The Impact of a Psychoeducational Workshop on Awareness and Retention of Suicide Prevention Information

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EDC 728 – Implementation II

The College at Brockport, SUNY

Spring 2017

Abstract

Adolescent suicide is a significant public health issue in the United States. The development of youth suicide prevention education curriculum and school faculty training programs in American schools may reduce adolescent suicide rates. Legislation in 37 states, not including New York, and lawsuits against many American public school districts indicate a national trend towards mandating curriculum and training. This study examined the impact of a psychoeducational workshop in a high school setting on student awareness of essential information associated with suicide prevention. The instrument used for research was a ten item pre-test and post-test created by the principal investigator with evidence of validity and reliability. Results indicate the workshop improved student awareness and retention of suicide prevention information to a statistically significant level. Implications of research include a recommendation of implementation of a similar psychoeducational workshop within New York High School Health Education classes.

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Determining the Impact of a Psychoeducational Workshop on Awareness and Retention of Suicide Prevention Information

Introduction

Adolescent suicide in America is a significant public health problem (Moore, Whitlock, & Wyman, 2014). Suicide accounts for ten percent of all deaths of American youth. American suicide rates are ten times greater between preadolescence to early adulthood than any other stage of life (Moore et al., 2014). In 2014, suicide was the second leading cause of death among Americans aged 15 to 17 (Wilcox & Wyman, 2016) and the third leading cause of death for Americans aged 1 to 19 (Moore et al., 2014). In 2014, suicide was also the second leading cause of death among adolescents in New York State (Centers for Disease Control and Prevention, 2014). Each of these statistics is applicable to the target age of high school psychoeducational suicide prevention training. Therefore, schools have a unique opportunity to play a significant role in adolescent suicide prevention.

Funding limitations, demand for curriculum, and a lack of fear of legal repercussions stemming from impending lawsuits are some of the possible reasons why suicide prevention curriculum and faculty training is not currently mandated in most states. New York State presently does not have any laws pertaining to suicide prevention training or curriculum for its schools (Poland & Poland, 2015). New York State school districts, however, are not prohibited to enact their own original suicide prevention program. The development of youth suicide prevention education curriculum and school faculty preventative training programs in school districts throughout New York and nationwide may reduce adolescent suicide rates.

Passed and pending legislation in many states reflect a trend towards mandating faculty training in suicide prevention and suicide prevention curriculum for students (Franklin, 2015; Naifeh, 2007; PA, 2014; Poland & Poland, 2015; TX, 2015; WV, 2014). The Texas Suicide Safer Schools Plan reviewed the Texas legislative requirements for suicide prevention in public schools, identified resources, and made recommendations for improvement with prevention, intervention, and postvention (Poland & Poland, 2015), serving as an effective guideline for a psychoeducational workshop. However, the Texas Suicide Safer Schools Plan is formatted for much larger school districts than the examined district in the attached Capstone Project. As a result, a high school psychoeducational workshop focusing on student awareness and retention of essential suicide prevention information was developed in consideration of a smaller population size and limited resources.

The following review of literature concentrates on the need for suicide prevention curriculum for students and training for faculty. The review of literature will highlight effective content and implementation, the importance of reducing adolescent suicide rates, and legal and legislative developments reflecting a movement to mandate curriculum for students and training for faculty in high schools.

Literature Review

Public Health

In addition to emotional and psychosocial morbidity, high fiscal and societal costs associated with medical care, lost productivity, and secondary distress among family members and friends render adolescent suicide a significant public health problem (Moore et al., 2014). The Centers for Disease Control and Prevention (2014) states that in

2014, 42,773 Americans committed suicide. Suicide was the second leading cause of death for Americans in 2014 between the ages of 10 and 34, with 425 fatalities between the ages of 10 and 14, 5,079 fatalities between the ages of 15 and 24, and 6,569 fatalities between the ages of 25 and 34 (Centers for Disease Control and Prevention, 2014). From ages 14 to 20, the suicide rate rises from 2.64 to 12.93 per 100,000 American adolescents (Goldston, Gould, Petrova, Pisani, Schmeelk-Cone, Xia, & Wyman, 2013). Additionally, over one million high school students in America have been treated by a nurse or doctor for self harm (Wilcox & Wyman, 2016), which is a strong warning sign for suicide.

