

Screening for Adolescent Depression and Suicide Risk

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Suicidal behavior is among the most critical of medical emergencies for adolescents. Among US youth aged 15 to 24 years, intentional self-harm (suicide) is the second leading cause of death and accounted for 6807 deaths in 2018.¹ Recent statistics are ominous regarding significant increases in suicidal behavior among adolescents; from 2009 and 2019, there were significant increases in



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the prevalence of those who reported having seriously considered attempting suicide (13.8% to 18.8%) and having attempted suicide (6.3% to 8.9%).² These increases occurred prior to the COVID-19 pandemic. A study that evaluated emergency department visits for suspected suicidal behavior among persons aged 12 to 25 years before and during the COVID-19 pandemic found that the mean number of weekly visits for suspected suicide attempts increased from February through March 2021, compared with the same period in 2019, with a 50.6% increase among girls and a 3.7% increase among boys.³

The cornerstone of suicide prevention is screening for suicidal behavior, which includes inquiry into the presence of suicidal ideation, plan, intent, and actual attempts. Little controversy exists regarding screening teens who are at high risk for suicidal behavior, such as those with depression and other psychiatric disorders.⁴ Universal screening in primary care, ie, screening every teenager who seeks care in the primary care setting, is another matter. The immense number of adolescents to be screened and identifying those with suicidal behavior demand the efforts of mental health professionals and primary care professionals. To guide physicians and other health care practitioners in making decisions about clinical preventive services such as screening, the US Preventive Services Task Force (USPSTF) makes evidence-based recommendations.

In this issue of *JAMA*, the USPSTF presents an updated Recommendation Statement on screening for depression and suicide risk in children and adolescents,⁵ along with an updated Evidence Report and Systematic Review by Viswanathan et al⁶ that serves as the basis for current recommendations. In 2014, the USPSTF published recommendations on screening for suicide risk in adolescents and adults⁷ and in 2016, on screening for depression in children and adolescents.⁸ In the 2016 report, the USPSTF recommended screening for major depressive disorder (MDD) in adolescents aged 12 to 18 years and further specified that screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up. For children 11 years or younger, the USPSTF concluded that then-current evidence was insufficient to assess the balance of benefits and harms of screening for MDD in children 11 years or younger. In the 2014

recommendations for suicide screening, the USPSTF concluded that the current evidence was insufficient to assess the balance of benefits and harms of screening for suicide risk in adolescents, adults, and older adults in primary care.

For the current updated recommendations, the USPSTF reviewed 21 studies (N = 5433) for depression and 19 studies (N = 6290) for suicide risk in articles published between June 1, 2012, and July 19, 2021 (most of these studies were published since the 2014 and 2016 reviews). The updated Evidence Report⁶ found no direct evidence of benefit for either screening for suicide or depression. Indirect evidence suggested that some screening instruments were reasonably accurate for detecting depression. Psychotherapy and pharmacotherapy for depression were associated with some benefits and no statistically significant harms for depression, but the evidence was limited for suicide risk screening instruments and for interventions.

Based on this evidence, the USPSTF “recommends screening for MDD in adolescents aged 12 to 18 years (B recommendation)” and “concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for MDD in children 11 years or younger (I statement).” The USPSTF also “concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in children and adolescents (I statement).”⁵

The USPSTF recommendations rely on study selection based on prespecified criteria for inclusion, data extraction, and quality assessment. The reviews included data synthesis and analysis, including determination of strength of evidence. Key questions were related to the benefits of screening (ie, improved health outcomes) vs harms of treatment and to the feasibility of screening (ie, are there instruments that accurately identify risk?). For depression, there were studies that demonstrated benefit, but these studies were rated low strength of evidence and likely contributed to the B recommendation (high certainty that the net benefit is moderate, or there is moderate certainty that the net benefit is moderate to substantial) for depression screening in the current recommendations,⁵ similar to the 2016 USPSTF recommendations.⁸ For suicide, the current USPSTF review⁶ identified 16 randomized clinical trials that were of good or fair quality. However, pooled results for suicide outcomes and measures of psychosocial functioning found no significant differences in these outcomes except on 1 measure (reported benefits on suicidal ideation).⁶

In other clinical practice guidelines based on systematic reviews sponsored by the Agency for Healthcare Research and Quality, the rigor with which the reviews were conducted also resulted in few interventions for mental health problems receiving an A recommendation (high certainty that the net

benefit is substantial) based on strong strength of evidence (although the USPSTF recommends that primary care clinicians offer/provide screening for both A- and B-grade evidence). Owing to ethical concerns for both depression and suicide, few studies, particularly recently, have compared screening with no screening or experimental intervention vs no intervention. Moreover, the USPSTF examined support for proposed recommendations for primary care clinicians, and the literature reviewed presumed that the youth screened in primary care venues are without known risk of depression or increased risk of suicide and thus may be part of universal screening for both medical and mental health problems.

As the USPSTF acknowledges in the Recommendation Statement,⁵ other professional organizations have recommendations that differ from its current I statement for screening for suicide risk in children and adolescents (ie, evidence is insufficient to assess the balance of benefits and harms). For instance, the American Academy of Pediatrics and American Foundation for Suicide Prevention, in collaboration with experts from the National Institute of Mental Health, recently published a Blueprint for Youth Suicide Prevention.⁹ In this document, suicide screening is recommended for all youth older than 12 years. In a policy statement, the American Academy of Child and Adolescent Psychiatry recommend screening for suicide risk across physical and mental health care settings.¹⁰ The absence of a recommendation for suicide screening among adolescents in primary care settings does not call suicide screening into question but rather universal screening apart from screening for other risk factors such as depression.

It is not coincidental that the USPSTF considered evidence for suicide and depression screening in the same updated Evidence Report and Systematic Review.⁵ Given the salience of depression as a risk factor for suicidal behavior

and the value of depression screening as supported by the USPSTF recommendation, screening for suicide under the umbrella of depression screening could accomplish both screening tasks at the same time. As mentioned in the Evidence Report,⁶ given the presence of suicide questions on many depression screening instruments (eg, the Patient Health Questionnaire 9), a separate suicide question(s) or instrument may have limited value.

However, even if all adolescents who have or are at risk for suicidal behavior and depression could be identified, providing follow-up and evidence-based interventions for these adolescents promises to be a lofty goal, especially given constraints in training and the overall workforce and limited access to mental health professionals. After suicide and depression screening, physicians and other primary care clinicians will need to further evaluate depressive symptoms and other psychiatric symptoms and behaviors, including suicidal behavior. Ascertainment of suicide risk and development of safety planning is increasingly becoming the responsibility of primary care clinicians, who require training and support to accomplish such tasks. Initiatives such as the Massachusetts Child Psychiatry Access Program,¹¹ which provides training and consultative support to primary care practices, are needed, but supportive efforts (such as education and consultation on mental health issues) must also be examined for their potential benefits and harms.

By combining screening for depression and suicide, researchers and clinicians would do well to consider screening strategies that combine screening for various aspects of risk for suicide and other salient mental health problems rather than separate overall risk into several specific problems. The USPSTF recommendations suggest many more questions to be asked than can be answered with currently available rigorous evidence.

ARTICLE INFORMATION

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