Linking public schools and community mental health services: A model for youth suicide prevention

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Suicide in teenagers remains a major public health concern. It is the second leading cause of mortality in the U.S. for preteens (ages 10 to 12), adolescents (ages 13 to 18), and young adults (18 to 24 years of age).[1] Although based on small numbers, the suicide rate for females between the ages of 10 and 14 tripled over 15 years from 0.5 in 1999 to 1.7 per 100,000 people in 2014; the largest increase (200%) of any age group in the United States during this time period.[2] Suicides among females between the ages of 15 and 19 reached an unprecedented high in 2015 (5 suicide deaths per 100,000).[3] But males in this age group still have suicide rates nearly three times higher (14 deaths per 100,000).[3] Among the factors that have contributed to these trends are the pervasiveness of peer victimization (including cyberbullying) among middle school and high school students,[4,5] and the upward trend in rates of major depressive episodes among teens and young adults (aged 12–20) observed between 2005 and 2014, without a corresponding increase in mental health treatment for this age group.[6]

This report summarizes the findings from the first three years of implementing the Rhode Island Suicide Prevention Initiative (SPI). SPI is an innovative and coordinated youth suicide prevention referral system that links public elementary, middle and high schools with mental health services. The program diverts at-risk students who express suicidal ideation and/or non-suicidal self-harm from unnecessary Emergency Department (ED) visits by connecting the student to local mental health services with follow-up support.

METHODS

Between March 2015 and February 2018, nine public school districts in Rhode Island adopted SPI's 4-tier model (Central Falls, East Providence, Exeter-West Greenwich, Narragansett, North Kingston, Pawtucket, Providence, South Kingston, and Woonsocket). Tier 1 trains School Support Team members in the Crisis / Response Triage Team Model and the Rhode Island Suicide Prevention Screener (RISPS). The latter is a novel evidence-based tool that integrates the Columbia-Suicide Severity Rating Scale[7] with elements of the Violence Injury Protection and Risk Screen[8] to determine if a student is in immediate danger of killing her/himself and needs to be transported to a local hospital, or if the child's mental health needs can be met outside of an emergency department.

The 2nd tier links School Support Team members with clinicians at Bradley Hospital's Kids' Link RI™ program for children in emotional crisis. School Support staff use the RISPS results and consultation with Kids' Link clinicians to determine the risk level of each referred student. Kids' Link clinicians set up a mental health evaluation for the identified child within 1 to 7 days, and help parents find the most appropriate mental health services, after obtaining written parental consent.

The 3rd tier provides wrap around services. Parents must provide active consent to be contacted by telephone at two weeks, three months, and 12 months after their child's initial mental health evaluation. The Kids' Link clinician reviews treatment recommendations, barriers to a child's treatment, mental health/social services needed, and whether the referred student returned to school and stayed in school.

The 4th tier provides schools with universal suicide prevention gatekeeper training. Question, Persuade and Refer (QPR)® is for adults and the Signs of Suicide® Prevention Program (SOS) is for students. Schools in the cities of Central Falls, Pawtucket, Providence and Woonsocket are given priority for SOS workshops. In these cities more than 25% of the children live in poverty.[9] Neighborhood poverty is associated with many risk factors for suicide in older adolescents.[10]

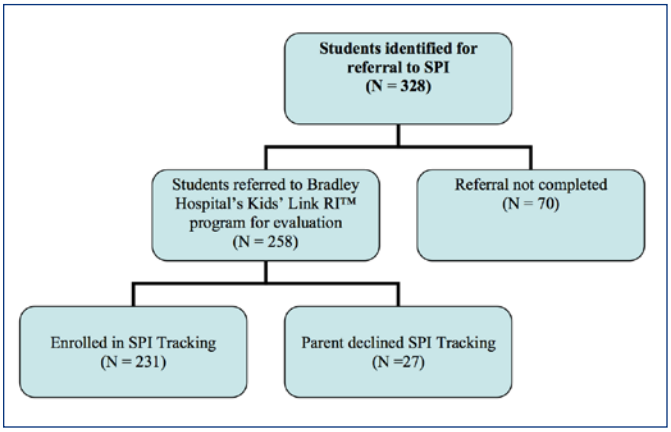
RESULTS

Over three years, 328 students from elementary, middle and high schools participating in SPI were identified as needing mental health services by a School Support Team member. The referral process to Kids' Link was completed on behalf of 258 students for a 78.7% referral rate (**See Figure 1**).

Reasons for incomplete referrals to Kids' Link varied. In some cases, the parent could not be reached, despite repeated phone calls from the school or a Kids' Link clinician. Other parents declined services. Students who did not complete the referral process were, on average, one year younger than students who completed the referral process (12 years of age versus 13 years of age, respectively), but the difference was not statistically significant.

As shown in **Table 1**, 62.0% of referred students were girls. Referred students ranged in age from five to 19 with a mean age of 13 years. Most parents agreed to a mental

Figure 1. Student Referrals from School Districts Participating in the Rhode Island Suicide Prevention Initiative



Data source: RI Suicide Prevention Initiative Referral Database, March 2015 – February 2018.

