Child Suicide Screening Methods: Are We Asking the Right Questions? A Review of the Literature and Recommendations for Practice

Barbara Heise, PhD, RN, Arwen York, BSN, and Brandon Thatcher, PMHNP

ABSTRACT

Few suicide screening instruments are specifically designed for the 5 to 14 year-old age group. This paper reviews five currently available suicide screening tools that might be appropriate for use with children, evaluates the quality of these tools, and recommends which tools might be useful in primary care practice. To detect and prevent child suicide, primary care nurse practitioners must be committed to child-centered care, recognize that suicidal thoughts and behaviors can develop early in life, identify pertinent state and trait risk factors in children, have knowledge about the quality of available screening tools, and facilitate specialty care services.

Keywords: child suicide, pediatric mental health, pediatric primary care, pediatric suicide, screening tools

Although young children have not traditionally been considered to be at high risk, suicide poses a serious mortality threat to the pediatric age group. In 2010, the rate of suicide among 5- to 14-year-olds in the United States was 0.7 per 100,000, which translates to 378 deaths annually.[1,2] Mortality data from the 2013 National Vital Statistics System attributed 395 deaths in the 5- to 14-year-old age group to intentional self-harm (suicide).[3] By comparison, in the 5- to 9- and the 10- to 14-year-old age groups, there were 342 deaths and 414 deaths, respectively, in 2013[4] from motor vehicle accidents (the number one cause of unintentional injury deaths). A leading risk factor for suicide, major depressive disorder (MDD), is estimated to occur in 2.8% of children under 13 years of age.[5] A child might be diagnosed with MDD when he or she displays a persistent combination of sadness, irritability, and anhedonia for over 2 weeks. Concurrent symptoms can include social isolation; declining school performance; anger, sleep, or appetite disturbances; and complaints of nonspecific pain.[5]

Primary care nurse practitioners (NPs) and other health care providers are in an ideal position to both detect the unique presentation and characteristics of suicidal tendencies in depressed children and facilitate early referral and treatment. However, actual or perceived time constraints, lack of resources, and provider inexperience are all potential barriers to the screening, assessment, and referral of at-risk patients. Practitioners are sometimes hesitant to screen for suicidality in children because of concern that broaching the topic might encourage suicidal behaviors. However, there is no evidence that screening for suicidality in children is harmful.[6] Furthermore, studies have found that the majority of questioned children and their parents support the practice of routine screening in a variety of settings.[7,8] Screening can also have positive predictive value; 1 study found that children between the ages of 8 and 12 who had 1 or more positive responses to

a 3-question "Risk for Suicide Questionnaire" were 3.5 times more likely to have repeat psychiatric visits to the emergency department (ED) within 1 year.[9]

Screening older adolescents and adults for depression and suicidality has been integrated into routine practice for some time. The American Academy of Pediatrics recommends that primary care providers assess adolescents for suicidality during annual well-child check-ups,[10] and the US Preventative Services Task Force (USPSTF) provided a type "B" recommendation for annual depression screening in adolescents ages 12 to 18, meaning the USPSTF is highly certain of at least a moderate benefit.[5] However, little evidence is available to determine whether routine screening for suicide risk in children younger than 12 is indicated.[5,7] Although the USPSTF does not recommend routine screening of children 7 to 11 years old, it does recommend screening for MDD in a child of any age when he or she has 1 or more of 4 major state or trait risk factors, which are parental psychopathology, history of a major negative life event, comorbid chronic physical illness, and comorbid mental illness.[5] These children might also be at risk for other psychopathology and suicide even if they do not present with MDD. Comorbid depression is estimated to be a factor in about 50% to 79% of suicide attempts[11]; therefore, screening only for MDD might exclude a sizable number of children at risk for suicide for other reasons such as negative life events. Practitioners must look at each child individually, along with his or her state and trait risk factors. The inclusion of a brief suicide screening tool as part of the routine examinations of at-risk children could help signal the development of dangerous thoughts or actions and aid in early intervention.

Once an at-risk child is identified, the USPSTF did not find enough evidence to recommend any one screening tool above others to assist with further evaluation.[5] Furthermore, a systematic literature review of MDD screening tools found that the tools reviewed were less effective when used for children younger than age 12 when compared with their use in older populations.[6] A variety of validated mental and behavioral health screening tools, with questions ranging from open-ended to specific, are available for use with primary care patients throughout the life span although it might be challenging to narrow the options down to a tool specifically designed for use in the younger pediatric population. Some examples can be found in Table 1. The majority of these tools were also listed in a 2013 *Journal for Nurse Practitioners* article in which NPs providing mental health services to children reported the tools they used most commonly in clinical practice.[12] Although these tools are useful for detecting MDD and other important mental health disorders in children who are not yet suspected of being at risk for suicide, this review will focus on suicide-specific screening tools that can be used in the preadolescent population (defined here as approximately 5—14 years old). Few tools are designed specifically for use in this population. Tools validated with children that overlap the 5- to 14-year-old age group will be evaluated. The term *suicidality* here refers to any thought or action related to taking one's own life, which might range from passive suicidal thoughts to fully realized lethal attempts. Screening tools were evaluated using 2 main efficacy measures: sensitivity, meaning the tool has the ability to correctly identify individuals who are truly at risk, and specificity, meaning the tool differentiates between those who are at risk and those who are not, which helps prevent false positives.[13]

For busy practitioners, it can be difficult to quickly identify a suicide risk screening tool that is age specific, convenient to administer, freely available, and highly reliable.[9] The purpose of this article is to review the literature regarding currently available suicide screening tools for children between the ages of 5 and 14; evaluate and compare the effectiveness, convenience, and psychometric quality of these tools; and recommend which tools appear to be most appropriate for use clinically so that NPs providing primary care to vulnerable children can more quickly identify those at risk for suicide and take potentially lifesaving precautionary measures.

In order to adequately explore currently available tools, particularly those developed most recently, a literature search of primarily CINAHL, MEDLINE, and PsycINFO was conducted. The search was limited to articles published between January 2010 and March 2015, articles focused on suicide screening techniques appropriate for use with preadolescent children in the primary care setting, and articles that