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Philadelphia College of Osteopathic Medicine

School Psychology

Department of Psychology

SCHOOL PSYCHOLOGISTS' CONFIDENCE LEVEL WITH SUICIDE  
INTERVENTION AND PREVENTION IN THE SCHOOLS

by Jodi L. Stein-Erichsen

Submitted in Partial Fulfillment of the Requirements for the

Degree of Doctor of Psychology

July 2010

**PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE  
DEPARTMENT OF PSYCHOLOGY**

**Dissertation Approval**

This is to certify that the thesis presented to us by \_\_\_Jodi Stein-Erichsen\_ on the \_\_17<sup>th</sup> day of \_\_\_\_\_May\_\_\_\_\_, 2010\_, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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## Abstract

Schools psychologists are often called upon to work with suicidal students regardless of previous training or the comfort levels that they possess in this area (Debski, Spadafore, Jacob, Poole, and Hixon, 2007; Oordt, Jobes, Fonseca, and Schmidt, 2009). This study evaluates the results of a survey created by this study's investigator. It was disseminated to members of the National Association of School Psychologists' Listserv (NASP-Listserv) and gathers general and demographic data as well as information that contribute to the assessment of suicide intervention and prevention experience and training received by the participants. Also investigated was whether or not suicide intervention and prevention is typically a part of a school psychologist's role. Specific attention was paid to any relationship between the levels of suicide intervention and prevention experience and training and school psychologists' self-perceived confidence levels in these areas. Results reveal that more experience and comprehensive training in the area of suicide intervention and prevention help school psychologists feel more confident in working with students at-risk for suicidal behaviors. In addition, this research supports the hypothesis that school psychologists often have an active role in suicide intervention and prevention in schools. Because results find that most psychologists gain knowledge via workshops, implications for graduate training programs for school psychologists and school districts will be discussed. Directions for future research will also be addressed.

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## Chapter 1

*Introduction**Overview*

“Wars come and go; epidemics come and go; but suicide, thus far has stayed. Why is this and what can be done about it?” (Jamison, 1999, p.24). Suicide is the third leading cause of death for teens and young adults ages 10 through 24 in the United States (Centers for Disease Control and Prevention, 2007). The rate of suicide in this age group has tripled between the years of 1952 and 1995 (Goldrick, 2005). The Centers for Disease Control Youth Risk Behavior Survey reports that in 2005, 16.9% of high-school students had seriously considered attempting suicide; 13.0% had made a suicide plan, and 8.4% had actually attempted a suicide (Centers for Disease Control and Prevention, 2005). For adolescents, it is estimated that for every one suicide, there are 100 to 200 suicide attempts. In the average high school classroom in the United States, there is likely to be two girls and one boy, having attempted suicide in the past year. Only one of three adolescents who attempt suicide receives medical attention and the other two wake up the next morning and go to school (Poland & Lieberman, 2002). Youth suicide is a considerable community health problem. More needs to be done to help thwart the continuous increase in suicide rates among young people.

*Statement of the Problem*

The study of suicide, suicidology, dates back almost a century, with Durkheim, who saw suicide as the result of society's strength or weakness of control over someone (Holinger, Offer, Barter, & Bell, 1994). In 1910, Freud became troubled by the increase in suicide among young students and sought to understand and find interventions to reduce adolescent suicide. He chaired a discussion group with an illustrious team from the Vienna Psychoanalytic Society to discuss this issue (Berman, Jobes, & Silverman, 2006, as cited in Berman, 2009). This is not a new topic in the field of psychology. The United States began to see the study of suicide as an area of importance in the late 1950's. Holinger et al. (1994) point out that a new division within the current field of suicidology has emerged over the past decade, the study of suicide among the young. It has been determined that between 6% and 13% of adolescents have admitted to attempting suicide at least once in their lives (Garland & Zigler, 1993). Kalafat (1990) reported that for every completed adolescent suicide, there are many more attempts and that not all attempts are actually reported. Poland (1989) noted that the actual rates of reported suicide attempts among adolescents are probably low estimates and in fact, they may be as much as five times higher than rates actually reported.

As a result of the attention that is paid to the increase in suicidal behaviors among young people, schools are being forced to increase their awareness of how they can meet the needs of students who may contemplate or attempt suicide. The established role of the public schools has been to educate and protect the health and safety of students. In support of this role, schools must also develop a way to incorporate responding to students who present with suicidal behaviors (Kalafat, 2003). Suicide by youth "...is a

societal problem with tremendous implications for the schools” (Poland, 1989, p.1). The schools, however, have been reluctant to develop and implement formal intervention programs. “At present, most suicide intervention programs in the schools are developed in the aftermath of a crisis and there is a tendency to allow such programs to remain dormant much of the time” (Poland, 1989, p. 1). Schools must begin to play a more proactive role in the prevention of suicide among its students. Suicide can be defined as “a fatal, self-inflicted, destructive act of an individual with explicit or inferred intent to die” (Goldrick, 2005). The intent to die is the necessary factor in this definition because the severity of the intent or act is unimportant in defining a suicide attempt. Prevention in relation to suicide can be defined as actions that help to prevent suicides, “to identify those youth who are at-risk for suicide,” and “to develop an awareness of and a plan of action for coping with the issues surrounding youth suicide” (Cultice, 1992, p. 71).

Legal issues regarding the responsibilities and liabilities of the school with regard to youth suicide are also part of the ever-growing knowledge base on this issue (Poland, 1989). A notable growth in school-based suicide prevention programs has been seen in the past two decades, possibly due to the many state and federal legislations that are beginning to address the issue (Garland & Zigler, 1993). Noting that the community level, such as schools, is a basic place to begin, in 1999 the United States Surgeon General issued a Call to Action to Prevent Suicide. This was then followed, in 2001, with a National Strategy for Suicide Prevention, which suggested evidence-based strategies and guidance for implementing suicide interventions (Substance Abuse and Mental Health Services Administration, 2001). The President’s New Freedom Commission on Mental Health (2003) began taking the issue of suicide more seriously, declaring,

“Suicide is a serious public health challenge that has not received the attention and degree of national priority it deserves” (p. 20).

There are myriad suicide intervention and prevention programs currently being used without much empirical evidence to support their effectiveness (Aseltine & DeMartino, 2004; Rodgers, Sudak, Silverman, & Litts, 2007). Rodgers et al. (2007) reported that the lack of empirical support for specific suicide intervention and prevention programs may be explained by the innate difficulty with measuring specific suicidal behaviors, as well as the relative sparseness in its occurrence. Additionally, school psychologists are typically not well informed about suicide intervention and prevention strategies and programs (Allen et al., 2002). Research shows that school psychologists often work with suicidal students, without any formal training in this area (Debski, Spadafore, Jacob, Poole, and Hixson, 2007; Oordt, Jobes, Fonseca, and Schmidt, 2009). The American Association of Suicidology (2008, as cited in Berman, 2009) surveyed National Association of School Psychologists’ (NASP) members and found that 86% of school psychologists reported counseling suicidal students; 35% reported having a student death by suicide in their schools, and 62% reported knowing a student at their schools who attempted suicide. Some graduate programs are beginning to see suicide intervention and prevention training as an area necessary for school psychologists to study and are adding courses to their curriculum to meet this need. However, this is happening very slowly (Debski et al., 2007). In addition to school psychology graduate programs recognizing the need to offer training in suicide intervention and prevention, practicing school psychologists also feel very strongly about receiving more training through their degree programs or via continuing education opportunities to support

students who are at-risk for suicidal behaviors (Allen, 2002; Debski et al., 2007). Most certainly, school psychologists will encounter suicidal students while working in the schools. Despite the amount of training they have previously received or the experience they have previously had, school psychologists are often thrust into suicide intervention and prevention activities and strategies.

### *Purpose of the Study*

The purpose of this study is to address the issue of training in the area of suicide intervention and prevention for school psychologists. If school psychologists can identify suicidal youth and connect them with appropriate treatment, suicide rates can be drastically reduced (Zenere & Lazarus, 2009). This study explores the self-perceived confidence levels of school psychologists regarding suicide intervention and prevention, based on the amount of training they have received as well as the amount of experience they currently have in the area of suicide intervention and prevention. It also explores whether or not a school psychologist's typical role involves working with suicide intervention and prevention. Identifying whether or not amounts of training relate to self-perceived confidence levels in this area will provide information that can be disseminated to colleges and universities with school psychology training programs; this will allow them to consider updating their curriculum in the area of suicide intervention and prevention. In addition, identifying whether or not suicide intervention and prevention experience relates to self-perceived confidence levels in this area will provide information that can be disseminated to school districts; this will help them in their hiring processes for suicide intervention and prevention personnel. In addition, the role that

school psychologists play in suicide intervention and prevention will be identified, and relevant demographic variables will be examined.

The method utilized in this study is the Suicide Intervention and Prevention Information Inventory (SIPII), which is a survey developed by this study's investigator. This survey will collect data on several areas. Relevant demographic information about participants will be obtained. Data on experience working with students with suicidal ideation, attempts, and completions as well as information on specific suicide intervention and prevention strategies will also be obtained. Participants will be asked about previous education and training in the area of suicide intervention and prevention. Finally, participants will be asked about their levels of confidence associated with working with suicidal students. The participants for this study will be school psychologists who are currently working in a school as a school psychologist and who respond to an invitation that will be posted to the NASP-Listserv.

The major goal of this study is to provide school psychologists, universities, and school districts with information about training in the area of suicide intervention and prevention so that the needs of students at-risk for suicidal behaviors may be met more effectively. As stated previously by Kalafat (2003), the role of the school is to educate and protect the health and safety of students, which must now incorporate responding to students who present with suicidal behaviors. Information gathered from this study may be used to influence colleges and universities with school psychology programs to include courses specifically geared toward studying suicide intervention and prevention strategies. It also may be useful for school districts when they are hiring personnel to work on suicide intervention and prevention strategies in the schools.



This study intends to answer several research questions:

1. What experience do school psychologists have with working with suicidal students in the areas of assessment, attempts, and completions?
2. How do school psychologists differ in their assignment of responsibility of suicidal students by their districts?
3. What types of training do school psychologists have in the area of suicide intervention and prevention?
4. How do school psychologists self-perceive their own levels of knowledge and confidence about suicide intervention and prevention?
5. What relationship exists between the experience school psychologists have and the level of self-perceived confidence they have with suicide intervention and prevention?
6. What relationship exists between training and degree levels that school psychologists have in suicide intervention and prevention and the level of self-perceived confidence that they have when working with suicide intervention and prevention?

## Chapter 2

### *Literature Review*

#### *Defining the Problem of Suicide*

Our nation continues to experience suicidal behavior in its youth. In 2007, the Center for Disease Control conducted a national survey of ninth through twelfth graders, in which almost 14.5% of students in the United States, in the previous 12 months, had seriously considered attempting suicide. In this same sample, 11.3% of adolescents reported having a serious attempt plan for suicide and 6.9% reported making at least one suicide attempt (Centers for Disease Control and Prevention, 2008). Suicide has topped the list for adolescent deaths over the past decade, ahead of cancer, heart disease, HIV/AIDS, congenital birth defects, diabetes, and other medical conditions combined (Miller, Eckert, & Mazza, 2009). This major national crisis is often expected to be battled in our schools and school psychologists are frequently sought after to help with this significant, tragic problem (Gould et al., 2005; Mazza, 1997). Unfortunately, when asked, school psychologists often reported that they did not feel fully prepared to participate in this type of life and death situation efficiently or effectively (Debski et al., 2007).

#### *Neurobiological Factors and Suicide*

Recently, research has moved toward exploring the psychobiology behind suicide. There have been studies which look at biological reasons for suicide; some determine whether or not there is a potential for suicide to be hereditary; others explore whether or not medication for psychological disorders can help in the reduction of suicidal ideation (Goldsmith, Pellmar, Kleinman, & Bunney, 2002).

Biological factors leading to suicidal behaviors and attempts at suicide are of great interest in the field of psychology today. The past two decades have produced a great deal of information suggestive of abnormal serotonin activity being linked to suicidal behaviors in individuals (Oquendo & Mann, 2000, Arango et al., 2001, and Mann et al., 1999, as cited in Gould, Greenberg, Velting & Shaffer, 2003). “Although more research is needed to clarify the differential roles of various receptor sites and their relation to suicide, reduced serotonin levels are related to repeated suicide attempts, impulse control, and aggression in depressed and nondepressed samples” (Spirito & Donaldson, 2000, p.469).

Existing mental disorders such as depression, substance abuse and dependence, psychosis, and borderline personality disorder as well as previous suicide attempts and ideation are predictive of suicide (Goldsmith et al., 2002; Gould et al., 2003). Despite this association, suicide rates in adolescents declined through 2003 with an increase appearing again in 2004. Gould et al. (2003) report that the decline recognized through 2003 is associated with the increase of antidepressants used to treat adolescent depression. The change in this trend, taking place in 2004, accounted for a 14% increase in youth suicide rates in the United States, noted to be the largest change in suicide rates in this population, for a one year period, since 1979; this was the point at which the Centers for Disease Control and Prevention began scientifically collecting suicide data (Gibbons et al., 2007). Gibbons et al. (2007) report that the 2003 public health warnings informing the public about increased suicidal behavior of adolescents on antidepressants, as well as the “black box” warning put on antidepressant prescriptions, which stated an increased risk of suicidality with adolescent use of antidepressants, led to a decrease in antidepressant

treatment and thus an increase in suicidal youth. It is even possible that these warnings have actually helped lead to the increase in youth suicide (Gibbons et al., 2007).