Seeking Treatment

According to the Centers for Disease Control and Prevention (2014), warning signs and risk factors for suicide are a combination of individual, relational, community, and societal factors that can contribute to the risk of suicide, but may or may not be direct causes. For example, easy access to lethal methods, such as firearms, which account for 50% of deaths by suicide in America (American Foundation for Suicide Prevention, 2013), do not necessarily mean a resident within a household that owns a firearm is suicidal. The Centers for Disease Control and Prevention (2014) list fourteen additional risk factors. Family history is the source of two risk factors with suicide and child maltreatment. Individual history is the source of three risk factors, reflected by previous suicide attempts, mental disorders, and alcohol or substance abuse. Cultural and societal factors are the source of three risk factors, through local epidemics of suicide, unwillingness to seek help due to stigma of mental health treatment, and cultural or religious beliefs supporting suicide being a noble resolution of a personal dilemma. Five recent changes in feelings and actions, namely hopelessness, impulsive or aggressive

tendencies, severe physical illness, isolation, and loss in context of relational, social, work, or financial, are all significant risk factors (Centers for Disease Control and Prevention, 2014). Trusted relationships in an individual's life can be the primary determinant to prevent suicide, thus awareness of risk factors may be an essential component of suicide prevention.

The need to encourage accessing formal mental health resources is especially important for adolescents experiencing suicidal ideation. Adolescents with suicidal ideation and a mental health condition seek help less often compared to those with a mental health condition alone (De Luca & Wyman, 2012). As a result, current suicide prevention strategies that rely on identifying youth who are already experiencing suicidal ideation or are in high risk groups and referring them for treatments are unlikely to be sufficient for lowering suicide rates as a result (Goldston, Gunzler, Petrova, Pisani, Schmeelk-Cone, Tu & Wyman, 2012). Therefore, it is important to understand the factors that facilitate or inhibit suicidal adolescents from seeking help from adults (De Luca & Wyman, 2012).

Help seeking behavior of suicidal youth is likely to be influenced by both general and suicide specific norms and attitudes (Goldston et al., 2012). Improving perceptions that adults are available to help suicidal youth and willingness to overcome secrecy requests may be integral to adolescent suicide prevention. Two potentially modifiable attitudinal factors exist that are specific to suicidal adolescents' help seeking behavior with adults. These suicide specific norms and attitudes may help to explain the tendency that has been documented among youth with suicidal ideation to avoid or reject help that appears to be readily available to them (Goldston et al., 2012). Reducing perceptions of

stigma associated with mental health concerns may be a determinant to reduce help seeking behavior. Increased awareness of the benefits to individual counseling in a school setting and associated confidentiality requirements may allow for increased willingness for adolescents experiencing suicidal ideations to access formal mental health resources (Goldston et al., 2012). Each of these modifiable attitudinal factors may be an essential component of effective adolescent suicide prevention training.

Cultural Factors

Schools in lower income communities, rural communities, and communities with a high concentration of Latinos are at a higher risk for suicide amongst its students. These cultural factors may stress the importance of implementing a suicide prevention curriculum for students and training for faculty in these school settings. Mental health services are underutilized in urban low income families due to deficient willingness or accessibility to seeking professional help (Goldston et al., 2012). In rural communities, youth suicide rates are between two to ten times above the national average, where suicides are more often associated with social isolation in rural areas than in urban areas (Goldston et al., 2012).

In addition to lower income communities, adolescent suicide is a higher risk in communities with a high concentration of Latinos. Thus, lower income Latino communities are at particularly high risk for adolescent suicide. Latino Americans have a lower rate of mental health service utilizations than other ethnic groups in America (De Luca & Wyman, 2012). Informal help seeking is also more common among Latinos than other ethnic groups in America who seek help more frequently from family members, friends, and religious leaders (De Luca & Wyman, 2012).

An additional cultural factor that may be related to adolescent suicide in America is gender. American females are generally more likely to disclose their distress resulting from a mood disorder and to access multiple forms of treatment than males (De Luca & Wyman, 2012). In contrast, American males die from suicide at a rate of 3.5 times that of women (American Foundation for Suicide Prevention, 2016). This may indicate that social stigma associated with accessing mental health support in males should be highlighted in suicide prevention training in a school setting.

Effective Treatment

Building adolescents' capacity to identify, manage, and recover from painful emotions through the use of internal strategies and support from key adults may be critical in disrupting trajectories toward suicide in this population (Goldston et al., 2013). Two dimensions of emotion regulation that are linked to suicide risk in adolescents are emotional clarity, or the ability to identify and understand one's emotions when upset, as well as access to effective strategies, or having the means to respond to and recover from emotional disturbances (Goldston et al, 2013). Suicide prevention training that includes information on how to access formal resources, such as school counselors, that can provide adult support and strategies to improve emotional clarity may lead to a decrease in adolescent suicide rates as a result.

