Handbook of Pediatric Psychological Screening and Assessment in Primary Care

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Assessing Suicidality and Safety Concerns in Pediatric Primary Care

Emily F. Muther and Nicholas F. Hartley

Youth suicide is a significant global public health concern that has devastating consequences for our society and represents a clinical challenge for health care providers working with children and adolescents. Suicide is among the top 20 leading causes of death globally for all ages, and annual international estimates suggest that 10 to 20 million people attempt suicide, with more than 500,000 deaths resulting from suicide (World Health Organization [WHO], 2017). On average, there are anywhere from 113 to 121 completed suicides per day in the United States, equaling approximately one suicide death every 13 minutes (American Foundation for Suicide Prevention, 2017; Centers for Disease Control and Prevention [CDC], 2015a). The economic impact of suicide across our country is far reaching and results in an estimated $51 billion in combined medical and work loss costs (CDC, 2015a). Youth suicide is a preventable public health problem that requires effective identification and assessment of risk and predictors of suicidal behavior (Whitaker, Shapiro, & Shields, 2016). Pediatric primary care settings are designed to provide continuous and comprehensive health care services that are accessible to the majority of children and their families (Tulim et al., 2016) and therefore have the capacity and the obligation to identify and address risk factors that lead to youth suicidality. Appropriate assessment and screening efforts are required to address this crisis.

The purpose of this chapter is to describe the benefits and challenges of conducting suicide assessment and screening within pediatric primary care settings, as well as to review some of the most common and/or feasible measures that may be used to screen for suicidality in youth. Rates of suicidality, along with risk and protective factors, will be discussed. Pediatric primary care is the ideal setting to reduce safety risk and suicide among youth. The importance of careful consideration of suicide assessment tools and the process to feasibly and sustainably implement safety assessment within pediatric primary care will be discussed.

Epidemiology

Suicide is the second leading cause of death among 15- to 29-year-olds worldwide (WHO, 2017) and the second leading cause of death for youth ages 10 to 24 in the U.S. (CDC, 2015a). Approximately 17% of all youth in the U.S. report having seriously considered attempting suicide in the previous 12 months, with as many as 8% of adolescents having attempted suicide one or more times in the previous 12 months (CDC, The Youth Risk Behavior Surveillance study [YRBSS], 2015b). Furthermore, 2.7% of students in grades 9 to 12 made a suicide attempt that resulted in an injury, poisoning, or an overdose that required medical attention (CDC YRBSS, 2015b). In the U.S., more teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia, influenza, and chronic lung disease combined (The Jason Foundation, 2017). Each day in the U.S., there is an average of 5,240 suicide attempts by youth in grades 7 to 12, and four out of five adolescents who attempt suicide have given clear warning signs (CDC, 2015b; The Jason Foundation, 2017).
Males take their own lives at nearly four times the rate of females in the U.S. and represent 77.9% of all suicides (CDC, 2015a). Although completed suicide rates are higher among adolescent males, adolescent females have the highest rates of suicidal ideation and attempted suicide (Cash & Bridge, 2009). Historically, American Indian and Alaskan Native youth have the highest rate of attempted and completed suicide, which is the second leading cause of death in this population, followed by Hispanic and non-Hispanic white males (Anderson & Smith, 2002; CDC, 2015a). In the U.S., the leading method of completed suicide among adolescents is self-inflicted gunshot wounds, followed by suffocation, either by hanging or use of plastic bags, and self-poisoning (e.g., intentional ingestion; Bridge, Goldstein, & Brent, 2006; CDC, 2015a). Firearms are the most commonly used method of suicide among adolescent males (56.9%), and poisoning is the most common method for females (34.8%; CDC, 2015a).

**Risk Factors**

Risk factors for suicidality are characteristics, situations, or circumstances that make suicidal ideation, behavior, or attempts more likely (Whitaker et al., 2016). There are many well-understood and studied risk factors associated with increased likelihood of suicidal ideation and suicide attempts. Better understanding of the impact of certain psychiatric and social risk factors may help pediatric primary care providers identify youth at the highest risk for suicide.

Previous suicide attempt is the largest risk factor related to future attempts (Brent, Baughner, Bridge, Chen, & Chiappetta, 1999; Oquendo et al., 2004; Shaffer & Craft, 1999). However, because suicidal ideation usually precedes suicide attempts (Lewinsohn, Rohde, & Seeley, 1996) and is more prevalent than a history of actual attempts, it is an important risk factor that must be assessed. The presence of past or current suicidal ideation in an adolescent places the youth at risk for future suicide attempts (Lewinsohn et al., 1996; Nock et al., 2008). Therefore, an effort to screen for and assess suicidal ideation will capture a broader at-risk population and assist in providing services to these youth prior to a suicide attempt (Wintersteen, 2010).

Individuals with mental health and substance use diagnoses are at an increased risk of suicide (Appleby et al., 2012; Neves & Lanza, 2014), with 80 to 90% of adolescent suicide victims and suicide attempters having had a mental health diagnosis (Bridge et al., 2006). The most common psychiatric conditions in completed and attempted suicide are mood, anxiety, conduct, and alcohol or substance use disorders, with 60% of adolescent suicide victims having had a depressive disorder at the time of their death (Brent et al., 1999; Cash & Bridge, 2009; Shaffer et al., 1996; Shafi, Steltz-Lenarsky, Derrik, Beckner, & Whittinghill, 1988). Alcohol and substance abuse disorders are highly correlated with the risk of suicide, especially in older adolescent boys with comorbid mood or disruptive disorders (Brent et al., 1999; Shaffer et al., 1996; Shafi et al., 1988).

Depression is the most commonly studied psychiatric risk factor for suicide (Brent et al., 1993; Hetrick, Parker, Robinson, Hall, & Vance, 2011). More than half of all clinically depressed individuals in the U.S. have experienced suicidal ideation (Oquendo, Currier, & Mann, 2006). While estimates of 40 to 80% of adolescents meet diagnostic criteria for depression at the time of their suicide attempt (Goldston et al., 1998; Gould et al., 1998), not all suicidal youth report clinically significant levels of depression, and therefore other risk factors should be understood when considering assessment of suicide (D’Eramo, Prinstein, Freeman, Grapentine, & Spirito, 2004; Kodish et al., 2016).

Adolescents who identify as lesbian, gay, bisexual, and transgender (LGBT) are at a significantly greater risk of suicidal ideation and attempted suicide than their peers (Neves & Lanza, 2014). LGBT adolescents are at least three times more likely to have seriously considered suicide in the previous year as compared to their heterosexual peers (Marshal et al., 2011). This increased risk remains even after controlling for other suicide risk factors such as depression or substance use (Russell & Joyner, 2001). For LGBT adolescents, those who experience family rejection and social isolation have an even higher risk of suicidal ideation and attempted suicide.
the U.S. and represent higher among adolescents and attempted suicide. Native youth have the highest rates of attempted suicide (Anderson & Smith, 2006; CDC, 2015a), and among adolescents is the use of plastic bags, particularly among males (56.9%), and contributed to the rise in suicide attempts.

It is well-understood that family and suicidal risk factors may contribute to suicidal ideation and suicide attempts (Brent, Baughman, et al., 1999). However, risk factors must be understood in the context of the environmental influences that contribute to suicidal ideation and attempt (American Association of Suicidology, 2003). Bullying has been shown to be an increasing risk factor for suicide (Copeland, Wolke, Angold, & Costello, 2013; Kodish et al., 2016) and has been more strongly linked to severity of suicidal risk for youth with depressive symptoms (Kodish et al., 2016). Bullying victims consistently exhibit more depressive symptoms than nonvictims, have higher levels of suicidal ideation, and are more likely to attempt suicide than their nonvictim peers (Klomek et al., 2009). In light of recent and highly publicized cases of youth suicide following reports of cyberbullying, the impact of cyberbullying via the Internet and other social media outlets has become an increasing public concern and legitimate risk factor for youth suicide (Neves & Leanza, 2014; Steinhouse, 2008).