Genetics also appears to play a role in the puzzle of understanding suicide, as suggested by a study done in Demark. Agerbo, Nordentoft, and Mortensen (2002) showed that previous familial suicide attempts and mental illness are linked with higher rates of suicide in youth. Also supporting the idea that suicidal ideation has genetic components is a study done by Brent and Mann (2005). They report that they found elevated rates of suicidal behaviors in family members of both suicide completers and suicide attempters. Roy and Segal (2001) conducted twin studies and reviewed earlier twin studies, finding that suicidal deaths among monozygotic twin pairs coincided with one another at a rate of about 15% versus less than 1% with dizygotic twin pairs. This supports a genetic component to suicide, or at least to mental illness, as well.

Neurobiology is a promising and relatively new area of study in the search for answers about suicide. As more research in this area is carried out, possibilities of discovering specific genes predisposing suicidal ideation and suicide attempts may be uncovered. This kind of information could take suicide prevention and prediction to new levels.

As with all research concerning suicide attempts and completions, compilation of statistics is difficult and the accumulation of participants for research is even harder. Suicide rates are often underestimated because many attempters do not seek treatment and many attempts are not properly documented (Goldsmith et al., 2002; Lieberman, Poland, & Cassel, 2008). Although it is a complex subject to study, considerable research exists to support the theory that both heredity and genetics both play a role in the risk of suicide.

*Multicultural Issues*

Adolescent suicide affects all cultures, ages, genders, and ethnicities. It jumps socioeconomic boundaries as well as geographical boundaries on maps (Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Goldston et al., 2008; Gould et al., 2003; Joe, 2006; Joe & Kaplan, 2002; Shaffer et al., 1996). Suicide differs in rates, based on ethnic group, circumstance in which suicide occurs, and ways in which adolescents reach out for help (Goldston et al., 2008). Despite the extremely diverse population affected by suicide, research in this area tends to be quite scarce (Colucci & Martin, 2007; Goldsmith et al., 2002; Halfors et al., 2006). One major issue that presents itself when doing multicultural research concerning suicide is the racial grouping that takes place. Diverse ethnic groups are often categorized into one racial group, ignoring the many differences that really exist within those different groups (Colucci & Martin, 2007; Goldston et al., 2008). Also, many of the studies that look at the different ethnicities of suicidal individuals often come up with contradictory results (Colucci & Martin, 2007). Research involving multicultural aspects of suicide is quite difficult, because suicide, despite its high rates, is a relatively rare event, which also makes it difficult to study (Beautrais, 2003; Brown et al., 2007; Colucci & Martin, 2007). Another issue complicating matters in this area is the lack of accurate reporting methods in many countries; this can affect the availability, quality, and timeliness of information gathered. Finally, due to the social stigma and negative image associated with suicide, even being considered a crime in some countries, suicide is often not reported at all, which also hinders its study (Beautrais & Mishara, 2008; Garofalo et al., 2009; Goldston et al., 2008).

Adolescent suicide rates consistently increased from the 1960's through the early 1990's and are documented as one of the leading causes of death in many countries. Because of this disastrous upward trend, research has been conducted in order to try to understand some of the risk factors for suicide and suicidal ideation (Gould et al., 2003). Males have a much higher rate of suicide completion than females. Females, however, have a much higher reported rate of suicide attempts (Beautrais, 2003; Joe, 2006). This gender difference seems to be associated with males choosing a more lethal means of suicide and having greater levels of aggression than females (Shaffer et al., 1996). This phenomenon is fairly consistent in all countries, with the exception of China where female suicide completions outnumber males. This is thought to occur because of the very easy access of pesticides and lack of emergency medical facilities in rural areas (World Health Organization, 1999).

Suicide rates also differ greatly among certain ethnicities, and culture plays a large part in these differences (Goldston et al., 2008). Previously in the United States, Whites had higher suicide rates than non-Whites. This trend, however, has been narrowing over time. This change is due primarily to the increase in the number of young African American males committing suicide (Joe & Kaplan, 2002). Joe and Kaplan (2002) attribute this increase to the 133% jump in firearm suicide rates for fifteen to nineteen year old African American males during the nineteen-year period in which they did the study. Also, African Americans have been reported to see suicide as a very stigmatizing issue, for which they tend not to seek help (Joe, 2006). African American females are considered to have the lowest suicide rate, but the highest rate of suicide in youth is seen in the Native American and Alaskan Native male population (Heron, 2007).

Gay, lesbian, and bisexual adolescents had over three times as many reported suicide attempts as their heterosexual peers, as reported by Garofalo et al. (1999).

*Assessment of Students At-Risk for Suicide*

Poland (1989) suggests that a Risk Assessment scale be used when evaluating students for suicide risk or ideation, because the actual encounter of dealing with a suicidal adolescent can be particularly stressful for the assessor. Risk assessments should include questions that provide the following information to the assessor: What are the warning signs that brought about the referral? Are there now or have there ever been thoughts of suicide? Are there now or have there ever been self-injuring behaviors? Is there a current plan for self-harm? Is there a specific method intended for self-harm and is there access to those means? What kind of support system does the student have? (Brock & Sandoval, 1997; Poland & Lieberman, 2002; Raue, Brown, Meyers, Schulberg, & Bruce, 2006; Winters, Myers, & Proud, 2002).

Many suicide prevention programs have developed and use their own screening tools; however, there are many screening tools available that are not associated with specific prevention programs. One such tool, the Suicidal Ideation Questionnaire (SIQ), is available for both high school and junior high school students. The questionnaire is a self-report inventory, which assesses thoughts about suicide and takes about five to ten minutes to complete. This questionnaire looks at the previous month and measures the intensity and frequency of suicidal ideation (Winters et al., 2002). Winters et al. (2002, p.1160) call the SIQ and the SIQ-Jr “among the best suicidality scales.” Gutierrez and Osman (2009) were able to provide evidence for the predictive validity of the SIQ. They reported that the SIQ could be used as an effective, low cost, first step in identifying at-

risks students. For children in elementary school, the Hopelessness Scale for Children has been recommended by Fremouw, de Perzel, and Ellis (as cited in Brock & Sandoval, 1997).

The Inventory of Suicide Orientation-30 (ISO-30) is another tool that can be used in detecting suicidal ideation in adolescents. It is an overall, suicide risk assessment that is based on measures of hopelessness, suicidal ideation, low self-esteem, inability to cope with emotions, and social isolation and withdrawal (Osman et al., 2005). This assessment takes approximately ten minutes to administer and is appropriate for high school students. Osman et al. (2005) examined the construct validity of the ISO-30 with a sample of adolescent psychiatric patients. Reliability and validity estimates were empirically supported. When using the ISO-30 in a school setting, caution is warranted, because the assessment was normed and researched on adolescents in clinical settings (Osman et al., 2005). This may cause over detection of suicidal ideation in students and clinical judgment is necessary to interpret the results.

In order for suicide intervention and prevention programs to reach large numbers of adolescents efficiently, schools are the best means for dissemination (Halfors et al., 2006). Also, as Leenaars & Wenckstern (1990) point out, educators may be obligated under the law to intervene with students regarding suicide and suicidal ideations. School psychologists are among the many people who provide support to students during crises, which include suicide intervention and prevention.

Allen et al. (2002) conducted survey research to assess whether or not school psychologists felt they had been subjected to enough training during their schooling to be able to handle these situations effectively. They found that almost two-thirds of school



psychologists graduating after 1993 reported no crisis intervention training during their academic coursework. Debski et al. (2007) also had evidence supporting this in their research, but it also showed that after 1999, graduate programs have slowly begun to include more training in suicide assessment in their curricula. Debski et al. (2007) also reported that more than half of the school psychologists surveyed had no graduate education in suicide risk assessment but during the previous two years had been required to intervene with a suicidal student. Suicide topped the list, when Allen et al. (2002) asked school psychologists what issues they felt were most important to be emphasized in crisis intervention academic coursework. Debski et al. (2007) also found a high level of interest in continuing education opportunities for suicide intervention and prevention. Allen et al. (2002) found that although 91% of schools had created and implemented a crisis plan in their buildings, only 53% of school psychologists reported actually being members of those crisis intervention teams. Nickerson and Zie (2004) found that 78% of their school psychologist participants were part of their school's crisis intervention team. Suicide intervention seems to be a regularly occurring crisis experienced by school psychologists during the course of their school year regardless of their previous training (Allen et al., 2002; Nickerson & Zie, 2004).

#### *Training as it Relates to Confidence*

Previous research conducted on training as it relates to confidence levels in service providers has shown very positive results. Oordt et al. (2009) investigated whether or not training clinicians with an empirically-based assessment and treatment approach to suicidal patients would change confidence levels in their ability to assess, manage, and treat suicidal behaviors. They implemented a continuing education

workshop and reported post-training beliefs as well as beliefs six months after the conclusion of the workshop. Their results showed that 44% of practitioners reported increased confidence in assessing suicide risk and 54% reported increased confidence in managing suicidal patients.

Hayes, Shaw, Lever-Green, Parker, and Gask (2008) researched whether or not providing suicide prevention training to front-line prison staff in England and Wales would help be beneficial and evaluated outcomes in a pilot study. They reported that, after implementing suicide prevention training to prison staff, staff confidence levels significantly improved, as did attitudes and knowledge. Satisfaction with all levels of the training was rated as being very high.

Various studies in other areas also show positive effects of training on confidence levels. In an attempt to show effects of staff training on staff confidence, McDonnell et al. (2008) conducted a three-day training course on the management of aggressive behavior in services for people with autism spectrum disorders. Two service groups were used: one received a 10-week training program and one served as a control group. Staff confidence in the training group increased for managing aggressive behaviors in people with autism spectrum disorders after the training program was implemented.

O'Donoghue and Dean-Clayton (2008) surveyed school-based speech-language pathologists regarding their treatment of children in their schools with swallowing and feeding disorders. They found statistically significant relationships between training and self-confidence levels in regard to dysphagia management. Hughes, Bagley, Burns, and Challis (2008) surveyed members of care staff in thirty study homes and also found that

training increased staff confidence when dealing with dementia patients. They also noted that lack of training, conversely, reduced confidence in the areas they explored.

Dadds, Smallbone, Nisbet, and Dombrowski (2003) were able to show an increase in confidence levels for participants in their study, after receiving a training workshop. Dadds et al. (2003) provided a two-day workshop for mental health workers who treat adolescent sex offenders. They surveyed the participants both before and after the workshop, as well as three-months after the training ended. The training had a positive effect on confidence in all areas measured.

#### *Experience as it Relates to Confidence*

Previous research conducted on experience as it relates to confidence levels in service providers has also shown very positive results. Adamek and Kaplan (2003) sampled Nurse Practitioners (NP's) to examine their confidence levels in managing late-life suicidal patients. Their research suggested that both training, as well as previous experience with suicidal patients, contributed to higher confidence levels for NP's working with suicidal patients.

Mulder et al. (2009) studied a Dutch cohort of residents concerning palliative care and confidence levels of the residents. Their results show that both education and years of clinical experience contribute to increased confidence levels of the residents. They were able to show that residents who had higher incidences of active participation in palliative care also had higher confidence levels than those who were not actively involved in these types of cases.

Psychiatric hospitals use the practice of observation to increase protections to those patients who are at high risk for self-harm or suicide. Mackay, Paterson, and

Cassells (2005) reported that registered mental nurses (RMN's) felt that their confidence and skill levels increased through a combination of time spent on the job and basic nurse training. The experience of the nurse doing the observation was seen as a major factor in selection for this particular duty.

### *School Psychologists' Role in Suicide Intervention and Prevention*

One of the roles of a school psychologist is to provide mental health counseling to students (Bucy, Meyers, & Swerdlik, 2008). The typical school psychologist finds that the commission of working with potentially suicidal students is also included in his or her job description (Allen et al., 2002; Nickerson & Zhe, 2004). In addition, most schools include school psychologists on the roster of members of their crisis intervention teams (Debski, Spadafore, Jacob, Poole, and Hixon, 2007; Nickerson & Zhe, 2004). Again, Kalafat (2003) reports that students who present with suicidal behaviors are the school's responsibility, because schools are required not only to educate but also to protect the health and safety of their students. Berman (2009) stresses the fact that school psychologists are agents of the school and are expected to have knowledge and skills in the area of suicide intervention and prevention. They are vital to the process of helping to decrease suicidal ideation and attempts within our schools.

Sheridan and Gutkin (2000) indicate that of all school personnel, school psychologists are the personnel that have the greatest training in the area of mental health. School psychologists have an ethical and legal responsibility to prevent youth suicide whenever possible (Jacob & Hartshorne, 2007). Both Allen et al. (2002) and Nickerson and Zhe (2004) report that school psychologists are called on to intervene with suicidal students more often than with any other crisis. This fact emphasizes the

importance of having confident and knowledgeable school psychologists when it comes to the area of suicide intervention and prevention (Poland & Lieberman, 2002).

