ORIGINAL PAPER



Secondary Teachers' Perceptions of their Role in Suicide Prevention and Intervention

Victoria Hatton¹ · Melissa A. Heath² · Gordon S. Gibb³ · Sarah Coyne⁴ · Greg Hudnall⁵ · Cathy Bledsoe⁵

Published online: 9 January 2016 © Springer Science+Business Media New York 2016

Abstract Teachers are identified as frontline participants in school-based suicide prevention efforts. However, their training and roles in these efforts are often not clearly defined. Because 25 states currently mandate suicide prevention training for teachers and 14 other states encourage this training, teachers' perceptions about their role in suicide prevention are important to consider. As such, this study assessed secondary teachers' (N = 74) perceptions of their role in suicide prevention, barriers to participating in suicide prevention, and their perceived levels of comfort and confidence in identifying and intervening with suicidal youth. Participating teachers overwhelmingly agreed that they should have a role in suicide prevention. In comparison with untrained teachers, those with previous suicide prevention training were twice as likely to have had a suicidal student or peer of a suicidal student approach them to talk about suicide. Surprisingly, years of teaching were not correlated with teachers' comfort and confidence in identifying and supporting suicidal youth. Overall, teachers agreed

Victoria Hatton and Melissa A. Heath are co-first authors.

 Melissa A. Heath melissa_heath@byu.edu
 Victoria Hatton victoriahatton85@gmail.com

> Gordon S. Gibb gordon_gibb@byu.edu

Sarah Coyne smcoyne@byu.edu

Greg Hudnall greg4hope@gmail.com

Cathy Bledsoe cathyb@provo.edu

that limited training, fears of making the situation worse, and fears of legal repercussions were barriers that kept teachers from intervening with potentially suicidal students. In order to help teachers effectively perform their gatekeeper role, training efforts must consider teachers' perceptions, address perceived barriers, and facilitate teacher–student interactions that would increase the likelihood of students coming to teachers for assistance with suicidal concerns. To help schools in providing suicide prevention training for teachers, a list of recommended resources is provided.

Keywords Adolescent suicide · School-based suicide prevention · Teacher training · Teacher perceptions · Teacher roles in suicide prevention · Barriers

Introduction

Suicide is the second leading cause of death among 15- to 24-year-olds (Suicide Prevention Resource Center (SPRC), 2015). Based on the national survey, Youth Risk Behavior Surveillance System (YRBSS; Centers for Disease Control

- ¹ School Psychologist, Granite School District, Salt Lake City, UT, USA
- ² 340-K MCKB Department of Counseling Psychology and Special Education, Brigham Young University, Provo, UT 84602-5093, USA
- ³ 340-G MCKB Department of Counseling Psychology and Special Education, Brigham Young University, Provo, UT 84602-5093, USA
- ⁴ 2087 JFSB School of Family Life, Brigham Young University, Provo, UT 84602, USA
- ⁵ HOPE4UT, Suicide Prevention, Provo, UT, USA

and Prevention (CDC), 2013), 17 % of surveyed adolescents reported seriously considering suicide, 13.6 % made a suicide plan, and 8 % actually attempted suicide.

Acknowledging the critical need to address suicide prevention, in 2012, the US Department of Health and Human Services (US DHHS) Office of the Surgeon General and the National Action Alliance for Suicide Prevention (NAASP) published a National Strategy for Suicide Prevention. This publication includes a number of recommendations for improving suicide prevention in the USA, including Objective 5.2 which states, "Encourage community-based settings to implement effective programs and provide education that promote wellness and prevent suicide and related behaviors" (US DHHS Office of the Surgeon General and NAASP, 2012, p. 42). This recommendation includes schools, youth-serving organizations, faith-based organizations, and other settings where adolescents frequently spend their time (US DHHS Office of the Surgeon General and NAASP, 2012).

Although schools were just one of the many groups and community organizations mentioned in the 2012 *National Strategy for Suicide Prevention*, educators who work with youth on a daily basis have the potential to play a significant role in the prevention of adolescent suicide (American Foundation for Suicide Prevention (AFSP) and SPRC, 2011). In one school district, Freedenthal and Breslin (2010) indicated that 58.8 % of high school teachers reported having at least one suicidal student come forward to talk about suicidal thoughts/behavior. Additionally, of those teachers who were approached by a suicidal student, 25 % had never received training in suicide prevention.

In order to better support students' extreme emotional needs, teachers report a need for more information and a need for more collaborative work with school-based mental health professionals (Phillippo & Kelly, 2014). Addressing a need for training individuals who are on the frontline of suicide prevention, the 2012 *National Strategy for Suicide Prevention* Objective 7.1 states, "Thousands of first responders, crisis line volunteers, law enforcement professionals, clergy, teachers, school counselors, individuals working in the justice system and/or in law enforcement, and others who are on the frontlines of suicide prevention should be trained on suicide prevention" (US DHHS Office of the Surgeon General and NAASP, 2012, p. 46).

While preventing adolescent suicide is a major concern for those who work with youth, the motivation, risk factors, and warning signs of suicide are often misunderstood, discounted, or overlooked (Berman, Jobes, & Silverman, 2006; Pires, 2011). Moreover, strategies to prevent adolescent suicide are not well known or utilized in the places where these strategies could have the greatest impact (Berman et al., 2006; Freedenthal & Breslin, 2010). Unfortunately, many educators are unsure of their role in suicide prevention and unsure of how to respond when approached by suicidal youth (King, Price, Telljohan, & Wahl, 1999; Westefeld, Kettmann, Lovmo, & Hey, 2007).

In regard to seeking help from teachers, previous research indicates that students are often hesitant to talk with teachers about personal problems, including suicidal ideation (Pisani et al., 2012; Schmeelk-Cone, Pisani, Petrova, & Wyman, 2012). In general, the majority of students perceive adults as unapproachable (Cigularov, Chen, Thurber, & Stallones, 2008). In one study which included 381 high school students who had previously considered suicide, only about one in four students told an adult (Pisani et al., 2012). Additionally, in comparison with students who had not previously attempted suicide, previously suicidal adolescents were *less* likely to endorse or recommend talking to teachers and other adults (O'Donnell, Stueve, Wardlaw, & O'Donnell, 2003; Wyman et al., 2008).

In summary, (a) school-based youth suicide prevention is needed; (b) because of their daily contact with students, teachers are in a critical position to provide emotional support for students and to act as gatekeepers in suicide prevention; and (c) suicidal students may find teachers and adults unapproachable and are more likely to confide in their peers rather than adults. These important points must be thoughtfully considered when developing and implementing training for teachers. In particular, in addition to factual information, training must also consider additional social and environmental factors that describe the context in which suicide prevention is implemented. Training must address the need for youth to feel comfortable when approaching teachers, increasing the likelihood of youth sharing confidential information about potential suicide risk and suicidal ideation. Additionally, teachers must be able to take this information and make appropriate referrals to mental health professionals who are prepared to assist suicidal students.

Teacher Involvement in Youth Suicide Prevention

In 2013, noting that teachers were on the front line in supporting children's emotional well-being, President Obama called on teachers to help identify students' mental health disorders (Adams, 2013). Although President Obama was asking teachers for their assistance, for the majority of teachers in the USA, participation in suicide prevention training is no longer optional. According to the AFSP (2015), 25 states currently mandate suicide prevention training for teachers and 14 other states encourage this training.

Although training is mandated for many teachers, researchers admit that the existing literature on adolescent suicide prevention has not adequately addressed teachers' perceptions regarding their role in school-based suicide prevention (Crawford & Caltabiano, 2009; Nadeem et al., 2011). More specifically, Nadeem et al. (2011) conducted

focus groups and individual interviews with middle school teachers. Overall, the participating teachers perceived the importance of their role in suicide prevention efforts. They also identified the following ways that schools could encourage and support teachers' participation in suicide prevention: Schools need to provide clearly delineated policies regarding how teachers should respond to suicidal youth; teachers need to know how to seek assistance from school-based mental health professionals; teachers need opportunities to collaborate efforts with other teachers and staff; school mental health workers' services and resources need to be more visible and available; and ongoing trainings for suicide prevention must continue to prepare teachers for their roles and responsibilities.

To counter teachers' potential opposition and resistance to top-down mandates for suicide prevention training, schools must carefully consider and address teachers' perceptions about the proposed training and increase incentives for their buy-in (Patten, 2011; Richardson, 1998). As such, prior to providing training in suicide prevention, teachers' perceptions are important to consider (Nadeem et al., 2011). The remainder of this section includes a brief review of research that is related to secondary teachers' preparation for, training in, and perceptions of assisting in suicide prevention and supporting the emotional needs of students.

Are teachers prepared to assist in suicide prevention? In regard to supporting children's mental health in schools, teachers report a "global lack of experience and training," with less than one-third indicating they had the knowledge or the skills needed to support children's mental health needs (Reinke, Stormont, Herman, Puri, & Goel, 2011, p. 1, 7). Another example of research demonstrating teachers' lack of preparedness in working with suicidal students, Konopinski (2011) surveyed teachers in a suburban school district's secondary schools. Although the school district had a policy regarding how to address potentially suicidal students, survey results indicated 63 % of the teachers were unaware of the policy.