Adolescents accessing effective treatment through formal resources can begin within the school setting with short term interactive psychotherapy, namely Cognitive Behavioral Therapy and Dialectical Behavioral Therapy, with a school counselor. According to the American Foundation for Suicide Prevention (2013), Cognitive Behavioral Therapy has been proven as an effective short term interactive psychotherapy

method for treating many individuals who have attempted suicide. Dialectical Behavioral Therapy has proven to be effective short term interactive psychotherapy method for treating many individuals with borderline personality disorder and recurrent suicidal ideation and behaviors.

School counselors can begin the process of referral to mental health professionals and physicians to administer medication and prolonged psychotherapy. The American Foundation for Suicide Prevention (2016) states that treatments with antidepressants, mood stabilizers, or antipsychotics have demonstrated reduced death by suicide in students with a diagnosed depressive disorder, mood disorder, or schizophrenia. Intensive 12 to 16 week Cognitive Behavioral Therapy programs that are interactive in nature and administered once or twice weekly by a mental health professional outside of a school setting can also have a notable effect on students with Major Depressive Disorder. Additionally, alcohol and drug use can increase suicide risk in students when combined with major depressive disorder, bipolar disorder, schizophrenia, or any mental health disorder. Effective treatment for substance abuse includes a strong psychosocial component (American Foundation for Suicide Prevention, 2016) and a degree of attention beyond what a school setting can offer a student.

Connectedness and Extracurricular Involvement

There has been increased interest in recent years ascertaining socioecological risk and protective factors associated with adolescent suicidal behavior (De Luca & Wyman, 2012). Socioecological factors refer to the systems in which adolescents interact, such as a school setting. Factors pertinent to suicide prevention in a school setting may include social integration and support, perceived norms, and practices pertaining to help seeking

(De Luca & Wyman, 2012). Children develop through interactions within social systems. Interventions in these systems may be essential to reducing suicide rates due to their potential influence in emotional and behavioral developmental processes of large youth populations (Wyman, 2014). Normative social systems, namely public schools, are settings for universal interventions and serve the broadest populations. Self regulation, which encompasses behavior, emotions, and cognitive processes, is a key indicator of childhood development. Failures in self regulatory processes are conceptualized as a key mechanism through which biological, social, and psychological influences lead to more differentiated mental, emotional, and behavior disorders. Self regulatory processes are first learned within parent-child dyads and are embedded over time in broader systems. Primary social systems pertinent to adolescents in American society include school settings and peer relationships (Wyman, 2014). As a result, the importance of suicide prevention training in a school specific setting may be essential to reducing adolescent suicide rates in America.

The National Strategy for Suicide Prevention identified enhancing 'connectedness' as one means through which the agenda of reducing adolescent suicide rates should be pursued (Moore et al., 2014; U.S. Department of Health and Human Services, 2012). School engagement is one form of connectedness associated with increased use of mental health care services (De Luca & Wyman, 2012). Among adolescents, a higher level of school connectedness is associated with a variety of health promoting benefits, including delayed initiation of sexual intercourse, reduced substance use, fewer mood disorders, and more positive academic outcomes (De Luca & Wyman, 2012). Connections across multiple settings, which a school setting can provide for an

adolescent, promote healthy adolescent emotional development, including better self esteem and lower depression (Goldston et al., 2013). Thus, the importance of extracurricular involvement may be an effective focus of adolescent suicide prevention training.

The quality of adolescents' relationships in school can be linked with various positive health behaviors, including improved adaptive coping skills and reduced suicidal behavior (De Luca & Wyman, 2012). Engagement at school provides the opportunity for such relationships and communication, as well as the opportunity for adults to monitor and respond to students' concerns. Therefore, an adolescents' positive engagement in a school setting in which adults are present and active may increase the likelihood they access mental health services (Goldston et al., 2012).

Need and Characteristics for Institutional Programming

Many current communication strategies aimed at increasing awareness of suicide could inadvertently detract from suicide prevention efforts, causing a need for further research to develop positive suicide prevention messages (Petrova, Pisani, Schmeelk-Cone, & Wyman, 2015). Most current youth suicide prevention programming is focused on identifying and treating individuals who are already suicidal or at high risk by training adult gatekeepers and screening policies (Wyman, 2014). Coordinated, developmentally timed, evidence based suicide prevention approaches at all intervention levels are likely to reduce youth and adolescent suicide (Wilcox & Wyman, 2016).

