# Preventing, Screening, and Treating Suicidality in Pediatric Type 1 Diabetes: Roles for Behavioral Health Care Professionals

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Recognizing the increased risk for depression in youth and young people with diabetes and the implications for glycemic outcomes (1), the American Diabetes Association (ADA) advises routine screening for psychological concerns, including depressive symptoms (2,3). This aligns with the U.S. Preventive Services Task Force recommended screening for depression in adolescents, which notes the need for adequate systems to ensure appropriate follow-up (4). Suicidal behaviors increased significantly in the general population of adolescents from 2009 to 2019 (5), and rates have risen further during the coronavirus disease 2019 pandemic (6). Given the pandemic and other recent societal stressors (e.g., climate disasters, struggles for racial justice), the U.S. Surgeon General issued an advisory for youth mental health (7), and U.S. pediatric groups declared a national emergency in child and adolescent mental health (8). Thus, it is more critical than ever to determine the best ways to screen for and treat depression and suicidality among youth with diabetes.

In the article "Identifying Suicide Risk in Adolescents and Young Adults With Type 1 Diabetes: Are Depression Screeners Sufficient?" in this issue of *Diabetes Care*, Moss et al. (9) present findings from a cross-sectional study of adolescents and young adults with type 1 diabetes, comparing a commonly used depression screener (Patient Health Questionnaire-9 [PHQ-9]) (10) with a structured suicide-specific interview administered by a psychologist (Columbia-Suicide Severity Rating Scale [C-SSRS]) (11). This study tackled the highly significant problem of how to accurately identify youth at risk for suicidality in a clinical setting, which has direct implications for diabetes care practices. The focus on adolescents and young adults with type 1 diabetes as a high-risk group is a strength. In the sample of 151 participants, 9.8% ($n$ = 13) endorsed the PHQ-9 item indicating thoughts of self-harm or suicidality and 11.3% ($n$ = 15) screened positive on the C-SSRS. Eight youth were captured by both measures, suggesting that the PHQ-9 depression screener may underidentify youth at risk for suicide compared with the C-SSRS interview. As the authors note, the PHQ-9 item ("thoughts that you would be better off dead, or of hurting yourself in some way") does not differentiate between self-harm and suicidality or distinguish between passive or active suicidality, which may in part explain the different results. This study builds on recent work by Majidi et al. (12) that also used the PHQ-9 as a screener with inclusion of a suicide-specific interview, allowing for comparison of sensitivity and specificity of the two measures. In the article by Majidi et al., which included a broader age range (10–24 years), it was reported that 8.9% endorsed the PHQ-9 suicidality item.

The ADA's recommendation for screening for psychosocial problems, including depression (13), led to development of screening protocols among many pediatric diabetes clinics (14). However, with limited data to guide this process, implementation has varied widely. We commend the authors for their thoughtful approach to researching this challenging issue using validated assessments and note some methodological considerations in interpreting these data to inform clinical practice. First, it is important not to overgeneralize from the relatively small number of youth who endorsed suicidal ideation ($n$ = 15); data from large cohort or collaborative data sets may be helpful to validate the rates in more representative samples. Second, the differences in each measure's timeframe are important to consider in interpreting their predictive accuracy. The questions in the PHQ-9 ask about suicidal thoughts and behaviors in the past 2 weeks, while the questions in

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the C-SSRS ask about suicidal thoughts in the lifetime and past month, as well as suicidal behaviors in the lifetime and last 3 months. Prior suicidal ideation is important to assess and can help predict future risk for suicidal behaviors (15), but the course of action may be different than for current suicidal ideation (Fig. 1). These distinctions between measures raise the question of which information is most clinically actionable for routine screening in a diabetes practice setting. Finally, it is critical to consider social determinants of health, including issues related to racism, language/literacy, and socioeconomic barriers, among others (16), in relation to suicidality and screening protocols. This study population comprised an English-speaking, largely non-Hispanic White sample receiving care in an academic medical center setting, and the study did not address structural inequities (e.g., financial strain, trauma exposure, discrimination), which may limit its applicability to more diverse clinic populations. Data are needed to guide selection of linguistically and culturally valid tools.

Notably, in this study, adolescents and young adults with higher $HbA_{1c}$ levels had higher rates of suicide risk. This is in line with findings from a study of depression screening in pediatric clinics across five sites, which found that higher $HbA_{1c}$ and diabetic ketoacidosis events in the past year were associated with greater depressive symptoms (14). Taken together, these findings suggest that if resources are limited, youth who do not meet glycemic targets should be prioritized for screening and follow-up. A related question that is not addressed by this research is how clinicians can support intensive insulin therapy, including pump use, in youth who have endorsed suicidality while recognizing the potential for insulin to be used as a lethal means.

