.jpsychires.2023.07.001>

Associations between health-related behaviors and self-reported cognitive symptoms in U.S. military personnel injured on deployment.

Jurick, S. M., McCabe, C. T., Watrous, J. R., MacGregor, A. J., Walton, S. R., Stewart, I. J., Walker, L. E., & Galarneau, M. R.

Journal of Psychiatric Research
Volume 165, September 2023, Pages 48-55

Health behaviors may be core contributors to cognition and mental health following mild traumatic brain injury (TBI). The aims of the present study examined: (1) whether health

behaviors including sleep duration, alcohol use, and physical activity differed in injured military personnel with and without deployment-related mild TBI history and (2) the relative contributions of health behaviors and deployment-related mild TBI history to self-reported cognitive, posttraumatic stress disorder (PTSD), and depressive symptoms. Participants included 3076 military personnel injured on deployment participating in the Wounded Warrior Recovery Project, an ongoing web-based study. Military personnel with deployment-related mild TBI history reported similar rates of physical activity and levels of alcohol problems as those without, but were less likely to report receiving the recommended duration of sleep. When adjusting for demographic and injury variables, all three health behaviors were associated with cognitive, PTSD, and depressive symptoms. Alcohol problems demonstrated significant but small effects across all outcomes measures ($\eta^2=.01$) whereas physical activity was associated with slightly larger effects albeit still within the small range ($\eta^2=.02-0.04$). Duration of sleep bordered a medium effect for cognitive symptoms ($\eta^2=.05$) and was in the medium range for PTSD and depressive symptoms ($\eta^2=.06$). Although deployment-related mild TBI history was significant in all models, effect sizes were small ($\eta^2=.01$). Findings from the present study provide support that health behaviors have stronger effects with regard to cognitive, PTSD, and depressive symptoms compared to deployment-related mild TBI history in military personnel and, given their modifiable nature, may represent treatment targets in this population.

<https://doi.org/10.1016/j.psychres.2026.117068>

The mediating role of psychological capital in the relationship between moral injury and resilience among mental health professionals during wartime.

Greenblatt-Kimron, L., Peled-Avram, M., & Gur, A.

Psychiatry Research
Volume 360, June 2026, 117068

Highlights

- Moral injury may be experienced by mental health professionals (MHPs) amid war.
- Moral injury was negatively linked with psychological capital and resilience.
- Psychological capital (PsyCap) was positively associated with resilience.
- PsyCap fully mediated the relationship between moral injury and resilience.
- Enhancing PsyCap is essential to maintain resilience in MHPs during wartime.

Abstract

The current study examined the relationships between moral injury, Psychological Capital (PsyCap), and resilience among Israeli Mental Health Professionals (MHPs) during wartime. It aimed to explore the negative impact of moral injury on PsyCap and resilience, as well as the mediating role of PsyCap in this relationship. A sample of 133 MHPs (mean age 46.99 years, SD=10.80), recruited through social media platforms and professional instant messaging groups, completed questionnaires assessing moral injury, PsyCap, and resilience. Correlational analyses revealed that moral injury was negatively associated with both PsyCap and resilience, while PsyCap showed a positive link with resilience. Mediation analysis further indicated that PsyCap significantly mediated the relationship between moral injury and resilience, highlighting PsyCap as a potential mechanism through which moral injury diminishes resilience among MHPs during ongoing war. These findings underscore the importance of enhancing PsyCap in MHPs, as it may serve as a vital pathway for maintaining resilience in extreme working conditions. From a theoretical and a practical perspective, these results suggest that PsyCap may be a significant contributor for MHPs during wartime, allowing them to remain resilient, motivated, resourceful, and maintaining their practical care under extreme challenges. Without PsyCap, moral injury may be associated with lower levels of resilience among MHPs amid warfare.

<https://doi.org/10.1111/jsr.70100>

Sleep Impairment and Chronic Pain in the Military: A Scoping Review.

Barbosa, E. R. F., da Veiga, D. R., Ayala, M. G., Filho, I. D. A. O. S., Gomez, A. S., de Alencar, E. B. A., Pérez, A. S., Okereke, C. E., Vinas, D. C., Siquieroli, R. S., de Sousa Francelino, H., Posso, A. N., Meneghetti Inácio Silva, I., da Cunha, P. H. M., Labra, V. B., Gomez-Carrillo, D., Lanaia, S., de Almeida, L. K. R., Lomashvili, E. M., Sanchez, L. S. S., ... Bueno, C.

Journal of Sleep Research

Volume 35, Issue 2, April 2026, e70100

This scoping review explores the bidirectional association between chronic pain and sleep disorders in military personnel. It aims to identify gaps in existing studies, offering tools for diagnosing and treating sleep disorders, chronic pain, and their comorbidities. Observational and interventional studies up to 2024 that approached the relationship

between chronic pain and sleep disorders were included. Furthermore, PTSD, anxiety, depression, alcohol consumption, suicidal ideation and drug abuse were considered covariables. Cancer-related or acute pain and studies primarily addressing sleep apnoea or traumatic brain injury were excluded. A systematic search was conducted in ScienceDirect, PubMed, Scopus, Embase, Web of Science and Google Scholar until April 2024. Articles were screened using Covidence by two independent researchers, and bias was assessed using the Newcastle Ottawa Scale, ROBINS-I and ROB-2. Sixteen articles analysed data from 15,060 active military personnel or veterans. Overall, studies endorsed the association between sleep quality and chronic pain and their influence on mental health, physical functioning and quality of life. Additionally, behavioural, mind–body and circadian misalignment therapies, along with other nonpharmacologic interventions, positively impacted outcomes related to pain, sleep quality, and psychiatric comorbidities. However, there was heterogeneity in the use of diagnostic tools, non-standardised procedures, and a lack of guidelines in the treatment of these conditions. The construct of sleep disorders, chronic pain and associated comorbidities was shown to improve with nonpharmacologic and integrative interventions that addressed at least one of these conditions.

<https://doi.org/10.1136/military-2024-002932>

Military service and depression risk among American adults: a cross-sectional analysis based on NHANES data from 2011 to 2023.

Gao, J. M., Fei, S., Ren, Y. L., Lin, Y. C., & Shi, X. L.

BMJ Military Health
2026; 172: 164-171

Introduction

Depression is a common mental health disorder with high morbidity and disability rates. Military personnel are often considered a vulnerable population for depression, but epidemiological studies on the prevalence in veterans are limited. This study explores the relationship between military service and depression risk among American adults using a cross-sectional design based on National Health and Nutrition Examination Survey (NHANES) data from 2011 to 2023.

Methods

This cross-sectional study used data from NHANES collected from 2011 to 2023.

Depression was diagnosed based on the Patient Health Questionnaire-9 (PHQ-9) scores. Military service status was determined by responses to the demographic question. Binary logistic regression analysis was conducted to examine the association between military service and depression, as well as the factors influencing depression in veterans.

Results

After data cleaning, a total of 25 949 participants were included, 2407 individuals with military service and 2548 with depression. In the unadjusted analysis there was no significant difference in the prevalence of depression between military service and non-service individuals. However, after adjustment, military service was associated with a 23% reduction in the risk of depression (OR 0.77, 95% CI 0.61 to 0.96). Subgroup analysis showed that, among non-Hispanic Black individuals, married persons, high-income individuals and those without hypertension, hyperlipidaemia or hyperglycaemia, the prevalence of depression was lower in the military cohort compared with the general population. Multivariable logistic regression analysis indicated that female gender and being divorced were risk factors for depression among veterans, while high income and absence of hypertension served as protective factors.