In another study, 167 high school teachers from five high schools in the upper Midwest area of the USA were asked how they responded when a student appeared suicidal. Of the 122 teachers who had worked with potentially suicidal students, almost half (n = 56) reported that they did nothing to assist (Westefeld et al., 2007). Additionally, Westefeld et al. (2007) reported that 67 % of the 167 teachers in their study were not aware of their high school's procedures for intervening with a suicidal student. Although Westefeld et al. did not directly address teachers' reasons for *not* responding to a suicidal youth, it is possible that teachers did not take action because they were uncomfortable intervening when they lacked the knowledge and confidence necessary to effectively respond. In summary, a common theme runs through the literature regarding teacher's involvement in school-based suicide prevention. The major takeaway message from Konopinski (2011); Reinke et al. (2011); and Westefeld et al. (2007) is that the majority of teachers are not aware of their school's policy regarding intervening with suicidal students. As such, when they suspect a student may be suicidal, the majority of teachers do not know what to say or do. These missed opportunities to intervene at a critical juncture in time indicate that suicidal youths are not receiving the support and assistance they need.

Does training prepare teachers to assist in suicide prevention? Post-training studies examining teachers' knowledge of suicide facts demonstrate teachers' ability to correctly answer questions related to clinical factors, such as warning signs and risk factors (Reis & Cornell, 2008). However, teachers were not as familiar with applied practice—what they might say or what they might do when intervening with suicidal youth (Konopinski, 2011; Pires, 2011; Westefeld et al., 2007; Williamson, 2010). Additionally, for gatekeepers who received training, their knowledge and applied skills diminished across time, with noticeable declines at three months to eight months posttraining (Cross et al., 2011; Ubido & Scott-Samuel, 2014). Based on these findings, Ubido and Scott-Samuel (2014) noted the need for *refresher courses* (p. 8).

What are teachers' perceptions of helping support students' emotional needs? Even though teachers have become increasingly responsible for the emotional welfare of their students, some teachers strongly resist this trend (Adams, 2013; Alisic, Bus, Dulack, Pennings, & Splinter, 2012; Nadeem et al., 2011). In one qualitative study, teachers were asked to define their roles in situations where students were exposed to a major emotional trauma (Alisic et al., 2012). One teacher suggested that teachers should be solely responsible for teaching academics and that the responsibility for teaching social and emotional skills should fall on school-based mental health professionals. Some teachers suggested that although they would like to help students struggling after a trauma, they simply did not have the time or resources to simultaneously attend to the whole class and to an individual student's emotional needs (Alisic et al., 2012).

Similar to teachers' perceptions of working with students after an emotional trauma (Alisic et al., 2012; Reinke et al., 2011), teachers may also demonstrate resistance when asked to participate in school-wide suicide prevention efforts. Because teachers are such important stakeholders to consider when developing and strengthening school-wide interventions, planning must take into account teachers' perceptions and identify potential barriers to their participation in suicide prevention efforts (Marchant, Heath, & Miramontes, 2013; Miller, Eckert, DuPaul, & White, 1999). In order to prepare and deliver an effective suicide prevention training program for teachers, knowing teachers' needs and attitudes about the training and associated professional development is critical (Nadeem et al., 2011; Reinke et al., 2011).

Purpose of Study

Efforts to better understand teachers' roles in suicide prevention have primarily focused on easily identified and measurable aspects of training efforts, such as factual information about suicide and suicide prevention (Konopinski, 2011; Lancaster et al., 2014; Williamson, 2010). However, even though teachers may understand the prevalence of adolescent suicide and the relevance of school-based suicide prevention efforts (Westefeld et al., 2007), teachers have difficulty applying this factual knowledge in the actual practice of identifying and responding to suicidal students (King et al., 1999; MacDonald, 2004; Nadeem et al., 2011; Scouller & Smith, 2002).

Even though teachers knowingly or unknowingly interact with suicidal students on a daily basis, they may be unaware of students' suicidal thoughts and intentions. Even in situations where teachers are aware, they are often unsure about how to render assistance (Freedenthal & Breslin, 2010; Konopinski, 2011; Nadeem et al., 2011). Walsh, Hooven, and Kronick (2013) note that suicide is a very sensitive topic and particularly difficult to discuss with students. Many teachers do not know what they should say or how they should respond to a suicidal student. They may fear that their attempts to intervene will actually do more harm than good; that if they ask a question about suicide, the student will admit to suicidal thoughts; that after this admission they will be in an overwhelming situation of independently intervening with no one to assist them; and that they will not be able to summon the help that the student so desperately needs (Walsh et al.).

When preparing teachers to assist in school-wide suicide prevention, the emotional aspects of intervening with suicidal students must also be considered. In addition to understanding and identifying suicide risk factors, teachers need to know what they can actually do to help—and teachers need to feel comfortable and confident in applying suicide prevention strategies (Berman et al., 2006; Johnson & Parsons, 2012; Kidger, Gunnell, Biddle, Campbell, & Donovan, 2010; Walsh et al., 2013).

The purpose of the current study was to gain insights into teachers' perceptions of their role in suicide prevention, their perceived level of comfort and confidence in identifying and intervening with suicidal students, and barriers to teachers' participation in suicide prevention efforts. Summarized feedback from teachers' perceptions will assist schools in tailoring suicide prevention training to better meet teachers' needs and to ultimately strengthen school-based suicide prevention efforts.

Research Questions

In regard to junior high and high school teachers' perspectives concerning their involvement in adolescent suicide prevention, this study focused on the following research questions:

- What are teachers' perceived roles in preventing youth suicide?
- What percentage of teachers has been approached by a suicidal student or peer of a suicidal student?
- How comfortable and confident are teachers in recognizing, identifying, and intervening with potentially suicidal students?
- Compared to teachers with no previous training in suicide prevention, do teachers with previous training report higher levels of comfort and confidence in recognizing and intervening with suicidal youth?
- To what extent do teachers agree/disagree with certain barriers which might deter their participation in youth suicide prevention?
- How are teachers' perceptions of their comfort and confidence in recognizing and identifying potentially suicidal students related to teachers' experience (years teaching adolescents), perceptions of roles in suicide prevention, and perceptions of barriers to providing suicide prevention?

Method

This study employed survey research methods to elicit responses from participating teachers. Because of teachers' central stakeholder role in school-based suicide prevention efforts, a questionnaire was developed in order to gather and consider teachers' insights and perceptions (Krosnick, 1999; Marchant et al., 2013). The development of the final questionnaire for this study was based on an initial pilot questionnaire. The pilot questionnaire assisted the researchers in gauging participants' understanding of the proposed questions and identifying common themes in teachers' perceptions regarding their roles in suicide prevention.

Pilot survey A pilot questionnaire (see Appendix 1) was administered to 122 teachers from the participating suburban school district located in western USA. Fifty percent of the schools in this district are Title One schools, indicating about half of the schools serve 40 % or more students enrolled in free or reduced cost for school lunches. Regarding linguistic diversity, approximately 45 languages are spoken by parents and students attending this district. Student ethnicity is primarily White (85 %), with Latino being the largest minority ethnic group (approximately 13 %).

In early 2013, teachers from the participating district were required to participate in two hours of suicide prevention training prior to their recertification. A series of suicide prevention trainings were planned over the ensuing year. After receiving district approval and the sponsoring university's IRB approval for conducting the pilot survey, an email invitation to participate was sent to 131 teachers who were registered for the initial district-wide suicide prevention trainings. The emailed invitation briefly described the study and included an Internet link to the questionnaire. Prior to the scheduled training, teachers were asked to either complete the online questionnaire or to complete a paper and pencil version of the questionnaire. To avoid duplication, teachers were instructed to only complete one questionnaire. To encourage participation, teachers were told that results from the questionnaire would be used to inform the upcoming training session's content.

The pilot questionnaire was completed by 122 individuals of the 131 teachers attending the training (93 % participation rate). The pilot questionnaire was completed predominantly by elementary public school teachers (n = 78, 64 %). However, of these teachers, 24 (31 %) reported being approached by a suicidal student or a peer of a suicidal student who requested assistance.

The remaining participants were teachers (n = 44,36 %) who reported currently teaching or previously teaching middle school or high school. Of these teachers, almost half reported being approached by a suicidal student or peer of a suicidal student who requested assistance. To obtain greater insights into teachers' perceptions, the pilot questionnaire included both open-ended questions and questions with a selected set of Likert scale response options. Quantitative questions were followed by openended questions, allowing participants to further explain their quantitative responses. For example, teachers were asked to explain their reasons "for agreeing/disagreeing that teachers should have a role in suicide prevention." This allowed participants the opportunity to express their reasoning as to why teachers should or should not have a role in suicide prevention. Teachers were asked about their perceived comfort and confidence in identifying and intervening with suicidal students. Comfort and confidence were considered important perceptions underlying how and if teachers would actually follow through with an intervention, such as engaging in conversations with potentially suicidal students. In previous research studies, which focused on sensitive topics such as suicide, participants were asked questions about both comfort and confidence, because an individual may have confidence in their knowledge and skills to address sensitive topics, but may not feel comfortable in doing so (Cohall et al., 2007; Deutschlander, 2010; Jones et al., 2007; Westling, 2010).