Key considerations in applying these data to implementation of a screening program in practice include selection of measures and plans for responding to patients who endorse active suicidal ideation, decisions that often hinge on the resources required (17). Moss et al. (9) used both the PHQ-9, a brief self-report tool, and the C-SSRS, an in-depth interview administered by a psychologist. These authors and others suggest brief suicidality screening tools that may be more appropriate for use in settings where an interview would not be feasible (6). The personnel time and expertise required also apply to how clinics follow up with patients who screen high on depressive symptoms and/or suicidality. Clinics with robust behavioral health resources (psychologists, social workers, case managers) may be well equipped to assess and follow up with youth who screen positive (18), while others may be reluctant to screen for depression and suicide if they do not have personnel available to address risks immediately.

Given the known risks of suicidality in youth with diabetes (6), increased attention is urgently needed across pediatric diabetes practices. Moss et al. (9) highlight the challenges of accurately assessing for suicidality in care settings, but screening alone is not adequate: acute safety intervention and mental health treatment are also necessary. Psychosocial/behavioral health providers are ideally situated to lead or play active roles in identification and treatment of suicidality, including overseeing screening protocols, training providers on suicide safety planning, and providing follow-up mental health support (18) (Fig. 1). Moreover, a contemporary emphasis in the field of suicidality is on the importance of prevention (19); in addition to accurate, routine risk screening and timely intervention, preventive mental health support is warranted. The ADA recommends embedding psychosocial care providers as part of multidisciplinary diabetes care (3), and making use of the expertise of behavioral health specialists for these critically important functions reduces the burden on physicians and nurses. Findings from the study by Moss et al., along with the recent emergency declarations from national organizations about mental health in youth, further highlight the need for

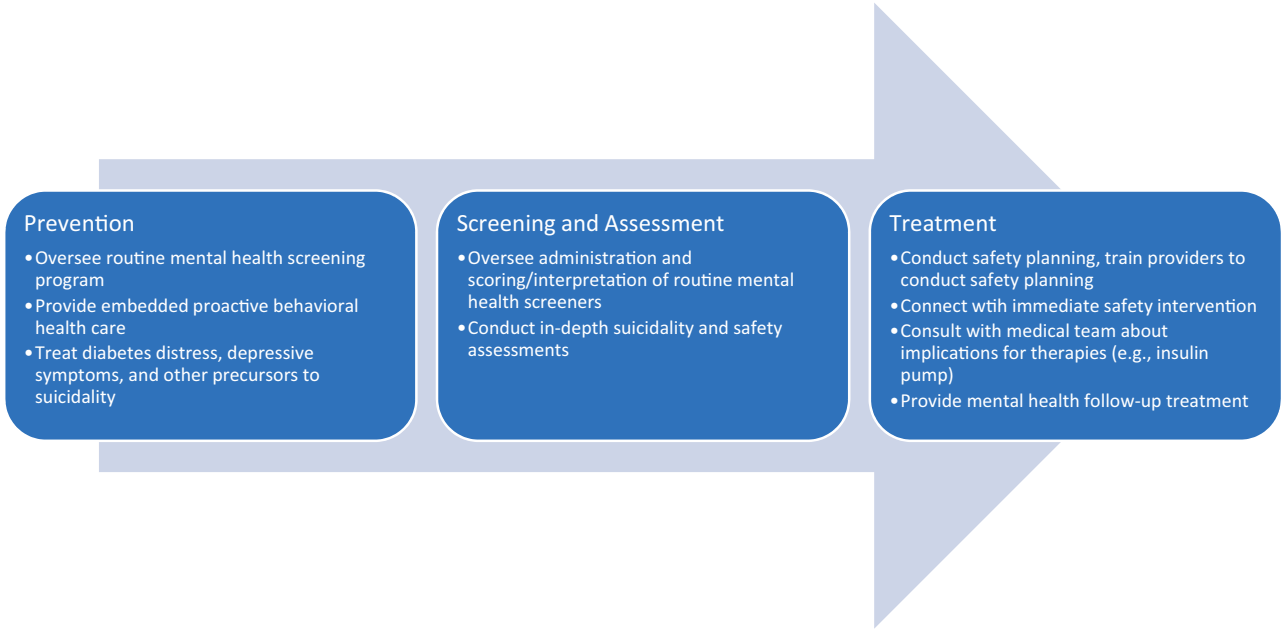


**Figure 1**—Role for behavioral health care in preventing, screening, and treating suicidal behavior in clinical settings.

integrated behavioral health services and delivery of proactive, resilience-promoting psychosocial care to reduce the risk for depression (20) and prevent suicidality among the high-risk population of adolescents and young adults with type 1 diabetes.

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