Chapter 4
Effective Suicide Prevention and Intervention in Schools

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Suicide is a complex public health issue that requires the implementation of multiple interventions to address the constellation of risk and protective factors that may exist in students' lives. The school setting provides numerous opportunities for contribution to a comprehensive multi-tiered approach to suicide prevention, especially for youth who reside in communities with limited mental health resources. The implementation of such school-based suicide prevention efforts advances a culture of care that encourages help-seeking and connectedness among youth. While schools are often limited by budget and staffing constraints, collaborations with state and local partners, including health and behavioral health systems, can help to mitigate these barriers. This chapter outlines key elements of a comprehensive strategy to address suicide prevention and mental health promotion in schools.

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Evidence-based interventions and recommendations for practice and future research are highlighted.

A Comprehensive Strategy for School-Based Suicide Prevention

Growing evidence shows that comprehensive suicide prevention programs involving a variety of interventions that address multiple risk and protective factors for suicide may reduce suicide rates (Garraza et al., 2019; Knox et al., 2010; Stone et al., 2017). Three primary approaches, when used together, have the potential to reduce suicidal behaviors: (1) *prevention*, implementation of upstream interventions that support mental health promotion, foster the development of healthy coping strategies and connectedness among the entire school community, and encourage help-seeking when mental health concerns arise; (2) *early identification*, to identify students who may be at risk for suicide and establish clear protocols for how to respond when a student is identified as being at risk; and (3) *response*, to adopt strategies to connect students at risk for suicide with evidence-based, culturally appropriate care and respond to the needs of the school community when a student dies by suicide. In this chapter we provide an overview of the evidence in these areas but refer readers to recent reviews and meta-analyses (Brann et al., 2020; Singer et al., 2019) for more detailed discussions of the evidence regarding specific school-based suicide prevention programs and the strengths and limitations of each.

Prevention

Population-based interventions that address healthy coping strategies and life skill development, including those targeting elementary school classrooms, are particularly effective at reducing suicide (Wilcox et al., 2008; Wyman, 2014). For example, the Good Behavior Game (Barrish et al., 1969) is a program designed to promote positive social skills and effective coping behavior in classrooms and has been shown to reduce suicidal ideation later in life (Wilcox et al., 2008). The Youth Aware of Mental Health (YAM; Wasserman et al., 2015) program is an evidence-based universal program that educates high school students about mental health as well as risk and protective factors for suicide and provides them with skills to manage distress and suicidal behavior. In a cluster-randomized controlled trial, YAM prevented suicide attempts at a 12-month follow-up assessment (Wasserman et al., 2015). For a comprehensive list of suicide prevention programs available to schools, the Suicide Prevention Resource Center has a searchable database of school-based suicide prevention programs (SPRC, 2021). Additionally, the Substance Abuse and Mental Health Services Administration has published a toolkit for comprehensive suicide prevention in high schools (SAMHSA, 2012).

Schools should consider the various cultures of their students and families when identifying effective and meaningful interventions to support the development of healthy coping strategies and life skills. One example of a culturally grounded intervention is American Indian Life Skills, which has shown promise in reducing feelings of hopelessness, a risk factor for suicide (LaFromboise & Howard-Pitney, 1995). More work is needed to increase the application of suicide prevention in culturally responsive ways.

Schools can also play an important role in encouraging healthy, open, and transparent discussions among students and school staff about mental health and the importance of talking to a trusted adult or peer when needed (Goldston et al., 2010). Many schools have done this through communication campaigns (e.g., public service announcements, posters, social media campaigns). Although the literature base for the efficacy of suicide prevention communication materials lacks rigor, a systematic review revealed some evidence that media campaigns can positively influence student help-seeking behaviors, improve suicide awareness among students, and potentially even reduce number of suicides (Pirkis et al., 2019).

Early Identification

A key component of any comprehensive suicide prevention strategy is to proactively identify students who are at increased risk for suicide. Importantly, asking students about suicidal thoughts does not increase distress or cause harm such as increased suicidal ideation or behavior (Gould et al., 2005; Polihronis et al., 2020). Two common methods include screening for suicide risk and implementing training programs to help school community members identify and appropriately respond to and refer a student who is at risk for suicide.