The 2012 National Strategy for Suicide Prevention expands the current suicide prevention paradigm by including a strategic direction aimed at promoting healthy populations (U.S. Department of Health and Human Services, 2012; Wyman, 2014). For

a population of children, optimal suicide prevention impact is possible when they are exposed to effective childhood programs that prepare them to enter adolescence as behaviorally and emotionally competent, followed by exposure to effective programs that address specific adolescent risk and protective processes, such as substance abuse.

Current research in suicide prevention points to the value of investing in 'upstream' interventions, or interventions that begin in youth and are consistent through adolescence (Wilcox & Wyman, 2016). 'Upstream' interventions build skills and resilience, as well as policies that enable access to care and protection from lethal means (Wilcox & Wyman, 2016). 'Upstream' interventions delivered through social systems in childhood and early adolescence has the potential for reducing population level suicide rates by decreasing the number of adolescents with mental, emotional, and behavioral problems. 'Upstream' interventions also help create social environments that expose adolescents to positive coping norms, increase youth-adult connections, and reduce adverse experiences, such as bullying (Wyman, 2014).

A developmentally sequenced 'upstream' suicide prevention approach has been proposed through childhood programs to strengthen a broad set of self regulation skills within family and school based programs (Wyman, 2014). Adolescent 'upstream' programs leverage social influences to strengthen relationships and prevent emerging risk behaviors, such as substance abuse (Wyman, 2014). Psychoeducational workshops in a high school setting, such as one focusing on warning signs, risk factors, and appropriate intervention methods for suicide prevention, may help bridge this gap, but this alone may not be ideal. Expanded focus on suicide prevention modifies 'upstream' risk and protective processes before the emergence of suicidal behavior (Wyman, 2014).

Higher levels of communication between family members have been linked with decreased suicidal ideations, intents, and plans, thus making encouragement of intra-family communication via school based prevention programs a potential effective area of focus (De Luca & Wyman, 2012). Longitudinal research, new intervention delivery systems and designs, and intervention studies are needed to discover how best to reach these targets (Goldston et al., 2013). Further research is also warranted in regards to the effect of suicide rates with youth accessing strategies to recover from painful emotions and developing communication with trusted adults (Goldston et al., 2013).

Legislations

A clear trend developing in America is legislative action mandating suicide prevention curriculum for students and training for faculty in public schools (Poland & Poland, 2015). Out of all American states, Texas may demonstrate the most comprehensive example of this movement. The Texas Suicide Safer Schools Plan developed District Action Steps in 2015 to ensure all school districts have a comprehensive suicide prevention policy included in their District Improvement Plan. The District Action Steps were developed in collaboration with the Texas Department of State Health Services and Mental Health America of Texas (Poland & Poland, 2015). These steps serve as a potential model for future mandated programs in New York and other states given the involvement of significant government organizations and pending legislative approval. Details of the District Action Steps can be found in Poland & Poland (2015). ‘Upstream’ methods are not specifically addressed in the District Action Steps.

Legislative initiatives for suicide prevention in Texas schools extend beyond the District Action Steps. Texas requires the designation of a prevention specialist in public

school districts and annual revision of the district improvement plan (Poland & Poland, 2015). One pending legislation is Texas Law SB 674, which would mandate completion of a state approved program and certification for teachers in suicide prevention. Details of SB 674 can be found in TX (2015). Another pending legislation in Texas is HB 2186, which would dramatically increase district policies on suicide prevention within the Texas Education Code, especially for the role of school counselors (Franklin, 2015). Details of HB 2186 can be found in Franklin (2015). SB 674 and HB 2186 serve as examples of potential future legislative action in other states, including New York.

Current legislative trends related to suicide prevention in school settings also exist in other state governments. To date, 37 states, not including New York, have passed some legislation pertaining to suicide prevention in all levels of public schools (American Foundation for Suicide Prevention, 2013). In 2007, Tennessee passed the Jason Flatt Act, which requires annual teacher education on suicide warning signs (Naifeh, 2007). Since 2007, the Jason Flatt Act has passed in 14 states, not including New York (Naifeh, 2007). Additionally, Washington requires mandated suicide assessment and management training for at least one school faculty member (Poland & Poland, 2015). ACT 71 in Pennsylvania and HB 2535 in West Virginia are legislations already in effect that mandate suicide prevention curriculum for all students (WV, 2014; PA, 2014). The movement towards legislation for mandated suicide prevention training for faculty and curriculum for students indicates potential that all states, including New York, will also have mandated policies in the future.