### *Suicide Intervention Programs*

A number of suicide intervention strategies have been available for use during the past 20 years with little empirical support for their efficacy. Even today, after studies have been conducted on some of these programs, results vary about whether or not they are effective (Aseltine & DeMartino, 2004; Gould et al., 2003; Portzky & van Heerigen, 2006). The Suicide Prevention and Research Center (SPRC) is a Congressionally mandated, federally funded group, managed through the Substance Abuse and Mental Health Services Administration (SAMHSA), a division of the United States Department of Health and Human Services. The SPRC has initiated a database of empirically supported suicide intervention programs, which shows some progress in this area. Review of the research on three prominent suicide intervention approaches offers a general overview of methods used to investigate the efficacy of suicide intervention methods.

The first approach, school-based prevention, such as the Signs of Suicide Prevention Program (SOS), is intended to educate students about the fact that suicide is not a standard response to stress or emotional distress, and that it is directly connected with mental illness (Jacobs, Brewer, & Klein-Benheim, 1999). The second method, gatekeeper training, focuses on attempting to educate those who interact with adolescents such as parents, teachers, school personnel, and other teens, about how to recognize students at-risk and how to assist them in getting professional help (Garland & Zigler, 1993). The third method, screening, such as Columbia University's TeenScreen Program,

asks teenagers a short set of questions relating to symptoms that occur in depressed or suicidal youth. Surveys are evaluated, and if necessary, parents are notified that their child is at possible risk and is referred for further psychiatric evaluation (Friedman, 2006).

SOS is a school-based prevention program developed by Screening for Mental Health, Incorporated, a non-profit organization in Wellesley, Massachusetts. SOS incorporates two prominent suicide prevention strategies into a single program; it combines a curriculum that aims to raise awareness of suicide and its related issues with a brief screening for depression and other risk factors associated with suicidal behavior (Shaffer & Craft, 1999). The program focuses, in particular, on two of the most prominent risk factors for suicidal behavior: underlying mental illness, particularly depression, and the problematic use of alcohol. The program's primary objectives are to teach high school students to recognize signs of suicide and depression in themselves and others and to use the SOS technique of Acknowledge, Care, and Tell (ACT) when confronted by these signs. This program differs from other educational suicide intervention programs by not attempting to de-stigmatize suicide in separating it from mental illness but rather by talking about how suicide is linked to mental illness and by also incorporating a screening process (Jacobs, Brewer, & Klein-Benheim, 1999). By giving students an understanding of the connection between undiagnosed mental illness and suicide, the SOS program has managed to show a reduction in suicide attempts in a randomized controlled study by initiating help-seeking among students (Aseltine & DeMartino, 2004).

Aseltine and DeMartino (2004) conducted research to see if the SOS Prevention Program was effective in reducing suicidal behavior for the 3-month period in which it was examined. Their results showed a reduction in suicide attempts by 40%. This was the first school-based suicide prevention program study that produced favorable results in decreasing self-reported suicide attempts. The research demonstrated that students who are guided through a learning process which helps them develop knowledge about suicide and depression along with a better understanding of mental illness, showed a lower probability of self-reported suicide attempts (Aseltine & DeMartino, 2004). This research earned the SOS Program a place on the Substance Abuse and Mental Health Services Administration's National Registry of Effective Programs (Substance Abuse and Mental Health Services Administration, 2006).

Aseltine, James, Schilling, and Glanovsky (2007) proceeded to follow-up the first SOS study with a replication and extension study. This study included a more socially, economically, and geographically diverse group of high school students. It supported the fact that the SOS Program helped students to develop more adaptive attitudes about depression and suicide as well as helping them gain knowledge in these areas. Also, a significantly lower rate of suicide attempts during a post-intervention period of three months was confirmed. The SOS Program continues to be one of the only empirically-based universal school suicide prevention programs to show a reduction in self-reported suicide attempts (Aseltine et al., 2007). In 2009 however, Miller, Eckert, and Mazza reviewed school-based suicide prevention programs and found methodological limitations in the Aseltine and DeMartino study. They suggest that more research in this

area might be done before actually accepting these results as evidence for prevention (Miller, Eckert, & Mazza, 2009).

An alternative intervention method, known as gatekeeper training, involves providing an instructive program to educators. The main goal of gatekeeper training is to provide the adults who are in regular, everyday contact with high-risk students with the skills to identify and address risky situations (Brown, Wyman, Brinales, & Gibbons, 2007; Cross, Matthieu, Cerel, & Knox, 2007; Wyman et al., 2008). The consistent and direct contact with students over long periods of time, make schools the most strategic setting for the implementation of these gatekeeper-type suicide prevention programs (Brown et al., 2007; Cross et al., 2007; Keller et al., 2009; Malley & Kush, 1994; Nemeroff et al., 2008; Wyman et al., 2008). School personnel can play a large part in working on the issue of youth suicide. They can directly observe students for changes in behavior, can recognize the demanding situations the students come across, and can act in response to direct or subtle cries for help (Leenaars & Wenckstern, 1991). School gatekeeper training programs are school-based programs designed to help school staff identify students at-risk for suicide and to refer them for help. School gatekeepers may include any adult in the school (e.g. counselors, teachers, coaches, administrators, or cafeteria staff) who is in a position to observe and interact with students. Although such individuals cannot be expected to act as if they are mental health professionals, with proper training they can be a child's direct line to being identified as at-risk and in need of receiving help (Smith, 1989).

Gatekeeper training programs have been recognized as promising tools in schools, adding an additional option to the school-based intervention process for students at-risk



for suicide. Research supports the idea that gatekeepers gain knowledge, have better attitudes, receive preparation for coping with a crisis, and are knowledgeable about options for referral to capable service providers (Cross et al., 2007; Garland & Zigler, 1993). However, research by Keller et al. (2009) reports that attending a single training session for gatekeepers was not sufficient. They propose that gatekeepers need to have refresher courses to review the skills that they have been taught because over time, there have been decreases in outcomes. Gatekeeper training as a part of suicide prevention has become a key strategy recommended by both the Institute of Medicine and the National Strategy for Suicide Prevention (Goldsmith et al., 2002; Gould et al., 2003).

Stuart, Waalen, and Haelstromm (2003) evaluated whether or not using peers, as part of the gatekeeper program would prove effective in identifying suicidal students. In their research study, peer gatekeepers obtained a more positive attitude toward suicide intervention and sustained knowledge about suicide and referral methods during the 3-month study period. With training on referring and detecting suicidal classmates, peer gatekeepers should be considered as part of the school-wide gatekeeper program team. Also supporting the idea of using peers as gatekeepers is the research by Wyman et al. (2008), which reports that suicidal adolescents will be much less likely to ask for or seek help from adults or school personnel than they would be from their non-suicidal peers. Their research actually shows that it is important to teach peers about suicide and empower them to seek help for their friends if needed, because suicidal adolescents tend to confide in friends not adults.

Katoka, Stein, Nadeem, and Wong (2007) researched whether or not a gatekeeper suicide prevention program would be able to assist students with obtaining needed mental

health care. They found that after a few months, more than half of the students that were referred to mental health services, either in the community or in the school setting, were getting help. The school-based gatekeeper model for suicide prevention can help give students the mental health care that they need (Goldsmith et al., 2002; Katoka et al., 2007).

Westefeld, Kettmann, Lovmo, and Hey (2007) asked high school teachers about their views on high school suicide. They found that 78% of their participants knew of a student who either had attempted or had completed suicide and that 61% felt that suicide was a problem of utmost importance. When asked what resources were available to students in their high schools concerning these issues, approximately 40% were unable to answer. Davidson and Range (1999) conducted research to see whether or not teachers would be responsive to suicide prevention training programs. Seventy-five elementary teachers in training went through a one-hour suicide prevention-training module. This research suggests that after as little as one hour of training, teachers tended to have a more proactive attitude toward students who display suicidal behaviors.

King, Price, Telljohann, and Wahl (1999) sampled 228 high school health teachers to see if they felt confident in their ability to recognize warning signs of adolescent suicide attempts. The schools that did not offer programs on suicide prevention had health teachers who demonstrated a low self-efficacy for recognizing students at-risk for suicide. This study demonstrates the need for teacher programs that develop the skills necessary to identify students at-risk. Also, this study found that only 38% of high school counselors believed that they could recognize a student at-risk for suicide. This was true despite the majority believing that it was their role to recognize

students at-risk for suicide and that if they did recognize students at-risk, it would reduce the chances that the student would commit suicide.

Gatekeeper-type programs, where school staff receive in-service training on suicide prevention, have many advantages. King (2000) indicates that empowering teachers to recognize adolescents at-risk for suicide and communicating this to the school counselor can benefit the students greatly. This allows more at-risk students to be identified. Gatekeeper-type programs, although not extensively researched, seem to be an effective route to helping at-risk youth.

A third approach to suicide intervention, which focuses on identifying students who are at-risk and works at providing a mental health screening for every high school student before he or she graduates. School screenings serve as an efficient way to reach a large number of adolescents but these are not without obstacles. Scott et al. (2009) conducted research to establish if screening would serve only to duplicate identification of students previously identified by school administrators and clinical school professionals. They presented results that showed not much of an overlap in this identification process overall. They reported that identification of suicidal students is improved with screening but emphasize that screening should be but one part of a suicide intervention plan and not the whole plan itself.

Shaffer and Craft (1999) indicate that screening is of utmost importance when trying to get mental health services to students in need. Their research uncovered more than 50% of students with major depression and suicidal behaviors who were not previously identified; however, the costs of screening entire school populations most often becomes a problem in the school setting. Gould et al. (2003) also report that when

administering a screening tool at one specific point in time, only the student's current risk can be assessed. Adolescents tend to display highs and lows when dealing with mental health issues and screening could miss a low point if not given during a time of difficulty for that particular student. In order for screening to be most effective, it needs to be available for student referrals at all times.

Using a screening tool, Columbia University's TeenScreen program strives to identify students who suffer from depression and are at-risk for committing suicide. By discovering mental health issues in students, the TeenScreen program is able to help students who may otherwise be unsure about how to ask for help (Friedman, 2006). After receiving parental consent, TeenScreen uses a questionnaire and an interview process to determine if a teen may be suffering from depression or from other mental health problems. Parents are then presented with treatment options when necessary.

In 2003, President Bush's New Freedom Commission on Mental Health cited screening and TeenScreen as effective approaches to improving teen mental health, but it did not endorse mandatory screening (President's New Freedom Commission on Mental Health, 2003). Friedman (2006) says that mental illness in youth is often overlooked and untreated. By implementing a screening program such as TeenScreen, these young people who are suffering emotionally, socially, and academically may receive the help they would otherwise not get. Shaffer et al. (1996) showed that more than 90% of teenagers who commit suicide have a psychiatric disorder. This research supports the fact that screening students for mental illness is a critical step in locating students at-risk for suicide. Depression, alcohol and substance abuse, and a previous suicide attempt are the most prevalent risk factors associated with teenagers who commit suicide (Shaffer &

Craft, 1999). In order to effectively and efficiently determine the many students who are experiencing these mental health issues, screening seems to work well.

Nemeroff et al. (2008) researched whether or not an evidenced-based mental health assessment tool could be computerized and used for screening at-risk students. Their results show that this strategy is effective for early identification of a student who is at-risk for mental health issues; it is also cost-effective. Their study encourages training of already employed school counselors to administer the screening tool, including the fact that the tool should be available throughout the school year, based on referral. This idea, that takes advantage of available personnel and technology, would help to keep screening costs to a minimum.

Although many people support screening programs and see them as a way to help prevent teen suicide, the topic has become very controversial. Opposition is based chiefly on the idea that screening is a means for invading privacy or indirectly supporting the screening companies; those who oppose also include the overuse of psychiatric drugs in today's youth (Pringle, 2005; Vedantam, 2006). Gould et al. (2005) researched whether or not screening adolescents for suicidal ideation would increase distress. Their research supports the idea that screening does not increase distress or suicidal ideation in youth and that there are no adverse effects from direct screening of students for suicidal behavior. The fact that screening produces many false positives causes many to question the practicality of use in the schools (Halfors et al. 2006).

Purposefully missing from this list is the intervention method of providing a school curriculum program that de-stigmatizes suicide. There have been many studies in which researchers have examined the effectiveness of various curriculum programs.

Typically, suicide prevention curriculum programs within the school are composed of activities that are intended to lessen the occurrence of suicidal ideations, attempts, and completions (Tierney, Ramsey, Tanney, & Lang, 1991). It has also been said that suicide curriculum prevention programs can have negative outcomes among students exposed to such programs (Garland & Zigler, 1993). The concern is that students may be influenced to consider suicide as a relatively normal act or be led to imitate suicidal behavior. Gould et al. (2005) reported, based on their study of 2,342 New York State high school students, that discussing suicidal behavior or ideation during a screening program does not have an iatrogenic effect and that such programs should be used in the prevention process.

Garfinkel (1989) found in a 6 month study of 10 schools that the provision of educational programs did not correlate with the suicide attempt rate in a school either positively or negatively. In regard to projecting detrimental information to the students, this study can be seen positively. However, when evaluating the effectiveness of the dissemination of information, their finding suggests little benefit from this means of intervention. Other research efforts have supported such a conclusion. Ciffone (1993) concluded that school-based suicide prevention programs that use an educational format are limited, because changes in knowledge or attitudes are not necessarily linked to changes in behavior.