The final questions included in the pilot questionnaire were open-ended questions. These questions allowed participants to explain why a teacher might feel uncomfortable or lack confidence when "identifying" or "helping" suicidal students. Open-ended questions in the pilot questionnaire provided an option for teachers to more fully explain their perceptions of teachers' roles in youth suicide prevention. Teachers' responses to open-ended questions were coded for themes and frequency by using the steps of thematic analysis outlined by Braun and Clark (2006). These steps included becoming familiar with the text by extensive review, generating initial codes by identifying themes and patterns, identifying broad themes within the data, and reviewing the themes previously identified to determine relevance. After two reviewers (one graduate student and one faculty member) reviewed, discussed, and came to a consensus on mutually identified themes, major themes were then defined and summarized (Braun & Clark, 2006). Responses to the open-ended pilot questions influenced the development of the final questionnaire's questions and response options.

Participants As a result of this district's interest in training teachers for suicide prevention and the district's willingness to participate in the study, the finalized questionnaire was administered in the same school district as the pilot questionnaire. The associate superintendent of the participating school district accepted the invitation to include his secondary teachers in the study. Teachers in this district were slated to participate in the required district training at some point prior to their three-year state license recertification. The student services secretary sent an email invitation to the district's 278 secondary teachers (grades 7-12) to complete the questionnaire. The email contained an Internet link to an online Qualtrics questionnaire. Qualtrics [http://www.qualtrics.com/] is a privately owned research company based in Utah. The company offers online software to assist researchers in developing questionnaires, disseminating questionnaires, and collecting and analyzing data.

Of the 278 secondary teachers who received the invitation to participate, 113 teachers completed the questionnaire (41 % participation rate). However, 39 of the completed questionnaires were eliminated from the data analyses because these particular teachers had not taught adolescents for a minimum of one year, an exclusion rule determined by the researchers in advance of data collection. Ultimately, 74 of the potential 278 secondary teachers were included in the data analysis, 26.6 % of all secondary teachers in the participating district.

Based on data from 74 participants, the majority of the secondary teachers taught more than one grade level. All participating teachers taught for a minimum of one year. A majority of participants (81 %) taught in general education classrooms. The average participant's age was 44, and the majority of participants were female (70 %). Sixty-one percent of the participants' highest degree was a bachelor's degree; 36 % held master's degrees; and 3 % held a specialist degree. Participating teachers completed their highest earned degree from 1971 to 2013, with the median year being 2004. The range of years participants reported teaching adolescents was from 1 to 41 years (median = 12 years; M = 14; SD = 11).

Questionnaire Three school psychology graduate students and an associate professor in School Psychology developed and refined the study's finalized questionnaire (see Appendix 2). Prior to distributing the finalized questionnaire, the sponsoring university's Institutional Review Board (IRB) formally approved the proposed research, including the questionnaire. The questionnaire specifically addressed the proposed research questions. To minimize completion time, open-ended questions were not included on the final questionnaire. Teachers were asked to check response options that applied to their perceptions of and experiences with suicide prevention. On average, teachers took approximately five to ten minutes to complete the questionnaire.

Two basic questions were asked to determine whether and when teachers received training for suicide prevention: (a) "During your teacher training (college or graduate school) did any of your classes or learning activities address suicide prevention in schools?" and (b) "As a teacher, have you received suicide prevention training in the last five years?" Response options for each of these two questions included *yes*, *no*, and *don't remember*. In the data analyses, these responses were collapsed into *yes* or *no*. The few responses initially coded as *don't remember* were included with the *no* responses, so ultimately data of these two variables were analyzed as dichotomous variables.

Teachers were also asked the following question, "As a teacher, which of the following things do you currently do (check all that apply)?" Based on teachers' input from the pilot survey, four response options were offered to participants. Response options included the following: (a) *listen for warning signs of suicide in student conversation;* (b) *inform students of your availability to talk about suicide and other personal issues;* (c) *step in when students are bullied;* and (d) *act as a member of the school crisis management team.*

Teachers were also asked two questions about their experience with suicidal students. Teachers were asked whether a student had ever approached them (the teacher) and shared suicidal intentions and whether a student ever told them (the teacher) of a peer's suicidal intentions. Response options for these two questions were either *yes* or *no*.

The following four questions were posed to gather information regarding the participants' perceptions of their role and responsibility in youth suicide prevention and to determine their current involvement (role) in suicide prevention. All questions beginning with the phrase, "Do you *agree/disagree* with the following statement...," included response options defined by seven Likert scale anchors ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*).

- Do you *agree/disagree* with the following statement: Teachers should have a role in suicide prevention?
- Do you *agree/disagree* with the following statement: Teacher's major focus should be on academics?
- Do you *agree/disagree* with the following statement: Teachers have a responsibility to help their students emotionally?
- As a teacher do you *agree/disagree* that you *currently* have a role in suicide prevention?

Each of the remaining seven questions offered participants a seven-point Likert scale response option. Response options ranged from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Of these seven questions, the first four questions were intended to collect information regarding participants' comfort and confidence in identifying a suicidal student and in helping a suicidal student. These questions were simply and directly stated:

- I would be *comfortable identifying* a potentially suicidal student.
- I would be *confident identifying* a potentially suicidal student.
- I would be *comfortable helping* a potentially suicidal student.
- I would be *confident helping* a potentially suicidal student.

The final three questionnaire items (statements) were based on the pilot survey participants' most commonly reported barriers to helping and identifying suicidal students. Participating teachers indicated their agreement or disagreement to specific statements about what they perceived as potential barriers for teachers in general, not just specific to their personal experience. Response options varied from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Teachers responded to the following three conjectural statements:

• Teachers may be uncomfortable helping and identifying suicidal students because they lack the appropriate training.

- Teachers may be uncomfortable helping suicidal students for fear of making the situation worse.
- Teachers may be uncomfortable identifying and helping suicidal students because they fear legal repercussions.

Data Analyses

Continuous variables (including Likert scales) were summarized with descriptive statistics (means and standard deviations). Additionally, to better describe the distribution of participants' responses, Likert data are presented in tables displaying participants' responses associated with Likert scale anchors (see Tables 1, 2, 3).

Bivariate Pearson's correlation coefficients were computed to describe the strength of relationships between identified continuous variables and teachers' reported levels of confidence and comfort identifying and intervening with suicidal students (see Table 4). Additionally, analysis of variance (ANOVA) was utilized to determine whether teachers' levels of reported comfort and confidence in identifying and intervening with suicidal students were different for those teachers who had prior training compared to those who did not have prior training. To mitigate the likelihood of making a Type 1 error, throughout the data analyses, the required level for statistical significance was set at a conservative level, $p \leq .01$.

Results

Teachers' Roles in Suicide Prevention

Overall, teachers agreed that they should have a role in suicide prevention. Endorsement statistics for questions

regarding teacher roles are listed in Table 1. It is important to note that only one of 74 teachers indicated disagreement when asked whether teachers *should* have a role in suicide prevention. Additionally, when considering teachers' responses to statements regarding roles in suicide prevention, the majority of participants endorsed some level of agreement to all four questions listed in Table 1. However, a slightly higher percentage of teachers endorsed "Neutral" or some level of "Disagree" to two statements: "Teacher's major focus should be on academics" and "...you [as a teacher] currently have a role in suicide prevention."

In regard to teachers' self-report of how they currently play a role in suicide prevention, the majority of teachers (80 %) reported stepping in when aware of students being bullied. Additionally, 77 % reported listening for warning signs of suicide in student conversation. However, only one-third (34 %) of teachers reported offering their availability to talk with students about "suicide and other personal issues." Regarding a less commonly reported role, only 7 % of teachers reported participating as a member of their school's crisis management team—however, this needs to be interpreted with caution, given that teachers in this particular district are not encouraged nor expected to participate on a crisis team (personal communication with participating district's crisis team leader).