Schools were first included in the National Strategy for Suicide Prevention in 2012, which is conducted by the United States Surgeon General (U.S. Department of

Health and Human Services, 2012), thus holding credibility and influence in Congress. The American Foundation for Suicide Prevention (2013) Model Policy, also a credible source for Congressional action, recommends state boards of education or the Department of Education should require two hours of suicide awareness training annually for all public school personnel. The American Foundation for Suicide Prevention (2013) Model Policy and The Jason Flatt Act each indicate a movement towards mandated policy for faculty training that may eventually occur in all states. These recent examples of national advocacy for suicide prevention in public schools may indicate future legislative action in New York and the other 12 states yet to address this issue.

Lawsuits

Lawsuits against school districts as a result of the suicide of a student have also been a catalyst for advancing awareness and development of suicide prevention curriculum and training. In *Mares vs. Shawnee Mission, Kansas Schools*, a school district was found liable for a student's suicide due to failure to implement suicide prevention procedures (Chartrand & Poland, 2008). In the case of Wyke vs. Polk County, Florida School Board (1995), a school district was found liable for not implementing a suicide prevention program, inadequate supervision of a suicidal student, and failure to notify parents when their child was suicidal. Szostek and Szostek v. Fowler, Martin, Vick and the Cypress-Fairbanks, Texas School District (1995) called to light the issue of student discipline in a school setting being a common event precluding adolescent suicide. Following this case, many suicide prevention training programs directly address the question of how to discipline with sensitivity to the possibility of suicide.

However, in the case of Witsell and Witsell v. School Board of Hillsborough County, Florida (2011), a school district was not found liable for a student's suicide despite their social worker being found negligent in communicating with parents, outside resources, or other school staff when she clearly should have done so. The United States District Court granted dismissal motion in this case because the school district argued it had no responsibility to protect students from self harm outside of school and the social worker ignored district policies by working in isolation. In the final ruling, the school district did not express a need for additional suicide prevention training (Witsell and Witsell v. School Board of Hillsborough County, Florida, 2011), which would have been a relevant course of legal action in other states based on past precedent. The aforementioned ruling may illustrate a gap in progress from state to state and national publicity has further shed light on this issue.

Adolescent Suicide Prevention Curriculum and Training

Adolescent suicide is a major public health issue in America and is the second leading cause of death in that age group. Suicide prevention intervention in school settings appear to be most effective in an 'upstream' approach from youth through adolescence and may be especially necessary in rural environments, lower income communities, and communities with a higher concentration of Latino Americans. Recent research and legislation in other states, often in response to lawsuits, appear to have generated a movement towards mandating suicide prevention student curriculum and faculty training in all American public schools. New York is one of only 13 states without any legislation pertaining to suicide prevention in schools, reflecting an

immediate need for its school districts to proactively establish appropriate curriculum and training.

The literature identifies a clear need for suicide prevention curriculum for adolescent students and training for faculty in American school settings. The literature suggests effective suicide prevention curriculum and training should include the following components: warning signs and risk factor awareness, developing support from adults at school and at home, connectedness and involvement in extracurricular activities within a school setting, the importance of seeking help from formal mental health resources when appropriate, and reducing stigma associated with mental health concerns. The focus of research is to determine whether a psychoeducational workshop in a high school setting improves student awareness and retention of these components. No literature was found specifically addressing the need for suicide prevention programs in a school setting through a quantitative study. This research was conducted to identify a need for implementing suicide prevention curriculum in the studied school setting, namely the psychoeducational workshop featured in the Capstone Project.

Method

Setting

The psychoeducational workshop and research instruments were administered to all five Health Education classes in a socioeconomically and racially diverse, small city high school during the Spring 2017 semester.

Participants

The Spring 2017 Health Education course consisted of 9th through 12th grade students between the ages of 14 and 17. The total enrollment of the course was 88

students, representing a sample of 13 percent of the high school population and the maximum number of participants. Although participation in the workshop was a part of course curriculum, participation in the research study was not mandatory. Individuals eligible for participation in the research component returned a parent/guardian consent form and provided a signed agreement to minor assent. 70 students participated in the research component of the workshop, representing 11 percent of the school population and 80 percent of students enrolled in the Health Education course.

Instrumentation and Materials

The instrument used for research was a ten item pre-test and post-test created by the principal investigator, which can be found in *Appendix A*. The same instrument was used for both the pre-test and post-test. The instrument reflects essential content of the psychoeducational workshop, which can be found in *Appendix B*. The instrument contained clear directions within each item explaining options for acceptable responses. The instrument was created with the intention of having no items universally answered correct on the pre-test in order to assess improvement of knowledge relating to workshop content when being compared with post-tests.

