

COMMENTARY

Trauma in childhood: therapeutic implications of the differences between early-life and late-life suicidal behavior

Commentary on “Childhood trauma is associated with early-onset but not late-onset suicidal behavior in late-life depression” by Chang and associates

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Person-centered trauma-informed care has emerged as an important perspective on patient encounters and treatment planning. Trauma is pervasive but resilience is the norm, which suggests the specifics of the trauma may only partially define the individual's ultimate distress and vulnerability. Also emerging is the awareness that risk factors for suicide among younger and older persons are distinctly different. Rates of suicide across the life span have not declined since the introduction of safer antidepressants, more effective antipsychotics, and integrated collaborative care models, which enhance access to mental health providers (Center for Disease Control and Prevention, 2023; Ding and Kennedy, 2021).

The economic and social disruption that followed the COVID pandemic has added to the problem. Multiple reports of increased suicides following not only COVID (Briguglio *et al.*, 2020; Chen *et al.*, 2023) but also other pandemics have also been published, which raises the alarm that this combined biomedical and psychosocial disaster may recur (Chan *et al.*, 2006; Mukhtar and Candilis, 2022). While the rates of suicidal behavior among younger people have climbed, the highest rates remain among those over 65 (Center for Disease Control and Prevention, 2023). Suicide attempts are far more frequent in younger persons but deaths per attempt in late life are greater in late life; 1 death per 200 attempts versus 1 death per 4 attempts in late life (Ding and Kennedy, 2021). As a result, frequent and universal screening for the risk in late life is a challenge when health care systems continue to be short-staffed. (Rothman and Sher, 2021; Gentry *et al.*, 2019) Machine learning processes applied to the electronic health record may be able to identify high-risk persons beyond the established

risk indicators such as recent discharge from psychiatric hospitalization in early adulthood (Coley *et al.*, 2021). This would seem especially promising for late-life suicide, which has a higher prevalence (rate per hundred thousand) but is far less common when the absolute number of deaths per year is assessed. Emergency department visits and hospitalizations for suicidal ideation or an attempt are much less frequent in old age (Conwell and Lutz, 2021).

Here is where the findings of Chang and associates in this issue of the journal become noteworthy (Chang *et al.*, 2023). They recruited a sample of 206 depressed patients, 50 years of age (mean age 62.5) and older, of whom 84 had attempted suicide, 44 had ideation only, and 58 with neither an attempt nor ideation. Using a statistical algorithm to empirically separate early onset attempts from later onset, they identified 28 with an attempt before age 30 and 58 with an attempt after age 30. The risk of suicide would presumably be elevated in both groups because all were clinically depressed but age 30 is the defining line. They also recruited 38 non-psychiatric community volunteers as a healthy comparison group with a mean age of 62.89 years. The total sample of 244 persons was composed of predominantly White women in the United States with more than 12 years of education.

Measures included the Beck's Scales for Suicidal Ideation, Intent and Lethality, the Hamilton Rating Scale for Depression, Structured Clinical Interview DSM-IV to exclude psychosis and Bipolar Disorder, and the Childhood Trauma Questionnaire – Short Form. These measures were also used to ensure that the healthy comparison volunteers were free of mental illness and any history of suicidality. Trauma

was categorized as physical abuse, emotional abuse, physical neglect, and emotional neglect.

Measures of borderline personality traits, impulsiveness, and cognitive impairment were also administered and analyzed along with depression severity and lifetime psychiatric history to examine potential confounders of the relationship between early versus late history of childhood trauma and suicidality.

Of the patients who had attempted suicide, 80% had done so after age 30 with a mean age of first attempt of 57.2 years with a range of 31–81 years of age. The remaining 20% of attempters had a mean age of 17.5 years and a range of 7–29 years. All those with an attempt had poorer cognitive performance compared to the healthy volunteers. The late-onset attempters also had greater executive dysfunction. Depression severity was higher among all attempters than the depressed comparison group and depressive episodes occurred earlier in the early onset attempters.

As part of Szanto's Longitudinal Research Program for Late Life Suicide, Chan and associates empirically derived definition of early onset versus late onset is a major contribution, and the confirmation of executive dysfunction associated with late onset is confirmatory. Late-onset attempters also had lower cognitive performance than depressed controls. These findings may support the argument that suicide in late life may be a distinct phenomenon. However, this is a study of suicide attempts and ideation not death by suicide. The authors caution that sample selection, survival bias, sample size, number of variables, and effect size reduce generalizability.

Universal screening for prevention will have poor specificity and sensitivity for a phenomenon such as late-life suicide due to its infrequency when the low positivity rate and limited access to care predominate (Schmutte and Wilkinson, 2020). There would be little incentive for providers to administer the screening instrument. Selective screening of people admitted to an emergency room for any reason would be more productive but given the high ratio of deaths to attempts in old age, it too may be less valued (Schmutte *et al.*, 2022). Predictive suicide risk profiles for Whites, Asians, and Hispanics may not be sufficiently sensitive for Blacks, American Indian/Alaskan Natives, and persons without identified race or ethnicity (Coley *et al.*, 2021). Indicated screening, when a risk factor such as mental illness or neurocognitive disorder has been identified, would be more effective in primary care but would require an incentive to be effectively implemented. The established incentive is collaborative integrated care where a psychiatric social worker, psychologist, or nurse practitioner, with ready access to a psychiatrist,

completes an initial evaluation in the primary care site making the intervention both accessible and acceptable to the older patient.

The findings of Chan and colleagues advance our therapeutic capacity for patients in whom an assessment of suicidality was indicated. This would surely improve care by reducing the likelihood of repeated attempts. However, it may be unlikely to reduce the incidence of suicidal deaths in late life. A broader community-based approach such as tested in the Nuremberg Alliance Against Depression (Hegerl *et al.*, 2006) and instituted early in life may be necessary. In the United States where the study was conducted, better education, housing, work opportunities, access to health care, and firearm safety in early life are necessary but will take more than a generation to reduce suicide in late life (Gawande, 2021; Van Orden *et al.*, 2020; Gentry *et al.*, 2019; Compton, 2023; Mushtaq *et al.*, 2014). In the meantime, the work exemplified by Chan and the Szanto's Longitudinal Research Program for Late Life Suicide is critical to improved care for those who think about suicide or survive an attempt in old age

Conflict of interest

None.

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