Teachers Approached by Suicidal Students and Peers of Suicidal Students

Of the 74 participating teachers, 31 (41.9 %) indicated students had either directly talked with them (the teacher) about suicide or talked with them (the teacher) about a peer who was suicidal. Twenty-four teachers (32.4 %) reported having student self-report suicidal intentions; 21 teachers (28.4 %) reported having a student divulge a classmate's

Disagree very strongly (1)	Disagree strongly (2)	Disagree (3)	Neutral (4)	Agree (5)	Agree strongly (6)	Agree very strongly (7)	M (SD)
Percentage of teache	ers responding in	each response cate	egory ^a				
Teachers should hav	e a role in suicide	e prevention					5.72
0	0	1.4	4.1	40.5	29.7	24.3	(.93)
Teacher's major focu	us should be on a	cademics.					5.11
0	1.4	10.8	12.2	35.1	32.4	8.1	(1.15)
Teachers have a resp	ponsibility to help	their students emo	otionally				5.25
0	1.4	0	8.2	58.9	26.0	5.5	(.80)
As a teacher do you	AGREE/DISAGI	REE that you curre	ntly have a role ir	n suicide prevent	tion?		5.20
0	0	8.1	16.2	36.5	25.7	13.5	(1.12)

Table 1 Percentages, means, and standard deviations describing teachers' agreement/disagreement to survey questions regarding roles (N = 74)

^a Numbers indicate percentage of teachers' responses across each Likert scale anchor point. Likert scales ranged from *disagree very strongly* (1) to *agree very strongly* (7)

Table 2 Teachers' comfort and confidence with suicide prevention roles: percentages, means, and standard deviations describing teachers' responses (N = 74)

Disagree very strongly ^a (1)	Disagree strongly (2)	Disagree (3)	Neutral (4)	Agree (5)	Agree strongly (6)	Agree very strongly (7)	M (SD)
I would be com	fortable identify	ing a potentia	ally suicidal	student			5.12
0	1.4	4.1	16.2	50.0	13.5	13.5	(1.06)
I would be conf	îdent identifying	a potentially	suicidal stu	Ident			4.47
0	6.8	8.1	35.1	36.5	4.1	8.1	(1.19)
I would be com	fortable helping	a potentially	suicidal stu	dent			4.91
0	0	8.1	20.3	52.7	8.1	9.5	(.99)
I would be conf	ident helping a j	potentially su	icidal studer	nt			4.34
0	2.7	17.6	37.8	31.1	2.7	6.8	(1.10)

^a With the exception of the column of means (M) and standard deviations (SD) to the far right, numbers in this Table are percentages of teachers' responses across each Likert scale anchor point

Table 3 Barriers to teachers intervening with potentially suicidal students: percentages, means, and standard deviations describing teachers' agreement/disagreement (N = 74)

Very strongly disagree ^a	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree	Mean (SD)
Percentage of teachers							
Teachers may be uncomfo	ortable helping and ider	ntifying suicida	al students be	ecause they	lack appropriate trai	ning	5.08
1.4	1.4	6.8	10.8	48.6	20.3	10.8	(1.17)
Teachers may be uncomfo	ortable helping suicidal	students for fe	ear of making	g the situati	on worse		4.88
1.4	4.1	10.8	8.1	51.4	13.5	10.8	(1.29)
Teachers may be uncomfo	ortable identifying and	helping suicida	al student bed	cause they f	fear legal repercussion	on	5.07
1.4	2.7	9.5	13.5	40.5	12.2	20.3	(1.39)

^a Numbers in this table, except under the *Mean (SD)* column, represent percentage of teachers' responses across each Likert scale anchor point. Anchor points ranged from *very strongly disagree* (1) to *very strongly agree* (7)

suicidal intentions. There was overlap in teachers who indicated having students self-report suicidal ideation and teachers who indicated having students report a peer's suicidal ideation. Fourteen (58.3 %) of the 24 teachers who had a student self-report suicide also had a student report about a peer's suicidal ideation.

Additionally, of those 31 teachers who were approached by students who reported suicidal concerns (for self or peer), almost half (15 of the 31 teachers, 48.4 %) offered students the invitation to talk about "suicide and other personal issues." On the other hand, of those teachers who were not approached by students, only one in four (11 of the 43 teachers, 25.6 %) offered such an invitation.

Regarding previous training for suicide prevention, 43 teachers reported previous training and 31 reported no previous training. Only seven of the 31 (22.6 %) teachers who reported no previous training in suicide prevention had students approach them (the teacher) about suicidal ideation (self or peer). However, 24 of the 43 (55.8 %) teachers who reported having previous training in suicide prevention had students approach them about suicidal ideation (self or peer). In other words, teachers with

previous training in suicide prevention, as compared to those who had no previous training, were more than twice as likely to have students divulge suicidal intentions or to have students report a peer's suicidal intentions, χ^2 (1, N = 74) = 8,173, p = .004.

Teachers' Comfort and Confidence in Identifying and Assisting Suicidal Students

A summary of descriptive statistics for *comfort* and *confidence* statements is included in Table 2. Based on a 1 (*disagree very strongly*) to 7 (*agree very strongly*) scale, teachers agreed that they would be comfortable (M = 5.1, SD = 1.06) and somewhat less confident (M = 4.47, SD = 1.19) identifying a potentially suicidal student. Additionally teachers agreed that they would be comfortable (M = 4.91, SD = .99) and somewhat less confident (M = 4.34, SD = 1.10) helping a potentially suicidal student.

A series of paired samples t tests revealed that overall, teachers reported being more *comfortable* identifying potentially suicidal students than they were *confident* in

		Years teaching	Teacher roles		in suicide prevention		Barriers to providi suicide prevention	Barriers to providing suicide prevention		Identifying SS	g SS	Helping SS	S
		teens	Should have role in SP	Focus on academics	Help students emotionally	Current role in SP	Lack of training	Fear making situation worse	Legal fears	Comfort	Confident	Comfort	Comfort Confident
Comfortable identifying SS	r	.094	.370	078	.050	.348	.125	.001	.106	1.000	619.	.401	.187
	d	.427	.001	.508	.676	.002	.289	.994	.368	I	000.	000.	.110
Confident identifying SS	r	.194	.285	.112	.024	.215	078	177	.039	.619	1.000	.329	.537
	d	860.	.014	.340	.842	.065	.511	.132	.744	000.	I	.004	000.
Comfortable helping SS	r	017	.415	.015	.413	.263	.278	760.	.064	.401	.329	1.000	.617
	d	.886	000.	006.	000.	.024	.017	.409	.587	000.	.004	Ι	000.
Confident helping SS	r	.091	.215	.197	.128	.110	064	231	185	.187	.537	.617	1.000
	d	.443	.065	.092	.282	.351	.587	.048	.114	.110	000.	000.	I

identifying potentially suicidal students (t(73) = 5.663, p < .001). Similarly, teachers reported being more *comfortable* helping potentially suicidal students than they were *confident* in helping potentially suicidal students (t(73) = 5.291, p < .001). However, no significant differences were found between teachers' comfort in *identifying* potentially suicidal students and teachers' comfort in *helping* suicidal students (t(73) = 1.652, p = .103). Likewise, no significant differences were found between teachers' comfort in *helping* suicidal students (t(73) = 1.652, p = .103). Likewise, no significant differences were found between teachers' confidence in *identifying* potentially suicidal students (t(73) = 1.055, p = .295). In other words, when considering comfort and confidence, teachers reported stronger agreement to being comfortable, rather than being confident, when identifying and helping suicidal students.

Potential Barriers to Participating in Suicide Prevention

In the pilot questionnaire, participants were asked why teachers might feel uncomfortable or lack confidence identifying or intervening with a suicidal student. The most common responses included the following three themes: Teachers might lack the appropriate training; teachers might fear making the situation worse; and teachers might fear legal repercussions.

Addressing the potential barriers, the final questionnaire included the statements included in Table 3. To indicate their level of disagreement or agreement to these statements, teachers responded on a 7-point Likert scale, ranging from *disagree very strongly* (1) to *agree very strongly* (7). Participants' responses followed a similar pattern for all three statements. Approximately 70 % of participants endorsed some level of agreement, while very few endorsed any level of disagreement on each of the three statements regarding the barriers to assisting a suicidal student. Descriptive statistics summarizing responses to these statements are included in Table 3.

Relationship of Comfort and Confidence with Teacher's Perceived Roles

Correlations that are bolded are considered to be statistically significant

Participants' level of agreement that "Teachers should have a role in suicide prevention" was correlated with their level of agreement with statements endorsing feelings of comfort when identifying potentially suicidal students (r = .370, p = .001) and when helping potentially suicidal students (r = .415, p < .001). More specifically, the statements, "I would be *comfortable identifying* a potentially suicidal student" and "I would be *comfortable helping* a potentially suicidal student" were both significantly correlated with perceptions that teachers should take a role in suicide prevention. However, the statements, "I would be *confident identifying* a potentially suicidal student" and "I would be *confident helping* a potentially suicidal student" were not significantly correlated with participating teachers' perceptions of the need to take a role in suicide prevention. Refer to Table 4 for the associated bivariate correlations and levels of statistical significance.

Additionally, only one statement, "Teachers have a responsibility to help their students emotionally" (agree-disagree 7-point Likert scale), was significantly correlated with their expressed comfort in helping a potentially suicidal student (r = .413, p < .0001). In addition, the question, "As a teacher, do you *agree/disagree* that you currently have a role in suicide prevention?" (7-point Likert scale), was significantly correlated with their expressed comfort when *identifying* a potentially suicidal student. However, comfort *helping* a potentially suicidal student did not reach a level of statistical significance. Overall, teachers' comfort statements, rather than their confidence statements, were more likely to be correlated with statements about their perceived roles in suicide prevention.