Conclusion

Despite the relatively high prevalence of depression among active-duty and veteran military personnel, this large-sample cross-sectional study does not support the conclusion that military service increases the risk of depression. Furthermore, attention should be given to the depression risk among female and divorced veterans.

<https://doi.org/10.1007/s10865-026-00655-5>

Gender, headache frequency, and headache intensity predict psychosocial functioning and quality of life in a sample of United States combat veterans.

Wild, M. G., Harris, E., Hammett, L. W., Krauss, A., Mendoza, C., Herbert, M. S., & Creech, S. K.

Journal of Behavioral Medicine

Published: 22 March 2026

Headache disorders are common among United States (U.S.) military veterans, particularly women veterans, likely due to frequent exposure to stresses and injury.

Headaches are often comorbid with psychopathology which can negatively impact quality of life and functioning. Yet there is limited evidence on the impact of headaches on quality of life. The purpose of this study was to investigate the associations among gender, headache frequency, headache intensity, and quality of life in combat-exposed U.S. veterans. Participants (n = 345, 68.3% male, 19.7% Hispanic/Latino, 33.5% Black/African American, average age = 38.46 years [SD = 9.73]) completed a baseline and one-year follow up where they self-reported headache frequency (number of days per week), headache intensity (0–10), combat exposure, quality of life, functional disability, and pain-related disability. Bayesian zero–one-inflated beta regression was used to assess prediction of quality of life, pain-related disability, and functional disability at one year follow-up by age, gender, education, headache frequency, headache intensity, and combat exposure reported at baseline. Both headache frequency and intensity predicted greater functional disability and pain-related disability at follow-up, while headache intensity alone predicted worse quality of life. Women veterans experienced greater functional disability and lower quality of life compared to men veterans. These findings suggest that headaches may lead to functional disability, pain-related disability, and lower quality of life, particularly among women veterans. Interventions for headache may have differential impact on quality of life and functional disability if focused on reducing intensity versus frequency of headache and across gender identity.

<https://doi.org/10.1177/08404704261434320>

Reflections on Ethical Leadership: Organizational Ethics and Moral Injury.

Simpson C.

Healthcare Management Forum

First published online March 20, 2026

Starting with the question of “why would anyone choose to become a health leader?”, this column shares reflections on the nature of ethical leadership. Different features of health leaders and their practice that support engaging in organizational (systems-level) ethics issues in accordance with relevant values are discussed. The possibility of experiencing moral injury as a leader is highlighted as an important aspect of preparing health leaders for this role. Related reflections on moral resilience and moral integrity further support the need to ensure that training for health leaders captures the

complexity of organizational ethics work and navigating fundamental challenges to one's sense of self as a leader.

<https://doi.org/10.1007/s10943-026-02632-3>

Moral Injury in the DSM-5-TR: Syndrome Spectrum vs. Categorical Disorder.

Koenig, H. G., Carey, L. B., & Wortham, J. S.

Journal of Religion and Health

Published: 23 March 2026

Noteworthy advancements with respect to moral injury (MI) have occurred during the past five years. MI has now been sufficiently recognized and officially noted within the DSM-5-TR Updates under 'Religious, Spiritual and Moral Problem' Z code ("Section of Other Conditions that May Be a Focus of Clinical Attention"). Here we summarize the changes in the DSM related to MI and discuss the possibility of its future inclusion in other diagnostic nomenclature (e.g., WHO-ICD). With regard to classifying MI as a distinct diagnostic entity, criteria for MI as a disorder are reviewed based on scales assessing the severity of MI symptoms and the functional impairment that these symptoms create. We discuss problems with conceptualizing MI as a distinct diagnostic entity based on the concerns commonly encountered when categorizing mental health conditions as discrete disorders. Moral distress and injury are also discussed in terms of a dimensional or spectrum approach. This paper argues that moral injury is best conceptualized as a dimensional construct within a broader spectrum of moral trauma, with categorical diagnosis reserved for severe and persistent cases. The spectrums discussed range from 'moral dilemma/moral challenge' to 'moral distress' to 'moral injury' to 'moral injury disorder'. Finally, concerns raised by clergy and chaplains about inclusion of MI in the DSM or other diagnostic nomenclature systems are noted. MI has been increasingly recognized as a significant syndrome requiring future research to define its boundaries, identify the best treatment approaches, and determine those appropriate to be involved in the treatment of MI.

<https://doi.org/10.3390/bs16030393>

Effects of General and Sexual Aggression on the Job, Health and Psychological Outcomes of Women Reservists in the U.S. Armed Forces.

Estrada, A. X., Benson, W. L., & Abbasi, J. A.

Behavioral Sciences

2026; 16(3): 393

We examined the unique and joint effects of general and sexual aggression on the job, health, and psychological outcomes of women in the reserve component of the U.S. military with varying activation and deployment experiences (n = 13,541). We expected that general and sexual aggression would negatively influence women's job, health, and psychological outcomes, and that the effects of general aggression would be stronger than the effects of sexual aggression on these outcomes. Further, we evaluated whether aggressive behaviors combined in an additive, adaptive or amplified manner to influence women's outcomes. Consistent with our hypotheses, both general and sexual aggression experiences were associated with decreased satisfaction with work, coworkers and leaders, lower organizational commitment, poorer physical health and increased psychological distress; the effects of general aggression were stronger than the effects of sexual aggression on women's outcomes; and the combined effects of general and sexual aggression on women's outcomes were best characterized in terms of an adaptive response. Results were consistent for women reservists regardless of their activation or deployment experience. We discuss various implications of our findings for future research in this area.

<https://doi.org/10.1017/S0033291726103584>

Combat injury, pain, and mental health outcomes in US Army service members.

Wild, M. G., Campbell-Sills, L., Sun, X., Kessler, R. C., Benedek, D. M., Ursano, R. J., Jain, S., & Stein, M. B.

Psychological Medicine

2026; 56: e78

Background

The impact of combat injury on the development of chronic pain and mental health concerns in combat-exposed populations is unknown. This study examined associations of combat injury and injury–related pain with pain-related factors and mental health outcomes, and potential mediation of the relation between combat injury and mental health outcomes by pain-related factors.

Methods

Pain interference, pain catastrophizing, pain intensity, post-traumatic stress disorder (PTSD), and major depressive episode (MDE) were assessed in (1) a probability sample of US Army soldiers and veterans cross-sectionally and (2) US Army soldiers before and 1, 3, and 9 months after deployment to Afghanistan. Associations among these variables were modeled using logistic regression and multiple mediation analyses.

Results

Among 5003 service members with cross-sectional data, combat injury–related pain was associated with increased odds of clinically significant pain intensity (OR=2.69), pain interference (OR=3.69), MDE (OR=2.17), and PTSD (OR=3.96) relative to pain from other injuries and conditions. Among 4645 service members assessed pre- and post-deployment, combat injury was associated with increased odds of new-onset pain interference (OR=2.78), pain catastrophizing (OR=2.75), PTSD (OR=4.06), and MDE (OR=2.56) 3 months post-deployment, and PTSD (OR=2.86) and MDE (OR=1.74) 9 months post-deployment. Pain-related factors mediated the relations of combat injury with post-deployment PTSD and MDE.