Cigularov, Chen, Thurber, & Stallones (2008) found that when students, through their health class curriculum, participated in the Raising Awareness of Personal Power (RAPP) program, the students attitudes, knowledge, and self-efficacy about suicide were positively increased. Although this research seems optimistic, the researchers also reported that 17% of the students felt that they would have a hard time generalizing what

they learned to real-life situations, and 32% of the students were unable to identify warning signs of a suicidal person. Studies that were reviewed by Mazza (1997) reported that a suicide prevention curriculum had little or no effect in changing the attitudes of some students, specifically those who viewed suicide as a possible solution to the problems of teenage life.

For the most part, current research that examines different educational suicide prevention programs is unable to show significant changes either in student knowledge or in attitudes concerning youth suicide (Shaffer, Garland, Vieland, & Underwood, 1991; Vieland, Whittle, Garland, Hicks, & Shaffer, 1991). In a review by Burns and Patton (2000, p. 402), it was stated that “suicide education programs based on the provision of knowledge about suicide risk and the identification of at-risk youth, have been used extensively over 20 years with little or no evidence for their efficacy.”

Curriculum approaches to the prevention of adolescent suicide have been criticized for other reasons as well. Garland and Zigler (1993) see the connection between suicide and extreme stress a major downfall. This view sees everyone as potentially susceptible. Stress may lead to suicidal behavior, but without the presence of psychopathology, a suicide attempt rarely takes place. This piece of the puzzle is often not discussed in the curriculum programs.

Miller, Eckert, and Mazza (2009) reviewed thirteen school-based suicide prevention programs, looking at implementation and outcomes of these individual programs from a public health perspective. Their research identified only one study, Zenere and Lazarus (2009), that showed promising evidence but no studies showing strong evidence for statistically significant outcome measures. Only 7.6% of the

programs provided evidence of any educational or clinical significance. Also, when looking at replication of the program effects, none of the studies provided evidence to support replication.

Zenere and Lazarus (2009) conducted an 18-year longitudinal case study, which included collecting data before and after the implementation of a three tiered, district-wide suicide intervention and prevention program. This program incorporated universal, selected, and indicated intervention and prevention strategies, which encompassed pieces of all of the previously mentioned methods of intervention and prevention. Their research was able to show a significant decrease in suicide rates as well as a steady decline in attempts. This empirically-based study has become one of the first to show a continual reduction over time in youth suicidal behavior when implementing a suicide intervention and prevention program.

The immediate future concerning suicide intervention in schools seems to be thwarted by a two-fold problem. First, studies investigating the efficacy of suicide intervention programs are very much underdeveloped, which makes evaluating the effectiveness of most suicide prevention programs almost impossible. Given the results of Miller, Eckert, and Mazza's research, "...the current scientific foundation regarding school-based suicide prevention programs is very limited" (2009, p. 181). Second, Hayden and Lauer (2000) found that most schools do not have policy and procedures or prevention and intervention programs relating to the topic of suicide. Even though their study found that insufficient staffing, funding, and scheduling were the main reasons for not having programs in place, it is hard to hold schools negligent in their duties of



implementing a suicide intervention program when there are very few studies supporting the effectiveness of specific programs.

In his commentary in the School Psychology Review Special Series on School-based Suicide Prevention, Berman (2009) summarizes:

School psychologists play a vital role in lowering the incidence of suicidal behavior among students and in responding to suicidal events and their effects. To accomplish that, school psychologists need to be educated with regard to risk factors and warning signs of suicidal behavior; how to formulate a risk assessment; effects of trauma on youth; differentiation between suicidal behavior and non-suicidal self-injury behavior; crisis assessment and intervention; intervention, triaging, and making referrals; legal issues and best practices regarding suicide prevention in the schools; evidence-based practices in suicide prevention ; how to involve parents; how to reintegrate a student into the classroom after an attempt; suicide contagion and clusters; use of safety plans versus no-harm contracts; and how to effectively provide postvention (after a suicide). (p. 237)

The very nature of school psychologist's feeling confident in their preparedness for intervening with suicidal students is purported to relate to the amount of training they received and the amount of experience they have in school-based suicide intervention and prevention programs. The hypotheses of the current study state that the more training a school psychologist receives in the area of suicide intervention and prevention, and the more experience they have in the area of suicide intervention and prevention, the more confident they are in providing services to students in that area. Another hypothesis states

that school psychologists are the ones generally involved with suicide intervention and prevention activities in the schools. School psychologists who have self-perceived levels of confidence in the area of suicide intervention and prevention will be more active in their districts' suicide intervention and prevention programs, further the program objectives in the schools, and be better able to support the students that are in their care. Having more suicide intervention and prevention programs being implemented in schools will also allow researchers to have a larger base to study. These studies should help identify the effects and narrow down the positive and negative aspects of these programs. This information will help in the construction of new and successful suicide intervention and prevention programs. Without this information, school districts will continue to use programs that are not empirically supported.

The present study investigates whether or not the amount of training or the amount of experience in the area of suicide intervention and prevention can be associated with self-perceived confidence levels of school psychologists in that area. It is purported that there would be more support for and positive promotion of these programs by having school psychologists who are confident working in this specific area of suicide intervention and prevention. In turn, confident school psychologists will advocate for and support these types of programs. When more programs are put into place, more studies supporting the effectiveness of these specific programs can be conducted. It is evident that suicide intervention programs are in desperate need of further research so that school personnel can make sound choices in their efforts toward implementing suicide intervention and prevention programs.

Also, this study investigates whether or not school psychologists are generally involved with suicide intervention and prevention programs in the schools. Because school psychologists are considered to have the most extensive mental health training of all school personnel (Sheridan & Gutkin, 2000), school psychologists have a legal and an ethical duty to prevent adolescent suicide whenever possible (Jacob & Hartshorne, 2007). This would, in part, be associated with being actively involved with suicide intervention and prevention methods within the school district.

#### *Research Design and Method*

Participants for this study include NASP-Listserv members. All NASP-Listserv members received a survey link via an invitation to the listserv; those who are school practitioners were targeted. They were asked to click on the link, which brought them to a survey. Participants were limited to NASP-Listserv members living in the United States, who attained a school psychologist certification through achieving at least a master's degree. Informed consent was obtained by having participants read an initial introductory invitation which also had informed consent information in it before continuing to the completion of the questionnaire. Non-school practitioners were culled out during the first four survey questions.

A cross-sectional case-control design study was conducted, in which subjects were selected and assessed in relation to their current characteristics. Participants completed the Suicide Intervention and Prevention Information Inventory (SIPII) which was developed by the study's investigator, using past research as support for the format and questions. This survey collected demographic information; experience with suicidal ideation, attempts, and completions; information on suicide intervention and prevention

strategies used on the job; previous education and training in the area of suicide intervention and prevention, and self-perceived confidence levels associated with working with suicidal students. The participants for this study are school psychologists living in the United States of America who are school practitioners and are members of the NASP-Listserv.

The SIPII is an information collection survey which assists in categorizing school psychologists, based on their self-perceived confidence levels in working with suicide intervention and prevention. Respondents answered questions about the suicide intervention and prevention training that they received through master's programs, doctoral programs, workshops, in-services, self-study, etc. They were asked questions about their experiences in working with suicidal students as well. They also answered questions regarding the schools in which they are currently working, whether or not any suicide intervention and prevention programs are currently in place, and what role, if any, they have regarding suicide intervention and prevention in their school. Demographic information questions were also included in the survey. The entire NASP-Listserv was invited to participate in this survey through an invitation posted to the NASP-Listserv, which included a link to the survey. Also included in the invitation was information explaining that the study was being done for a Doctoral Dissertation. It explained the purpose of the study, which is to help understand how psychologists' self-perceived confidence levels in working with suicide intervention and prevention relate to the amount of previous training and experience that they have had in these areas. The invitation to the NASP-Listserv explained that by completing the survey, the participant was giving informed consent to participate in the study. The introductory invitation also

provided information on how to contact the researcher if there were questions, and how the respondent, if interested, might receive final survey results when the study was completed.

If this study's hypotheses are correct, the results will show that school psychologists who have had more training or more experience in the area of suicide intervention and prevention are more confident in treating and working with students concerning these type of issues. It will also show that school psychologists are involved with suicide intervention and prevention in their schools. Correlations, cross tabulations, and ANOVA analyses using the Statistical Package for the Social Sciences (SPSS), were conducted to examine the differences between school psychologists' levels of training and experience in suicide intervention and prevention and the amount of confidence they report when working with suicide intervention and prevention. An alpha level of .05 was utilized for all statistical tests.

King (2000) noted in his study that when teachers are empowered with information on suicide intervention techniques, it benefits students in the long run. The principal researcher feels that there may be connections between a school psychologist's successful training and amounts of experience leading to greater self-perceived confidence in this area, including empowerment, which could lead to being better able to support the students and the school that they are working in. Just as training empowers teachers, this researcher feels it empowers school psychologists as well. By feeling confident in their knowledge of suicide intervention and prevention, school psychologists should be able to better support, promote, and implement programs in their schools. The survey, which was issued to the participants in this study, hopes to offer support for the

concept that school psychologists who receive at least adequate training in this area will be better able to support their students and help keep suicide ideation, attempts, and completions to a minimum.

By supporting the hypothesis that school psychologists who are well trained in the area of suicide intervention and prevention are more confident working with students in this area, this study will suggest that training in this area is crucial to the safety and well-being of students in our schools. Graduate programs in school psychology will need to consider the level of training they are giving to their students in this area, and hopefully will work on increasing training in suicide intervention and prevention in their curriculum. This research would also benefit school districts, because psychologists who feel confident in working with suicide intervention and prevention practices will hopefully be more apt to implement programs in their schools, providing more data for the much needed research in this area. Until more programs are put into place, studying the effectiveness of these types of programs becomes quite difficult, due to lack of data.

By supporting the hypothesis that school psychologists who are experienced in the area of suicide intervention and prevention are more confident in working with students in this area, this study will suggest that when school districts are hiring staff for this specific role, they look for school psychologists with experience in this specific area. School districts who hope to promote suicide intervention and prevention programs in their districts should rely on the previous experiences of school psychologists to help them do so. This research would also benefit school psychologists, helping them understand that they need to put themselves in situations where they can gain experience

in this area in order to help boost their own confidence levels regarding suicide intervention and prevention.

By supporting the hypothesis that school psychologists are involved in suicide intervention and prevention activities in their schools, both universities and school districts can help understand one of the many roles of the school psychologist. Universities need to promote the many roles of the school psychologist in their training programs; school districts also need to understand the diverseness of the position of school psychologist. This research will help to disseminate this information to the public.

### *Ethical Considerations*

In their problem-solving casebook, Williams, Armistead, and Jacob (2008) state the following:

To build and maintain public trust in school psychologists and psychology, it is essential that every school psychologist be sensitive to the ethical components of his or her work, knowledgeable about broad ethical principles and rules of professional conduct, and committed to a proactive stance in ethical thinking and conduct. (p. 1)

That being said, this study adheres to the professional ethical guidelines of NASP when conducting its research. Specifically, the two main ethical areas that are related to this survey research study are informed consent and confidentiality.

NASP Principle IV.F.3 from the NASP Professional Conduct Manual (2000) states the following:

School psychologists follow all legal procedures when conducting research, including following procedures related to informed consent, confidentiality,

privacy, protection from harm or risks, voluntary participation, and disclosure of results to participants. School psychologists demonstrate respect for the rights of and well-being of research participants. (p. 31)

This study was conducted with permission from the Philadelphia College of Osteopathic Medicine (PCOM) Internal Review Board (IRB) (see Appendix A for final notification form). Participants were provided with information about the intention of the study and informed that their participation in the study was voluntary. They were informed that there will be no data that is linked to their names or to them in any other way. Also, participants had the opportunity to request results of the survey after the study had been completed.

Informed consent was given by reading the consent statements and completing the survey, as specified in the introductory invitation. This invitation was posted to the NASP-Listserv, giving all members the opportunity either to participate in the survey or not to participate in the survey. This invitation also contained details about the purpose of the research and information about the procedures being used for the study. It also discussed the fact that all participant information would be kept confidential and that there would be no links between the participant and the data, providing anonymity to all participants. The intent of this study is to develop empirically-based evidence to inform best practice and potential opportunities to improve the quality of suicide training programs at the collegiate level.



## Chapter 3

### *Methods*

#### *Overview*

This section provides an overview of the study that was conducted. The objective of the study was to investigate school psychologists' self-perceived levels of confidence in suicide intervention and prevention in relation to their levels of education and training in this area. It also investigated school psychologists' experience in suicide intervention and prevention in relation to their confidence levels in this area. Survey responses were solicited to gain an understanding of these areas. Approval from the Institutional Review Board (IRB) at Philadelphia College of Osteopathic Medicine (PCOM) was received prior to conducting this study.

