

## Suicide Prevention: More Actions Are Needed

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Suicide has long been a significant global public health issue. Annually, approximately 800,000 individuals succumb to suicide worldwide, resulting in more fatalities than those caused by malaria, breast cancer, or war and homicide (1). A striking 79% of these suicide-related deaths transpire in low- and middle-income countries (LMICs) (1). Remarkably, suicide ranks as the second leading cause of death among young individuals aged 15–29 years for both males and females, with 90% of adolescents who died by suicide originating from LMICs (1).

Addressing the critical issue of suicide, the United Nations has prioritized the reduction of suicide mortality as an integral component (Indicator 3.4.2) of Target 3.4 within the Sustainable Development Goals (SDGs). The specific goal, “By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being,” places emphasis on the importance of lowering the suicide mortality rate (Indicator 3.4.2) (2).

As the most populous LMIC in the world, China faces significant challenges related to suicide. According to estimates by the World Health Organization (WHO), the crude suicide rate in China was 9.7 per 100,000 population in 2016 (1). To promote suicide prevention in this region, the *China CDC Weekly* has published a specific issue featuring three insightful articles on the subject.

Using mortality data from the Chinese Health Statistical Yearbook and population data from the 2010 and 2020 Chinese National Population Census, Zhao et al. (3) examined suicide mortality by location, sex, and age group in China during 2010–2021 and reported a substantial decrease in the overall age-standardized suicide mortality rate, dropping from 10.88 to 5.25 per 100,000 population. In addition to reporting roughly similar reductions in subgroup suicide mortality rates by sex and location (urban *vs.* rural area), this study identified strikingly inconsistent mortality changes across age groups — large suicide mortality declines among three older age groups (25–44 years, 45–64 years, and 65 years or older) versus a significant increase in the youngest age group (5–14 years) and minimal change in the 15–24 years age group. These findings suggest a probable overall success of suicide prevention efforts in China over the past decade but indicate that current suicide prevention measures may not adequately address specific populations at risk, particularly for younger age groups (5–14 years and 15–24-years).

Sun et al. (4) examined the associations among distress rumination, somatic anxiety, and suicidal ideation in Chinese college students using a cross-sectional study design. Their findings revealed a significant link between distress rumination following traumatic events and both somatic anxiety ( $r_s=0.340$ ,  $P<0.001$ ) and suicidal ideation ( $r_s=0.243$ ,  $P<0.001$ ). Furthermore, the study identified a significant indirect effect of distress rumination on suicidal ideation, mediated by somatic anxiety, with an effect size of 0.267 [95% confidence interval (CI): 0.182–0.351]. These results underscore the significant influence of distress rumination after experiencing a traumatic event and illustrate the mediating role of somatic anxiety in the pathway from stress rumination to suicidal ideation.

Wang and Sun (5) investigated the prevalence rates of suicidal ideation, suicide planning, and suicide attempts among 486 community-dwelling individuals with serious mental disorders (SMD). This evidence is crucial for informing suicide prevention strategies. The study's findings indicated that the respective prevalence rates of suicidal ideation, suicide planning, and suicide attempts were 36.8%, 17.9%, and 15.0% among individuals with SMD residing in the community. Additionally, the authors explored the factors influencing these three suicidal behaviors. The results demonstrated that depressive symptoms were significantly related to all three suicidal behaviors, with odds ratios (OR) of 1.13 (95% CI: 1.09–1.18), 1.10 (95% CI: 1.05–1.15), and 1.10 (95% CI: 1.05–1.15). Furthermore, it was established that middle age, living alone, and having more severe depressive and psychiatric symptoms served as risk factors for specific suicidal behaviors.

On the one hand, the significant decrease in suicide mortality rates observed from 2010 to 2021, as reported by Zhao et al. (3), indicates the effectiveness of suicide prevention initiatives implemented in China over the past decade. On the other hand, however, their findings also highlight critical prevention gaps that necessitate further

efforts and research. These include a substantial increase in the 5–14 age group and an insignificant change in the 15–24 age group during 2010–2021, a positive association between distress rumination and suicidal ideation among college students who have experienced a traumatic event, and comparatively high prevalence rates of suicidal ideation, planning, and attempts among community-dwelling individuals with SMD.

It is evident that further efforts are required to address the issues identified in these studies. The recommendations provided by the WHO's LIVE cross-cutting foundations program (6) can serve as a valuable reference for China. Adequate resources must be invested to ensure the high-quality implementation of these recommended actions.

1) Restrict access to methods of suicide. Appropriate training for media professionals should be implemented to encourage responsible reporting of suicide events (7).

2) Foster life skills of young people by improving young people's problem-solving and coping skills through school-based programs.

3) Implement early identification, management, and follow-up strategies. Suicide prevention must be considered a fundamental aspect of the healthcare system, with health professionals receiving comprehensive training in basic suicide prevention knowledge and skills. This approach enables the early identification, assessment, management, and follow-up of individuals who have attempted suicide or are at risk. The universal health coverage program should ensure that all individuals have access to suicide prevention services.

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