Both universal and targeted screening can be conducted in schools (see Mournet et al., Chap. 7, this volume). Universal screening involves administering a screening tool to an entire grade or school, regardless of individuals' level of risk. By contrast, in a targeted screening approach, the screening tool is only administered to students who have known or emerging risk factors (e.g., history of suicidal behavior, talking about suicide or displaying warning signs, recent significant loss). The 11-item Columbia-Suicide Severity Rating Scale (CSSR-S), Ask Suicide-Screening Questions (ASQ), and Patient Health Questionnaire-9 modified for Adolescents (PHQ-A) are examples of tools that are commonly used in schools and medical settings to detect suicide risk among adolescents (Horowitz et al., 2009). Several studies have concluded that school-based screening for suicide risk identifies at-risk students who would not have been otherwise identified by school professionals (Gould et al., 2009; Scott et al., 2009). It is important to note that the validity of suicide risk screening tools for children under 10 years has not been established and tools developed for older youth may not be appropriate for younger children (Ayer et al., 2020). However, school staff can be trained to recognize warnings signs for younger children (e.g., talking about wanting to die, engaging in self-injurious

behaviors, displaying severe depressive symptoms, etc.) and refer them for further mental health assessment. Whenever there is a concern about suicide risk (based on the child's words or behavior, no matter the age of the child), the child should be referred for immediate follow-up with a trained professional.

Training programs that provide information about suicide warning signs and how to respond if these signs are identified are often called "gatekeeper trainings." Gatekeeper training programs typically train non-clinicians, in this case the students, parents, and/or school staff such as teachers, coaches, and office staff, to recognize and respond to students at risk for suicide. Gatekeeper programs with empirical support include Signs of Suicide and Sources of Strength, which have reported increases in help-seeking behaviors, improved perceptions of adult support options, and some evidence that they reduce student suicide attempts (see Ackerman et al., Chap. 5, this volume; Schilling et al., 2016; Wyman et al., 2010). Furthermore, promoting a school culture where school community members are able to openly discuss mental health and suicide risk may help to foster student belonging, connectedness, and community-level emotional support which are key protective factors for adolescent suicide (Whitlock et al., 2014).

Overall, research is still limited on the impact of gatekeeper training on student suicide risk (Yonemoto et al., 2019). Specifically, while initial evidence suggests that it can improve trainees' knowledge and confidence in identifying and responding to those at risk for suicide (Garraza et al., 2019), there is little evidence that this translates to behavior change in adults or students (Robinson-Link et al., 2019; Yonemoto et al., 2019) in a sustained manner.

Response to Student Suicide Risk

Once a student is identified as at risk for suicide, steps must be taken to conduct a more in-depth assessment of suicide risk, engage caregivers, and connect the student with evidence-based, culturally responsive care. Challenges can arise when mental health resources are not readily available to support individuals identified through early identification and assessment. Brief suicide safety assessment tools that help triage next steps for students that screen positive include the ASQ BSSA (National Institute of Mental Health, 2020) and the C-SSRS (Posner et al., 2011). It is critical that schools assess the availability of mental health resources – either within the school or in the community – prior to setting up a screening program. Additionally, schools should have a protocol for following up with students who screen positive and/or are referred for additional services to ensure that barriers are navigated, the referral appointment occurs, and the care transition is supported. Finally, schools should ensure that all staff are knowledgeable of the existing crisis protocol with defined roles for who responds to a student after disclosure of suicidal ideation or behavior, who notifies parents, and what follow-up will occur.

Safety planning is a key aspect of a response to any person at risk for suicide, and there are evidence-based protocols for conducting safety planning with adolescents

at high risk for suicide (Czyz et al., 2019; see Monahan & Stanley, Chap. 9, this volume). One example of an evidence-based safety planning intervention is the Stanley-Brown Safety Plan (Stanley & Brown, 2011). A strengths-based collaborative safety plan should be developed for any student who expresses thoughts of suicide with the goal of empowering the student to delay action in suicidal thoughts by considering accessible alternatives to self-harm. The safety plan should be developed on the same day the student screens positive for suicide, updated frequently, and should be shared with all providers as part of continuity of care.

A response to youth suicide risk may include inpatient or outpatient mental health treatment, including interventions offered directly in the school building. There is compelling evidence that children and adolescents are significantly more likely to initiate and complete evidence-based behavioral health interventions offered in schools compared to other community mental health settings (Jaycox et al., 2010). Some schools may be able to integrate programs that have been shown to reduce youth suicide risk in other settings (e.g., medical settings or homes). For example, a variety of family-based programs, such as the Family Bereavement Program and Family Check-Up, that were originally focused on reducing risk factors for suicide (e.g., substance use, mental health symptoms) can also reduce or prevent youth suicidal ideation while simultaneously impacting their original treatment targets (Reider & Sims, 2016). Programs like these, which have "crossover" or "spillover" effects on suicide risk, can be an efficient way for schools to address multiple behavioral health concerns. Schools with greater capacity for mental health services may be able to integrate programs like these, while others may find it most efficient to develop strong partnerships and referral pathways with community mental health providers to whom students can be referred.