Some evidence of validity and reliability with the instrument exist. The results indicated a high variability of particular questions answered correctly by respondents on both the pre-test and post-test. None of the ten items were universally answered correctly on either the pre-test or post-test. Item 6 on *Appendix A*, which focuses on the confidentiality of counseling, was answered most correctly by 65 of 70 participants on the post-test. Item 5 on *Appendix A*, which focuses on mental health disorders, was

answered least correctly on the post-test, with 46 of 70 participants selecting the accurate response.

Procedure

Content of the high school psychoeducational workshop focused on student awareness and retention of warning signs, risk factors, and effective interventions associated with adolescent suicide prevention. The school district's administration and Health Education teacher requested the principal investigator create and facilitate the workshop.

The parent/guardian consent form to participate in the pre-test and post-test was distributed to all students enrolled in the Spring 2017 Health Education course by their teacher two weeks prior to the scheduled date of the psychoeducational workshop. All students that returned the parent/guardian consent form with approval to take the pre-test and post-test were gathered for a meeting at the beginning of one Health Education class prior to the scheduled psychoeducational workshop. During this meeting, the principal investigator explained the content of the minor assent form and distributed it for student signatures. Approved minor assent forms were collected by the principal investigator at this time. Students who signed the minor assent form then were administered the pre-test by the principal investigator and were given five minutes to complete the instrument. At the conclusion of five minutes, the principal investigator collected the pre-tests.

Following the psychoeducational workshop that occurred in the next class period, the post-test was distributed to each student who completed the pre-test and was in attendance. Students taking the post-test were given five minutes to complete the instrument. Students in the Health Education classes not participating in this meeting

were encouraged by their Health Education teacher to work at their desks on classwork quietly and privately while the meeting was occurring.

The pre-tests and post-tests contained a matching numerical code for each student that was recorded on a master list to allow comparison of data between pre-test and post-test scores for each individual without compromising confidentiality. This number was the only identifying component of the pre-test and post-test instrument.

Data Analysis

Data from the pre-test and post-test were entered into a Microsoft Office Excel spreadsheet and uploaded into a SPSS statistical package on a password protected computer owned by the principal investigator. Analysis of data is intended to measure the degree of improvement of awareness and retention of content featured in the psychoeducational workshop. Descriptive statistics and a paired samples t-test were used for analysis of the pre-test and post-test data to determine the mean difference between individual scores and significance of results for aggregated scores.

Results

60 of 70 participants improved their score, with seven students having an equal score and three having lower scores. Two of the students with equal scores had perfect pre-test scores. 31 participants had perfect scores on the post-test in comparison to the two participants on the pre-test. Please refer to Table 1 for greater detail.

Table 1

Correct Answers				Results	
Participant	Pre-Test	Post-Test	Change	(+) Improved; (-) Declined; (N) No Improvement	Perfect Post Test
1	7	10	3	+	Perfect
2	8	10	2	+	Perfect

3	5	9	4	+	
4	7	9	2	+	
5	4	10	6	+	Perfect
6	5	9	4	+	
7	7	9	2	+	
8	2	8	6	+	
9	5	8	3	+	
10	8	10	2	+	Perfect
11	6	6	0	N	
12	7	8	1	+	
13	5	10	5	+	Perfect
14	9	9	0	N	
15	4	10	6	+	Perfect
16	10	10	0	N	Perfect
17	6	9	3	+	
18	8	10	2	+	Perfect
19	10	10	0	N	Perfect
20	8	10	2	+	Perfect
21	8	10	2	+	Perfect
22	5	8	3	+	
23	4	7	3	+	
24	6	9	3	+	
25	9	10	1	+	Perfect
26	7	7	0	N	
27	6	10	4	+	Perfect
28	7	10	3	+	Perfect
29	6	10	4	+	Perfect
30	5	7	2	+	
31	6	8	2	+	
32	5	8	3	+	
33	5	7	2	+	
34	4	3	-1	-	
35	6	9	3	+	
36	8	8	0	N	
37	7	7	0	N	
38	7	10	3	+	Perfect
39	7	6	-1	-	
40	6	10	4	+	Perfect
41	8	10	2	+	Perfect
42	7	6	-1	-	
43	6	10	4	+	Perfect
44	5	9	4	+	
45	5	8	3	+	