Relationship of Comfort and Confidence with Barriers to Providing Suicide Prevention

Table 4 also contains the correlations between the comfort and confidence statements (comfort in identifying suicidal students, confidence in identifying suicidal students, comfort in helping suicidal students, and confidence in helping suicidal students), and the three potential barriers to becoming involved in suicide prevention (lack of training, fear of making the situation worse, and fear of legal repercussions). Based on teachers' responses, there were no statistically significant correlations between the reported levels of comfort and confidence in identifying or helping potentially suicidal students and reported levels of agreement/disagreement with barriers to teachers providing suicide intervention.

Relationship of Training and Experience with Comfort and Confidence

In addition to questions about teacher roles and their comfort and confidence in identifying and intervening with suicidal youth, participants were also asked about their training in suicide prevention. Additionally, teachers were asked whether they had ever been approached by a youth who self-reported suicidal intent or who reported a peer's suicidal intentions.

Of the 74 participating teachers, 14 (18.9 %) reported having "classes or learning activities" in college or

graduate school that addressed suicide prevention. When asked whether they had received suicide prevention training in the last 5 years, 41 (55.4 %) reported having had such training and 33 (44.6 %) reported not having such training. Stated in another way, of the total sample, 43 (58.1 %) teachers reported having classes *or* learning activities in college or graduate school and/or having training in the past five years that addressed suicide prevention.

Previous training, rather than the number of years teachers were involved in teaching adolescents, appeared to have a stronger relationship with teachers' opinions regarding suicide prevention. When investigating correlations between the number of years teachers taught adolescents and teachers' reported levels of comfort and confidence in identifying and assisting suicidal students, none of the bivariate correlations were considered statistically significant (see Table 4). This indicates that teachers' levels of comfort and confidence did not appear to be correlated with their years of teaching experience.

In regard to teachers' previous training in suicide prevention (whether or not they had training), differences between trained teachers and those who had no training did not reach levels of statistical significance for *comfort* in identifying (p = .051) or *comfort* in intervening with a suicidal student (p = .472). However, teachers' levels of *confidence* in identifying (p < .000) and *confidence* in intervening (p = .007) with a suicidal youth were significantly stronger for those teachers who had previous training in suicide prevention. Simply stated, those who reported having training in suicide prevention reported significantly higher levels of confidence than those teachers who reported no previous training.

Discussion

The professional literature describing teacher roles in adolescent suicide prevention confirms that teachers, although somewhat knowledgeable, lack critical knowledge and skills related to identifying and assisting suicidal youth (Konopinski, 2011; Nadeem et al., 2011; Williamson, 2010). Strengthening school-based suicide prevention efforts requires effective training for teachers *and* subsequent follow-through to ensure teachers are carrying out their designated duties, most importantly that they are accurately applying skills they learned in training (Nadeem et al., 2011).

Although all but one teacher in this study indicated that they *should* have a role in suicide prevention, only onethird of teachers offered their availability to talk with students about suicide and other personal issues. Approximately 42 % of participating teachers indicated previous experiences with students approaching them (the teacher) about suicidal thoughts (regarding self or peer). Likewise, proactively identifying and understanding the barriers to providing suicide prevention and intervention give schools an opportunity to directly address and identify strategies to counter those barriers during training.

Limitations

This study was conducted with a convenience sample of high school teachers from one western US suburban school district. Hence, the results from this sample may not generalize to other populations. Additionally, over the previous decade, this particular school district and surrounding community have taken on a number of initiatives to prevent adolescent suicide. For example, the state in which this research was conducted recently required teachers to participate in 2 h of suicide prevention training prior to recertification. Reflecting this requirement, almost half of participating teachers reported receiving suicide prevention training during the previous 5 years. Consequently, the attitudes and perceptions of participants may have been influenced by top-down mandates of state and district suicide prevention policies and training requirements. Furthermore, the questionnaire in this study was specific to teachers' perceptions at one point in time and did not consider that teachers' perceptions may change across time depending on their training and experiences with suicidal adolescents.

Another limitation to consider, the questionnaire used in this study was refined based on a pilot questionnaire conducted with 122 teachers, 64 % of whom were elementary school teachers. In the pilot survey, in relation to primary school teachers, secondary teachers were three times as likely to have had a student approach them about suicide. Therefore, the refining process may have benefitted more from solely considering feedback from high school teachers who have more experience with suicidal youth.

Additionally, an important consideration when interpreting this study's data, the questionnaire did not clearly and operationally define *comfort* and *confidence*. Future research may benefit from operationally defining these terms and identifying specific elements of training and follow-up support that best strengthen teachers' comfort and confidence in fulfilling their designated roles.

Additionally, this study's questionnaire only investigated teachers' perceptions. From a practical point of view, observations were not conducted to investigate teachers' actual ability to effectively intervene with suicidal youth. Additionally, adolescents were not given the opportunity to offer their evaluative feedback regarding their perceptions of teachers' actual roles in suicide prevention and the perceived effectiveness of teachers' intervention with suicidal students.

Improving Teacher Training

Teacher training is considered to be a vital ingredient in the success of comprehensive evidence-based suicide prevention programs (Johnson & Parsons, 2012; Nadeem et al., 2011). However, the training must consider barriers which hinder the ability of teachers to effectively intervene with suicidal youth. Based on the information gathered in the current study, participants agreed that teachers in general may be uncomfortable helping and identifying suicidal students for a variety of reasons, including teachers' lack of appropriate training, fear that teachers' involvement may worsen the situation, and fear regarding potential legal repercussions. Future training may address these potential barriers and openly discuss teachers' perceptions of these barriers.

Based on teachers' perceptions, training in suicide prevention appears to be associated with increased comfort and confidence in identifying and assisting suicidal youth. Teachers who were trained over the previous 5 years were more comfortable and confident in identifying and helping potentially suicidal students. Similarly, teachers with direct experience with suicidal students—those teachers who indicated a student had confessed to being suicidal or had reported a classmate's suicidal intentions—were more likely to express stronger agreement with the comfort and confidence statements described in Table 2.

Although participants in this study were not offered operational definitions of comfort and confidence, they consistently self-reported slightly less confidence than comfort, indicating a slight distinction between the two terms. A dictionary definition identifies comfort as a state in which fear, anxiety, or physically unpleasant feelings are absent, while confidence is a feeling or belief that you can do something well or succeed at something [http://www. merriam-webster.com/]. Comfort appears to have more to do with an individual's state of being, while confidence is based on the perceived future outcome of preemptive action. It is possible that participants were acknowledging their ability to identify and assist suicidal students in theory, but were unsure of their ability to effectively perform such tasks in real-life situations and to ultimately make the critical difference required to prevent youth suicide.

Currently, training efforts have proven effective in increasing teachers' knowledge about depression and suicide (Klimes-Dougan, Klingbeil, & Meller, 2013), but have not proven effective in the more desired goals of suicide prevention—increasing the percentage of adolescents who seek assistance and ultimately decreasing suicidal attempts and suicides (Berman, 2009; Klimes-Dougan et al., 2013). Extending beyond the results of this study, more specifically, current research indicates the need for teachers to have increased opportunities to practice what they have learned by role-playing scenarios involving suicidal students (Cross et al., 2011; Johnson & Parsons, 2012; Nadeem et al., 2011). Rather than the traditional *listen and learn* approach, training *must* include a more direct and active learning experience with the elements of suicide prevention being taught, modeled, and practiced in directly applicable role-plays (Beidas, Cross, & Dorsey, 2014).

In regard to clarifying roles and expectations, teachers should be taught district policies regarding the teacher's role in suicide prevention (Hansen et al., 2012). In particular, roles should be clearly and simply defined, listing the specific steps to take when helping suicidal students. Training should offer opportunities for teachers to observe these steps being carried out (model desired skill), to roleplay and practice scenarios (Cross et al., 2011), and to receive feedback regarding their role-play.

Another consideration for school-based suicide prevention efforts, the AFSP (2015) recently updated information regarding state legal requirements for including teachers in suicide prevention. School administrators and mental health professionals must be aware of their state's requirements and must ensure that teachers' training and ongoing supervision line up with clearly defined roles that support state-mandated suicide prevention efforts.

Strengthening Youth Suicide Prevention: Recommendations for Future Research

In order to strengthen future research related to schoolbased suicide prevention efforts, the following recommendations are offered: increase teachers' participation in research; focus on specific tasks identified with suicide prevention; involve school-based mental health professionals; and investigate barriers to students reporting suicidal concerns. The subsequent information further explains these four recommendations.