**Protective Factors**

Protective factors are characteristics or resources that reduce the impact of risk, making it less likely that an individual will consider or attempt suicide in the context of risk (Whitaker et al., 2016). The identification of important protective factors that are missing allows primary care professionals to obtain a more comprehensive understanding about the person at risk as well as providing insight into where to intervene to reduce risk (Jakobsen et al., 2017). While it is known that youth with psychopathology are at increased risk for suicide, by no means all youth with psychopathology go on to develop suicidal behavior. This suggests the importance of intervening and identifying protective factors that mitigate the risk (Jakobsen et al., 2017). Such factors should be included in the assessment of safety concerns and suicidality for youth within primary care.

In a study conducted to examine the relationship between resiliency and effective suicide assessment in youth, including a component of resiliency as part of suicide screening, resiliency was shown to be most predictive of suicide risk, independent of known psychological risk factors (Jakobsen et al., 2017). While factors such as family discord, parent–child conflict, and feelings of rejection and isolation within the family can lead to increased risk of suicidality for youth, positive family functioning has been shown to be a protective factor against self-harm and suicidality in youth (Law & Shek, 2013; Shek & Yu, 2012). Family factors, such as family connectedness and family cohesion, are believed to reduce the risk of suicidality in adolescents (Borowsky, Ireland, & Resnick, 2001; Gould, Greenberg, Welting, & Shaffer, 2003). Furthermore, a youth’s subjective experience within their family or their own belief that they have understanding parents and/or a supportive family has been demonstrated to buffer against suicidal behavior (Pulli, Andrews, & Patel, 2009; Shek & Yu, 2012).

A number of interpersonal and academic protective factors against suicidality have been proven in the literature (Whitaker et al., 2016). Higher academic achievement and above-average school competence have been associated with a lower incidence of self-harming and suicidal behaviors in adolescents (Shek & Yu, 2012). Students who believe they could discuss problems with a school staff member have been shown to be only about a third as likely to report victimization at school or suicide attempts (Goedenow, Szalacha, & Westheimer, 2006). Across many statewide survey data, youth perception of caring relationships with adults at school reduced the likelihood of suicidality.
and suicide attempts (Eisenberg & Resnick, 2006; Goodenow et al., 2006; Hatzenbuehler, 2011; Seil, Desai, & Smith, 2014).

**Suicide Warning Signs**

It is critical for pediatric primary care providers and clinicians to understand the difference between suicidal risk factors and warning signs. Suicide warning signs are indicators that a youth is more acutely at risk for suicide and should be assessed immediately. These are specific symptoms or behaviors that are acute or subacute in nature (McDowell, Lineberry, & Bostwick, 2011). The American Association of Suicidology has developed a useful tool for pediatricians as well as other adults interacting with youth who may be experiencing warning signs for suicidality. The mnemonic IS PATH WARM? is a tool to help identify important warning signs for adolescent suicide and is a first step to assessment of suicide and safety (see Figure 8.1). If a youth identifies or endorses several of the warning signs, a further assessment of suicide risk should be immediately begun.

**Importance of Suicide Screening in Pediatric Primary Care**

Although many risk factors have been clearly identified in youth suicide, the effectiveness of prevention efforts and intervention programs relies on early detection (Wintersteen, 2010). Nearly 90% of suicidal youth are seen in their primary care setting during the 12 months prior to a suicide attempt (McCarty et al., 2011), and about 45% were in contact with a primary care provider in the month prior to their death (Luoma, Martin, & Pearson, 2002). Youth who die by suicide are believed to have visited their primary care providers more than twice as often as specialty mental health providers (Luoma et al., 2002), confirming the ability of primary care providers to capture a vast majority of youth at risk for suicide. Several health organizations and policy statements have called for suicide screening and assessment in primary care (American Academy of Pediatrics [AAP], 2000; Bunney, Kleinman, Pellmar, & Goldsmith, 2002; U.S. Department of Health and Human Services, 2012).

**Key Warning Signs for Youth Suicide**

**IS PATH WARM?**

- **I**diation Talking about or threatening to hurt or kill oneself; looking for ways to kill oneself; talking or writing about death, dying or suicide
- **S**ubstance Abuse Increased substance (including alcohol) use
- **P**urposelessness No reason for living; no sense of purpose in life
- **A**nger Rage, uncontrolled anger, seeking revenge, irritability
- **H**opelessness Feeling that nothing will change or get better
- **W**ithdrawal Withdrawal from friends, family, society
- **T**rapped Feeling trapped—like there’s no way out
- **R**ecklessness Acting reckless or engaging in risky activities
- **M**ood Changes Dramatic mood changes


**Figure 8.1 IS PATH WARM? Warning signs**

Pediatric primary care in youth, and the primary care provider’s role in suicidal inquiries and decisions was maintained over time (Wintersteen, 2010). Pediatric primary care providers at risk for suicide are unique and complex. By identifying children at risk, pediatric primary care providers may work to prevent suicide, brief screening, and assessment.

**General Considerations**

Despite prevalence rat factors that increase the risk of suicide, the knowledge of ways to be successful in pediatric primary care departments, where suicide is relatively low base rate challenges and other interventions are needed.

**False Positives**

Historically, suicide attempts were not considered as primary care concerns. With the increasing recognition of suicidal behavior, pediatricians and other health care providers are increasingly aware of the need for identifying and managing suicidal risk. Pediatric primary care providers are often the first point of contact for youth and are in a position to make referrals for appropriate evaluation and treatment. They can play a crucial role in identifying and intervening with suicidal youth. However, it is important to acknowledge that identifying suicidal behavior in young people can be challenging. Pediatric primary care providers may not always be aware of the risk factors and warning signs for suicide, and they may not feel comfortable asking about suicide or recognizing the signs of suicidal behavior.

**False Negatives**

An even larger and more significant challenge is to ensure that patients at risk for suicide are identified and appropriately referred for further assessment and treatment. Pediatric primary care providers may not always be aware of the risk factors and warning signs for suicide, and they may not feel comfortable asking about suicide or recognizing the signs of suicidal behavior. However, it is important to acknowledge that identifying suicidal behavior in young people can be challenging.

Pediatric primary care providers are often the first point of contact for youth and are in a position to make referrals for appropriate evaluation and treatment. They can play a crucial role in identifying and intervening with suicidal youth. However, it is important to acknowledge that identifying suicidal behavior in young people can be challenging. Pediatric primary care providers may not always be aware of the risk factors and warning signs for suicide, and they may not feel comfortable asking about suicide or recognizing the signs of suicidal behavior. However, it is important to acknowledge that identifying suicidal behavior in young people can be challenging.
Pediatric primary care providers are well suited to lead the efforts of assessing suicidality in youth, and the primary care setting is the proper place to accomplish this effort. A study conducted to examine standardized suicide screening of adolescents in primary care found that suicidal inquiries and detection of suicidal youth by primary care clinics significantly increased and was maintained over time with the implementation of a universal suicide screening process (Wintersteen, 2010). Pediatric primary care providers have been shown to be capable of detecting youth at risk for suicide by using brief, effective assessment measures (Wintersteen, 2010). In fact, although medical visits to a primary clinic afford providers an opportunity to identify and refer patients at risk for suicide, youth often present with somatic concerns and rarely discuss suicidal thoughts and plans unless asked directly (Pan, Lee, Chiang, & Liao, 2009; Wintersteen, 2010).

By identifying children and adolescents at risk for suicide through screening and assessment, pediatric primary care providers are able to play a crucial role in adolescent suicide prevention (Neves & Leanza, 2014).

Although youth suicide is a serious public health problem, we can reduce the prevalence and work to prevent suicide with timely, evidence-based, and low-cost interventions that begin with brief screening and assessment of risk factors and safety concerns in youth.

**General Considerations for Screening**

Despite prevalence rates that define the seriousness of the problem, a clear understanding of factors that increase the likelihood youth will experience suicidal ideation and/or behaviors and knowledge of ways to buffer the risk for youth, there are realistic challenges and important factors to increase success of screening in pediatric primary care. Screening for suicide among youth in pediatric primary care can be challenging as compared to psychiatric settings or emergency departments, where suicide screening and treatment are more common, particularly because of the relatively low base rate of suicidal behavior (Harris, Roberge, Hinkson, & Bryan, 2017). These challenges and other important considerations will be discussed.