Conclusions

Combat injury is associated with greater odds of pain interference, pain catastrophizing, PTSD, and MDE compared to other sources of pain in a cohort of US service members. Efforts to address pain-related factors following combat injury may mitigate the risk of subsequent chronic pain and mental health disorders.

<https://doi.org/10.1001/jamanetworkopen.2026.0222>

Adverse Childhood Experiences and Treatment-Resistant Depression.

Xiong, Y., Lindersten, P., Gong, T., Magnusson, P. K. E., Liu, S., & Lu, Y.

JAMA Network Open
Published Online: March 12, 2026

Key Points

Question

Are adverse childhood experiences (ACEs) associated with treatment-resistant depression (TRD) after accounting for unmeasured familial confounding?

Findings

In this cohort study of 21 192 twins, each additional ACE exposure was associated with a higher risk of TRD, with associations remaining in co-twin control analyses that controlled for familial confounding. Physical neglect and sexual abuse in particular showed a greater magnitude of associations, with each ACE conferring a higher risk of TRD compared with no ACE.

Meaning

The finding that ACEs are associated with increased TRD risk independent of familial factors suggests ACE history may help identify individuals with major depressive disorder at high risk for treatment resistance.

Abstract

Importance

Adverse childhood experiences (ACEs) are key risk factors for major depressive disorder (MDD), but their associations with treatment-resistant depression (TRD) remain unclear, particularly after accounting for unmeasured confounding, such as shared genetic and familial environmental factors.

Objective

To examine the association between ACEs and TRD while accounting for unmeasured confounding within families.

Design, Setting, and Participants

This cohort study used a co-twin control design and was based on 2 Swedish Twin Registry cohorts: the Study of Twin Adults: Genes and Environment (STAGE) and the Young Adult Twins in Sweden Study (YATSS). The sample included twins born from 1959 to 1992 who completed surveys in 2005 to 2006 (for the STAGE cohort) or in 2013 to 2014 (for the YATSS cohort). Both cohorts were linked to Sweden's National Patient Register and Prescribed Drug Register for follow-up until the end of 2016. Data analysis was conducted from September to November 2024.

Exposure

ACEs, which were assessed using 7 yes or no items adapted from the Life Stressor Checklist–Revised: emotional neglect or abuse, physical neglect, physical abuse, sexual abuse, rape, hate crime, and witnessing family violence before age 19 years.

Main Outcomes and Measures

TRD, which was defined as MDD diagnosed clinically or meeting the Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) criteria based on self-reported symptoms and having had at least 2 antidepressant switches of adequate duration (≥ 6 weeks) with no more than 14 weeks between consecutive prescriptions.

Results

The full cohort included 21 192 twins, among whom 17 814 (10 205 females [57.3%]; mean [SD] age, 32.10 [7.82] years) were included in the main analysis. A total of 5558 individuals (31.2%) reported exposure to at least 1 ACE, and 996 (5.6%) reported 3 or more ACEs. The prevalence of TRD was 1.3% ($n = 230$) overall. Each additional ACE exposure was associated with increased odds of TRD (odds ratio [OR], 1.69; 95% CI, 1.56-1.84). In co-twin control analyses, the association remained within monozygotic and dizygotic twins (OR, 2.23; 95% CI, 1.30-3.83). Among ACE types, physical neglect (OR, 5.73; 95% CI, 3.75-8.75) and sexual abuse (OR, 5.01; 95% CI, 3.47-7.23) showed the greatest magnitude of associations with TRD.

Conclusions and Relevance

In this cohort study, ACE exposure was associated with an increased risk of TRD even after accounting for unmeasured familial confounding. The findings highlight the importance of preventing ACEs and incorporating ACE history into clinical assessment to identify individuals with MDD who may be at elevated risk for treatment resistance.

<https://doi.org/10.1001/jamainternmed.2025.8215>

Cannabis and Mental Health: A Review.

Kansagara, D., Terry, G. E., Ayers, C. K., & D'Souza, D. C.

JAMA Internal Medicine

Published Online: March 9, 2026

Importance

Cannabis use is common among those with mental health conditions, and many people report using cannabis to manage mental health symptoms. It is important for clinicians to understand the lack of clear benefits of cannabis for mental health conditions and the potential for substantial adverse effects.

Observations

Overall, the potential benefits of cannabis for mental health conditions remain poorly studied. There is low-certainty evidence that Δ -9-tetrahydrocannabinol (THC)–predominant cannabis may not improve symptoms of posttraumatic stress disorder, and there is largely insufficient evidence to characterize the effects of long-term THC-predominant cannabis use on anxiety, depression, and attention-deficit/hyperactivity disorder. There is emerging low-certainty evidence that the cannabis constituent cannabidiol alone may reduce anxiety in patients with anxiety disorders. THC-predominant cannabis use holds substantial risk for adverse mental health effects, and counseling patients about these risks is crucial to promote safety. These risks include worsening mania symptoms and function in those with bipolar disorder and an increase in psychotic symptoms in those with psychotic spectrum disorders. Among people with past-year cannabis use, about 3 in 10 have cannabis use disorder (CUD), and about one-half those with CUD have moderate or severe disease with negative social, employment, or other adverse outcomes. Regular use of high THC-content products by adolescents and young adults is associated with several concerning risks, including an increased risk of psychosis (estimates range from about 2-fold to 11-fold increased risk), a higher risk of CUD, and self-harm in those with mood disorders. Cannabis use should be avoided in individuals at elevated risk of harms, including adolescents and young adults, those with bipolar or psychotic disorders, pregnant individuals, and those at risk for substance use disorders.

Conclusions and Relevance

The current evidence base is not sufficient to support the use of cannabis for the treatment of mental health conditions and demonstrates substantial risks of adverse effects. Clinicians should engage patients with mental health conditions in discussions about cannabis use because use is common, has an influence on mental health symptoms, and is likely an important modifiable risk factor for mental health conditions in some populations.

Integrating Physical Activity Into Routine Psychiatric Care: A Review.

Stubbs, B., Ma, R., Teychenne, M., Kinnafick, F., Mossaheb, N., Korman, N., Trott, M., Rosenbaum, S., Schuch, F., Firth, J., & Vancampfort, D.

JAMA Psychiatry

Published Online: March 4, 2026

importance

Adults with severe mental illness (SMI) face a 10- to 20-year reduction in life expectancy, largely due to heightened cardiometabolic diseases. Low levels of physical activity (PA) and prolonged sedentary behavior (SB) are modifiable risk factors that contribute to this mortality gap. Although strong evidence demonstrates that PA is safe and effective in improving psychiatric and physical outcomes, systematic integration into clinical practice remains limited.