Increase teachers' participation in research To more fully understand teachers' perspectives, future research efforts should encourage higher rates of teachers' participation. The pilot survey was conducted a few weeks prior to a training session. Participants were told that the data would inform the upcoming training. Ultimately 122 individuals of the 131 teachers attending the training completed a questionnaire (93 % participation rate). Additionally, participants were offered two options for completing the questionnaire: online (Qualtrics survey) or paper–pencil. In contrast, the participation rate for the finalized online survey was significantly lower (41 % participation rate). Teacher participation rates appear to be linked to their perceptions of how and when collected data will be used. Teachers appear to be more inclined to participate when they understand a direct and purposeful reason for completing a questionnaire. Additionally, previous research indicates improved participation rates when researchers provide more than one option for offering feedback (hard copy, electronic copy, or phone interview; Allen et al., 2002).

Focus on specific tasks identified with suicide prevention Research findings will have greater utility when efforts are focused on evaluating teachers' comfort and confidence in their ability to perform specific tasks commonly identified in school-based suicide prevention programs. For example, such tasks might include the following duties summarized from Berman et al. (2006) and Suicide Awareness Voices of Education (2007):

- Teachers must be aware of risk factors and warning signs to detect potential suicide risk.
- Teachers should help students feel comfortable when seeking assistance.
- Teachers should know how to talk with a suicidal student, particularly how to directly ask critical questions, such as, "Are you thinking about hurting yourself—are you thinking about suicide?"
- When concerned about a potentially suicidal student, teachers should know how to make referrals.
- Teachers should be aware of available supportive resources for students and staff.
- Teachers should be aware of school policies on suicide prevention, intervention, and postvention.
- Teachers should integrate aspects of suicide prevention into the existing school-wide curriculum, possibly health education.
- Teachers should be involved in ongoing training for suicide prevention.

Involve school-based mental health professionals Although not investigated in this study, school-based mental health professionals can assist in strengthening the effectiveness of teacher participation in youth suicide prevention. Walter, Gouze, and Lim (2006) noted that although teachers expressed a desire to assist in supporting children's mental health, teachers also acknowledged their lack of knowledge, training, and supervision to do so with confidence and effectiveness. Merely gaining knowledge at a one-time workshop is not sufficient to change how an individual conducts day-to-day practice (Beidas, Edmunds, Marcus, & Kendall, 2012; Erum, Gleacher, & Beidas, 2013). To ensure appropriate implementation of suicide prevention services, school-based mental health professionals may consider providing follow-up and offering the critical ingredients of ongoing supervision and consultation, helping teachers practice and gain confidence in applying newly learned skills and strategies (Erum et al., 2013). Additionally, school-based mental health professionals could assist districts in researching the effectiveness of evidence-based suicide prevention programs and strategies for conducting teacher training, keeping schools up-to-date on current research-based interventions, and identifying those strategies that best meet the needs of their school.

Investigate barriers to students reporting suicidal concerns. Future research should also investigate the communication barriers experienced by students, determining reasons as to why suicidal students and peers of suicidal students do not reach out to teachers. In a study conducted with students who engaged in self-harm and struggled with thoughts of self-harm, Evans, Hawton, and Rodham (2005) noted that adolescents who felt they needed help were unlikely to seek help from family members and teachers. These students were most likely to seek assistance from peers.

This finding is echoed in numerous research studies associated with suicide prevention, indicating that, when struggling with suicidal thoughts, the vast majority of adolescents do not turn to teachers and adults for support (Kalafat & Elias, 1992; Michelmore & Hindley, 2012; Pisani, 2012; Wyman et al., 2010). Not only are suicidal students unlikely to talk with adults about their situation, but only one in four students who know of another youth's suicidal intentions tells an adult (Kalafat & Elias, 1992).

This creates a major disjoint, considering that the vast majority of suicide prevention training focuses on educating teachers and school adults, teaching them about the warning signs of suicide and how to respond to potentially suicidal youth. Therefore, a high priority for future research would be to investigate adolescents' communication barriers and to investigate and consider the efficacy of programs that rely on peer-to-peer support for suicide prevention (e.g., *Sources of Strength*; Wyman et al., 2010).

Conclusion

Finding ways to increase the effectiveness of teacher training is a timely and critical matter, because, for many teachers, participating in suicide prevention training is no longer optional—it is mandatory (AFSP, 2015). To

Table 5 Selected Resources for Training Teachers and Developing School-Based Suicide Prevention Programs

Resource	Summary
More than Sad: Suicide Prevention Education for Teachers and Other School Personnel American Foundation for Suicide Prevention (AFSP), 2009	This program includes a manual for educators and video clips for training purposes. The manual details facts about adolescent suicide and outlines how teachers can help prevent it. Specifically, <i>More than Sad</i> encourages teachers to be aware of the warning signs of mental illness, so they connect students to the appropriate resources. http://www.morethansad.org/programmanual.pdf
Preventing Suicide: A Toolkit for High Schools Substance Abuse and Mental Health Services Administration (SAMHSA), 2012	This toolkit includes directions for identifying the needs of the school, increasing system-wide support of suicide prevention programs, as well as selecting and implementing the programs that best fit the needs of the specific school and community.
	http://store.samhsa.gov/shin/content//SMA12-4669/SMA12-4669.pdf
The Role of High School Teachers in Preventing Suicide Suicide Prevention Resource Center (SPRC), 2012	This seven-page resource identifies specific steps to reducing suicide risk in the schools. This guide also includes two pages of suicide prevention program summaries and website information for each program. A number of resources are listed for finding more information about suicide prevention among lesbian, gay, bisexual, transgender, and questioning (LGBTQ) youth.
	http://www.sprc.org/sites/sprc.org/files/Teachers.pdf
The Jason Foundation Staff Development Training Modules (2015)	These Internet training modules are provided at no cost to any interested person. Those who take the 2-h training create a password to document their participation [http:// jasonfoundation.com/login/]. These trainings are geared to teachers and school personnel and were created to help these individuals maintain or renew their licensing credentials. Currently, 13 states require this type of training to prevent youth suicide: TN, LA, CA, MS, IL, AK, UT, SC, WV, AL, OH, ND, and WY. http://jasonfoundation.com/get-involved/educator-youth-worker-coach/professional-development-series/

increase teachers' buy-in, planning for this training must include input and feedback from teachers.

In support of training teachers for school-based suicide prevention, this study's findings indicate that teachers who received training reported higher levels of confidence when intervening with suicidal youth. Additionally, youth were more likely to approach teachers to talk about suicide (regarding self or peer) when teachers had previous training and when they extended an invitation to discuss suicide and personal challenges. These findings have potential implications for future training efforts: Gatekeeper roles may be strengthened when training includes helping teachers offer an invitation, indicating an openness, to listen to youths' concerns about personal issues that are related to suicidal ideation. Additionally, not burdening teachers with responsibilities beyond their capabilities, training needs to specifically describe how teachers make mental health referrals at this critical juncture.

Developing a school-based suicide prevention program, preparing and implementing an effective teacher training program, and clearly communicating a written district suicide prevention policy may seem like a daunting list of duties. However, a number of free resources for developing such programs and policies are available online. Resources, listed in Table 5, are commonly promoted by numerous national suicide prevention organizations that promote research-based interventions (e.g., American Foundation for Suicide Prevention—AFSP; Centers for Disease Control and Prevention—CDC; The Jason Foundation; Suicide Prevention Resource Center Best Practices Registry [http:// www.sprc.org/bpr]; Substance Abuse and Mental Health Services Administration—SAMHSA). Additionally, these resources were selected based on their practical information geared to assist school leaders in developing training for suicide prevention that involves teachers.

Compliance with ethical standards

Informed consent All individual participants who were included in the study gave their informed consent.

Appendix 1: Pilot survey

Teacher Survey Questions

Your participation is voluntary (no rewards for participating and no negative repercussions for not participating). The survey takes approximately 10 minutes to complete. The following questions assess teachers' perceptions of suicide prevention. The survey is confidential, not tied to identifying information. This information helps school districts prepare suicide prevention training for teachers. Responses will be entered into a data set, analyzed, and summarized. Original surveys will be shredded.

- 1. ____Your age
- 1a. Please write in your school district, agency, or private school _____
- 2. Gender (circle your response): a) Male b) Female
- 3. Highest completed degree (circle your response)
 - a) Bachelor's degree
 - b) Master's degree
 - c) Educational Specialist degree
 - d) Doctoral degree
- 4. _____ What year did you complete your highest degree in education?
- 5. What kind of classes do you teach? (circle <u>all</u> that apply)
 - a) General Education Classes
 - b) Special Education Classes
- 6. _____ How many years have you been a teacher, including this year and years worked part time?
- 7. What kind of school are you currently teaching in? (circle all that apply)
 - a) Elementary School
 - b) Middle School or Junior High
 - c) High School
 - d) Alternative High School
 - e) Other (please explain)____
- 8. During your teacher education training did any of your classes or learning activities address suicide prevention in schools? (circle your response)
 - a) Yes b) No c) Don't remember
- 9. If yes to the previous question, indicate the type of training or experiences. (circle <u>all</u> that apply)
 - a) Reading assignment
 - b) Role play
 - c) Class discussion
 - d) Lecture
 - e) Practicum experience in schools
 - f) Seminar
 - g) Video
 - h) Other: describe
- 10. Do you agree/disagree that teachers should have a role in suicide prevention? (circle your response)a) strongly disagree b) disagree c) neither agree not disagree d) agree e) strongly agree
- 11. Referring back to question #10, explain your reason for agreeing or disagreeing that teachers should have a role in suicide prevention.
- 12. As a teacher, do you agree/disagree that you currently have a role in suicide prevention? (circle your response)a) strongly disagreeb) disagreec) neither agree not disagreed) agreee) strongly agree
- 13. If you currently have a role in suicide prevention, please explain that role.