#### *Participants*

The possible participants for this study consisted of all current members of the National Association of School Psychologists' (NASP)-Listserv living in the United States who are school practitioners. The NASP-Listserv is a professional listserv sponsored by NASP, which is intended for usage by school psychologists for the purpose of discussing ongoing professional issues, concerns, and research developments impacting the practice of school psychology. The listserv is intended to be a forum allowing multiple responses from a broad perspective and spectrum of professional school psychology practice. At current count, the NASP-Listserv has 2,673 members; 3.7% responded for a total of 100 surveys collected. Fifteen surveys were unusable because the potential respondents did not complete the entire survey. Seven surveys were culled out because the participants reported not currently practicing school psychology

and also reported not having practiced in the past five years. The final sample consisted of 78 participants ( $N = 78$ ) comprised of 24.4% male ( $n = 19$ ) and 75.6% female ( $n = 59$ ). Participant ages ranged from 22 years-old to 60 years-old and older and were generally Caucasian in ethnicity ( $n = 67$ ; 85.9%).

The principal researcher of the current study followed an approval process put in place by NASP in order to contact members of this listserv. This process required submission of a brief research proposal, all invitations and surveys, IRB approval documentation, and a signed Memorandum of Agreement. These items were submitted to the NASP Director of Research in order to receive approval to use the NASP-Listserv in order to solicit participants. Approval was granted and dissemination of the survey was conducted through the NASP-Listserv. The process of dissemination was to invite the entire NASP-Listserv to participate in the survey through an introductory invitation; this included a link to the online survey, which was created on SurveyMonkey. Non-practitioners were culled out during the first four survey questions. Demographic information was obtained from the participants and included: gender; age; ethnicity; highest level of education completed; year highest level degree was obtained; length of practice as a school psychologist; length of practice in current position; work setting including type of school, setting of school, and size of school; grade levels worked with in the past five years; average household income level of families in district; time allocation at job; state employed in; size of caseload, and number of buildings served.

The participants were made aware that their participation in the study was voluntary and that they would be informed in general terms regarding the nature of the research. Participants were also informed of the confidentiality of the study, including the

fact that there would be no data linked to them personally. In addition, subjects were told that the results of the study would be shared with any interested respondent.

### *Purpose of Study*

The overall goal of this study is to determine if practicing school psychologists' self-perceived confidence in the area of suicide intervention and prevention is related to the training and education that they received in this area or is related to experience that they have in this area. This information will be useful for schools and universities in their planning of curriculum; it will be beneficial for schools when conducting hiring of suicide intervention and prevention personnel, as well as for school psychologists who may feel the need to seek more training independently to increase their confidence levels in this area.

### *Instrumentation and Procedure*

An invitation was posted to the NASP-Listserv, which consists of possible participants for this study, explaining that the study is being done to secure material for a doctoral dissertation. It also explains that the purpose of the study is to help gain an understanding about how school psychologists' self-perceived confidence levels in the area of suicide intervention and prevention relate to previous education and training or experience in this area. It provides a direct link to the survey, which is hosted by SurveyMonkey, an online survey tool that allows users to create and publish custom surveys online, and then receive the results in database form. The primary investigator registered for a paid subscription to SurveyMonkey to utilize their survey hosting services. The process involves an introductory invitation (see Appendix B), which indicates the approximate amount of time that is required to complete the survey; this

involved approximately 10 to 15 minutes. It also includes statements about informed consent, explaining that the data will be published in a doctoral dissertation and shared with the survey participants; however, no personal identifiers will be revealed. Also included is information on how to contact the primary researcher if there are any questions or if the respondent is interested in receiving the final survey results when the study is completed and the phone number and email of the researcher and the committee chair as well as PCOM's address. This section also includes broad information on what the study is about: school psychologists' self-perceived confidence levels in suicide intervention and prevention as it relates to education and training or experience in this area.

The Suicide Intervention and Prevention Information Inventory (SIPII) (see Appendix C) is the instrument that is utilized for this study. This instrument was created by the principal investigator and was developed to better understand the relationship between self-perceived confidence levels and training and education or experience in the area of suicide intervention and prevention that school psychologists possess. In order to ensure that the survey instructions and items were well designed and understandable to the intended respondents, the questionnaire was reviewed by the dissertation committee members for its comprehensiveness, clarity, and appropriateness of format. The survey was also reviewed by the PCOM Internal Review Board in order to gain approval for conducting the present study. The survey consists of 55 questions and is divided into five sections. Section A includes questions regarding the participants' backgrounds and demographics. This section initially culls out school psychologists who do not work or have not worked, over the past five years, in a school setting. Their survey is terminated

at this point, after question four. School psychologists who are currently working, or who have worked over the past five years in a school setting, continue to questions that determine demographic information, including gender; age; NASP membership status; ethnicity; highest level of education completed; year highest level degree was obtained; length of practice as a school psychologist; length of practice in current position; work setting including type of school, setting of school, and size of school; grade levels worked within the past five years; average household income level of families in district; time allocation at job; state employed in; size of caseload, and number of buildings served. One question requires them to rank their three top choices about how their time is utilized at their jobs.

Section B asks respondents to indicate the number of occurrences that they have experienced in regard to suicide assessments, suicide attempts, and completed suicides. It also asks about the number of completed suicides in the respondents' districts over the past five years as well as number of counseling cases they have worked on involving losses of friends or loved ones due to suicide.

Section C asked respondents to provide information about suicide prevention and intervention strategies present in their school districts. Information obtained includes: the person who assumes responsibility when a suicidal student presents; the other professionals that are involved in crisis prevention and intervention; competence with intervention techniques, and existence of, effectiveness of, and role on or in a crisis response team, suicide prevention program, and crisis management plan.

Section D asks respondents thirteen questions to obtain information about their previous training and formal education in the area of suicide intervention and prevention.

Respondents are asked to rate their knowledge about suicide prevention, suicide evaluation and intervention, and suicide postvention. They are asked also about their training in these three areas. Information is also obtained about exposure to suicidal students during internship or practicum experiences. They are also asked about the number of seminars/conferences, in-services, and coursework that they had attended which either discussed or was specifically concerned with the topic of suicide intervention and prevention; they were also asked how important they feel formal training in this area is.

Section E is the last section of the survey and consists of six questions, four of which concentrate on school psychologists' self-perceived confidence levels when counseling suicidal students, conducting risk assessments on suicidal students, providing postvention services after a complete suicide, and overall knowledge of suicide intervention and prevention strategies. They are also asked to rank their top three choices for most important factors in building confidence in suicide intervention and prevention as well as information and resources needed to help inform school psychologists about suicide intervention and prevention practices. This survey is hosted by SurveyMonkey and respondents are taken there through a link in the introductory invitation they receive.

A follow-up invitation (see Appendix D) was posted to the NASP-Listserv three weeks after the initial invitation in order to thank the subjects for their assistance and participation in completing the survey. It included a statement reminding respondents that they were previously invited to participate in the survey. A statement was also included asking subjects who had not yet responded, to consider participation because their

feedback was valuable and important to the research. This procedure was repeated again, after an additional two weeks time had passed.

In order to conduct this study, the principal examiner researched and applied ethical and legal guidelines to ensure the safety and welfare of the subjects. The principal investigator obtained informed consent from all participants. The invitation to potential participants which introduced the study, stated the purpose of the present study, the procedure and methodology of the study, informed the subjects of their right to decline to participate in the research, and indicated that completing the survey entirely would constitute informed consent to allow the data provided in the survey to be used without specific identifiers in the analysis and interpretation of the study data. An explanation of the study procedures that would be used to ensure confidentiality was also provided. Furthermore, the principal investigator ensured that ethical and legal prudence were used in the execution of all phases of the study.

### *Analyses*

To examine the research questions, descriptive and inferential statistics were computed. Descriptive statistics included reporting the frequency and percentage of various categories of the survey. In addition, cross-tabulations were computed to report the percentage of respondents across various levels of the variables. Inferential statistics included Pearson correlations and one way analysis of variance using SPSS. An alpha level of .05 was set as the criterion for all statistical tests ( $\alpha = .05$ ). For inferential statistics, this study utilized single-factor, independent measures. Four one-way analyses of variance were computed, using years of experience as a school psychologist with five levels of years to examine self-perceived confidence measured on a Likert scale for the

following dependent variables, counseling students with suicidal ideation, conducting risk assessments for suicidal students, provision of postvention services, and overall knowledge of intervention and prevention strategies. Also, four one-way analyses of variance were computed, using education level to examine self-perceived confidence measured on a Likert scale for the following dependent variables: counseling students with suicidal ideation; conducting risk assessments for suicidal students; provision of postvention services, and overall knowledge of intervention and prevention strategies. The ordinal Likert-item scales were treated as interval data assuming a normal distribution. Currently, two schools of thought center on the use of ordinal data in parametric analyses. Considering the results preferred by Baker, Hardyck, and Petrinovich (1966), although ordinal data does not have a true interval scale, it can be treated as interval type data when the differences between items are equal. Gaito (1980) reports that scale properties do not determine statistical procedures. Based on the research of Johnson and Creech (1983), researchers can treat ordinal data as interval data when there are five or more categories and bias will not be sufficient enough to alter interpretations. Zumbo and Zimmerman (1993) report that based on their research, it is not detrimental to use parametric tests on ordinal data.

Descriptive and inferential statistical analyses involved manipulation of the following responses:

1. When participants were asked to answer survey questions that included the instructions, "check all that apply," participants' answers were used in totality, causing the sample size for some of those questions to exceed the number of participants in the study. This is accounted for by the terminology of the



questions, requiring a possible response of more than one answer per participant.

When possible, these answers were combined into new groupings. When not possible to regroup because of wide answer scatter, the sample size increases to include all answers received.

2. When participants were asked to rank the top three ways they spend most of their time at work, answers were examined individually, looking at First Ranked, Second Ranked, and Third Ranked, and then combined for a description of First, Second, and Third Ranked combined.
3. When participants were asked to report the number of students on their caseload, answers were put into four constructed groups consisting of <50, 51-200, 201-1000, and >1000. This was necessary because of the wide scatter in the answers received from participants.
4. When participants were asked to report their career experiences with suicidal ideations, suicide attempts, and suicide completions, their answers were ranked and described by: Novice by reporting 0 occurrences, Low by reporting 1-5 occurrences, Moderate by reporting 6-10 occurrences, or Experienced by reporting >10 occurrences in each of these areas. Answers were examined individually, looking at suicidal ideation, suicide attempts, and suicide completions, and then combined for a description of suicidal ideation, attempts, and completions combined.
5. When participants were asked to rate their levels of knowledge about suicide prevention, suicide evaluation/intervention, and suicide postvention, answers were examined individually, and then combined for a description of suicide prevention,

evaluation/intervention, and postvention combined. Their answers were ranked and described by 1 for Expert, 2 for Very Knowledgeable, 3 for Knowledgeable, 4 for Somewhat Knowledgeable, and 5 for Little or No Knowledge.

6. When participants were asked to rank the top three most important factors in building confidence levels in the area of suicide intervention and prevention, answers were examined individually, looking at First Ranked, Second Ranked, and Third Ranked, and then combined for a description of First, Second, and Third Ranked combined.
7. When participants were asked to report their confidence levels for counseling students with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention strategies, their answers were described by: Extremely Confident, Very Confident, Confident, Somewhat Confident, and Not Confident. Their answers were ranked and described by 1 for Extremely Confident, 2 for Very Confident, 3 for Confident, 4 for Somewhat Confident, and 5 for Not Confident.

## Chapter 4

*Results**Descriptive Statistics**Demographic and Background Information.*

A total of 100 surveys were collected, representing a 3.7% response rate. Of those, 15 were excluded due to incomplete surveys. Additionally, seven surveys were excluded because the school psychologist respondents had not practiced in the previous five years. The final sample consisted of 78 participants ( $N = 78$ ), comprised of 24.4% male ( $n = 19$ ) and 75.6% female ( $n = 59$ ). Participant ages ranged from 22 years-old to 60 years-old and older, with 28.2% in age level 22-29 years-old ( $n = 22$ ), 24.4% in age level 30-39 years-old ( $n = 19$ ), 21.8% in age level 40-49 years-old ( $n = 17$ ), 21.8% in age level 50-59 years-old ( $n = 17$ ), and 3.8% in age level 60 years-old and older ( $n = 3$ ). All participants included in the sample were school psychologists who practice or have practiced school psychology within the past five years, with 91.0% currently practicing school psychology ( $n = 71$ ) and 9.0% who, although not currently practicing, had practiced within the past five years ( $n = 7$ ). Participants were generally members of NASP ( $n = 58$ ; 74.4%), but others were not members of this association ( $n = 20$ ; 25.6%). Participants were generally Caucasian in ethnicity ( $n = 67$ ; 85.9%), followed by Hispanic/Latino ( $n = 5$ ; 6.4%), African American ( $n = 3$ ; 3.7%), Asian American ( $n = 1$ ; 1.3%), Biracial/Multiracial ( $n = 1$ ; 1.3%), and those endorsing the category of Other ( $n = 1$ ; 1.3%).

Table 1 shows the characteristics of the respondents' school districts. Most of the participants came from New Jersey ( $n = 18$ ; 23.1%) and Pennsylvania ( $n = 12$ ; 15.4%).