Observations

Individuals with SMI are among the most physically inactive groups in society, often spending more than 10 hours per day sedentary and rarely meeting recommended PA recommendations. Low PA and high SB exacerbate neuroinflammatory, neuroendocrine, and cardiometabolic pathways implicated in psychiatric morbidity. Recent meta-analyses show that structured PA, that is, exercise, produces moderate to large reductions in depressive and psychotic symptoms, as well as benefits for cognition, quality of life, and cardiometabolic health. Evidence also suggests that mentally passive SB, such as prolonged television viewing, are associated with poorer mental health outcomes. Physical activity should be individualized to each person's capabilities and preferences, emphasizing forms they find enjoyable. Two sessions of strength training weekly are advised, and greater mental health benefits typically arise from leisure or active travel PA. To guide translation into care, the 5A framework (Ask, Assess, Advise, Assist, Arrange) provides a structured, pragmatic approach: clinicians can screen for PA and SB, assess readiness and safety, provide tailored advice, support motivation and goal setting, and arrange follow-up, referral, and community support.

Conclusions and Relevance

PA should be considered a core component of psychiatric care. By systematically promoting PA and reducing prolonged SB through structured clinical frameworks, psychiatrists and other mental health professionals can improve symptoms, enhance

physical and cognitive health, and help narrow the life expectancy gap experienced by people with SMI.

<https://doi.org/10.1001/jamapsychiatry.2026.0132>

Efficacy and Safety of Psilocybin in Treatment-Resistant Major Depression: The EPISODE Randomized Clinical Trial.

Mertens, L. J., Koslowski, M., Betzler, F., Brand, M., Evens, R., Kärtner, L., Jungaberle, A., Jungaberle, H., Majic, T., Schmitz, C. N., Ströhle, A., Scharf, D., Spangemacher, M., Wolff, M., Assadi, Z., Bahri, S., Becher, L., Färber, L. V., Kirchen, N., Kulakova, E., ... Gründer, G.

JAMA Psychiatry

Published Online: March 18, 2026

Key Points

Question

What are the efficacy and safety of psilocybin, 25 mg, with adjunct psychotherapy in treatment-resistant major depression (TRD)?

Findings

In this randomized clinical trial including 144 adults with TRD, there were nonsignificant differences in the response rate on the Hamilton Rating Scale for Depression at 6 weeks (primary end point) for psilocybin, 25 mg; psilocybin, 5 mg; and nicotineamide. However, secondary outcomes showed clinically meaningful reductions in depressive symptoms for psilocybin, 25 mg vs comparators.

Meaning

Although the primary end point was negative, secondary outcomes suggest that psilocybin, 25 mg, with adjunct psychotherapy may exert clinically meaningful antidepressant effects in TRD.

Abstract

Importance

Psilocybin shows promise in treating depression, although limitations of previous research warrant further research.

Objective

To investigate the efficacy and safety of oral psilocybin, 25 mg, with adjunct psychotherapy in treatment-resistant depression (TRD).

Design, Setting, and Participants

This was a 2-center, triple-blinded (investigator, participant, rater), phase 2b, active placebo-controlled randomized clinical trial. Participants were randomized to 4 groups in ratios 2:2:1:1, receiving 2 doses 6 weeks apart (week 0, week 6) as follows: (1) placebo (nicotinamide, 100 mg) then psilocybin, 25 mg; (2) psilocybin, 5 mg, then 25 mg; and (3) psilocybin, 25 mg, then 5 mg or psilocybin, 25 mg, twice embedded in psychotherapeutic sessions. Participants aged 25 to 65 years with TRD and withdrawn from antidepressant medication were recruited predominantly from 2 outpatient settings in Germany. Study data were analyzed from April 2024 to November 2025.

Interventions

Oral synthetic psilocybin, 25 mg; psilocybin, 5 mg; or nicotinamide, 100 mg administered with psychotherapeutic sessions.

Main Outcomes and Measures The primary end point was treatment response ($\geq 50\%$ reduction on the Hamilton Rating Scale for Depression [HAMD17]) at week 6 before the second dose. Key secondary end points were response on the Beck Depression Inventory II (BDI-II) and mean change from baseline on the HAMD17 and BDI-II at week 6.

Results

A total of 144 participants (mean [SD] age, 42.6 [10.8] years; 85 male [59.0%]) were randomized, and 142 were included in the primary efficacy analysis: psilocybin, 25 mg (n = 47), psilocybin, 5 mg (n = 48), and nicotinamide (n = 47). Response rates on the primary end point were 17.0% in the group receiving psilocybin, 25 mg; 12.5% in the group receiving psilocybin, 5 mg; and 10.6% in the group receiving nicotinamide. The first hierarchical comparison was nonsignificant (psilocybin, 25 mg vs nicotinamide, adjusted odds ratio [OR], 1.73; 95% CI, 0.53-6.23; P = .19; 1-sided α P = .03); consequently, further formal testing was not performed. Analyses of key secondary end points (mean changes from baseline on HAMD17 and BDI-II) provided exploratory evidence of a clinically meaningful effect of psilocybin, 25 mg. Psilocybin, 25 mg, was linked to adverse events, predominantly acutely, and was associated with higher reports of suicidal ideation on dosing days (4% vs 1%-2% in comparator conditions). Two serious adverse reactions were reported after psilocybin, 25 mg, including 1 case of hallucinogen persisting perception disorder.

Conclusion and Relevance

In this randomized clinical trial, psilocybin, 25 mg, with adjunct psychotherapy, was associated with a clinically meaningful reduction in depressive symptoms in individuals with TRD, although findings did not show a significant effect on the primary outcome. The treatment was well tolerated by most participants, although safety signals were observed. While overall this constituted an inconclusive trial, these results add to the existing evidence on the potential of psilocybin treatment for depression.

Trial Registration

ClinicalTrials.gov Identifier: [NCT04670081](https://clinicaltrials.gov/ct2/show/study/NCT04670081)

<https://doi.org/10.1001/jamapsychiatry.2025.4809>

Psychedelic Therapy vs Antidepressants for the Treatment of Depression Under Equal Unblinding Conditions: A Systematic Review and Meta-Analysis.

Williams, Z. J., Barnett, H., & Sziget, B.

JAMA Psychiatry

Published Online: March 18, 2026

Key Points

Question

How does psychedelic-assisted therapy (PAT) compare with open-label traditional antidepressants (TADs) in the treatment of major depression?

Findings

This meta-analysis of 24 trials found no statistically significant difference in patient improvement following PAT or open-label TADs. Open-label trials were associated with slightly greater patient improvement for antidepressants, but the same difference was not observed for psychedelics.

Meaning

These findings suggest that PAT is no more effective than TADs under equal-unblinding conditions for the treatment of depression and highlight the potential role of blinding integrity.

Abstract

Importance

Psychedelic-assisted therapy (PAT) trials have high levels of functional unblinding, which biases results when comparing PAT with blinded interventions. Because PAT is effectively always open label, treatment results should be compared with those of open-label traditional antidepressants (TADs), so potential benefits associated with patients knowing their treatment is equal between the interventions.

Objective

To investigate the comparative effectiveness of PAT vs open-label traditional antidepressants (TADs; such as selective serotonin and norepinephrine reuptake inhibitors) for the treatment of major depression.

Data Sources

PubMed was systematically searched in March 2024 for trials of PAT and open-label TADs for the treatment of major depression without comorbidity in adults without psychosis in the outpatient setting. Extraction was supplemented with data from a review and meta-analysis of antidepressant drugs to assess the open-label vs blinded TAD difference.

