

New study reveals preventable-suicide risk profiles

March 22 2024



Credit: CC0 Public Domain

Individuals with physical health concerns made up the largest and fastest growing of five subgroups of individuals who died by suicide in the United States over roughly twenty years, according to an analysis led by Weill Cornell Medicine in collaboration with Columbia University, UC Berkeley School of Public Health, the University of Hong Kong and University of Kentucky investigators.

The [study](#), published in *JAMA Psychiatry*, identified five distinct patterns of risk factors among individuals who died by suicide.

To detect these patterns, the team analyzed data from the National Violent Death Reporting System Restricted Access Database on 306,800 [suicide deaths](#) in the United States between 2003 and 2020. The data included information on factors precipitating each death, means of death and toxicology results that included information on both [illicit substances](#) and prescription medication use.

The team made the surprising finding that almost one-third of the deaths occurred in individuals with known complaints of physical symptoms but without any documented mental health issues or antidepressant use. Since previous investigations of why individuals died by suicide have collectively revealed that 70 to 90% had a major psychiatric disorder at the time of death, the researchers suggest that [psychiatric disorders](#) in this group were often not detected.

"We used to think of suicide as being only related to mental health and [mental illnesses](#), but we found that the largest subgroup that die by suicide involves people presenting complaints of physical illnesses," said lead author Dr. Yunyu Xiao, assistant professor of population health sciences at Weill Cornell Medicine.

The study also documents four other subgroups, including individuals with co-occurring substance use and mental health conditions; individuals with mental health conditions alone; individuals misusing multiple substances such as illicit drugs, prescription drugs, or alcohol; and individuals facing a crisis, alcohol-related difficulties, or intimate partner conflicts.

"Identifying distinct subgroups of individuals at risk of suicide may help us develop tailored prevention strategies that may be more effective than

one-size-fits-all approaches," said Dr. Xiao.

Most individuals who die by suicide do so on their first attempt, making identifying individuals at risk and intervening prior to an attempt essential to reducing suicide rates, the authors noted.

The study sheds light on the overlooked vulnerability of people presenting with symptoms of physical illnesses that may actually be associated with an undetected major depressive episode and underscores the importance of screening for underlying depressive illness as a major risk factor for suicide in primary care setting.

The study also draws attention to the gender disparity in suicide methods, with a significant majority of men in the physical illness presentation subgroup choosing firearms. This observation aligns with broader trends showing men are disproportionately represented in suicide statistics and are more likely to use lethal means, noted study senior author Dr. J. John Mann, the Paul Janssen Professor of Translational Neuroscience in Psychiatry and in Radiology at Columbia University.

He said that men, who may be less likely to seek help and whose psychological distress may go unrecognized by clinicians, overall have 3.5–4 times higher suicide rates than women and most often use firearms.

Individuals who fell into the co-occurring mental and substance use conditions subgroup, the mental health conditions group, and the multi-substance use group were more likely to be taking psychotropic medications to treat their mental health conditions. However, Dr. Xiao said, additional care may be necessary for these groups, such as improved substance use disorder treatment or the addition of evidence-based behavioral therapies for mental health conditions.

Individuals facing a crisis, alcohol-related problems, or intimate partner conflict may benefit from safety planning, help for alcohol-use disorder, or relationship crisis intervention, she noted.

The study suggests a multifaceted approach to suicide prevention, emphasizing the importance of tailoring the selection of evidence-based suicide prevention approaches, such as substance use disorder treatments, evidence-based psychotherapies, and crisis intervention strategies, to the specific risks and needs of each subgroup. In addition, promoting firearm safety to restrict access to guns for those at risk could further reduce the incidence of suicide among these populations, the investigators suggest.

The study's findings have significant implications for future research and policy-making, offering a foundation for developing interventions that target specific risk factors and exploring policy and legislative measures aimed at reducing suicide rates.

"There are many evidence-based interventions we could implement right now," Dr. Mann said.

More information: Yunyu Xiao et al, Decoding Suicide Decedent Profiles and Signs of Suicidal Intent Using Latent Class Analysis, *JAMA Psychiatry* (2024). [DOI: 10.1001/jamapsychiatry.2024.0171](https://doi.org/10.1001/jamapsychiatry.2024.0171)

Provided by Weill Cornell Medical College

Citation: New study reveals preventable-suicide risk profiles (2024, March 22) retrieved 28 April 2024 from <https://medicalxpress.com/news/2024-03-reveals-suicide-profiles.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.