**False Positives**

Historically, suicide assessment and prevention in pediatric primary care has focused mostly on training pediatric providers to identify, assess, and manage suicide risk in patients who present with or carry a primary diagnosis of depression (Department of Health, 2011; McDowell et al., 2011; Milton, Ferguson, & Mills, 1999). However, as mentioned, much more is known about risk factors, warning signs, and the opportunity of pediatric primary care providers to encounter youth experiencing safety concerns. Yet the assessment of suicide risk is difficult, and it is potentially even more challenging when done within the fast-paced environment of a primary care office. Part of the challenge of accurately assessing suicide risk is due to the poor predictive value of assessment measures and scales. This means that many youth who are identified as high risk will not go on to have adverse outcomes or attempt suicide (i.e., false positives; Kapur, 2000; Morris, Kapur, & Byng, 2013). The false positives that can present as a result of routine suicide assessment can be challenging and burdensome to primary care providers, who struggle with balancing the time of conducting the assessment and appropriately managing and following up on identified risk and positive results of screening, especially if youth have been falsely identified as at risk.

**False Negatives**

An even larger and more significant concern is the complementary issue of false negatives. False negatives refer to patients who screen low to no risk for suicide and then subsequently make a suicide attempt or die by suicide (Harris et al., 2017). Many studies have shown that a number
of individuals who died by suicide were rated as being at low risk when seen by their clinician prior to their death (Alexopoulos et al., 2009; Saini, While, Chantler, Windfuhr, & Kapur, 2014). This “low-risk” paradox in patients who go on to die by suicide reflects the problems inherent in predicting low-frequency events but rapidly changing risk, along with the impact of recall bias (Alexopoulos et al., 2009). Because a consistent component to any assessment of suicide risk involves directly asking a patient about suicidal thoughts or intentions, the accuracy of the assessment depends on the honesty and accuracy of a person’s response. According to Harris et al. (2017), the accuracy of a person’s response to the questions, “Do you have any intent or plan to kill yourself?” or any similar question depends on several factors: (1) the true presence of suicidal thoughts and intentions, (2) the patient’s awareness of such thoughts or intentions, and (3) the patient’s willingness to honestly disclose these thoughts and intentions to someone else (e.g., primary care provider). The ability of a suicide assessment to accurately capture the risk for suicide in pediatric patients depends on the influence of these three factors on a youth’s ability to accurately respond to questions related to their thoughts, feelings, and behaviors.

Although false negatives occur and the factors influencing the likelihood of false positives should be understood, the impact of a trusting and familiar relationship on an adolescent’s ability and willingness to endorse questions with accuracy justifies the reason screening for suicide belongs in pediatric primary care. Youth are more likely to consider their own risk and be honest and forthcoming about their thoughts and intentions in the context of a visit with a provider they know and trust. Furthermore, pediatric providers should keep in mind that a negative screen for suicide risk does not necessarily mean the youth will not become suicidal or engage in suicidal behavior in the future (Harris et al., 2017). As has been noted, a significant number of youth who attempt and/or die by suicide see their primary care provider in the months prior to their attempt. Primary care providers should be familiar with the warning signs and use suicide screening and assessment tools as a complement to other assessment of risk.

**Cultural Implications**

The majority of suicide assessment and screening tools do not account for cultural differences in experiencing and expressing emotional concerns. This absence of cultural implications has the potential to lead to improper management of risk (Wendler & Matthews, 2006). As mentioned earlier as it relates to false negatives, the relationship and trust between a patient and their clinician is an important factor in a person’s willingness to disclose suicidal thoughts and feelings. Cultural dynamics and issues influence trust and openness within a relationship and can influence how someone responds to suicide assessments and screening tools. Culture can also influence a person’s understanding of suicide-related terms and language, their moral and social beliefs about suicide, and their willingness to honestly disclose such sensitive information (Chu et al., 2013; Harris et al., 2017). Therefore, primary care providers must acknowledge potential differences in customs, beliefs, and culture that could influence a youth’s (or their family’s) comfort and openness to suicide assessment.

**Time and Resource Challenges**

A final consideration for suicide assessment and screening of youth in primary care is the reality of the setting and environment. Pediatric primary care clinics are often busy and fast-paced environments in which clinicians are managing busy schedules with patients presenting for a wide range of reasons. With the average length of pediatric primary care visits ranging anywhere from 15 to 18 minutes (Halfon, Stevens, Larson, & Olson, 2011), clinicians do not have the time to conduct extensive assessments or manage concerns outside the presenting problems. Managing the challenges of high volumes with brief appointment durations can present unique challenges for suicide screening with primary care providers in limited time, (2) concern or unwillingness to partially health providers in the studies that challenges of professionals are universal (Betz et al., 2013; C. training of primary care adherence to suicide scre

Provider-related variables understanding and access have a stronger impact on (Hooper et al., 2012). About intervening once increasing the routine ministry of primary care pre safety plans, and referring the medical team (e.g., to conduct the assessment resources in the community.

**Suicide Risk Screening**

As outlined, there is treating suicidal thoughts are regarding the clinical nation, standardized screening primary care clinics on Psychiatry, 2001; Amer G. (2010), suggesting suicide mission, 2010). Additio administer suicide sc risk among young people implementing a consistent difficult and limiting comprehensive behavior of domains needed to intervention suicidal often is only an annual recent suicidal behaviors youth who experienced commonly used suicide-related strengths and w

**Suicidal Ideation Question**

The Suicidal Ideation Question in adolescence...
Assessing Suicidality and Safety Concerns

Do you have any intent or thoughts or intentions, and intentions to someone else accurately capture the risk for behaviors. According to Harris (2006), false positives on an adolescent's ability to discern screening for suicide on their own risk and be honest about screening and cultural implications has the news, 2006). As mentioned on a patient and their clinical thoughts and feelings regarding suicide can also influence cultural and social beliefs about self-harm (Chu et al., 2013). Suicide (Chu et al., 2013: Suicide ideation, comfort and in primary care is the reality often busy and fast-paced patients presenting for a wide sits ranging anywhere from 15 minutes do not have the time to dealing with problems. Managing unique challenges for suicide screening within pediatric primary care. There are common barriers identified by primary care providers to successful implementation of suicide screening and assessment: (1) limited time, (2) concerns about availability of private space for assessment, (3) patient inability or unwillingness to participate in assessment, and (4) poor communication with specialty mental health providers in the community (Petrik, Gutierrez, Berlin, & Saunders, 2015). Across many studies challenges of time and lack of resources to refer and communicate with mental health professionals are universal concerns of primary care providers (Baraff, Janowicz, & Asarnow, 2006; Botz et al., 2013; Chisholm, Weaver, Whenny, & Giles, 2011). Suicide risk assessment training of primary care providers and clinic staff is critical to address these barriers and improve adherence to suicide screening (Saini et al., 2014).

Provider-related variables, such as a sense of competence in assessing risk and confidence in understanding and accessing the necessary resources when risk is identified, have been shown to have a stronger impact on the likelihood of conducting suicide risk assessment than patient factors (Hooper et al., 2012). Pediatric primary care providers often feel uncomfortable and uncertain about intervening once they have identified a patient at risk for suicide (Harris et al., 2017). Increasing the routine nature of suicide and safety screening will increase comfort and competency of primary care practices to navigate the process of discussing risk factors, implementing safety plans, and referring patients to mental health providers when needed. Enlisting all members of the medical team (e.g., medical assistants, nurses, social workers, behavioral health clinicians) to help with the assessment, interpret and discuss the results with patients, and identify referral resources in the community is critical to mitigate the realistic challenges of time.

Suicide Risk Screening Instruments and Tools

As outlined, there is tremendous opportunity for the identification and triage of youth experiencing suicidal thoughts and behaviors in the pediatric primary care setting. Despite mixed evidence regarding the clinical necessities of universal routine suicide screening among the general population, standardized screening has resulted in increased identification of at-risk suicidal youth in primary care clinics over the past few decades (American Academy of Child and Adolescent Psychiatry, 2001; American Academy of Family Physicians, 2014; LeFevere, 2014; O'Connor, Goyne, Burda, Soh, & Whitlock, 2013). In 2010, the Joint Commission issued a Sentinel Event Alert, suggesting suicide screening for all patients visiting health care settings (The Joint Commission, 2010). Additionally, the American Academy of Pediatrics (AAP) called for rapid, easy-to-administer suicide screening tools to guide health care providers in the assessment of suicide risk among young people in medical settings (Dolan & Fein, 2011).