Data Extraction and Synthesis

Depression scores were extracted by 2 independent reviewers; estimates were pooled with both bayesian and frequentist mixed-effects models. Reporting follows the PRISMA guideline.

Main Outcomes and Measure

Following predefined hypotheses, the mean within-arm effect from baseline to primary end point (ie, patient improvement between PAT and open-label TAD trials on the 17-item Hamilton Depression Rating Scale) was compared. To assess the potential role of blinding, the within-arm effect of blinded vs open-label trials in both PAT and TADs was also compared.

Results

Of the initially retrieved PubMed 619 records, 24 met inclusion criteria. Contrary to the first of 3 hypotheses, PAT (8 trials; 249 patients) was no more effective than open-label TAD treatment (16 open-label TAD trials; 7921 patients), with an estimated difference of 0.3 favoring open-label TADs (95% CI, -1.39 to 1.98; $P = .73$). Open-label TADs were associated with better outcomes than blinded treatment (144 blinded TAD trials; 31 792 patients), with an estimated difference of 1.3 (95% CI, 0.07-2.51; $P = .04$), but the same difference was not observed for PAT (0.67; 95% CI, -3.08 to 1.73; $P = .58$).

Conclusions and Relevance

In trials of depression, PAT was not more effective than open-label TADs. Blinding made a difference for TADs, but not for PAT, confirming that PAT trials are effectively always open label. These results argue against highly optimistic narratives surrounding PAT and highlight the importance of blinding integrity.

<https://doi.org/10.1001/jamapediatrics.2026.0217>

Long-Term Trends in Pediatric Self-Injury in High-Income Countries: A Systematic Review and Meta-Analysis.

Saunders, N., Benjamin, H., Pechlivanoglou, P., Yang, A., Raveendran, T., Butler, E. A., Ray, J. G., Nathwani, A. A., Karanikas, A., & Cohen, E.

JAMA Pediatrics

Published Online: March 16, 2026

Key Points

Question

Have the rates of health care visits for self-injury and self-reported self-injury among children and youth changed over time among Organization for Economic Co-operation and Development (OECD) countries?

Findings

This systematic review and meta-analysis of 42 studies observed an increase in the annual rate of self-injury visits to health care and self-reported self-injury over a 25-year period, with variability in baseline rates across studies. The annual increase in presentations to health care settings for self-injury across time was highest among female individuals and lowest among male individuals.

Meaning

Effective contextually informed, large-scale prevention initiatives are urgently needed to curb the rise in self-injury within OECD countries, particularly among female individuals.

Abstract

Importance

Self-injury, the deliberate act of causing physical harm to oneself either with or without

suicidal intent, is a leading cause of emergency department use among young people. Trend data in self-injury are lacking.

Objective

To provide temporal trends in self-injury rates among children and youth residing in Organization for Economic Co-operation and Development countries.

Data Sources

MEDLINE, Embase, Scopus, and PsycINFO and gray literature were searched for articles and reports published in English between January 2000 and December 2024.

Study Selection

Included were regional and national registry-based longitudinal and cross-sectional studies conducted within general populations, comprising individuals aged 24 years and younger, and with at least 5 years of data. Studies were included that measured (1) hospitalization or emergency department or physician visits for self-injury (2) surveys of self-reported self-injury.

Data Extraction and Synthesis

This study used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses reporting guideline with PROSPERO protocol registration. Articles were independently assessed for quality by 2 individuals. Random-effects meta-analyses were used to calculate overall and sex-specific pooled effect estimates and 95% CIs.

Main Outcomes and Measures

The primary outcome was the relative change in the annual rate of health care encounters for self-injury or from self-reported surveys.

Results

A total of 42 studies with a combined population of 234 054 520 individuals at study midpoints were conducted in 12 high-income countries; 35 studies used health care encounter data, and 7 studies used self-reported surveys. Based on health care encounters, there was a 3.5% (95% CI, 1.9-4.9) relative annual increase in self-injury over the study period (2000-2024), which was higher for female individuals (3.6%; 95% CI, 2.3-4.9) than male individuals (1.2%; 95% CI, 0.0-1.8). For self-reported surveys, there was a 2.5% (95% CI, 0.0-5.5) relative annual increase in self-injury.

Conclusions and Relevance

This systematic review and meta-analysis of 42 studies observed a relative increase in the annual rate of self-injury visits to health care and self-reported self-injury, with

variability in baseline rates across studies in 12 high-income countries. Effective, contextually informed, large-scale prevention initiatives are urgently needed to curb the rise in self-injury within high-income countries, particularly among female individuals.

<https://doi.org/10.1001/jamaoto.2026.0094>

Long-Term Outcomes of an Internet-Based Cognitive Behavior Therapy Intervention for Tinnitus: Follow-Up Analysis of a Nonrandomized Clinical Trial.

Beukes, E., Andersson, G., & Manchaiah, V.

JAMA Otolaryngology – Head & Neck Surgery
Published Online: March 19, 2026

Key Points

Question

What is the durability of treatment effects of an online intervention for tinnitus over a 6-year period?

Findings

In this follow-up of a nonrandomized clinical trial including 49 participants, a repeated-measured study design with 6 time points found reductions in tinnitus distress and associated outcomes remained and were stable over the 6-year period after completing an online cognitive behavioral therapy for tinnitus intervention.

Meaning

Engaging in evidence-based interventions for tinnitus can improve results long term and reduce health care–associated burdens.

Abstract

Importance

Determining the durability of treatment effects extending more than 1 year postintervention is crucial for sustainability of health care services for tinnitus. Tinnitus is often disabling and can result in a considerable economic burden. Identifying tinnitus interventions with stable long-term positive effects can improve health care outcomes. Due to the lack of research focused on outcomes longer than 1 year postintervention, the current study was undertaken.

Objectives

To investigate the durability of treatment effects over a 6-year period following internet-based cognitive behavior therapy (ICBT) for tinnitus.

Design, Setting, and Participants

In this follow-up of a nonrandomized clinical trial, an online study where participants undertook an internet-based intervention was undertaken. A repeated-measured study design with 6 time points was selected to assess 6-year long-term outcomes of ICBT. Recruitment started January 2016. Participants were those with significant tinnitus who undertook an online tinnitus intervention. Participants from the original trial were invited to partake at 1, 4, 5, and 6 years of follow-up. Assessment of tinnitus distress and associated difficulties regarding anxiety, depression, insomnia, cognitive failures, satisfaction with life, and hearing disability was conducted. Given a delayed intervention group design, the control group had also received the intervention at the 6-year follow-up. There was no active control condition. Analysis was conducted in May to September 2023 and redone in May to July 2025 prior to submission.

Intervention

A guided ICBT intervention consisting of 21 modules was presented over 8 weeks.

Main outcome measures

Reduction in tinnitus distress was the primary outcome together with measuring the secondary outcomes of reductions in anxiety, depression, insomnia, cognitive failures, hyperacusis, hearing disability, and increases with satisfaction with life.