- 14. Has a student ever told you that they were suicidal? (**circle your response**) a) Yes b) No
- 15. Has a student ever told you a **classmate** was suicidal? (**circle your response**) a) Yes b) No

Disagree strongly	Disagree	Neutral	Agree	Agree	Agree
)	strongly	very strongly
t identifying suic	idal students. (circle	e your response)			
Disagree strongly	Disagree	Neutral	Agree	Agree strongly	Agree very strongly
able helping a stu	dent who has confe	ssed to being suicid	dal. (circle your r	esponse)	
Disagree strongly	Disagree	Neutral	Agree	Agree strongly	Agree very strongly
It helping a studer	nt who has confesse	d to being suicidal.	(circle your resp	oonse)	
Disagree strongly	Disagree	Neutral	Agree	Agree strongly	Agree very strongly
n why teachers ma	y feel uncomfortal	ble identifying or in	ntervening with a	suicidal student.	
	Disagree strongly able helping a stu Disagree strongly t helping a studer Disagree strongly	Disagree strongly Disagree able helping a student who has confer Disagree strongly Disagree strongly thelping a student who has confesse Disagree strongly Disagree bisagree strongly	strongly Disagree Neutral able helping a student who has confessed to being suicid Disagree Neutral strongly Disagree Neutral thelping a student who has confessed to being suicidal. Disagree Neutral thelping a student who has confessed to being suicidal. Disagree Neutral thelping a student who has confessed to being suicidal. Disagree Neutral	Disagree strongly Disagree Neutral Agree able helping a student who has confessed to being suicidal. (circle your r Disagree strongly Disagree Neutral Agree thelping a student who has confessed to being suicidal. Agree Agree thelping a student who has confessed to being suicidal. Agree thelping a student who has confessed to being suicidal. Agree Disagree Disagree Neutral Agree Agree	Disagree strongly Disagree Neutral Agree Agree strongly able helping a student who has confessed to being suicidal. (circle your response) Disagree Disagree Neutral Agree Agree strongly thelping a student who has confessed to being suicidal. (circle your response) Agree strongly Agree Agree strongly thelping a student who has confessed to being suicidal. (circle your response) Agree Agree Disagree Neutral Agree Agree

16. I am **comfortable** identifying suicidal students. (**circle your response**)

21. Please explain why teachers may **lack confidence** when identifying or intervening with a suicidal student.

Appendix 2: Final survey

Teacher Survey Questions

 1
 Please indicate the name of your school district or county school system.

 2
 Age

- 3 Gender
- O Male (1)
- O Female (2)
- 4 Highest completed degree
- O Bachelor's degree (1)
- O Master's degree (2)
- Educational Specialist degree (3)
- O Doctoral degree (4)

5 _____What year did you complete your highest degree in education?

6 What type of classes do you teach? (you may select more than one)

- General education
- Special education

7 _____How many years have you been a teacher? (including this year and years worked part-time)

8 _____How many years have you taught adolescents (Grades 7-12)?

9 What grades do you currently teach? (check all that apply)

(1)

(2)

K	1	2	3	4	5	6	7	8	9	10	11	12
Oth Oth	ner (Please	Explain)										

10 During your teacher training (college or graduate school) did any of your classes or learning activities address suicide prevention in schools?

O Yes (1)

- **O** No (2)
- O Don't remember (3)
- 11 As a teacher have you received suicide prevention training in the last five years?
- **O** Yes (1)
- O No (2)
- O Don't remember (3)

12 Do you AGREE/DISAGREE with the following statement: Teachers should have a role in suicide prevention.

1	2	3	4	5	6	7
	Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly	Agree Very Strongly

13 Do you AGREE/DISAGREE with the following statement: Teacher's major focus should be on academics.

1	2	3	4	5	6	7
Disagree Very Strongly	Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly	Agree Very Strongly

14 Do you AGREE/DISAGREE with the following statement: Teachers have a responsibility to help their students emotionally.

1	2	3	4	5	6	7
Disagree Very Strongly	Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly	Agree Very Strongly

15 As a teacher do you AGREE/DISAGREE that you currently have a role in suicide prevention?

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

16 As a teacher, which of the following things do you currently do? (check all that apply)

Listen for warning signs of suicide in student conversation. (1)

□ Inform students of your availability to talk about suicide and other personal issues. (2)

 $\Box \quad \text{Step in when students are bullied. (3)}$

 $[\]Box$ Act as a member of the school crisis management team. (4)

- 17 Has a student ever told you that they were suicidal?
- **O** Yes (1)
- O No (2)
- 18 Has a student ever told you a classmate was suicidal?
- **O** Yes (1)
- O No (2)
- 19 I would be comfortable identifying a potentially suicidal student.

1	2	3	4	5	6	7
Disagree Very Strongly	Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly	Agree Very Strongly

20 I would be confident identifying a potentially suicidal student.

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

21 I would be comfortable helping a potentially suicidal student.

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

22 I would be confident helping a potentially suicidal student.

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

23 Teachers may be uncomfortable helping and identifying suicidal students because they lack the appropriate training.

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

24 Teachers may be uncomfortable helping suicidal students for fear of making the situation worse

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

25 Teachers may be uncomfortable identifying and helping suicidal students because they fear legal repercussion.

1	2	3	4	5	6	7
Disagree Very	Disagree	Disagree	Neutral	Agree	Agree	Agree Very
Strongly	Strongly				Strongly	Strongly

References

- Adams, J. M. (2013, June 3). President Obama calls on teachers to help identify mental health disorders in students. Oakland, CA: EdSource. Retrieved from http://edsource.org/2013/presidentobama-calls-on-teachers-to-help-identify-mental-health-disordersseek-help-for-students/32959
- Alisic, E., Bus, M., Dulack, W., Pennings, L., & Splinter, J. (2012). Teachers' experience supporting children after traumatic exposure. *Journal of Traumatic Stress*, 25, 98–101.
- Allen, M., Jerome, A., White, A., Marston, S., Lamb, S., Pope, D., & Rawlins, C. (2002). The preparation of school psychologists for crisis intervention. *Psychology in the Schools*, 39, 427–439.
- American Foundation for Suicide Prevention (AFSP). (2015). State laws on suicide prevention training for school personnel. Washington, DC: AFSP Public Policy Office.
- American Foundation for Suicide Prevention (AFSP) & Suicide Prevention Resource Center (SPRC). (2011). After a suicide: A toolkit for schools. Newton, MA: Education Development Center.
- Beidas, R. S., Cross, W., & Dorsey, S. (2014). Show me, don't tell me: Behavioral rehearsal as a training and analogue fidelity tool. *Cognitive and Behavioral Practice*, 21, 1–11.

- Beidas, R. S., Edmunds, J. M., Marcus, S. C., & Kendall, P. C. (2012). Training and consultation to promote implementation of an empirically supported treatment: A randomized trial. *Psychiatric Services*, 63(7), 660–665. doi:10.1176/appi.ps.201100401.
- Berman, A. L. (2009). School-based suicide prevention: Research advances and practice implications. School Psychology Review, 38(2), 233–238.
- Berman, A. L., Jobes, D. A., & Silverman, M. M. (2006). Adolescent suicide: Assessment and intervention. Washington, DC: American Psychological Association.
- Braun, V., & Clark, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Centers for Disease Control and Prevention. (2013). Youth online: High school YRBSS. Retrieved from http://www.cdc.gov/mmwr/ pdf/ss/ss6304.pdf
- Cigularov, K., Chen, P. Y., Thurber, B. W., & Stallones, L. (2008). What prevents adolescents from seeking help after a suicide education program? *Suicide and Life-Threatening Behavior*, 38(1), 74–86. doi:10.1521/suli.2008.38.1.74.
- Crawford, S., & Caltabiano, N. J. (2009). The school professionals' role in identification of youth at risk of suicide. *Australian Journal of Teacher Education*, 34(2), 28–39. doi:10.14221/ajte. 2009v34n2.3.