The highest percentage of respondents worked with a mixture of students in elementary, middle, and high school ( $n = 14$ ; 17.9%). Most respondents worked in public schools ( $n = 64$ ; 82.1%) and equal numbers were found for reports of serving one ( $n = 23$ ; 29.5%), two ( $n = 19$ ; 24.4%), or three ( $n = 16$ ; 20.5%) buildings. The number of students on a participant's caseload varied widely, with numbers reported from 0 through 2500. The majority of participants worked in school districts that were located within a suburban setting ( $n = 25$ ; 32.1%), followed by a rural setting ( $n = 16$ ; 20.5), and a mixed rural/suburban setting ( $n = 13$ ; 16.7%). A majority of the school psychologists who participated in the survey were employed by a district sized between 501 and 2000 students ( $n = 16$ ; 20.5%), followed closely by 3501 to 5000 students ( $n = 15$ ; 19.2%). The school psychologists were dispersed among those who worked in districts that were considered upper middle, middle, and lower socio-economic classes. There were 12 (15.4%) respondents who were employed in upper middle socio-economic class districts, 39 (50.0%) who were in middle socio-economic class districts, and 27 (34.6%) who were in lower socio-economic class districts.

Table 1  
 Characteristics of School Districts for Participants

Characteristic	<i>n</i>	%
Size of District		
Less than 501	8	10.3
501-2000	16	20.5
2001-3500	11	14.1
3501-5000	15	19.2
5001-6500	7	9.0
6501-8000	8	10.3
8001 and over	13	16.7
Setting		
Rural	16	20.5
Suburban	25	32.1
Urban	9	11.5
Rural/Suburban	13	16.7
Suburban/Urban	10	12.8
Rural/Suburban/Urban	5	6.4
Grades Worked With		
< 3-5 Year-Olds through Middle School	3	3.8
< 3-5 Year-Olds through High School	6	7.7

(Table 1 continues)

(Table 1 continued)

Characteristic	<i>n</i>	%
< 3-5 Year-Olds through Post Secondary School	4	5.1
< 3-5 Year-Olds through Elementary/High School	1	1.3
3-5 Year-Olds	1	1.3
3-5 Year-Olds through Elementary School	3	3.8
3-5 Year-Olds through Middle School	5	6.4
3-5 Year-Olds through High School	9	11.5
3-5 Year-Olds through Post Secondary School	5	6.4
3-5 Year-Olds/Middle through Post Secondary School	1	1.3
3-5 Year-Olds through Elementary/High School	2	2.6
Elementary School	5	6.4
Elementary through Middle School	2	2.6
Elementary through High School	14	17.9
Elementary through Post Secondary School	1	1.3
Elementary/High School	3	3.8
Middle School	1	1.3
Middle through High School	3	3.8
High School	9	11.5
Number of Buildings Served		
0 Buildings	1	1.3

(Table 1 continues)

(Table 1 continued)

Characteristic	<i>n</i>	<i>%</i>
1 Building	23	29.5
2 Buildings	19	24.4
3 Buildings	16	20.5
4 Buildings	4	5.1
5 Buildings	2	2.6
6 Buildings	6	7.7
7 Buildings	2	2.6
8 Buildings	1	1.3
12 Buildings	1	1.3
15 Buildings	1	1.3
17 Buildings	1	1.3
30 Buildings	1	1.3
Number of Students on Caseload		
<50	28	35.9
50-200	31	39.7
201-1000	4	5.1
>1000	15	19.2
State Employed In		
Arizona	3	3.8

(Table 1 continues)

(Table 1 continued)

Characteristic	<i>n</i>	%
California	3	3.8
Colorado	3	3.8
Connecticut	4	5.1
Florida	3	3.8
Hawaii	1	1.3
Illinois	2	2.6
Louisiana	1	1.3
Maine	1	1.3
Maryland	3	3.8
Massachusetts	1	1.3
Michigan	1	1.3
New Jersey	18	23.1
New York	6	7.7
North Carolina	1	1.3
Ohio	3	3.8
Pennsylvania	12	15.4
Rhode Island	1	1.3
Tennessee	2	2.6
Utah	1	1.3

(Table 1 continues)



(Table 1 continued)

Characteristic	<i>n</i>	%
Virginia	4	5.1
Wisconsin	3	3.8
Wyoming	1	1.3
Socioeconomic Class of Families in District		
Upper Middle	12	15.4
Middle	39	50.0
Lower	27	34.6
Type of Schools Working In		
Public	64	82.1
Private/Nonpublic	2	2.6
Day Treatment/Residential	1	1.3
Other	2	2.6
Public and Private/Nonpublic	4	5.1
Public and Other	2	2.6
Public/Private/Nonpublic/Day Treatment/Residential	2	2.6
Public/Private/Nonpublic/Day Treatment/Residential/Other	1	1.3

Years of experience as a school psychologist and years employed within their current position are indicated in Table 2. The participants were asked to respond to a question, which focused on their level of education. The highest number of respondents

( $n = 28$ ; 35.9%) held a Master's degree plus a School Psychology Certification, followed by a Doctorate degree ( $n = 24$ ; 30.8%). Number of years as a school psychologist was rather evenly dispersed for respondents, with the exception of 16-20 years being substantially lower. Most respondents were employed in their respective districts for fewer than two or three to five years. The highest number of respondents ( $n = 9$ ; 11.5%) reported achieving their highest degree in 2007.

Table 2  
Characteristics of Participants

Characteristic	<i>n</i>	%
Education Level		
Master's Degree	11	14.1
Master's plus Cert.	28	35.9
Educational Specialist	15	19.2
Doctorate	24	30.8
Years as School Psychologist		
<2	14	17.9
3-5	17	21.8
6-10	16	20.5
11-15	13	16.7
16-20	4	5.1

(Table 2 continues)

(Table 2 continued)

Characteristic	<i>n</i>	%
>20	14	17.9
Years at Current Position		
<2	24	30.8
3-5	24	30.8
6-10	17	21.8
11-15	4	5.1
16-20	2	2.6
>20	7	9.0
Year Highest Degree Achieved		
1975 - 1984	8	10.3
1985 - 1994	11	14.1
1995 - 2004	25	32.1
2005 - 2010	34	43.6

*Note. Master's plus Cert. = Master's plus School Psychology Certification*

Table 3 reports the data received when participants were asked to rank the top three school duties representing the majority of their work time. Participants ranked evaluations and reports as the most time consuming duties in their position as a school psychologist ( $n = 35$ ; 44.9%) followed by IEP/case management ( $n = 15$ ; 19.2%). When combining their top three rankings, evaluations and reports remained most time

consuming ( $n = 70$ ; 29.9%), consultation ranked second ( $n = 52$ ; 22.2%), and counseling ranked in third place ( $n = 35$ ; 15.0%).

Table 3  
Ranking of Top Three Duties

Characteristic	<u><i>n</i></u>	<u><i>%</i></u>
First Ranked		
Evaluations and Reports	35	44.9
Counseling	6	7.7
IEP and Case Management	15	19.2
Crisis Work	0	0.0
Consultation with Parents, Teachers, etc.	13	16.7
Other Meetings	4	5.1
Serving on School Committees	2	2.6
Other	3	3.8
Second Ranked		
Evaluations and Reports	18	23.1
Counseling	19	24.4
IEP and Case Management	9	11.5
Crisis Work	5	6.4
Consultation with Parents, Teachers, etc.	17	21.8

(Table 3 continues)

(Table 3 continued)

Characteristic	<i>n</i>	<i>%</i>
Other Meetings	6	7.7
Serving on School Committees	2	2.6
Other	2	2.6
Third Ranked		
Evaluations and Reports	17	21.8
Counseling	10	12.8
IEP and Case Management	6	7.7
Crisis Work	8	10.3
Consultation with Parents, Teachers, etc.	22	28.2
Other Meetings	9	11.5
Serving on School Committees	4	5.1
Other	2	2.6
Combined First, Second, and Third Ranked		
Evaluations and Reports	70	29.9
Counseling	35	15.0
IEP and Case Management	30	12.8
Crisis Work	13	5.6
Consultation with Parents, Teachers, etc.	52	22.2
Other Meetings	19	8.1

(Table 3 continues)

(Table 3 continued)

Characteristic	<i>n</i>	%
Serving on School Committees	8	3.4
Other	7	3.0

*Suicide Experience Sample Characteristics.*

Most participants reported not having had any completed suicides in their school districts within the past five years ( $n = 39$ ; 50.0%), followed by 23.1% ( $n = 18$ ) reporting 1 completed suicide, 12.8% ( $n = 10$ ) reporting 2 completed suicides, 3.8% ( $n = 3$ ) reporting 3 completed suicides, 1.3% ( $n = 1$ ) reporting 4 completed suicides, and 9% ( $n = 7$ ) reporting >4 completed suicides within the past five years. Participants also reported involvement with individual counseling cases dealing with losses of friends or loved ones to suicide in the past five years. Participants generally reported having 0 cases ( $n = 39$ ; 50.0%), followed by 1-3 cases ( $n = 29$ ; 37.2%), followed by 4-6 cases ( $n = 3$ ; 3.8%), 10-12 cases ( $n = 3$ ; 3.8%), >12 cases ( $n = 3$ ; 3.8%), and 7-9 cases ( $n = 1$ ; 1.3%).

*Suicide Prevention and Intervention Sample Characteristics.*

When asked to report all intervention techniques that they feel competent to employ with regard to suicidal ideation, participants reported Teacher Consultation ( $n = 64$ ; 14.5%) followed closely by Risk Assessment ( $n = 63$ ; 14.3%) and Parent Consultation ( $n = 62$ ; 14.1%) as the techniques they felt most competent with, followed by Individual Counseling ( $n = 57$ ; 13.0%), Administrative Consultation ( $n = 54$ ; 12.3%),

Teacher Education ( $n = 50$ ; 11.4%), Parent Education ( $n = 43$ ; 9.8%), Social/Group Counseling ( $n = 41$ ; 9.3%), None of these ( $n = 4$ ; 0.9%), and Other ( $n = 2$ ; 0.5%).

*Previous Suicide Education and Training Sample Characteristics.*

Table 4 reports the data received when participants were asked to rate their level of knowledge about suicide prevention, suicide evaluation/intervention, and suicide postvention. Participants generally rated themselves as Knowledgeable in the area of suicide prevention ( $n = 31$ ; 39.7%), Very Knowledgeable in the area of suicide evaluation/intervention ( $n = 29$ ; 37.2%), and both Knowledgeable and Somewhat Knowledgeable in the area of suicide postvention ( $n = 24$ ; 30.8%). When combining all three areas together, suicide prevention, evaluation/intervention, and postvention, most participants fell into the Somewhat Knowledgeable range ( $n = 27$ ; 34.6%).

Table 4

Knowledge Rating for Suicide Prevention, Evaluation/Intervention, and Postvention

Characteristic	<u><i>n</i></u>	<u><i>%</i></u>
Suicide Prevention		
Expert	3	3.8
Very Knowledgeable	22	28.2
Knowledgeable	31	39.7
Somewhat Knowledgeable	20	25.6
Little or No Knowledge	2	2.6

(Table 4 continues)

(Table 4 continued)

Characteristic	<i>n</i>	<i>%</i>
<b>Suicide Evaluation/Intervention</b>		
Expert	4	5.1
Very Knowledgeable	29	37.2
Knowledgeable	23	29.5
Somewhat Knowledgeable	20	25.6
Little or No Knowledge	2	2.6
<b>Suicide Postvention</b>		
Expert	3	3.8
Very Knowledgeable	14	17.9
Knowledgeable	24	30.8
Somewhat Knowledgeable	24	30.8
Little or No Knowledge	13	16.7
<b>Combined Suicide Prevention, Evaluation/Intervention, and Postvention</b>		
Expert	3	3.8
Very Knowledgeable	22	28.2
Knowledgeable	25	32.1
Somewhat Knowledgeable	27	34.6
Little or No Knowledge	1	1.3



Participants responded equally to the question of whether or not they encountered students who were experiencing suicidal ideation, attempted suicide, or completed a suicide during their internship or practicum experiences with 39 responding Yes (50.0%) and 39 responding No (50.0%).

Table 5 reports the number of seminars/conferences, in-service presentations, and formal courses that participants had taken in the past five years that discussed suicide intervention and prevention. It also reports the number of formal courses taken by participants throughout their entire schooling that discussed the topic of suicide intervention and prevention, and/or crisis management that included suicide intervention and prevention. Participants reported that they generally felt it is Extremely Important to have one university class devoted specifically to crisis management, including suicide intervention and prevention ( $n = 48$ ; 61.5%), followed by Very Important ( $n = 18$ ; 23.1%), Important ( $n = 6$ ; 7.7%), Somewhat Important ( $n = 4$ ; 5.1%), and Not Important ( $n = 2$ ; 2.6%).