Results

Among the 138 from the original trial who were invited to partake at 1, 4, 5, and 6 years of follow-up, 49 participants (35.5%) completed the 6-year postintervention assessment (mean [SD] age, 54.49 (13.29) years; 18 female individuals [37%]; 31 male individuals [63%]). Undertaking ICBT for tinnitus was associated with significant improvements with little variability over the 6-year period, with large within-group effect sizes (eg, Cohen $d = 1.00$; 95% CI, 0.80-1.32) at 6 years postintervention. Small effects were found on measures of anxiety, depression, insomnia, satisfaction with life, and hyperacusis. At 6-year follow-up clinical significance was obtained by 19 of 49 participants (39%), using the Reliable Change Index (RCI) criterion of a 23.86 points (95% CI, 7.96-39.76) score improvement, and 27 of 49 participants (55%) when using the minimal clinically important difference (MCID) of 14 points (95% CI, 1.9-29.9). When looking at posttreatment results, durability of treatment effects were present for tinnitus distress and measures of anxiety, depression, insomnia, and satisfaction with life, but not for auditory-related effects of hearing disability and hyperacusis.

Conclusions and relevance

In this follow-up of a nonrandomized clinical trial, the results indicate potential for informing health care services and reducing health care costs caused by tinnitus over 6 years. The results are significant in indicating ICBT may improve accessibility to evidence-based care and reduce resources required to deliver clinical care.

Trial Registration

ClinicalTrials.gov Identifier: [NCT02370810](https://clinicaltrials.gov/ct2/show/study/NCT02370810)

<https://doi.org/10.1001/jamanetworkopen.2026.0734>

Prevalence of Thoughts of Shooting Others Among US Adults.

Hicks, B. M., & Ilgen, M. A.

JAMA Network Open

Published Online: March 17, 2026

Introduction

In 2023, there were 116 127 emergency department visits for gun-related assaults and 16 305 firearm-related homicides among US adults.¹ Beyond these instances of gun violence, many people have seriously thought about shooting others, and they constitute a poorly understood risk group who should be a focus for gun violence prevention efforts.² We used national survey data to characterize those who report thoughts of shooting others.

Methods

Between May 27 and September 2, 2025, the National Firearms, Alcohol, Cannabis, and Suicide survey asked adults in the US about thoughts and behaviors related to shooting others. Respondents were recruited via address-based sampling and text-messaging (eMethods in Supplement 1). Survey weights were calculated to match national benchmarks of the July 2025 Current Population Survey on age, sex, race and ethnicity, income, education, political party affiliation, region, and metropolitan status. The University of Michigan IRB reviewed the study design and determined exempt status because the survey was fielded by a third-party market research company and the researchers did not interact with any human participants. Participants provided active consent via opting into the survey. Stata, version 19 (StataCorp LLC) was used

for statistical analysis; a 2-sided $P < .05$, calculated via logistic regression models, indicated significance. This study followed the AAPOR reporting guideline.

Results

A total of 7034 individuals completed the survey (mean [SD] age, 48.1 [17.9] years; 51.3% female and 48.7% male). We found that 3.3% of respondents seriously thought about shooting another person in the past 12 months, which we estimated to equate to more than 8.5 million US residents; the lifetime prevalence was 7.3%, or more than 19 million people (Table 1). In their lifetime, 1.6% of respondents (estimated 4 million people) thought about acquiring a gun for the purpose of shooting someone, and 0.6% (estimated 1.5 million people) reported having brought a gun to a specific location with the intention of shooting someone. For points of prevention to avert harm, 1.5% of respondents (estimated 4 million people) told another person they were thinking about shooting someone, and 0.5% (more than 1.25 million people) gave their gun to someone else for safekeeping during a crisis, while 1.5%, or an estimated 4 million people, reported they would consider doing so in the future.

<https://doi.org/10.1001/jamanetworkopen.2026.2032>

Clinical Characteristics of Combat Crewmen.

Powell, J. R., Lippa, S. M., McKenzie-Hartman, T. L., Rhodes, C. S., Pickett, T. C., & Srikanthana, R.

JAMA Network Open

Published Online: March 16, 2026

Discussion

Combat crewmen reported increased somatic, cognitive, vestibular, sleepiness, and headache interference symptoms but decreased posttraumatic stress symptoms and alcohol consumption compared with special operators. Posttraumatic stress has been consistently associated with increased neurobehavioral symptoms and decreased cognitive performance.⁶ Despite lower posttraumatic stress scores, the symptom pattern elevated in combat crewmen suggests that occupational exposures may contribute to clinical presentation beyond what psychological factors alone explain. Differences in sustained neurotrauma may explain increased somatic, cognitive, vestibular, and headache symptoms. Despite no differences in the PSQI between groups, combat crewmen reported greater daytime sleepiness on the ESS. This may

indicate reductions in functional alertness associated with persistent symptoms rather than sleep quality. These findings suggest a higher symptom burden among combat crewmen characterized by headache, fatigue, daytime sleepiness, cognitive, and vestibular complaints compared with special operators. The study is limited by its reliance on self-reported data and the fact that wave impacts are not uniformly experienced, as they vary by craft and environment. Further study is needed to detect neuroimaging, polysomnography, and neuropsychological correlates of combat crewmen exposures.

<https://doi.org/10.1001/jamanetworkopen.2026.0739>

Adolescent Responses to Coercive Requests for Sexual Images.

Jones, L. M., Mitchell, K. J., Colburn, D., & Gewirtz-Meydan, A.

Key Points

Question

What incident and youth characteristics are associated with responses to coercive requests for images?

Findings

In this survey study of 6204 young adults, the risk of sharing sexual images before the age of 18 years in response to coercive requests was significantly higher when requests were made by dating partners. Sharing an image in response to coercion was associated with reduced disclosure rates despite significantly greater negative outcomes for adolescents.

Meaning

Prevention messages for adolescents should highlight the harm caused by coercive requests for sexual images and increase help-seeking options.

Abstract

Importance

Requests for sexual images are a common but understudied component of adolescent digital interactions. Although image sharing or sexting can be a consensual behavior between peers, when requests for sexual images are coercive it is a form of sexual harassment.

Objective

To examine experiences with coercive requests for sexual images received before the age of 18 years and the incident and respondent characteristics associated with sharing an image in response to coercion.

Design, Setting, and Participants

This survey study was conducted in the US between June 28, 2023, and April 1, 2024. Survey participants were a sample of 6204 young adults (aged 18-28 years). Screening procedures were designed to oversample individuals with histories of image-based sexual abuse to examine questions related to incident dynamics. Analyses used statistical weighting to improve generalizability to the US population.

Main Outcomes and Measures

Bivariate and multivariate logistic regression modeling examined whether demographic and incident-level factors were associated with a decision by respondents to share a sexual image in response to coercion, defined as threats or strong pressure, and the impact of sharing on disclosure and mental health outcomes.

Results

A total of 2853 respondents reported 4205 incidents of image-based sexual abuse, including 2003 coercive requests for sexual images that occurred before they were 18 years of age; in 1886 (mean respondent age, 22.8 [95% CI, 22.6-23.1] years; 91.0% female [95% CI, 89.4-92.4]) of these incidents, respondents provided information on whether they did or did not share an image in response, making up the analytic sample for the study. In 1067 coercive request incidents (55.6%; 95% CI, 51.5%-59.6%), adolescents shared an image in response. Sharing was significantly less likely when the perpetrator was someone the adolescent met online vs a dating partner (odds ratio [OR], 0.33; 95% CI, 0.20-0.54; $P < .001$) and was more likely for incidents lasting longer than month (OR, 3.55; 95% CI, 2.44-5.16; $P < .001$). Respondents who shared images reported significantly worse mental health outcomes than those who did not (OR, 1.10; 95% CI, 1.04-1.17; $P = .001$) and were less likely to disclose the incident (OR, 0.69; 95% CI, 0.48-0.98; $P = .04$).