Implementing a consistent practice of suicide screening and assessment in primary care can be difficult and limiting for a number of reasons, chiefly due to the lack of empirically supported, comprehensive behavioral health screening tools. Many tools available do not cover the breadth of domains needed to fully screen for the complexities of suicide (i.e., inclusion of both suicidal thoughts and suicidal behaviors). Additionally, given that a visit to one’s primary care provider is only an annual occurrence, many screening tools, which may only primarily assess for current suicidal behaviors, fail to consider a more comprehensive time frame, potentially missing youth who experienced suicide at some point outside of their visit. In this section, five of the more commonly used suicide risk screening tools in primary care will be discussed, as well as their related strengths and weaknesses.

Suicidal Ideation Questionnaire (SIQ)

The Suicidal Ideation Questionnaire (SIQ) is a self-report measure of the severity of suicidal ideation in adolescents and can be used for patients ages 14 to 18 (Reynolds, 1987). The...
SIQ is a tool that is not intended to predict suicide in itself; however, it has been shown to be an effective first-line measure in an assessment of adolescent suicidality and safety (Tatum, Greene, & Karr, 1993). It has been demonstrated to be a moderately to highly sensitive marker of possible subsequent suicide attempts and broad suicidality (Huth-Bocks, Kerr, Ivey, Kramer, & King, 2007).

**Administration, Scoring, and Interpretation**

The SIQ has 30 items, ranging from very minor/nonspecific thoughts (e.g., “I wish I was never born”) to major/specific thoughts (e.g., “I thought of when I would kill myself”). Youth are asked to rate the frequency with which the thought occurs on a seven-point scale ranging from “almost every day” to “I never had this thought.” A cutoff score is used to judge the severity level of suicidal ideation warranting additional evaluation and recommendation. A high score on the SIQ is indicative of frequent and pervasive suicidal ideation (Boege, Corpus, Schepker, & Fegert, 2014).

Scores and items on the SIQ can be used in four ways: total score, cutoff scores, critical item review, or clinical perusal of individual items (Boege et al., 2014). The cutoff score for the SIQ is a sum of 41 and higher, indicating the need for further evaluation. Eight “critical items” are defined, which best predict self-destructive behavior. If an adolescent responds positively to three or more of these items, he/she is considered to be at higher risk for suicide irrespective of the total SIQ score (Boege et al., 2014; Reynolds, 1987).

**Available Norms and Psychometric Data**

The SIQ has demonstrated high internal consistency reliability (r = .97), validity, and predictive ability (Horowitz et al., 2012; Keane, Eick, Bechtold, & Manson, 1996; Reynolds, 1987). Internal consistency estimates ranked uniformly high from .969 to .974, with a total sample reliability coefficient of .971 (Pinto, Whisman, & McCoy, 1997; Spirito, Stark, Fristad, Hart, & Owens-Stively, 1987; Reynolds, 1987). Additionally, this tool has a 98% sensitivity (the probability of a positive result when given to youth who are at risk for suicide), 37% specificity (the probability of a negative result when given to youth who are at not risk for suicide), and 55% positive predictive value (the probability that a child who screened positive actually is at risk for suicide; Reynolds, 1987). Content validity for the SIQ items ranges from .70 to .90, with a median correlation of .78 for the total sample (Boege et al., 2014).

**Considerations for Use**

The SIQ is a useful screening tool for youth suicide in pediatric primary care. Although it has 30 items, it can generally be completed in 5 to 10 minutes, which makes it feasible to be completed while waiting for the primary care provider. The specificity of the SIQ lends to increased confidence in the assessment of risk based on the inclusion of critical items. The eight critical items seem to correlate most with suicidality and can be an area of focus of clinicians assessing youth in primary care.

**Ask Suicide Screening Questions (ASQ)**

The Ask Suicide Screening Questions (ASQ) is a four-item, nonproprietary suicide screening instrument that can be administered to patients ages 10 to 21 for psychiatric or nons psychiatric reasons (Horowitz et al., 2012). The ASQ is also easily administered by physicians, nurses or other medical professional regardless of psychiatric training, and it has been shown to effectively be incorporated into standard of care in primary and urgent care settings (Ballard et al., 2017).
ever, it has been shown to suicidality and safety (Huth-Bocks, Kerr, Ivey, is (e.g., “I wish I was never ill myself”). Youth are asked a scale ranging from “almost judge the severity level of in. A high score on the SIQ is , Schepker, & Fegert, 2014); cutoff scores, critical item The cutoff score for the SIQ 1. Eight “critical items” are responds positively to thicide irrespective of the total 97), validity, and predictive 6; Reynolds, 1987). Internal a total sample reliability k, Fristad, Hart, & Owens- the probability of a specificity (the probability of and 55% positive predictive trisk for suicide; Reynolds. a median correlation of .78

ary care. Although it has 30 it feasible to be completed IQ lends to increased confo. The eight critical items of clinicians assessing youth

oprietary suicide screening psychiatric or nonpsychiatric ed by physicians, nurses or has been shown to effectively ngs (Ballard et al., 2017).

Administration, Scoring, and Interpretation

All four questions of the ASQ are asked to the patient, and a “yes” response to any of the four items is considered a positive screen. The four items are: (1) “In the past few weeks, have you wished you were dead?” (2) “In the past few weeks, have you felt that you or your family would be better off if you were dead?” (3) “In the past week, have you been having thoughts about killing yourself?” (4) “Have you ever tried to kill yourself?” A study conducted in a pediatric emergency department (ED) suggests that the ASQ uncovered youth patients who did not identify suicidal behavior as a presenting complaint but endorsed suicidal thoughts after being screened using the ASQ (Ballard et al., 2017). This brief and simple assessment tool can be incorporated into pediatric practices as an initial effort to uncover those youth at risk and in need of further assessment and potential intervention (Larkin & Beauprais, 2010).

Available Norms and Psychometric Data

The ASQ was developed from a study of 524 patients across three pediatric EDs using the Suicide Ideation Questionnaire (SIQ) as the criterion standard (Reynolds, 1987). In the initial development and study of the measure, it was found to have a sensitivity of 97.6%, a specificity of 65.6%, and a negative predictive value of 96.9% compared with the SIQ (Ballard et al., 2017). The ASQ is currently undergoing a National Institute of Mental Health (NIMH)-funded multisite clinical trial to investigate validity of this tool in adolescents (NIMH, 2017), but clinical utility and feasibility have been demonstrated (Ballard et al., 2017; Horowitz et al., 2012).

Considerations for Use

The ASQ is a brief set of four questions created from the Suicidal Ideation Questionnaire (SIQ; Horowitz et al., 2012) that has been shown to accurately assess risk for suicide in youth with medical/surgical or psychiatric concerns. The brevity and simplicity of this tool makes it ideal for a pediatric primary care setting. It can be administered either orally or in a written format, allows for flexibility when implemented into the primary care setting, and can be done by any member of the medical team. Specifically, the ASQ was developed to identify suicidal ideation in a manner in which youth with medical concerns in particular can relate: current thoughts of being better off dead, current wish to die, and current suicidal ideation. Because youth often present to primary care with physical and/or medical complaints and may not be forthcoming about thoughts of suicide or wishes for death, the ASQ can be an effective tool to screen for safety concerns within this population. Additionally, the ASQ has a high specificity in correctly identifying youth who are currently not at elevated risk for suicide (87.6%; Horowitz et al., 2012). This means that it reduces the likelihood of false positives often created by many other suicide screening and assessment tools, ultimately reducing the burden on busy primary care practices with limited time and resources to manage significant mental health and suicide concerns.

Because the ASQ is not a formalized measure that can be stored or scanned into a patient’s medical record, it requires adding the primary care provider’s documentation to include the presence of suicide screening and results of each question asked. Additionally, if administered orally, any discomfort or bias on the part of the clinician asking the questions could impact the youth’s ability to answer the questions honestly. Finally, although the brevity and directness of the questions is beneficial in a busy setting, some providers may feel uncertain how to respond or follow up to questions that were endorsed positively. Consultation and/or training with a mental health provider could be beneficial for primary care providers to feel prepared to respond to answers positively endorsed by youth.
Columbia Suicide Severity Rating Scale (C-SSRS)

Developed by investigators from Columbia University, the University of Pennsylvania, and the University of Pittsburgh, with support by the National Institute of Mental Health (NIMH), the Columbia Suicide Severity Rating Scale (C-SSRS; Columbia University Medical Centre, 2012) aims to distinguish between domains of suicidal ideation and suicidal behaviors rather than serve as a measure of a unidimensional construct (i.e., passive suicidal ideation, active intent, and suicidal behavior as one construct) such as is the focus of many screening tools (Posner et al., 2011). It is clearly understood that both ideation and behavior are predictive risk factors for death by suicide and should be examined as separate constructs (Beck, Brown, Steer, Dahlsgaard, & Grisham, 1999; Kuo, Gallo, & Tien, 2001).