Table 5

## Training Received in the Area of Suicide Intervention and Prevention

Characteristic	<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max	Range
<b>In the Past Five Years</b>						
Seminars/Conferences	78	1.42	1.35	0	6	6
In-Service Presentations	78	1.00	1.11	0	5	5
Formal Courses	78	0.64	0.94	0	4	4
<b>Throughout entire schooling</b>						
Formal Courses discussing	78	1.91	1.58	0	6	6
Formal Courses specifically	78	0.79	1.04	0	5	5

*Confidence Levels with Suicide Sample Characteristics.*

Table 6 reports the data received when participants were asked to rank the top three factors in building confidence levels in the areas of suicide intervention and prevention. Participants ranked university or college degree coursework as the most important factor in building confidence in suicide intervention and prevention ( $n = 24$ ; 30.8%), followed by on-the-job experience ( $n = 21$ ; 26.9%). When combining their top three rankings, on-the-job experience ranked as most important ( $n = 50$ ; 21.4%), university or college degree coursework ranked as second ( $n = 46$ ; 19.7%), and workshops or seminars ranked as third ( $n = 44$ ; 18.8%)

Table 6

## Ranking Top Three Factors in Suicide Intervention and Prevention Confidence Levels

Characteristic	<i>n</i>	%
First Ranked		
Collegial Support	5	6.4
On-the-job experience	21	26.9
Years of experience	4	5.1
University or college degree coursework	24	30.8
Workshops or seminars	8	10.3
District In-Services	0	0.0
Professional Development Workshops	13	16.7
Independent Study	2	2.6
Other	1	1.3
Second Ranked		
Collegial Support	11	14.1
On-the-job experience	18	23.1
Years of experience	4	5.1
University or college degree coursework	17	21.8
Workshops or seminars	20	25.6
District In-Services	1	1.3
Professional Development Workshops	6	7.7

(Table 6 continues)

(Table 6 continued)

Characteristic	<i>n</i>	%
Independent Study	1	1.3
Other	0	0.0
Third Ranked		
Collegial Support	19	24.4
On-the-job experience	11	14.1
Years of experience	5	6.4
University or college degree coursework	5	6.4
Workshops or seminars	16	20.5
District In-Services	9	11.5
Professional Development Workshops	11	14.1
Independent Study	2	2.6
Other	0	0.0
Combined First, Second, and Third Ranked		
Collegial Support	35	15.0
On-the-job experience	50	21.4
Years of experience	13	5.5
University or college degree coursework	46	19.7
Workshops or seminars	44	18.8
District In-Services	10	4.3

(Table 6 continues)

(Table 6 continued)

Characteristic	<i>n</i>	%
Professional Development Workshops	30	12.8
Independent Study	5	2.1
Other	1	0.4

Table 7 reports the data received when participants were asked about the information/resources that are needed to help inform school psychologists about suicide intervention and prevention practices. Participants reported needing local trainings (workshops/seminars) most often ( $n = 71$ ; 24.2%) with specific classes in university degree programs as second ( $n = 61$ ; 20.8%).

Table 7

## Suicide Intervention and Prevention Information/Resources to Help School Psychologists

Characteristic	<i>n</i>	%
Local trainings (seminars/workshops)	71	24.2
On-site consultation	46	15.7
Specific classes in university degree programs	61	20.8
Empirical studies	18	6.1
National/local crisis teams to provide services	40	13.7

(Table 7 continues)

(Table 7 continued)

Characteristic	<i>n</i>	%
Crisis books/manuals	55	18.8
Other	2	0.7

When looking at the joint distribution for years employed as a school psychologist and confidence in overall knowledge of suicide intervention and prevention, school psychologists employed <2 years generally reported being only Somewhat Confident ( $n = 9$ ; 11.5%), whereas those employed >20 years generally reported being Very Confident ( $n = 9$ ; 11.5%). School psychologists employed 3-5 years, 6-10 years, and 11-15 years generally reported being Confident ( $n = 6$ ; 7.7%), ( $n = 8$ ; 10.3%), and ( $n = 4$ ; 5.1%), whereas those employed 16-20 years generally reported being Not Confident ( $n = 2$ ; 2.6%). There were very few psychologists, regardless of number of years employed, that reported being Extremely Confident ( $n = 4$ ; 5.1%).

When looking at the joint distribution for years employed as a school psychologist and confidence for counseling suicidal students, again there are very few psychologists, regardless of number of years employed, that reported being Extremely Confident ( $n = 5$ ; 6.4%). School psychologists employed <2 years generally reported being Confident ( $n = 5$ ; 6.4%) or Somewhat Confident ( $n = 5$ ; 6.4%), whereas those employed > 20 years generally reported being Very Confident ( $n = 8$ ; 10.3%). School psychologists employed 3-5 years and 11-15 years generally reported being Confident ( $n = 6$ ; 7.7%), ( $n = 6$ ; 7.7%) with those employed 6-10 years generally reporting being Very Confident ( $n = 5$ ;

6.4%). School psychologists employed 16-20 years were evenly disbursed between generally reporting being Very Confident ( $n = 2$ ; 2.6%) and Not Confident ( $n = 2$ ; 2.6%).

When looking at the joint distribution for years employed as a school psychologist and confidence for conducting risk assessments, again there are very few psychologists, regardless of number of years employed, that reported being Extremely Confident ( $n = 8$ ; 10.3%). School psychologists employed <2 years generally reported being Confident ( $n = 4$ ; 5.1%) or Somewhat Confident ( $n = 4$ ; 5.1%), whereas those employed >20 years generally reported being Very Confident ( $n = 7$ ; 9.0%). School psychologists employed 3-5 years, 6-10 years, and 11-15 years generally reported being Confident ( $n = 7$ ; 9.0%), ( $n = 5$ ; 6.4%), ( $n = 7$ ; 9.0%), with those employed 16-20 years evenly disbursed between generally reporting Very Confident ( $n = 1$ ; 1.3%), Confident ( $n = 1$ ; 1.3%), Somewhat Confident ( $n = 1$ ; 1.3%), and Not Confident ( $n = 1$ ; 1.3%).

When looking at the joint distribution for years employed as a school psychologist and confidence for providing postvention services, again there are very few psychologists, regardless of number of years employed, that reported being Extremely Confident ( $n = 3$ ; 3.8%). School psychologists employed <2 years, 3-5 years, and 6-10 years generally reported being Somewhat Confident ( $n = 8$ ; 10.3%), ( $n = 5$ ; 6.4%), ( $n = 6$ ; 7.7%). School psychologists employed 11-15 years were evenly disbursed between generally reporting Very Confident ( $n = 3$ ; 3.8%), Confident ( $n = 3$ ; 3.8%), Somewhat Confident ( $n = 3$ ; 3.8%), and Not Confident ( $n = 3$ ; 3.8%). School psychologists employed 16-20 years were evenly disbursed between generally reporting Confident ( $n = 2$ ; 2.6%) and Not Confident ( $n = 2$ ; 2.6%).

When looking at the joint distribution for education level and confidence in overall knowledge of suicide intervention and prevention, Master's level school psychologists generally reported being only Somewhat Confident ( $n = 4$ ; 5.1%), whereas those with Doctorate's generally reported being Confident ( $n = 9$ ; 11.5%). Master's + School Psychology Certification level school psychologists generally reported being Confident ( $n = 12$ ; 15.47%), whereas Ed.S level school psychologists generally reported being Somewhat Confident ( $n = 5$ ; 6.4%). There were very few psychologists, regardless of education level, that reported being Extremely Confident ( $n = 4$ ; 5.1%).

When looking at the joint distribution for education level and confidence for counseling suicidal students, again there are very few psychologists, regardless of education level that reported being Extremely Confident ( $n = 5$ ; 6.4%). Master's level school psychologists generally reported being Very Confident or Confident ( $n = 5$ ; 6.4%), ( $n = 5$ ; 2.6%) as did Doctorate level school psychologists ( $n = 9$ ; 11.5%), ( $n = 9$ ; 11.5%). Master's + School Psychology Certification level school psychologists generally reported being Confident ( $n = 9$ ; 11.5), whereas Ed.S level school psychologists generally reported being Somewhat Confident ( $n = 6$ ; 7.7%).

When looking at the joint distribution for education level and confidence for conducting risk assessments, again there are very few psychologists, regardless of education level, that reported being Extremely Confident ( $n = 8$ ; 10.3%). Master's level school psychologists generally reported being Very Confident ( $n = 4$ ; 5.1%) or Confident ( $n = 4$ ; 5.1%). Master's + School Psychology Certification level school psychologists generally reported being Confident ( $n = 10$ ; 12.8%), as did Ed.S level ( $n = 6$ ; 7.7%).



Doctorate level school psychologists generally reported being Very Confident ( $n = 9$ ; 11.5%).

When looking at the joint distribution for education level and confidence for providing postvention services, again there are very few psychologists, regardless of education level, that reported being Extremely Confident ( $n = 3$ ; 3.8%). Master's + School Psychology Certification level school psychologists generally report being Not Confident ( $n = 9$ ; 11.5%). Both Master's level and Ed.S level school psychologists generally reported being only Somewhat Confident ( $n = 5$ ; 6.4%), ( $n = 6$ ; 7.7%). Doctorate level school psychologists generally reported being Confident ( $n = 7$ ; 7.7%) and Somewhat Confident ( $n = 7$ ; 2.6%).

### *Inferential Statistics*

#### *Experience with Suicide Assessment, Attempts, and Completions.*

Table 8 reports the data received when participants were asked to report their career experiences with suicidal ideations, suicide attempts, and suicide completions. Participants tended to rank themselves as Low in their rating for involvement with suicide assessments in the schools ( $n = 40$ ; 51.3%) and involvement with suicide attempts ( $n = 35$ ; 44.9%). Participants ratings, when asked about involvement with completed suicides, generally fell into the Novice ( $n = 46$ ; 59.0%) range. When combining all three areas together, suicidal ideation, attempts, and completions, most participants fell in the Low range ( $n = 65$ ; 72%).

Table 8

## Experience with Suicide Including Ideation, Attempts, and Completions

Characteristic	<i>n</i>	%
<b>Suicide Assessments</b>		
Novice	3	3.8
Low	40	51.3
Moderate	8	10.3
Experienced	27	34.7
<b>Suicide Attempts</b>		
Novice	30	38.5
Low	35	44.9
Moderate	7	9.0
Experienced	6	7.7
<b>Completed Suicides</b>		
Novice	46	59.0
Low	26	33.3
Moderate	3	3.8
Experienced	3	3.9
<b>Combined Assessments, Attempts, and Completions</b>		
Novice	2	2.6
Low	65	83.3

(Table 8 continues)

(Table 8 continued)

Characteristic	<i>n</i>	%
Moderate	9	11.5
Experienced	2	2.6

*Assignment of Responsibility of Suicidal Students and School Psychologists.*

Participants reported that School Psychologists generally assume the responsibility in their districts when a possible suicidal student presents ( $n = 35$ ; 44.9%); this was followed by School Counselors ( $n = 18$ ; 23.1%), Social Workers ( $n = 7$ ; 9.0%), Other ( $n = 7$ ; 9.0%), Principals ( $n = 5$ ; 6.4%), School Nurses ( $n = 4$ ; 5.1%), and Community Mental Health Professionals ( $n = 2$ ; 2.6%).

When asked to report all other professionals that are involved in the crisis prevention and intervention activities in their districts, participants reported School Counselors ( $n = 58$ ; 19.4%) as most often utilized, followed closely by School Psychologists ( $n = 57$ ; 19.1%), Social Workers ( $n = 52$ ; 17.4%), School Nurses ( $n = 40$ ; 13.4%), Principals ( $n = 39$ ; 13.0%), Community Mental Health Professionals ( $n = 24$ ; 8.0%), Student Assistance Counselors ( $n = 12$ ; 4.0%), Teachers ( $n = 12$ ; 4.0%), and Other (5; 1.7%).

Table 9 reports data received when participants were asked about Crisis Response Teams, Suicide Prevention Programs, and Comprehensive Crisis Management Plans in their districts. Participants generally reported having a Crisis Response Team that responds during a crisis or in its aftermath in their districts ( $n = 56$ ; 71.8%), generally

reported feeling that it was effective ( $n = 35$ ; 62.5%), and generally reported a role of Evaluation/Intervention on that team ( $n = 35$ ; 33.3%). Participants generally reported not having a Suicide Prevention Program in their districts ( $n = 50$ ; 64.1%), but did report feeling that the programs that were in place were effective ( $n = 9$ ; 75.0%), and generally reported a role of Evaluation/Intervention with that program ( $n = 9$ ; 33.3%). Participants generally reported having a Comprehensive Crisis Management Plan in their districts ( $n = 35$ ; 44.9%), generally reported feeling that it was effective ( $n = 23$ ; 65.7%), and generally reported a role of Evaluation/Intervention with that plan ( $n = 26$ ; 35.1%).

Table 9

## Existence Of, Effectiveness Of, and Roles Played in District Interventions

Characteristic	<i>n</i>	%
Existence of Crisis Response Teams		
Yes	56	71.8
No	8	10.3
Not Sure	14	17.9
Effectiveness of Crisis Response Teams		
Very Effective	7	12.5
Effective	35	62.5
Neither	11	19.6
Ineffective	3	5.4

(Table 9 continues)

(Table 9 continued)

Characteristic	<i>n</i>	<i>%</i>
Very Ineffective	0	0.0
Participant Roles on Crisis Response Team		
Development	14	13.3
Prevention	18	17.1
Evaluation/Intervention	35	33.3
Postvention	26	24.8
No Role	12	11.4
Existence of Suicide Prevention Program		
Yes	12	15.4
No	50	64.1
Not Sure	16	20.5
Effectiveness of Suicide Prevention Program		
Very Effective	1	8.3
Effective	9	75.0
Neither	2	16.7
Ineffective	0	0.0
Very Ineffective	0	0.0
Participant Roles in Suicide Prevention Program		
Development	4	14.8

(Table 9 continues)

(Table 9 continued)

Characteristic	<i>n</i>	%
Prevention	5	18.5
Evaluation/Intervention	9	33.3
Postvention	6	22.2
No Role	3	11.1
Existence of Comprehensive Crisis Management Plan		
Yes	35	44.9
No	16	20.5
Not Sure	27	34.6
Effectiveness of Comprehensive Crisis Management Plan		
Very Effective	4	11.4
Effective	23	65.7
Neither	4	11.4
Ineffective	2	5.7
Very Ineffective	2	5.7
Participant Roles in Comprehensive Crisis Management Plan		
Development	13	17.6
Prevention	15	20.3
Evaluation/Intervention	26	35.1
Postvention	16	21.6
No Role	4	5.4

*School Psychologists Training in the Area of Suicide Intervention and Prevention.*

Table 10 reports the data received when participants were asked about the training they received in the areas of suicide prevention, suicide evaluation/intervention, and suicide postvention. Participants reported receiving suicide prevention training most often in workshops or seminars ( $n = 53$ ; 17.0%) and through professional development workshops ( $n = 51$ ; 16.3%). They reported receiving suicide evaluation/intervention training most often in workshops or seminars ( $n = 52$ ; 17.5%) and through professional development workshops ( $n = 47$ ; 15.8%) and suicide postvention training most often through consultation with colleagues ( $n = 33$ ; 15.4%) and workshops or seminars ( $n = 33$ ; 15.4%).