Conclusions and Relevance

In this survey study of young adults in the US, findings identified significant harms associated with providing sexual images in response to coercive requests during adolescence. Results highlight the importance of providing adolescents with skills to respond to image requests and information about the harmful outcomes of coercive sexual image requests.

<https://doi.org/10.1001/jamapediatrics.2026.0335>

Sleep Health Dimensions From Wearables and Transdiagnostic Mental Health in Young Adolescents.

Cooper, R. E., Baker, A. E., Quick, A. D., Yu, L., Gonzalez, R., Clark, D. B., McMakin, D. L., Soehner, A. M., Jalbrzikowski, M., & Wallace, M. L.

JAMA Pediatrics

Published Online: March 23, 2026

Key Points

Questions

What is the dimensionality of wearable-measured sleep health in young adolescents, and which dimensions are associated with concurrent and future mental health?

Findings

Using Fitbit data in a longitudinal cohort of 3393 young adolescents, 6 sleep health dimensions were identified: irregularity, timing, duration, social jetlag, weekend oversleep, and continuity. Greater irregularity was associated with higher concurrent transdiagnostic mental health symptoms, whereas shorter duration was associated with higher symptoms at 1-year follow-up.

Meaning

These findings demonstrate the multidimensional nature of adolescent sleep health and can help guide selection of sleep health domains and representative measures to enhance reproducibility and suggest potential intervention targets.

Abstract

Importance

Sleep behavior markedly shifts in adolescence, increasing vulnerability to mental health disorders. Although sleep health is understood to be multidimensional, adolescent-specific sleep health dimensions have not been empirically validated and their relevance to transdiagnostic mental health outcomes is unknown.

Objective

To identify sleep health dimensions using Fitbit devices in a large sample of young

adolescents and assess concurrent and prospective associations between sleep health dimensions and transdiagnostic mental health outcomes.

Design, Setting, and Participants

Multicenter longitudinal cohort study using data from 3393 participants in the Adolescent Brain Cognitive Development (ABCD) Study (Data Release 5.1, collected 2018-2020), including early adolescents (ages 11-13 years) within the US. Exploratory factor analysis (EFA) was used to identify sleep health dimensions and confirmatory factor analysis (CFA) to confirm the factor structure in an independent subsample. Linear mixed-effects models were used to test concurrent and prospective associations between sleep dimensions and mental health outcomes at 1-year follow-up. Statistical analysis was conducted from January to November 2025.

Exposures

Objective sleep data collected for up to 21 (range, 7-21) days, using wearable Fitbit devices.

Main Outcomes and Measures

Transdiagnostic mental health outcomes assessed via the Child Behavior Checklist and Brief Problem Monitor (internalizing and externalizing symptoms), Prodromal Questionnaire-Brief Child Version (psychoticlike symptoms), and 10-item Mania Scale (mania symptoms).

Results

The 3393 participants (49% female; median age, 12 years) were split into EFA and CFA subsamples. Six sleep factors were identified using EFA: irregularity, timing, social jetlag, duration, weekend oversleep, and continuity. CFA confirmed this factor structure. All variables loaded strongly (≥ 0.64) onto at least 1 factor (factor 1 loadings, 0.64-0.98; factor 2, 0.96-0.98; factor 3, 0.95-0.97; factor 4, -0.86 to 1.01; factor 5, 0.68-0.93; factor 6, 0.82-0.94). Greater sleep irregularity was associated with transdiagnostic mental health symptoms cross-sectionally, but not prospectively (β , 0.06 [95% CI, 0.02-0.10] to 0.12 [95% CI, 0.08-0.16]). Shorter duration was associated with total, internalizing, externalizing, and attention symptoms cross-sectionally (β , -0.06 [95% CI, -0.10 to -0.01] to -0.11 [95% CI, -0.15 to -0.06]) and total, attention, and psychotic symptoms 1 year later.

Conclusions and Relevance

In this study, wearable Fitbit data provide empirical support for multidimensional frameworks of sleep health in adolescence. Although effect sizes were small, sleep irregularity and duration emerged as key dimensions with relevance to mental health.

These findings establish a foundation for future investigations, including examining within-person patterns of the 6 dimensions, extending to older adolescence, investigating associations with other health outcomes, replicating with research-grade actigraphy devices, and suggesting potential targets for pediatric sleep interventions.

<https://doi.org/10.1001/jamanetworkopen.2026.3042>

Overtriage and Undertriage of Children Presenting to the Emergency Department for Behavioral Health.

Hoffmann, J. A., Foster, A. A., Rojas, C. R., Otto, S., Olsen, C. S., Meeks, H. D., Denicolo, K., Janssen, A., Grupp-Phelan, J., Alpern, E. R., & PECARN Registry Study Group

JAMA Network Open

Published Online: March 24, 2026

Key Points

Question

What visit characteristics are associated with overtriage and undertriage of children presenting to the emergency department (ED) for behavioral health?

Findings

In this cross-sectional study of 74 564 pediatric visits for behavioral health symptoms across 15 EDs with complete data, 57% were overtriaged and 8% were undertriaged. Overtriage was more likely among visits by younger children, and undertriage was more likely among visits by Hispanic and non-Hispanic Black children than non-Hispanic White children and among visits by children who preferred Spanish compared with English.

Meaning

These findings suggest that overtriage and undertriage of pediatric behavioral health visits in the ED varied by sociodemographic factors, highlighting opportunities to improve triage equity in this population.

Abstract

Importance

The Emergency Severity Index (ESI) is the most widely used triage system in US

emergency departments (EDs), but its performance in triaging children presenting with behavioral health symptoms is not well studied.

Objective

To assess the frequency of overtriage and undertriage and to identify characteristics associated with both among children presenting to the ED with behavioral health symptoms.

Design, Setting, and Participants

This retrospective cross-sectional study was performed in 15 US EDs participating in the Pediatric Emergency Care Applied Research Network (PECARN) Registry. Participants included children and adolescents aged 5 to 17 years presenting to EDs within the PECARN Registry with a behavioral health chief concern from January 1, 2021, to December 31, 2023. Data were analyzed from July 1, 2024, to January 15, 2026.

Exposures

Sociodemographic and clinical characteristics.

Main Outcomes and Measures

Appropriate triage, overtriage, and undertriage were defined using combinations of first-obtained vital signs, Glasgow Coma Scale, pain score, receipt of emergency medications, distinct resource types used (eg, laboratory tests, imaging studies), and disposition. Multivariable logistic regression assessed characteristics associated with overtriage and undertriage, compared with appropriate triage, adjusting for year and site effects.