In 2012, the U.S. Food and Drug Administration (FDA) named the C-SSRS as the “gold standard” for assessing suicidal behaviors (U.S. Food and Drug Administration, 2014). Since that time, however, there has been criticism that the C-SSRS over-identifies individuals at risk for suicide and that further study is needed to determine the severity with which false positives are identified (Giddens, Sheehan, & Sheehan, 2014).

Administration, Scoring, and Interpretation

The C-SSRS is designed for use with several populations in the clinical setting, including separate forms for children, adolescents/adults, and individuals with cognitive delay. For individuals aged 12 through adulthood, full and screener versions are available that can assess lifetime and recent history of suicidal ideation and behavior as well as changes since the last visit. The full versions of the C-SSRS contain approximately 17 items. For all iterations of the C-SSRS, four constructs are determined when measuring suicidal risk: (1) ideation severity, (2) ideation intensity, (3) actual self-directed suicide behavior, and (4) the lethality of past attempts.

The first subscale, Suicide Ideation, is a six-point ordinal scale used to assess the responder’s lifetime and recent (within past month) history of ideation. The questions assess higher levels of severity in a stepwise fashion. For example, question one is marked “yes” if the responder endorses thoughts about a wish to be dead or not alive anymore, whereas question five is marked “yes” if the responder endorses thoughts of killing oneself with details of plan fully or partially worked out and the subject has some intent to carry it out. The administrator is instructed to ask the first two questions from the Suicide Ideation subscale. If both answers to questions one and two are negative, the evaluator progresses to the next section. If both answers to questions one and two are positive, or if question two only is positive, the administrator is to ask questions three, four, and five then progress to the next section.

The second subscale, Intensity of Ideation, is an ordinal scale consisting of five items, including frequency, duration, controllability, deterrents, and reasons for ideation. These five items are only administered if the adolescent endorses at least one of the severity items discussed already. The third subscale, Suicidal Behavior, is a five-point nominal scale that assesses actual, interrupted, or aborted/self-interrupted attempts, as well as nonsuicidal self-injurious behaviors. Finally, the end of the measure contains a five-point ordinal scale that investigates the lethality or potential lethality created by the attempt from no damage to death.

Importantly, there is a primary care screener version (i.e., “Since Last Contact” and “Recent”) of the C-SSRS that exists and has been specifically adapted for use within primary care settings (http://c-ssrs.columbia.edu/documents/c-ssrs-screener-triage-primary-care/). This version is quick to administer, score, and interpret, and takes two to five minutes to complete. The screener version is thus ideal when considering a time-sensitive option for use within the primary care setting. The screeners contain six questions, with five questions specifically assessing suicidal ideation and one question focused solely on suicidal behaviors. On the screener versions, individuals’ responses are scored and led color-coordinated guidelines guide clinicians in referral a ages 7 to 11 years old, similar child’s developmental stage.

An electronic version of the C-SSRS is proposed for other clinical topics, as well as internet access (e.g., waiting time for suicidal risk and protecting the assessment and other personal information). The C-SSRS is available for primary care, emergency departments, and other mental health settings.

Available Norms and Psychometric Properties

Initial reliability and validity studies were conducted in clinical trials, including in the study (n = 124), (2) a reuptake inhibitor (SSRI) for a previous study for various patient groups: standard deviations for the intensity subscale v with Cronbach’s alpha rat in the group; found evidence of good internal consistency in their sample (p < .001).

The C-SSRS has been shown to be a reliable and valid measure of depression and suicidality (MADRS; Fantino & Moos, 2001) and the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996) in a similar study (n = 124; r = .80, p < .001). Greist and colleagues (2016) found the C-SSRS with a sample of inpatient validity and internal structure.
responses are scored and identified as either “Low Risk,” “Moderate Risk,” or “High Risk.” A color-coordinated guideline is found on the screener versions to assist with interpretation and guide clinicians in referral and treatment options following the assessment of safety. For children ages 7 to 11 years old, similar screener versions are available, with items modified to match the child’s developmental language abilities.

An electronic version of the measure, the eC-SSRS, is available online and was found to have good predictive and concurrent validity (Mundt et al., 2010). Participants in this study completed the eC-SSRS at baseline and follow-up. Those with initial negative lifetime reports of suicidal ideation and behaviors were less likely to endorse suicidal behavior at follow-up than those who initially reported lifetime ideation and behavior (18.3%; OR = 9.13; 95% CI, 6.47–12.88). The authors found the measure to have adequate sensitivity (67%) and specificity (76%) for identifying suicidal behaviors. The observed differences that were found in the validation study between psychiatric inpatients and healthy controls supported the predictive validity of the electronic instrument.

The eC-SSRS is proposed by developers to improve scoring accuracy and increase time needed for other clinical topics, as the electronic version can be completed in a variety of settings with internet access (e.g., waiting room, exam room, etc.). The C-SSRS materials provide a checklist of suicidal risk and protective factors, which can be used by the administrator in conjunction with the assessment and other pertinent information gathered.

The C-SSRS is available in 103 languages and has been effectively used in schools settings, primary care, emergency departments, hospital systems, military environments, prisons, police and fire departments, and education institutions (American Association of Suicidology & AAP, 2000). Resources and recommendations for follow-up are provided by the developers of the C-SSRS at their website (www.cssrs.columbia.edu).

Available Norms and Psychometric Data

Initial reliability and validity statistics of the C-SSRS were derived from three multisite clinical trials, including (1) adolescents who had attempted suicide 90 days before enrolling in the study (n = 124), (2) a drug trial of escitalopram, an antidepressant from the serotonin reuptake inhibitor (SSRI) class, in adolescents with a diagnosis of major depressive disorder without a previous suicide attempt (n = 312), and (3) adults admitted to an emergency department for various psychiatric reasons, including suicide attempts (n = 237). Means and standard deviations for each study are reported in Posner et al. (2011). Internal consistency of the intensity subscale was measured in all three studies indicated by Posner et al. (2011), with Cronbach’s alpha ranging from .73 to .94 (i.e., moderate to high), with higher internal consistency in the group of adolescent suicide attempters. Additionally, Brent et al. (2009) found evidence of good inter-rater reliability of measuring suicide ideation on a weekly basis in their sample (p < .001).

The C-SSRS has been shown to have strong convergent validity with other commonly used depression and suicidality items, including the Montgomery-Asberg Depression Rating Scale (MADRS; Fantino & Moore, 2009; Posner et al., 2011) suicide ideation item (r = .63, p < .001) and the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996; Posner et al., 2011; r = .80, p < .001) The C-SRSS has also been found to have good predictive validity.

Greist and colleagues (2014) found the measure predicted future attempts when the responder endorsed a lifetime history of suicidal ideation with a specific plan (OR = 25.53, 95% CI = 16.94–38.47, p < .001) and attempts (OR = 4.57, 95% CI = 3.6–5.7, p < .001). Madan and colleagues (2016) found the C-SSRS had good sensitivity (0.694) and specificity (0.674) when used with a sample of inpatient adults. Additional studies have supported the measure’s incremental validity and internal structure (Mundt et al., 2010; Gunes, Kilincaslan, & Eskin, 2015), Overall,
much research has shown the C-SSRS to be an adequate measure to use across settings and populations.

The C-SSRS has been found to have good predictive validity for both the Suicidal Ideation and Suicidal Behavior subscales. Adolescents who reported higher severity scores based on worst-point lifetime experiences of suicide ideation were significantly more likely to attempt suicide in the future (odds ratio [OR], 1.45; 95% confidence interval [95% CI], 1.07–1.98; Posner et al., 2011). Additional studies have revealed that high scores on the Suicidal Ideation, Intensity of Ideation, and Suicidal Behavior subscales significantly predicted future attempts (Arias et al., 2016; Gipson et al., 2015; Horwitz, Czyz, & King, 2015).