46	7	9	2	+	
47	7	9	2	+	
48	8	9	1	+	
49	7	10	3	+	Perfect
50	6	9	3	+	
51	7	8	1	+	
52	5	10	5	+	Perfect
53	5	9	4	+	
54	8	10	2	+	Perfect
55	8	9	1	+	
56	7	10	3	+	Perfect
57	7	10	3	+	Perfect
58	5	9	4	+	
59	7	10	3	+	Perfect
60	5	8	3	+	
61	9	10	1	+	Perfect
62	9	10	1	+	Perfect
63	8	9	1	+	
64	6	10	4	+	Perfect
65	4	8	4	+	
66	4	7	3	+	
67	6	10	4	+	Perfect
68	7	9	2	+	
69	8	10	2	+	
70	7	10	3	+	

The mean difference between the pre-test and post-test is 2.42, where t(70) = -12.47, and p = <.001. P = <.001 is less than p = .01 level of significance, showing a statistically significant influence of the workshop between pre-test and post-test scores. Please refer to Table 2 and Table 3 for greater detail.

Table 2

Descriptive Statistics

	n	Minimum	Maximum	Mean	Standard Deviation
Pre-Test	70	2	10	6.47	1.59
Post-Test	70	3	10	8.9	1.36

Table 3

Paired T-Test			
df	t	Mean Difference	p
69	-12.47	2.42	0.000

Discussion

Overview

Adolescents with mental health concerns seek help more often from their peers rather than formal resources such as school counselors (De Luca & Wyman, 2012). As a result, training for students focused on awareness of warning signs and risk factors associated with suicide, as well as appropriate suicide prevention techniques, may lead to a decrease in adolescent suicide rates through increased and refined peer to peer support. Empathetic and supportive peer to peer communication surrounding risk factors, along with encouragement to seek help when necessary, may be highly effective in reducing adolescent suicide rates and an increase in seeking appropriate treatment.

Students seeking help from friends and family more frequently than school counselors or other formal resources also reflects a need for adolescents to become more aware and comfortable accessing what their school setting can offer for mental health support. Two broad domains influence help seeking behavior: attitudes, which encompass beliefs and perceived norms, and social resources (Goldston et al., 2012), reflecting the importance of utilizing counseling resources in a school setting to provide pertinent information that can break down stigma surrounding depression and anxiety.

It was hypothesized that a psychoeducational workshop in a high school setting would improve student awareness and retention of essential suicide prevention

information. Evidence of validity and reliability of the instrument, statistical significance of improvement in scores, and access to a high volume of adolescents through a high school Health Education course, each appear to affirm this hypothesis. As a result, implementation of a similar psychoeducational workshop in schools that do not have a mandated program may also be effective in improving awareness and retention of essential suicide prevention information with its participants.

Implications for School Counselors

Although increasing the knowledge base of students may be important, participants putting workshop content into practice is perhaps its primary deterrent to adolescent suicide. Student engagement facilitated by the principal investigator through creative and interactive methods, such as the "if you really knew me" card activity and writing down a list of trusted adults, may help participants personalize and internalize the workshop content, leading to a lasting impact on actions.

Given the effectiveness of 'upstream' approaches to suicide prevention curriculum in public schools, this research may also be applicable to elementary and middle school counselors. The trend towards mandating training and curriculum is not only with creation of legislation in all states, but increasing its degree of comprehensiveness as well.

School counselors being consistently mindful of components of the workshop may be essential to fulfilling their job functions. Encouraging trusting adult relationships and participation in extracurricular activities, awareness of warning signs and risk factors associated with suicide, and creating a positive perception of counseling are all examples of effectively incorporating workshop content into regular interaction with students.

Limitations to Research

Research was conducted with isolated groups in a singular setting. Another school setting could yield significantly different results due to culture, environment, and number of participants. The instrument used for research was an original work by the principal investigator, thus no further knowledge exists regarding its validity or reliability.

Recommendations for Future Research

No literature was found specifically addressing the need for suicide prevention training for faculty or curriculum for students through a quantitative study such as this one. 13 states are still without any mandated suicide prevention faculty training or student curriculum in their public schools, and most other states' mandated programs are not comprehensive. Given the sparseness of both quantitative or qualitative literature specifically focused on the effect of suicide prevention programs in schools, similar studies featuring larger sample sizes and varied school settings may help advance initiatives to mandate suicide prevention training for faculty and curriculum for students in all American public schools.