Schools should also be prepared to respond in the event a suicide death occurs within their school community, otherwise known as postvention (see Diefendorf et al., Chap. 6, this volume). When a student dies of suicide, the school needs to respond in a timely, effective way that inhibits the spread of misinformation, providing information about normal responses to grief and loss and where to access resources. For example, the American Foundation for Suicide Prevention (AFSP) and SPRC created the "After a Suicide" toolkit to guide high schools in responding to a suicide loss (AFSP, 2018).

Opportunities for Action

Addressing suicide in schools can feel daunting, especially in the face of resource constraints and competing priorities. This chapter highlighted key components of a comprehensive strategy for school-based suicide prevention and identified practices with scientific support, as well as many areas in need of further, more rigorous research. To maximize schools' potential for success, we offer the following recommendations:

1. Early, universal prevention is a worthy investment. Although more research is needed, evidence suggests that the implementation of such programs (e.g., in elementary school) has the potential to reduce risk for not only suicide, but other adverse outcomes like drug and alcohol misuse and emotional and behavioral problems. Therefore, these early prevention programs may have a higher likelihood of impact and prove cost-effective for schools in the long run.
2. Consider cultural factors in any school-based suicide prevention research, policy, or practice. While we know that some youth populations are at higher risk for suicide (e.g., AI/AN and LGBTQ youth), many suicide prevention programs are developed, tested, and implemented without sufficient consideration of how programs could be enhanced or adapted to be more inclusive, culturally responsive, and effective for these more vulnerable populations (see Chu & Khoury, Chap. 11, this volume). Self-reported suicide attempts have been rising among Black youth even as attempts by other groups have declined suggesting the need to focus additional attention and resources on Black youth as well (see Sheftall & Boyd, Chap. 12, this volume). With so much work yet to be done on school-based suicide prevention, these considerations must not be an afterthought, but should be "baked into" any suicide prevention effort.
3. Schools should evaluate the impact of their suicide prevention programs, whether new or existing. As we and others (e.g., Katz et al., 2013) have highlighted, there is an urgent need for more data on the outcomes of suicide prevention practices in schools. Information about how programs impact student suicidal ideation and behavior is particularly valuable. Attention to fidelity and implementation of evidence-based models is also warranted (see Ackerman et al., Chap. 5, this volume). Evaluation efforts including randomized controlled trials may require additional funding and collaboration with outside partners such as academic researchers, local medical or mental health providers, and strong relationships with school districts.
4. Researchers should examine whether other school-based mental health initiatives and social emotional learning (SEL) programs have "spillover" effects on student suicide risk. With major, national movements supporting trauma-informed schools and SEL more generally, there may be opportunities to add measures of suicidal risk to examine whether such programs also impact suicidal ideation and behavior. For instance, youth exposed to trauma like child abuse and neglect are at risk for suicide; therefore, school-based programs intended to mitigate traumatic stress in this group may also prevent suicide. Promising universal SEL programs such as DBT STEPS-A (Mazza & Dexter-Mazza, 2019) offer students the opportunity to learn the types of individual and interpersonal coping skills that are effective in mitigating a suicidal crisis.
5. Researchers should work with practitioners and school mental health partners to develop suicide risk screening and assessment approaches for students as early as elementary school and test their validity and reliability, as well as feasibility and acceptability in school settings. Evidence-based guidance for identifying and managing suicide risk in very young students is lacking, despite concerning

increases in suicide among minoritized youth (Ayer et al., 2020; Lindsey et al., 2019).

6. Studies on how to effectively implement safety planning in schools are needed. Safety planning is an important piece of any suicide prevention effort, but most of the research on this approach comes from clinical settings (e.g., Czyz et al., 2019). Implementation studies on how to adapt safety planning for the school context and for youth of differing developmental abilities are needed to inform the use of this approach.

Conclusions

Schools are uniquely positioned to prevent youth suicide. There is a consensus in the field that a comprehensive approach to suicide prevention is the best way to prevent suicide, identify students at risk, and respond appropriately. Researchers and policymakers can contribute to advancing the science, practice, and policies that are still emerging. Specifically, policy interventions may include mandatory annual or biannual gatekeeper trainings for school staff, mandatory prevention programming or screening initiatives at certain grade levels, and training requirements for school-based mental health providers. Though additional research is needed to strengthen the evidence for these practices, schools can and should adopt thoughtful approaches to suicide risk identification and care that build connectedness, train staff to respond, and ultimately link youth to quality care.

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