Considerations

Researchers have found that the C-SSRS is a reliable and valid measure of suicide risk, and its comprehensive nature (i.e., measurement of ideation, intensity, behaviors, and lethality as separate constructs) allows for greater precision in detecting risk factors of suicide. Additionally, its ability to collect thoughts and behaviors on a lifetime scale helps make it a particularly useful measure to assess over time, as most other scales only investigate recent suicidal thoughts and behaviors. The C-SSRS is free and available for use with multiple ages, settings, and formats.

The C-SSRS can be accessed from the developers’ website (www.cssrs.columbia.edu). Additionally, the C-SSRS has been shown to be an effective tool for use by providers such as pediatricians, who serve as gatekeepers to a larger medical and mental health community (Posner et al., 2011). It is a tool that can be used with minimal training and provides structure and stability to the process of attempting to assess risk in a reliable and brief amount of time. There are concerns the C-SSRS creates a high likelihood of false positives by identifying those who may not be truly at risk for suicide (Giddens et al., 2014). Being aware of this tendency can guide the clinician’s interpretation of results and treatment plan and referral process. When used to assess suicidality in youth patients in primary care, the C-SRSS should be considered a tool to improve identification of those who are at risk and to guide pediatric providers’ care and recommendations for further psychiatric evaluation and treatment.

Suicide Assessment Five-Step Evaluation and Triage (SAFE-T)

The Suicide Assessment Five-Step Evaluation and Triage (SAFE-T) provides a framework for performing suicide risk assessment and is widely used and accepted within pediatric primary care (Jacobs, 2007; McDowell et al., 2011). The tool is based on the American Psychiatric Association Practice Guidelines for the Assessment and Treatment of Patients with Suicidal Behaviors (American Psychiatric Association [APA], 2003; Jacobs, 2007). Clinical decision making begins by identifying the presence of warning signs and risk factors increasing the likelihood of suicide-related behaviors (Hawton & van Heeringen, 2009; Rudd et al., 2006).

The SAFE-T is a semistructured interview that uses a multidimensional approach to carefully investigate a multiple array of environmental and biological risk and protective factors. It provides a systematic process for the assessment and documentation of recent stressful life events and patterns of suicidal thoughts and behaviors. The SAFE-T also investigates protective factors that may counterbalance an individual’s likelihood of engaging in suicidal actions. Protective factors have been discussed previously and may include the ability to manage stress appropriately, religious beliefs, and the capacity to tolerate frustration (McDowell et al., 2011).
Assessing Suicidality and Safety Concerns

Administration, Scoring, and Interpretation

When using the SAFE-T, primary care staff are guided through the following five-step process: (1) assessment of risk factors, (2) identification of possible protective factors, (3) conducting a more formal suicide inquiry, (4) determination of current risk level and selection of appropriate interventions to reduce risk, and (5) documentation.

The first step involves gathering factors of suicidal risk through a clinical interview and a chart review. Areas to assess during this first step include the client’s suicide history, psychiatric history, stressors that may trigger suicidal crises, and current psychological and emotional symptoms. Warning signs are integrated into the evaluation, such as recent incidents of loss, substance abuse, and current family stressors. The interview then assesses for internal (e.g., capacity for distress tolerance, coping skills, or spiritual/religious beliefs) and external protective factors (e.g., access to care, support of family). The third step, or the suicide inquiry, involves asking questions to determine the client’s current mindset regarding suicidal thoughts or behaviors. In questioning youth perceived to be at risk, pediatric providers should ask specifically about suicide with a focus on suicidal thoughts, plans for suicide, and intent.

Once the evaluation is complete, the pediatric primary care staff determine overall risk level. This process relies heavily on clinical judgment, and the provider must weigh all factors assessed before determining an appropriate risk level. A youth deemed as High Risk Status has risk factors that far outweigh their protective factors. Interventions at this level would be either voluntary or involuntary hospitalization. Those delegated as Moderate Risk Status also have few protective factors compared to their current risk and may disclose ideation and a specific plan, but these youth lack suicidal intent or behaviors. Interventions at the moderate risk level may include hospitalization or detailed crisis planning. Finally, Low Risk Status includes those with less severe risk and more protective factors. They may experience ideation but lack a plan, intent, behaviors, or rehearsals. Careful safety planning, providing of resources, and referrals to ongoing treatment are preferred interventions at this level. The final step of the SAFE-T administration involves documentation of the information gathered, including the data supporting the risk level determined, the level of care required, and the rationale for the interventions provided (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009).

The SAFE-T was designed for and can be used routinely during any clinical encounter, especially when suspicions of suicide risk are prevalent. A free pocket guide is available to pediatric providers and practices through the SAMHSA website (www.sprc.org/resources-programs/suicide-assessment-five-step-evaluation-and-triage-safe-t-pocket-card). The SAFE-T is designed for use by health care and mental health care providers or other allied health professionals trained to work with individuals at risk for suicide. A project conducted in an ED found that 100% of 30 nurses who completed SAFE-T training responded “agree” or “strongly agree” that they had increased knowledge regarding the assessment and care of suicidal patients in an ED (Rico, 2016).

Considerations

The SAFE-T was designed as a framework to guide clinicians in assessing suicide risk. It is not a formal assessment measure but rather a tool to increase and organize clinical decision making. It was developed to address some of the challenges of using standardized measures in medical settings that have been found to lack utility and generalizability or have limited empirical evidence with specific populations. It utilizes a holistic, direct approach to suicide assessment, which provides the pediatric provider more relevant information related to risk than other commonly used assessment tools. The dissemination and implementation of this tool was designed using professional guidelines and conceptual models for the assessment and treatment of pediatric patients with suicidal behaviors outlined by the APA workgroup for the assessment and treatment
of patients with suicidal behaviors (APA, 2003). While the SAFE-T is a thorough and accessible tool for screening suicide risk in youth, its comprehensive nature contributes to increased time and burden within the primary care setting. The SAFE-T may not be realistic for universal use as an instrument for all adolescents within a pediatric primary care practice, but it could be of great benefit for those practices with integrated behavioral health clinicians who could conduct the suicide inquiry and assist with determining risk and proper interventions required.

**Suicide Probability Scale (SPS)**

The Suicide Probability Scale (SPS) is a 36-item self-report questionnaire originally aimed to measure suicide risk in adults and adolescents 14 years and older (Cull & Gill, 1988). The SPS was established as an empirically supported assessment to predict suicidal behavior (Cull & Gill, 1988). The form has been used with inpatient, outpatient, general, and college-aged populations and is adaptable to a pediatric primary care setting. Three summary scores are available for review: (1) a total weighted score, (2) a normalized T score, and (3) a Suicide Probability Score, giving an overall assessment of suicide risk. Items of the SPS measure four domains: Hopelessness, Suicide Ideation, Negative Self-Evaluation, and Hostility (Cull & Gill, 1988; Eltz et al., 2007). As compared to many other suicide screeners and assessment tools, the SPS includes a scoring manual and required interpretation of results based on norms and probability scores.

**Administration, Scoring, and Interpretation**

The SPS includes 36 items, each with a four-point Likert scale, ranging from 1 (“None or a little of the time”) to 4 (“Most or all of the time”), with higher scores indicating increased risk for suicidal thoughts and behaviors. The raw scores are weighted and summed to determine the Suicide Probability Score (SPS), which ranges from 0 to 100. The SPS categorizes responses into four categories: Subclinical (SPS = 0–24); Mild (SPS = 25–49); Moderate (SPS = 50–74); and Severe (SPS = 75–100). A table found in the manual can convert SPS scores into probability for suicide. Subclinical SPS score constitutes a low probability for suicide; Mild and Moderate SPS scores constitute intermediate probability for suicide; and Severe SPS scores equate to a high probability. This table allows the pediatric provider to consider the most appropriate method for calculating the Suicide Probability Score. High-risk scores indicate comparisons to individuals in suicide prevention programs, in crisis situations, or in inpatient psychiatric settings. Intermediate-risk scores correlate with those benefiting from outpatient treatment settings or in inpatient settings where no concern for suicidality or depression is identified. A suggested cutoff T score of 70 or more on the Total Weighted Score is used to indicate levels suggestive of the need for clinical intervention (Cull & Gill, 1988).