Results

A total of 78 411 ED visits by children and adolescents with a behavioral health chief concern (37 328 [47.6%] aged 10-14 years; median age, 14.4 [IQR, 12.4-16.1] years; 47 496 [60.6%] female) were included in the analysis. Of 74 564 visits with nonmissing data, 25 668 (34.4%) were appropriately triaged, 42 589 (57.1%) were overtriaged, and 6307 (8.5%) were undertriaged. The adjusted odds of overtriage were higher for visits by children aged 5 to 9 years (adjusted odds ratio [AOR], 4.43; 95% CI, 4.13-4.76) compared with those aged 10 to 14 years and for visits by non-Hispanic Black (AOR, 1.17; 95% CI, 1.12-1.22) compared with non-Hispanic White patients. The adjusted odds of undertriage were higher for visits by Hispanic patients (AOR, 1.46; 95% CI, 1.31-1.63) and non-Hispanic Black patients (AOR, 1.28; 95% CI, 1.19-1.37) compared with non-Hispanic White patients and for those with Spanish language preference (AOR, 1.31; 95% CI, 1.11-1.54) compared with those preferring English.

Conclusions and Relevance

In this cross-sectional study of children presenting to the ED with behavioral health symptoms, overtriage was common, and the likelihood of overtriage and undertriage differed by sociodemographic characteristics. Prospective studies are needed to assess behavioral health triage practices and to design triage systems that allocate resources accurately and equitably.

<https://doi.org/10.1001/jamanetworkopen.2026.2750>

Alignment of Large Language Model Responses With Human Therapists in Motivational Interviewing.

Teferra, B. G., Huang, S., Johny, N., Perivolaris, A., Al-Shamali, H., Parkington, K., Rueda, A., Zeifman, R. J., Sharma, D., Krishnan, S., Monson, C., & Bhat, V.

JAMA Network Open

Published Online: March 23, 2026

Key Points

Question

Can a large language model (LLM) generate therapist responses that align with human therapist turns in motivational interviewing (MI)-oriented conversations?

Findings

In this cross-sectional study of 154 high-fidelity MI sessions (3706 therapist turns), the LLM showed low semantic similarity to therapist responses but higher contextual appropriateness. Alignment was significantly higher in sessions with greater therapist topic consistency and declined modestly over longer conversations.

Meaning

The findings suggest LLMs can produce contextually appropriate MI-consistent responses, but limitations in coherence and stylistic alignment highlight the need for further validation before clinical use.

Abstract

Importance

Large language models (LLMs) are increasingly applied to mental health contexts, yet

their capacity to generate responses that align with evidence-based psychotherapy remains uncertain. Motivational interviewing (MI), a structured counseling approach, provides an empirically grounded setting for evaluating alignment between LLM-generated and human therapist responses.

Objective

To evaluate how closely an LLM's responses align with therapist responses in MI sessions, using automated similarity metrics.

Design, Setting, and Participants

This cross-sectional study used high-fidelity therapist-client transcripts annotated with the Motivational Interviewing Treatment Integrity system. Transcripts were sourced from publicly available counseling videos. For each therapist turn, the GPT-4o LLM generated a response using a standardized, MI-informed prompt based on the preceding conversation context. Analyses were conducted between March and May 2025.

Main Outcomes and Measures

Alignment between LLM-generated and therapist responses was assessed using (1) cosine similarity based on sentence embeddings to capture semantic overlap and (2) DeepEval, a contextual deep-learning-based metric assessing coherence and contextual appropriateness. A therapist topic-consistency index quantified within-session thematic coherence and was examined as a moderator of alignment.

Results

A total of 3706 therapist turns from 154 MI sessions were evaluated. Mean (SD) DeepEval scores were higher than mean (SD) cosine similarity scores (0.72 [0.31] vs 0.29 [0.20]; $P < .001$), suggesting limited semantic overlap despite greater contextual appropriateness. Therapist topic consistency significantly moderated similarity, where cosine similarity was higher in high-consistency than low-consistency sessions (mean [SD] difference, 0.027 [0.007]; $t_{3706} = 3.987$; $P < .001$), as was DeepEval score (mean [SD] difference, 0.038 [0.010]; $t_{3706} = 3.747$; $P < .001$). Correlation between metrics was negligible (Spearman ρ , -0.01), indicating that they captured distinct aspects of response alignment. LLM performance declined slightly across longer conversations (mean [SD] slope reduction for cosine similarity, -0.0005 [0.0016], and for DeepEval, -0.0005 [0.0022]), with increased verbosity and signs of reduced contextual grounding.

Conclusions and Relevance

In this cross-sectional study of 154 MI sessions, prompted LLMs showed general alignment with therapist responses in MI-oriented conversations, as judged by

automated similarity metrics. However, limitations in long-range coherence, stylistic alignment, and the use of indirect proxies for therapeutic quality highlight the need for improved prompt design, MI-specific evaluation methods, and clinical validation before integration into mental health care.

Links of Interest:

A VA Clinic Gave Veterans GLP-1s for Weight Loss. A Year Later, Everything Improved

<https://www.military.com/benefits/veterans-health-care/va-clinic-gave-veterans-glp-1s-weight-loss-year-later-everything-improved.html>

Celebrating Military-Connected Children, Youth and Teens

<https://www.war.gov/Spotlights/Month-of-the-Military-Child/>

Summer Camps for Military-Connected Youth

<https://www.militaryonesource.mil/benefits/war-department-summer-camps/>

Strengthening Systems to Address Eating Disorders (SAMHSA)

<https://library.samhsa.gov/sites/default/files/eating-disorders-pep26-06-001.pdf>

'A renewed emphasis on tobacco cessation' for warfighter readiness

<https://dha.mil/News/2026/04/21/17/30/A-renewed-emphasis-on-tobacco-cessation-for-warfighter-readiness>

- [VA/DOD Clinical Practice Guidelines – Tobacco Use Treatment](#) (2026)

Betting your future: Is gambling a threat to your career and well-being?

<https://dha.mil/News/2026/04/13/12/18/Betting-your-future-Is-gambling-a-threat-to-your-career-and-well-being>

Strength Under Pressure: Managing Stress and Rethinking Alcohol Use in the Military Community

https://www.army.mil/article/291786/strength_under_pressure_managing_stress_and_rethinking_alcohol_use_in_the_military_community

Resource of the Week – [How to Understand a Research Study: A guide for non-scientists who want to read research publications](#)

From Johns Hopkins University Bloomberg School of Public Health:



Scientific publications—also called research articles, journal articles, or scientific papers—are written for an audience of fellow researchers, not a general audience. Because of this, when they are cited in media intended for the broader public—podcasts, YouTube videos, and news articles, for example—their findings can be misinterpreted, often unintentionally, or dramatized for clicks. Some findings are based on narrow studies that were not designed to be applied to a broader group. Study findings may also be cherry-picked or misrepresented to perpetuate a narrative—or even to stoke fear.

Emily Gurley, PhD '12, MPH, distinguished professor of the practice in Epidemiology, has reviewed tens of thousands of papers throughout her career, including for the Novel Coronavirus Research Compendium during the height of the pandemic. While being able to read and fully understand a study is a skill researchers learn over years of practice, Gurley explains that it can be useful for the average reader to know what makes a good study, what a single study can and can't conclude, how to understand the findings, and how to spot red flags.

Shirl Kennedy

Research Editor

HJF employee collaborating with Center for Deployment Psychology

DoW and Uniformed Service Contractor

Phone: (727) 537-6160

Email: shirley.kennedy.ctr@usuhs.edu



Henry M. Jackson Foundation for the Advancement of Military Medicine