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Appendix A

Pre-test / Post-test answer key – answers are italicized

STUDENT CODE _____

Suicide Prevention Workshop Questionnaire

Instructions to answer each item are in bolded font

Item 1:
It is always important to be **aware** of warning signs and risk factors associated with suicide. Should you **assume** suicidal thoughts exist if somebody has a diagnosed mental health disorder?
Write YES or NO below
No

Item 2:
Which one of the following is **NOT** an example of things people could talk about that may reflect symptoms of depression or anxiety that might be a precursor to suicidal thoughts?
CIRCLE ONE of the following:

- Feeling "stuck" or "trapped"
- Unbearable pain
- *Having an argument with a girlfriend, boyfriend, or parent*
- Having no reason to live
- Burdening others
- Killing themselves

Item 3:
Which one of the following is **NOT** an example of an action that may reflect symptoms of depression or anxiety that might be a precursor to suicidal thoughts?
CIRCLE ONE of the following:

- Abuse of alcohol or drugs
- Online search of materials or means to kill themselves
- A recent pattern of reckless or aggressive actions
- Withdrawing from activities
- Isolation from family or friends
- *Feeling anxious for an upcoming exam*
- Sleeping far too much or too little
- Giving away possessions
- Calling people to "say goodbye"

Item 4:
Depression is the most common condition associated with suicide and is undiagnosed or untreated most of the time.
Write TRUE or FALSE below

True

Item 5:
Which of the following is **NOT** a mental health condition or disorder, which may lead to depression, anxiety, or suicidal thoughts if not addressed with a mental health professional?
CIRCLE ONE of the following:

- Major depressive disorder
- Anxiety disorder
- Substance abuse disorders
- *Hallucination disorder*
- Bipolar disorder
- Schizophrenia
- Borderline personality disorder

Item 6:
If you are worried that someone you know is suicidal, it is important to report this information to a mental health professional, such as your school counselor. If you choose to do so, are you allowed to do so with full confidentially (meaning nobody else will know it was you that reported it)?
Write TRUE or FALSE below
True

Item 7:
It is important to identify trusted adults in your life you can talk to when you are feeling down or stressed, but formal mental health resources are also available to begin getting help or treatment for depression and anxiety.
Write ONE FORMAL MENTAL HEALTH RESOURCE someone can access to begin getting help:

- *Acceptable answers include the School Counseling Center, County Mental Health Services, Suicide Prevention Hotline*

Item 8:
Are firearms used in MORE or LESS than 60% of suicides in the United States?
Write MORE or LESS below
Less (firearms account for approximately 50% of suicides in the United States)

Item 9:
Approximately one million Americans attempt self harm each year.
Write TRUE or FALSE below
True

Item 10:
In an immediate emergency regarding a mental health crisis or a suicide attempt…
Write the FIRST ACTION you should take below
Call 911

Appendix B

Psychoeducational Workshop Itinerary

The following itinerary was consistent for all five presentations:

1. An opening group discussion focusing on awareness and symptoms of anxiety and depression occurred. The group discussion included the ‘if you really knew me’ card activity, where students write down three personal facts that only themself or a trusted relationship know in order to emphasize safety and confidentiality within seeking mental health treatment and the potential benefit of accessing formal mental health resources. Responses on the ‘if you really knew me’ card were not shared with other students or faculty. The group discussion also included requesting students list significant adults in their lives they were comfortable approaching for help with issues surrounding anxiety and depression. Defining ‘significant adult’ was also discussed.
2. Following this activity, the principal investigator taught a lesson focused on suicide prevention. Content of the lesson included the following material:
    a. Relevant statistics associated with suicidality.
    b. Warning signs associated with suicidality, namely verbal content, actions, and mood changes that are precursors to suicidal ideation, intent, or plans
    c. Risk factors associated with suicidality including health, environmental, and historical factors.
    d. Reasons to take action, appropriate intervention procedures, option for confidentiality when reporting information, and essential emergency contacts.

e. Ways to help in community, namely anti bullying techniques, encouragement for involvement in extracurricular activities to feel connected to one's environment and adults

f. Attentiveness when listening to others with personal issues, such as with one's family or significant other

g. Challenging stigmas surrounding depression and anxiety and demystifying mental health treatment processes

h. Distribution of a "Suicide Prevention Parent Resources" document that was created by the principal investigator.

3. Following the lesson, opportunity for student questions or comments occurred up until ten minutes remaining in the period.
4. Students were then reminded of the formal resources available to them at their High School Counseling Center.
5. A ten item post-test, identical to the aforementioned pre-test titled '*Suicide Prevention Workshop Questionnaire' (Appendix A)* was distributed to each student who completed the pre-test. Students taking the post-test were given five minutes to complete the instrument and were collected by the principal investigator.