The measure could be ideal for pediatric primary care settings due to its flexibility in administration and feasibility of completing while being seen by the provider. The SPS can be administered individually or in groups and takes 5 to 10 minutes to complete, with a minimum of a fourth-grade reading level. An additional benefit in the pediatric primary care setting is the minimal amount of time required to score and interpret results.

**Available Norms and Psychometric Data**

The SPS was originally validated in a general-population sample (n = 562), a psychiatric inpatient sample (n = 260), and a group of individuals who had attempted suicide (n = 336). Adolescents comprised 16.6% of the total sample. Forty-three percent of the sample was Caucasian, 44%

were Hispanic, and 13% for item content validity. Total Scale has been shown to have consistency ranging from .78 for Hostility, .80 for excellent split-half reliability (Test-Retest reliability was .94). Internal consistency was .93 (Eltz et al., 2007), suicide measures. For it with the RFL-A (B = -. .

Cull and Gill’s initial for normative purpose: respondents. For exam inal consistency of item found by Cull and Gil that original psychom for adolescents (1993). when used with a vari et al., 1998), adolescent outpatient adolescent in settings (Eltz et al., 200 shown and suggests th for internal consistenc body of literature that i in predicting psychol 1996). It has not been interpreting results in

**Considerations**

The SPS should not be used due to its limited applications. It may however i assessing risk and An additional complex interpretation with the settings with integrated interpret results. This use this measure to as and requires purchase . The SPS is especially important changes in the patient setting, but it could be an assessment tool, t and interpreted in 10 is limited regarding t children under 14 ye improve the scale’s ut
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were Hispanic, and 13% were Black and other minorities (Cull & Gill, 1988). Good evidence for item content validity, criterion validity, and discriminant validity has been reported. The Total Scale has been shown to be excellent, with an alpha coefficient of .93 and internal consistency ranging from fair to good for the remaining scales (.62 for Negative Self-Evaluation, .78 for Hostility, .80 for Hopelessness, and .89 for Suicide Ideation). Similarly, there was fair to excellent split-half reliability ranging from .58 (Negative Self-Evaluation) to .93 (Total Scale). Test-retest reliability was reported as high across Cull and Gill’s (1988) original study ($r = .92$ and .94). Internal consistency was moderate to high, with Cronbach’s alphas ranging from .62 to .93 (Eltz et al., 2007). The SPS has been found to have solid convergent validity with other suicide measures. For instance, Osman et al. (1998) found that the SPS significantly correlated with the RFL-A ($B = -.54, p = .001$).

Cull and Gill’s initial validation assessment was criticized for not including more adolescents for normative purposes, as future studies found the measure less efficacious with younger respondents. For example, in a high school sample, researchers found that the scale’s internal consistency of item correlations was significantly lower in this younger population than found by Cull and Gill’s sample (Tatman et al., 1993). Tatman and colleagues determined that original psychometric properties were not accurately assessed when considering the SPS for adolescents (1993). However, more recent studies have been found to have clinical utility when used with a variety of adolescent populations, including high school students (Osman et al., 1998), adolescents living in a group home (Larzelere, Smith, Batemanhorst, & Kelly, 1996), outpatient adolescent medical clinic (Cappelli et al., 1995), and adolescent psychiatric inpatient settings (Eltz et al., 2007). Furthermore, evidence of predictive validity in adolescents has been shown and suggests that despite the potential for increased false positives and prior concern for internal consistency, this measure still has utility in pediatric primary care due to the large body of literature that indicates quantitative predictions perform better than clinical judgments in predicting psychological outcomes and suicidal behaviors in adolescents (Larzelere et al., 1996). It has not been studied in pediatric primary care, and thus, caution should be used when interpreting results in this setting.

Considerations

The SPS should not be considered as a first-line tool in assessing suicidality in pediatric primary care due to its limited demonstration of internal consistency and increased likelihood of false positives. It may however have utility when coupled with a clinical framework for further identifying and assessing risk and protective factors, such as the SAFE-T approach for clinical assessment. An additional complication and challenge is its complexity and need for thorough scoring and interpretation with the manual. It is therefore recommended for use in pediatric primary care settings with integrated behavioral health clinicians who are trained to administer, score, and interpret results. This will reduce the burden on PCPs to incorporate additional steps to adequately use this measure to assess suicidality in youth. Additionally, the SPS is not in the public domain and requires purchasing of assessment forms and manual from the publisher.

The SPS is especially useful in an outpatient setting because of its ability to sensitively monitor changes in the patient’s condition over time. This may be less needed within a primary care setting, but it could be useful with the identified high-risk patients with multiple risk factors. For an assessment tool, the SPS is fairly brief and quite thorough. It can be administered, scored, and interpreted in 10 to 15 minutes. Despite areas of strong psychometric properties, research is limited regarding the measure’s ability to predict future suicidal behaviors, particularly with children under 14 years of age. Additional research with more diverse populations is needed to improve the scale’s utility for routine and universal screening in primary care.
Case Example

The following case illustrates a common presentation in pediatric primary care and the decision making related to implementing a brief suicide assessment and screening tool to identify risk and assist with treatment planning and referral to mental health services.

Theresa is a 13-year-old Latina who was brought to her pediatrician’s office by her mother and grandmother following a visit to the ED two nights ago for severe abdominal pain. Following a complete workup in the ED, a quick chart review revealed no major medical cause explaining her abdominal pain, so Theresa was recommended to follow up with her primary care provider. During triage with the medical assistant at her pediatrician’s office, Theresa’s mother noted that Theresa had lost approximately 10 pounds in the past 3 months, was more difficult to wake in the morning, started to complain about going to school, and requested to stay home from school several times due to stomachaches. The medical assistant took Theresa and her family to the exam room and informed them that Theresa will privately meet with a nurse to answer standard questions asked of all patients 12 years of age and older seen during a visit with their doctor.

The nurse entered the room and noted that Theresa frequently looked to her mother to answer questions asked of her and gave minimal verbal responses. The nurse stated, “I would like to get a little more information about your stomachaches, and then I would like to ask your family to step out of the room for a few minutes while I ask you four questions we ask all of our adolescent patients. Is that okay with you?” Theresa and her mother both agreed. The nurse gathered more history from both Theresa and her mother related to her abdominal pain and learned that there is a family history of chronic headaches and occasional abdominal pain in Theresa’s mother and older sibling. Theresa acknowledged increased fatigue and recent difficulty waking for school in the morning but explained that she was having a harder time falling asleep at night, with decreased hours of sleep at night due to her stomach pain and discomfort. The nurse inquired about other potential changes in Theresa’s functioning and significant stressors coinciding with Theresa’s reports of the onset of abdominal pain, but she denied any significant stressors or major functional impairment.

Following is an excerpt from the conversation between the nurse and Theresa:

Nurse: Tell me when your stomach pain started.
Theresa: I can’t remember exactly. All I know is I started having stomachaches at the end of school last year.
Nurse: When is your stomach pain the worst?
Theresa: It seems to get bad at night when I am trying to fall asleep.
Nurse: Have you noticed any changes in your mood?
Theresa: No. Except I feel tired all the time and don’t seem to have much energy.
Nurse: Have you been feeling sad, down, or depressed lately?
Theresa: No. I feel fine. Sometimes I get upset because my stomach hurts and I can’t concentrate on anything else.
Nurse: What about worried? Have you been feeling anxious, nervous, or worried lately?
Theresa: No.
Nurse: I would like to ask you four questions that might be difficult to answer. We ask all of our patients to answer these questions, and it helps us know if you need any additional support.
Theresa: Okay.
Nurse: In the past few weeks, have you wished you were dead?
Theresa: Um, well, I guess sometimes I think things would be better if I just weren’t around anymore.

Nurse: Thank you loud. In the better off I know my devastate times just
Theresa: No. I know
Nurse: Have you
Theresa: No! I don’t be dead, I
Nurse: Thank you, youth your for you to were no lon so she is a with teens, mom identifi ing. After I the plan. Is
Theresa: Sure.

The nurse asked Theresa routine screening for any thoughts about Theresa’s mother because her change in mood and shared some Theresa and her family plan to gather resources willingness to engage in need to seek mental health.