- Cross, W. F., Seaburn, D., Gibbs, D., Schmeelk-Cone, K., White, A. M., & Caine, E. D. (2011). Does practice make perfect? A randomized control trial of behavioral rehearsal on suicide prevention gatekeeper skills. *The Journal of Primary Prevention*, 32(3–4), 195–211. doi:10.1007/s10935-011-0250-z.
- Deutschlander, S. (2010). An analysis of training effects on school personnel's knowledge, attitudes, comfort, and confidence levels toward educating students about HIV/AIDS in Pennsylvania. *International Journal of Mental Health and Addiction*, 8(3), 444–452. doi:10.1007/s11469-009-9221-5.
- Erum, N., Gleacher, A., & Beidas, R. S. (2013). Consultation as an implementation strategy for evidence-based practices across multiple contexts: Unpacking the black box. Administration and Policy in Mental Health and Mental Health Services Research, 40(6), 439–450.
- Evans, E., Hawton, K., & Rodham, K. (2005). In what ways are adolescents who engage in self-harm or experience thoughts of self-harm different in terms of help-seeking, communication and coping strategies? *Journal of Adolescence*, 28(4), 573–587. doi:10.1016/j.adolescence.2004.11.001.
- Freedenthal, S., & Breslin, L. (2010). High school teachers' experiences with suicidal students: A descriptive study. *Journal* of Loss and Trauma, 15, 83–92.
- Hansen, A., Heath, M. A., Williams, M., Fox, J., Hudnall, G., & Bledsoe, C. (2012). No-suicide contracts with suicidal youth: Mental health professionals' perceptions and current practice. *Contemporary School Psychology*, 16, 145–159.
- Johnson, L. A., & Parsons, M. E. (2012). Adolescent suicide prevention in a school setting: Use of a gatekeeper program. *NASN School Nurse*, 27(6), 312–317. doi:10.1177/ 1942602X12454459.
- Jones, B. L., Sampson, M., Greathouse, J., Legett, S., Higgerson, R. A., & Christie, L. (2007). Comfort and confidence levels of health care professionals providing pediatric palliative care in the intensive care unit. *Journal of Social Work in End-of-Life & Palliative Care*, 3(3), 39–58. doi:10.1300/J457v03n03_05.
- Kalafat, J., & Elias, M. (1992). Adolescents' experience with and response to suicidal peers. *Suicide and Life-Threatening Behavior*, 22(3), 315–321. doi:10.1111/j.1943-278X.1992.tb00736.x.
- Kidger, J., Gunnell, D., Biddle, L., Campbell, R., & Donovan, J. (2010). Part and parcel of teaching? Secondary school staff's views on supporting student emotional health and well-being. *British Educational Research Journal*, 36(6), 919–935. doi:10. 1080/01411920903249308.
- King, K. A., Price, J. H., Telljohan, S. K., & Wahl, J. (1999). High school health teachers' perceived self-efficacy in identifying students at risk for suicide. *Journal of School Health*, 69(5), 202–207.
- Klimes-Dougan, B., Klingbeil, D. A., & Meller, S. J. (2013). The impact of universal suicide-prevention programs on the helpseeking attitudes and behaviors of youths. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 34(2), 82–97. doi:10. 1027/0227-5910/a000178.
- Konopinski, B. (2011). Teachers' knowledge of adolescent suicide (Doctoral dissertation). Available from ProQuest Dissertations and Theses database (UMI No. 3463967).
- Krosnick, J. A. (1999). Survey research. Annual Review of Psychology, 50, 537–567.
- Lancaster, P. G., Moore, J. T., Putter, S. E., Chen, P. Y., Cigularov, K. P., Baker, A., & Quinnett, P. (2010). Feasibility of a web-based gatekeeper training: Implications for suicide prevention. *Suicide* and Life Threatening Behavior, 44(5), 510–523. doi:10.1111/ sltb.12086.
- MacDonald, M. G. (2004). Teachers' knowledge of facts and myths about suicide. *Psychological Reports*, 95, 651–656.

- Marchant, M., Heath, M. A., & Miramontes, N. (2013). Merging empiricism and humanism: Role of social validity in the schoolwide positive behavior support model. *Journal of Positive Behavior Interventions*, 15(4), 221–230. doi:10.1177/ 1098300712459356.
- Michelmore, L., & Hindley, P. (2012). Help-seeking for suicidal thoughts and self-harm in young people: A systematic review. *Suicide and Life-Threatening Behavior*, 42, 507–524. doi:10. 1111/j.1943-278X.2012.00108.x.
- Miller, D. N., Eckert, T. L., DuPaul, G. J., & White, G. P. (1999). Adolescent suicide prevention: Acceptability of school-based programs among secondary school principals. *Suicide and Life Threatening Behavior*, 29(1), 72–85. doi:10.1111/j.1943-278X. 1999.tb00764.x.
- Nadeem, E., Kataoka, S. H., Chang, V. Y., Vona, P., Wong, M., & Stein, B. D. (2011). The role of teachers in school-based suicide prevention: A qualitative study of school staff perspectives. *School Mental Health*, 3(4), 209–221.
- O'Donnell, L., Stueve, A., Wardlaw, D., & O'Donnell, C. (2003). Adolescent suicidality and adult support: The reach for health study of urban youth. *American Journal of Health Behavior*, 27(6), 633–644.
- Patten, M. Q. (2011). Developmental evaluation: Applying complexity concepts to enhance innovation and use. New York, NY: Guilford Press.
- Phillippo, K. L., & Kelly, M. S. (2014). On the fault line: A qualitative exploration of high school teachers' involvement with student mental health issues. *School Mental Health*, 6(3), 184–200. doi:10.1007/s12310-013-9113-5.
- Pires, S. (2011). Preventing the silent epidemic of youth suicide: An assessment of high school teachers' knowledge of youth suicide risk and protective factors (Unpublished Doctoral dissertation). University of Hartford, CT.
- Pisani, A. R., Schmeelk-Cone, K., Gunzler, D., Petrova, M., Goldston, D. B., Tu, X., & Wyman, P. A. (2012). Associations between suicidal high school students' help-seeking and their attitudes and perceptions of social environment. *Journal of Youth* and Adolescence, 41, 1312–1324. doi:10.1007/s10964-012-9766-7.
- Reinke, W. M., Stormont, M., Herman, K. C., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly*, 26(1), 1–13. doi:10.1037/a0022714.
- Reis, C., & Cornell, D. (2008). An evaluation of suicide gatekeeper training for school counselors and teachers. *Professional School Counseling*, 11(6), 386–394.
- Richardson, V. (1998). How teachers change. Focus on Basics: Connecting Research and Practice, 2(C), 1. Retrieved from http://www.ncsall.net/?id=395
- Schmeelk-Cone, K., Pisani, A. R., Petrova, M., & Wyman, P. A. (2012). Three scales assessing high school students' attitudes and perceived norms about seeking adult help for distress and suicide concerns. *Suicide and Life Threatening Behavior*, 42(2), 157–172. doi:10.1111/j.1943-278X.2011.00079.x.
- Scouller, K. M., & Smith, D. I. (2002). Prevention of youth suicide: How well informed are the potential gatekeepers of adolescents in distress? *Suicide and Life-Threatening Behavior*, 32(1), 67–79.
- Suicide Awareness Voices of Education (SAVE). (2007). Schoolbased crisis management recommendations on suicide. Retrieved from http://www.helppromotehope.com/documents/ School_Crisis_Plan.pdf
- Suicide Prevention Resource Center. (2015). Suicide prevention basics: Scope of the problem. Waltham, MA: Author. Retrieved from http://www.sprc.org/basics/scope-problem

- Ubido, J., & Scott-Samuel, A. (2014, October). Rapid evidence review series: Suicide prevention training (LPHO Report Series, No. 99; Rapid Evidence Review Series, NO. 3). Liverpool, UK: Liverpool Public Health Observatory.
- U.S. Department of Health and Human Services (DHHS) Office of the Surgeon General and National Action Alliance for Suicide Prevention (NAASP). (2012). National strategy for suicide prevention: Goals and objectives for action. Washington, DC: Department of Health and Human Services. Retrieved from www.surgeongeneral.gov/library/reports/national-strategy-suicideprevention/full_report-rev.pdf
- Walsh, E., Hooven, C., & Kronick, B. (2013). School-wide staff and faculty training in suicide risk awareness: Successes and challenges. *Journal of Child and Adolescent Psychiatric Nursing*, 26(1), 53–61. doi:10.1111/jcap.12011.
- Walter, H. J., Gouze, K., & Lim, K. G. (2006). Teachers' beliefs about mental health needs in inner city elementary schools. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(1), 61–68.

- Westefeld, J. S., Kettmann, J. D. J., Lovmo, C., & Hey, C. (2007). High school suicide: Knowledge and opinions of teachers. *Journal of Loss & Trauma*, 12(1), 31–42.
- Westling, D. F. (2010). Teachers and challenging behavior: Knowledge, views, and practices. *Remedial and Special Education*, 31(1), 148–163. doi:10.1177/0741932508327466.
- Williamson, S. (2010). High school teachers' knowledge of adolescent suicide awareness and prevention (Master's thesis). Retrieved from http://csus-dspace.calstate.edu/handle/10211.9/147
- Wyman, P. A., Brown, C. H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J., & Pena, J. B. (2008). Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology*, 76(1), 104–115. doi:10.1037/0022-006X.76.1.104.
- Wyman, P. A., Brown, C. H., Lomurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., et al. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American Journal of Public Health, 100*, 1653–1661.