Table 1. Characteristics of students referred to Bradley Hospital Kids' Link RI Program through the Suicide Prevention Initiative (n = 258)

Suicide Prevention Initiative School Protocol[1]	N	Percent
Rhode Island Suicide Prevention Screener		
Completed		
Yes	221	85.7
Self-referred	3	1.1
No /Unknown	34	13.2
Parental Consent		
Refer to Kids' Link RI with follow-up		
Yes	231	89.5
No / Declined	27	10.5
Share information with school		
Yes	194	74.0
Partial information	29	11.2
No / Declined	35	13.6
Unknown	3	1.2
Students Referred		
Girls	160	62.0
5 to 10 years of age	26	16.2
11 to 14 years of age	80	50.0
15 to 18 years of age	54	33.8
Boys	98	38.0
5 to 10 years of age	31	31.6
11 to 14 years of age	37	37.8
15 to 18 years of age	30	30.6

[1]The protocol includes a screener, demographic referral form, and parental consent forms to refer the child for a mental health evaluation, for telephone follow-up at 2 weeks, 3 months and 12 months, and for communication with the child's school. Data source: 2015-2018 Suicide Prevention Initiative Referral Database.

health assessment for their child with telephone follow-up at 2 weeks, 3 months and 12 months (89.5%), and to have information shared with the child's school (74.0%).

We explored parents' responses to how their child was doing two weeks after the child was first evaluated for suicide (n = 164). Most parents reported that their child was now engaged in therapy and doing better (≈ 75%), but some parents were concerned that their child "continues to act out, not doing what is told in home and school." An estimated 15% of parents felt that therapy for their child was neither warranted nor necessary and reported "no concerns," or expressed anger at the school and mental health systems for stigmatizing their child. Attempts to reach parents who did not respond to the 2-week call are ongoing, which speaks to the challenge of including follow-up calls as part of a suicide prevention screening program.

CONCLUSION

A growing number of schools in the U.S. are exploring ways to provide school-based suicide prevention screening programs. Implementing these programs is challenging. Many school administrators are concerned about the resources and staff time needed to implement suicide screening programs,[11] and the difficulties of separating suicidal ideation from normal adolescent mood swings, with the potential for stigmatizing students. Additionally, school administrators often prefer a policy where every student who expresses any suicidal ideation is transported to the closest hospital emergency department, even if the behavior does not warrant such transport (e.g., superficial cuts to the wrist).

Emergency departments are an indispensable component of the U.S. health care system and play a critical role in the care of children and adolescents with mental health concerns.[12] But inappropriate emergency room use creates inefficiencies in care and costs.[12] Strengths of SPI are the direct linkage between public schools and a hospital-based program with the capacity to provide (1) immediate consultation to School Support Team members who are concerned about a student who shows signs of suicidal ideation, and (2) evaluation appointments within 1 to 7 days, evaluation appointments within 1 to 7 days, depending on the severity of the child's crisis. The most common clinical disposition for students referred for a mental health evaluation through SPI was outpatient mental health services, either hospital-based or at a local community mental health center. This was an important achievement. Although some emergency department visits are likely unavoidable, most youth experiencing emotional distress and in need of help do not need to go to an emergency room.-

While SPI has demonstrated success as a school-based suicide prevention intervention, there are limitations to this study that deserve mention. First, the evaluation of SPI did not include a group of comparison schools. School districts

enrolled in SPI in the 2nd and 3rd year of implementation provide an opportunity to compare "early adopters" to "late adopters," but SPI is not funded as a research study. Second, it would optimal to know the number of Emergency Medical Service (EMS) ambulance transports of students from their school to a local emergency room for suicidal ideation / attempts before and after SPI was implemented. Rhode Island EMS run reports include a uniform set of data elements, such as the location of the call and the EMS personnel's impression of the patient's primary problem or most significant condition. We are expanding the evaluation of SPI to include an analysis of EMS data. We hypothesize that results from the analysis will further support the importance of SPI as a suicide prevention model. Third, School Support Team members in four SPI school districts shared that many parents who were receptive to having their child referred for a mental health evaluation were less open to "check-in" telephone support over one year. Future evaluations will explore how parents perceive crisis intervention telephone support to improve consent rates for referral to Kids' Link and telephone follow-up.

SPI is a response to the challenges that exist in connecting children and adolescents who have behavioral and mental health problems to mental health services beyond those available in the school. Evaluations of suicide prevention screening programs that include referral of at-risk students to mental health services with follow-up are limited, and have not been done on a national scale.[11,13] Unique to SPI is the program's reach, which includes urban, suburban and rural school districts, and wraparound follow-up services for up to one year. The Providence School District, the largest in Rhode Island, has formally adopted the SPI protocol as a stand-alone section in the district's School Emergency Preparedness Plan for the district's 39 schools and nearly 24,000 students. This policy change serves as model for other school districts across Rhode Island and in other states.

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