Youth Suicide, Mental Health, and Firearm Access—Time to Focus on Upstream Prevention

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In 2021, the US Surgeon General and influential organizations like the American Academy of Pediatrics (AAP), the American Association of Child and Adolescent Psychiatry, and the Children’s Hospital Association declared a national youth mental health crisis. As the second leading cause of death, suicide is responsible for approximately 20% of deaths in the US each year among youths aged 10 to 24 years, and rates have increased more than 50% over the prior 2 decades. The fact that the US lost 71,820 young lives to suicide between 2010 and 2021 is a call to action.

The retrospective, cross-sectional study published by Chaudhary and colleagues used the National Violent Death Reporting System Restricted Access Database to examine characteristics of 40,618 US youths aged 10 to 24 years who died by suicide between 2010 and 2021. Based on source records collected from coroners, medical examiners, law enforcement, and families, the study’s primary outcome finding was that approximately 60% of youths who died by suicide had no documented mental health diagnosis. This finding is in sharp contrast with carefully conducted psychological autopsy studies of youth suicide decedents, where the vast majority received a diagnosis of a mental disorder, yet still consistent with investigations using data such as medical claims that identified a mental disorder in less than one-half of youths who died by suicide. These study findings are a reminder that early identification of youths with mental disorders and at risk for suicide is more the exception than the rule in the US. Approximately one-quarter of youths with a history of suicide attempt and nearly one-half of youths with depressed mood had no documented mental health diagnosis. Strikingly, approximately one-quarter of suicide decedents, 8948 young people, disclosed suicidal intent, yet 4430 (18.3%) had no diagnosed mental health disorder. These findings suggest that a large proportion of youth suicide decedents had unmet mental health needs that were not detected prior to death. The importance of improving recognition in health care settings is also supported by previous research demonstrating that most people who die by suicide have visited a health care clinician in the months and even weeks beforehand. If not asked directly, “Are you thinking of killing yourself?” they are unlikely to raise the issue.

Nearly one-half of youth suicide deaths were from firearms, a common method with an inordinately high incidence unique to the US. Youths who died by firearm were less likely to have a documented mental health diagnosis, as were decedents who were male, younger (10-14 years), and from racial or ethnic minority populations. The authors noted that more than 22 million young people live in households with a firearm, and 4.5 million reported access to both guns and ammunition, underscoring the risks associated with youth access to firearms and the importance of safe storage practices. Well-intentioned parents may not realize that common household items like pills and firearms are easily turned into lethal means for suicide. Lethal means education and firearm safety initiatives for youths and adults, with culturally appropriate adaptations for racial and ethnic minority populations, could have an impact in reducing youth suicide risk.

Significant racial and ethnic disparities were found among American Indian or Alaska Native; Asian, Native Hawaiian, or Other Pacific Islander; and Black youth suicide decedents, who were less likely than White youths to be diagnosed with a mental health disorder. It is unclear whether this is due to inequities in screening and access to care, or if it suggests that mental illness may be a less prominent factor associated with risk for suicide among racially and ethnically minoritized youth, where trauma, poverty, and discrimination may be more potent predictors of suicide. The study's
authors appropriately suggest that culturally responsive interventions in nontraditional settings such as schools or community programs may have special relevance in this population of youths. Research to better understand the underlying causes of these disparities and to frame effective suicide prevention strategies through a justice, equity, diversity, and inclusion lens is urgently needed.

The study found that younger suicide decedents were less likely to have a diagnosed mental health condition. While this finding may be a consequence of developmental factors where mental health disorders are not yet clearly manifest at younger ages, the authors wisely call for upstream interventions that include promoting connectedness and tools for families to manage conflict, foster resilience, and teach coping strategies to young children in order to better manage life adversity. Family and intimate partner conflicts were also common among decedents, suggesting a role for well-established family interventions like Safe Alternatives for Teens and Youth and Family Based Crisis Intervention to intervene with suicidal youths and their families. Because suicidal thoughts and behaviors early in life may be important clues to the development of psychiatric disorders later in life, intervention in childhood has potential to reduce mental health concerns and reduce suicide risk across the lifespan.

The important data presented by Chaudhary and colleagues sheds light on the national debate over whether screening for suicide risk in medical settings is best implemented universally or in targeted fashion. Targeted screening most often focuses on patients presenting with mental health concerns, while universal screening is applied to all patients, regardless of chief concern. Study findings suggest that suicide risk screening targeting youth with known mental health problems and concerns is likely to overlook suicide risk in a substantial percentage of young people in the medical setting. Because suicide risk recognition in the absence of access to effective services may be insufficient to produce favorable outcomes, evidence-based suicide risk screening tools paired with suicide risk clinical pathways can help clinicians feasibly implement effective, practice-based suicide prevention and connect youths with needed resources, ideally without overburdening busy health care settings. Universal suicide risk screening in the medical setting was supported by AAP and Bright Futures in February 2022, and included a Blueprint for Youth Suicide Prevention that assists pediatric health care clinicians with embedding suicide prevention strategies into their practices.

Chaudhary and coauthors should be commended for this informative study, which highlights several important challenges and priorities for youth suicide prevention. First, recognition of suicide risk at the individual level is critically important, but existing efforts to identify youths with potentially treatable mental health disorders are currently falling short. Suicide prevention strategies should not solely rely on a history of mental illness to identify at-risk youths, and universal suicide risk screening in health care settings deserves greater consideration. Second, the ability to equitably access care is a necessary complement to youth suicide risk detection. Interventions such as lethal means safety counseling, safety planning, and a helpline number like 988 are strategies that should be accessible to every family and health care clinician. Finally, because it is unlikely that all at-risk youths will be identified at the individual level, community-level interventions are critical. These can include school-based suicide prevention programs, as well as population-based training for families on the safe storage of lethal means at home. Every trusted adult working with children and adolescents can and should be trained to recognize the warning signs of suicide risk and help young people develop the coping strategies needed to manage difficult life experiences so that suicide is never an option.
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REFERENCES