Theresa’s nurse left Theresa. While Dr. Smith health referrals in the to confirm the suicide responses to the ASQ providers. During Dr. Smith and reviewed the loss, problems sleeping list of community men call to schedule an app her mother with the Na And informed them that think more about death visit for Theresa in 1 m accessed counseling se
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Nurse: Thank you for your honest answer. I know it can be scary and difficult to say out loud. In the past few weeks, have you felt that you or your family would be better off if you were dead?

Theresa: I know my family would miss me and I would never do anything because it would devastate them. They love me, and I can tell they are worried about me. But sometimes I just think it would have been okay if I were never born.

Nurse: In the past week, have you been having thoughts about killing yourself?

Theresa: No. I know I would never kill myself. I'm too afraid.

Nurse: Have you ever tried to kill yourself?

Theresa: No! I don't believe in suicide, and like I said, I am afraid to die. I don't want to be dead, I just wish I could have a break from all the stress.

Nurse: Thank you, Theresa, for being open and honest in answering those questions. Many youth your age have had similar thoughts, and I want to make sure to find a plan for you to get help so you do not have to feel that things would be better if you were no longer around. I would like to share with your mom what we have discussed so she is aware. We have a list of counselors near your neighborhood who work with teens, and I would like to come back to go over the list and help you and your mom identify a plan for you to get help and support with how you have been feeling. After Dr. Smith comes in and finishes her visit, I will come back in to go over the plan. Is that okay?

Theresa: Sure.

The nurse asked Theresa's mother to come back into the room and informed her that during a routine screening for safety and risk for suicide, Theresa endorsed thoughts and feelings that things would be better if she were no longer around. The nurse explains that Theresa denied having any thoughts about killing herself or any history of attempting to seriously hurt or kill herself. Theresa's mother became tearful as she explained how worried she had been about Theresa and her change in mood and behavior. Theresa's mother also discussed her own struggles with depression and shared some of the recent stress within the family, including parental separation and Theresa and her family moving out of their home into temporary housing. The nurse discussed the plan to gather resources for counseling in the community and assessed Theresa's and her mother's willingness to engage in counseling services. Both Theresa and her mother acknowledged willingness to seek mental health services.

Theresa's nurse left the room and briefly updated Dr. Smith prior to her meeting with Theresa. While Dr. Smith conducted the physical exam, the nurse gathered the list of mental health referrals in the community. The nurse also completed documentation in Theresa's chart to confirm the suicide risk assessment was conducted during her visit that day, Theresa's responses to the ASQ questions, and the plan to refer Theresa to community mental health providers. During Dr. Smith's exam, she discussed the impact of stress on mood and physical health and reviewed the potential relationships between Theresa's abdominal pain, weight loss, problems sleeping, and significant stressors. Theresa's nurse presented Theresa with the list of community mental health referrals and identified a plan for Theresa and her mother to call to schedule an appointment within the next week. The nurse also provided Theresa and her mother with the National Suicide Prevention Lifeline number, 1-800-273-TALK (8255), and informed them that should Theresa's thoughts or feelings worsen or should she begin to think more about death or suicide, she should call the number. Dr. Smith scheduled a follow-up visit for Theresa in 1 month to check on her symptoms, assess safety concerns, and ensure she accessed counseling services.
Summary and Conclusions

Youth suicide is a serious public health concern for the nation and a clinical challenge for health providers. Although there is no ideal tool that can predict suicidal behavior with certain accuracy, there are many options that will improve the ability to better identify risk factors, promote resilience, and assist in getting youth at risk for suicide the proper treatment. Primary care is a natural environment to care for youth at risk for suicide. Pediatric primary care is the ideal and most critical place to recognize, assess, and begin to treat youth at risk for suicide and safety concerns because it is where youth are most consistently seen. Although there are logistical and clinical challenges to conducting suicide assessment and screening into primary care, it is an important setting to understand and capture the correlates of suicide risk in children and adolescents. All of the clear warning signs and risk factors present in primary care settings, and youth and families often have a relationship with their primary care provider that allows for an examination of the potential relationship between risk factors and the presence or absence of suicidality.

Youth and adults who eventually commit suicide present to primary care within weeks or days of making a suicide attempt (Luoma et al., 2002; McCarty et al., 2011) and should become more comfortable and familiar with the idea of being asked about suicide risk and assessment of suicidality as a part of their whole health care. Knowledge of the common risk factors and warning signs can improve risk management in this setting and should inform pediatric practices’ willingness to integrate screening and assessment tools. Despite limitations, with the proper systems, tools, and training in place, suicide screening and assessment can be successful in pediatric primary care. Given its increasing function to serve as a gateway for behavioral health issues, the primary care practice is an ideal location for an early-detection model of suicide risk and assessment. Standardized screening for suicide risk in primary care can identify youth in need of behavioral health care before they make a fatal or serious suicide attempt.

Despite effective assessment tools, there still exist realistic barriers and challenges to implementing suicide assessment and screening in pediatric clinics. These include time, cost, lack of resources, and poor coordination of care between medical and mental health homes for youth. Many primary care providers and clinic staff are reluctant to ask questions about suicide risk or assess suicidality for fear of time limitations to adequately address potential concerns that arise. Some practices without integrated or colocated behavioral health clinicians struggle with the resources to implement suicide assessment and screening due to lack of staff, reduced appointment times, and overbooked schedules. A final barrier is lack of knowledge or awareness about the mental health resources within the community and the concern about screening for suicidality when mental health resources are not readily available or not known. Developing partnerships among physical and behavioral health providers is essential and may facilitate treatment planning and care coordination for youth with newly detected or worsening suicidal ideation. National resources are available to help provide access to mental health services or suicide prevention.

There are many screening and assessment tools available, and pediatric PCPs should identify the tool and model that is most appropriate and practical for the needs of their specific clinic and patient population. In general, technology should be used to the greatest extent possible to streamline the efficiency and feasibility of suicide screening methods (Boudreaux & Horowitz, 2014; Harris et al., 2017). The most important aspect of successful suicide assessment and screening in pediatric primary care is the recognition and commitment to practice transformation that recognizes risk factors and warning signs and that is prepared to appropriately respond when needed. This involves enlisting staff members who are trained and committed to identifying youth at risk, care coordination, and liaison with community partners to establish community mental health referral networks and safety plans and transfers to providers who can more thoroughly assess and manage interventions.
and a clinical challenge for suicidal behavior with certain better identify risk factors, a proper treatment. Primary Pediatric primary care is the at youth at risk for suicide seen. Although there are and screening into primary aspects of suicide risk in children in primary care settings, are provider that allows for the presence or absence of care within weeks or days and should become more risk and assessment of suicidal factors and warning psychiatric practices’ willingness the proper systems, tools, essential in psychiatric primary care, in need of behavioral health issues, the primary suicide risk and assessment. 

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Assessing Suicidity and Safety Concerns


Assessing Suicidality and Safety Concerns


Screening adolescent mental health

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Anxiety disorders are among the most common mental health conditions among adolescents. According to the National Institute of Mental Health, approximately 8% of children and adolescents in the United States experience anxiety disorders. These disorders can significantly impact a person's daily functioning and quality of life. Left untreated, anxiety disorders can persist into adulthood, affecting individuals in various aspects of their lives, including academics, social interactions, and job performance.

The American Academy of Pediatrics (AAP) recommends routine screening for anxiety disorders in primary care settings. The AAP guidelines emphasize the importance of early identification and intervention to prevent long-term negative outcomes. Screening tools are designed to identify children and adolescents who may benefit from further evaluation by mental health professionals.

The AAP guidelines for mental health screening in primary care settings include the use of validated screening tools such as the Ages and Stages Questionnaire (ASQ), the Children's Depression Inventory (CDI), and the Behavior Assessment System for Children (BASC). These tools help healthcare providers assess the presence of psychiatric symptoms and determine the need for further evaluations or referrals.

Anxiety Disorders

Broadly, anxiety disorders are considered a group of developmentally appropriate disorders. They can be diagnosed in children and adolescents, and they differ from normal anxiety and stress. Anxiety disorders can be debilitating and can significantly impact a child's daily functioning. Early identification and treatment are crucial in preventing long-term negative outcomes.

The most prominent childhood anxiety disorders include specific phobias, social anxiety disorder, and generalized anxiety disorder. These disorders are characterized by excessive worry, fear, and avoidance of situations. Early intervention, such as cognitive-behavioral therapy, can be highly effective in treating anxiety disorders and improving a child's quality of life.