Table 10

## Training Received in Suicide Prevention, Evaluation/Intervention, and Postvention

Characteristic	<i>n</i>	%
Suicide Prevention		
University/college degree program	37	11.9
Workshops or seminars	53	17.0
District In-Services	37	11.9
Professional Development Workshops	51	16.3
Independent Study	41	13.1
Parents or students with issues in this area	15	4.8

(Table 10 continues)

(Table 10 continued)

Characteristic	<i>n</i>	<i>%</i>
Consultation with colleagues	45	14.4
Internet websites	30	9.6
None	0	0.0
Other	3	1.0
Suicide Evaluation/Intervention		
University/college degree program	37	12.5
Workshops or seminars	52	17.5
District In-Services	36	12.1
Professional Development Workshops	47	15.8
Independent Study	36	12.1
Parents or students with issues in this area	16	5.4
Consultation with colleagues	44	14.8
Internet websites	26	8.8
None	2	0.7
Other	1	0.3
Suicide Postvention		
University/college degree program	27	12.6
Workshops or seminars	33	15.4
District In-Services	24	11.2

(Table 10 continues)



(Table 10 continued)

Characteristic	<i>n</i>	%
Professional Development Workshops	27	12.6
Independent Study	29	13.6
Parents or students with issues in this area	7	3.3
Consultation with colleagues	33	15.4
Internet websites	18	8.4
None	16	7.5
Other	0	0.0

*School Psychologists Self-Perceived Knowledge and Confidence about Suicide Intervention and Prevention.*

Table 11 reports confidence levels that participants reported when asked to rate their confidence levels for counseling students who present with suicidal ideation, for conducting risk assessments on possibly suicidal students, for providing postvention services, and for their overall knowledge of suicide intervention and prevention strategies. Generally, participants reported feeling confident in their confidence levels for counseling students who present with suicidal ideation ( $n = 24$ ; 30.8%), for conducting risk assessments on possibly suicidal students ( $n = 28$ ; 35.9%), and in their overall knowledge of suicide intervention and prevention strategies ( $n = 27$ ; 34.6%), but only somewhat confident in providing postvention services ( $n = 25$ ; 32.1%).

Table 11

## Confidence Levels

Characteristic	<i>n</i>	%
Counseling students presenting with suicidal ideation		
Extremely Confident	5	6.4
Very Confident	23	29.5
Confident	24	30.8
Somewhat Confident	15	19.2
Not Confident	11	14.1
Conducting risk assessments on possibly suicidal students		
Extremely Confident	8	10.3
Very Confident	24	30.8
Confident	28	35.9
Somewhat Confident	8	10.3
Not Confident	10	12.8
Providing Postvention services		
Extremely Confident	3	3.8
Very Confident	16	20.5
Confident	18	23.1
Somewhat Confident	25	32.1
Not Confident	16	20.5

(Table 11 continues)

(Table 11 continued)

Characteristic	<i>n</i>	%
Overall knowledge of suicide intervention and prevention strategies		
Extremely Confident	4	5.1
Very Confident	19	24.4
Confident	27	34.6
Somewhat Confident	20	25.6
Not Confident	8	10.3

*Relationship Between School Psychologists Experience and Level of Self-Perceived Confidence with Suicide Intervention and Prevention.*

Significant Pearson product-moment correlations were found between school psychologists' experiences with providing suicide assessments, being involved with suicide attempts, and being involved with completed suicides and confidence levels with students presenting with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention, as shown in Table 12.

Table 12

Correlations Among the Number of Occurrences of Involvement and Confidence Levels

Variable*	<u>Csi</u>	<u>Cra</u>	<u>Cpv</u>	<u>Call</u>
Suiass	0.58 <sup>a</sup>	0.56 <sup>a</sup>	0.53 <sup>a</sup>	0.64 <sup>a</sup>
Suiatt	0.45 <sup>b</sup>	0.41 <sup>b</sup>	0.51 <sup>a</sup>	0.52 <sup>a</sup>
Compsui	0.48 <sup>b</sup>	0.47 <sup>b</sup>	0.51 <sup>a</sup>	0.55 <sup>a</sup>

*Note.* Suiass = Suicide assessments, Suiatt = Suicide attempts, Compsui = Completed suicides, Csi = Confidence counseling suicidal students, Cra = Confidence conducting risk assessments, Cpv = Confidence providing postvention services, and Call = Confidence with overall knowledge of suicide intervention and prevention strategies.

<sup>a</sup>Large effect size.

<sup>b</sup>Medium effect size.

\*All correlations significant at  $p < .01$ .

A one-way analysis of variance (ANOVA) between number of years employed as a school psychologist and confidence level for overall knowledge of suicide intervention and prevention strategies revealed significance  $F(5,77) = 3.732, p = .005$ . Bonferroni multiple comparisons revealed that the significance was between school psychologists with <2 years experience and those with >20 years experience ( $p = .007$ ) and between school psychologists with 6-10 years experience and those with >20 years experience ( $p = .026$ ). Although significance was shown between these two groups, the data also

showed a trend between school psychologists with 3-5 years experience and those with >20 years experience ( $p = .073$ ).

Also significant was the number of years employed and confidence level for counseling suicidal students  $F(5,77) = 3.326, p = .009$ . Bonferroni multiple comparisons revealed that the only significance was between school psychologists with <2 years experience and those with >20 years experience ( $p = .003$ ).

Also significant was the number of years employed and confidence level for conducting risk assessments  $F(5,77) = 3.349, p = .009$ . Again, Bonferroni multiple comparisons revealed that the only significance was between school psychologists with <2 years experience and those with >20 years experience ( $p = .011$ ).

A trend in the data revealed an approaching significance between number of years employed and confidence level for providing postvention services  $F(5,77) = 2.256, p = .058$ .

*Relationship Between School Psychologists Training and Degree Level and Self-Perceived Confidence with Suicide Intervention and Prevention.*

Significant Pearson product-moment correlations were found between school psychologists' suicide intervention and prevention training through seminars/conferences over the past five years, in-service presentations over the past five years, formal courses over the past five years, all formal courses discussing the topic, and all formal courses specifically on the topic and confidence levels with students presenting with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention, see Table 13.

Table 13  
Education and Training, and Confidence Levels

Variable	<u>Csi</u>	<u>Cra</u>	<u>Cpv</u>	<u>Call</u>
Sem	0.39* <sup>b</sup>	0.37* <sup>b</sup>	0.48* <sup>b</sup>	0.43* <sup>b</sup>
Insv	0.20 <sup>c</sup>	0.15 <sup>c</sup>	0.36* <sup>b</sup>	0.23** <sup>c</sup>
Forc	-0.08	-0.01	0.08	-0.00
Alld	0.11 <sup>c</sup>	0.20 <sup>c</sup>	0.29* <sup>c</sup>	0.17 <sup>c</sup>
All	0.16 <sup>c</sup>	0.11 <sup>c</sup>	0.17 <sup>c</sup>	0.12 <sup>c</sup>

*Note. Sem = Seminars/conferences over past five years, Insv = In-service presentations over past five years, Forc = Formal courses over past five years discussing topic, Alld = All formal courses specifically on topic, All = All formal courses discussing topic, Csi = Confidence counseling suicidal students, Cra = Confidence conducting risk assessments, Cpv = Confidence providing postvention services, and Call = Confidence with overall knowledge of suicide intervention and prevention strategies.*

<sup>b</sup>Medium effect size.

<sup>c</sup>Small effect size.

\* $p < 0.01$ .

\*\* $p < 0.05$ .

An ANOVA between level of education and confidence level for overall knowledge of suicide intervention and prevention strategies revealed significance  $F(3,77) = 2.845, p = .043$ . Bonferroni multiple comparisons revealed that the significance

was between school psychologists with a highest degree level of Master's plus School Psychology Certification and those with Doctoral Degrees ( $p = .040$ ).

There was no significant relationship between level of education and confidence level for counseling suicidal students  $F(3,77) = 1.870, p = .142$ . There was no significant relationship between level of education and confidence level for conducting risk assessments  $F(3,77) = 2.688, p = .053$  however, a trend in the right direction exists.

There was no significant relationship between level of education and confidence level for providing postvention services  $F(3,77) = 1.786, p = .157$ .

## Chapter 5

### *Discussion*

This section will include the researcher's reviews of the findings of the study in relationship to the research questions presented. Included in this chapter are a summary of the analyses, discussion of the findings, limitations, conclusions drawn from the discussion, and recommendations for future research. Implications for school psychologists are also presented.

### *Summary*

This section provides a summary of the findings reported in the analysis section in relation to the six research questions. The first question examined the experience that school psychologists have when working with suicidal students in the areas of assessment, attempts, and completions. Results of the analysis revealed that participants tended to rank themselves as Low in their rating for involvement with assessments of suicidal ideation in the schools (51.3%), as well as with involvement with suicide attempts (44.9%). A Low rating consists of participants reporting that they were involved with one to five occurrences throughout their careers. Participants' ratings, when asked about involvement with completed suicides, generally fell into the Novice range (59.0%). A Novice rating consists of participants reporting that they were involved with zero occurrences throughout their careers. When combining all three areas together, suicidal ideation, attempts, and completions, most participants fell in the Low range (72.0%).

The second question examined how school psychologists differ in their assignment of responsibility of suicidal students by their districts. Analysis revealed that 44.9% of participants reported that school psychologists generally assume responsibility



in their districts when presented with a student who is possibly suicidal. Approximately 23% of participants indicated that school counselors are responsible for suicidal students. Results of the analysis also revealed that when participants were asked to report all other professionals that are involved in the crisis prevention and intervention activities in their districts, participants reported that school counselors (19.4%) and school psychologists (19.1%) were most frequently utilized.

When participants were asked about Crisis Response Teams, Suicide Prevention Programs, and Comprehensive Crisis Management Plans in their districts, 71.8% of participants reported having a Crisis Response Team that responds during a crisis or in its aftermath in their districts. They also generally reported feeling that it was effective (62.5%) and generally reported a role of Evaluation/Intervention (33.3%), followed by Postvention (24.8%) on that team. When asked about having a Suicide Prevention Program in their districts, 64.1% of participants reported not having a Suicide Prevention Program in their districts. Participants generally reported having a Comprehensive Crisis Management Plan in their districts (44.9%) and 65.7% reported feeling that it was effective and generally reported a role of Evaluation/Intervention (35.1%) followed by Postvention (21.6%) with that plan.

The third question examined the different types of training that school psychologists have in the area of suicide intervention and prevention. Analysis revealed that participants reported receiving suicide prevention training most often in workshops or seminars (17.0%) and through professional development workshops (16.3%). Similarly, respondents reported receiving suicide evaluation/intervention training most often in workshops or seminars (17.5%) and through professional development

workshops (15.8%). Suicide postvention training was reported to occur most often through consultation with colleagues (15.4%) and workshops or seminars (15.4%).

The fourth question examined school psychologists' self-perceived knowledge and confidence about suicide intervention and prevention, with a focus on counseling students who present with suicidal ideation, conducting risk assessments on potentially suicidal students, providing postvention services, and overall knowledge of suicide intervention and prevention strategies. Analysis revealed that 30.8% of participants reported feeling confident when counseling students who present with suicidal ideation. Analysis also revealed that 35.9% of respondents felt confident with conducting risk assessments on possibly suicidal students. Further, 34.6% felt confident in their overall knowledge of suicide intervention and prevention strategies and 32.1% felt only somewhat confident in providing postvention services.

The fifth question examined the relationship between the experience that school psychologists have and the level of self-perceived confidence they have with suicide intervention and prevention. Significant positive correlations were found between school psychologists' experience with providing suicide assessments, being involved with suicide attempts, and being involved with completed suicides, and confidence levels in these areas.

There was also significance between number of years employed as a school psychologist and confidence level for overall knowledge of suicide intervention and prevention strategies, specifically between school psychologists with <2 years experience and those with >20 years experience and between school psychologists with 6-10 years experience and those with >20 years experience. The greater the number of years of

experience school psychologists had, the greater the degree of confidence they felt for their overall knowledge of suicide intervention and prevention strategies. The data also showed a trend between school psychologists with 3-5 years experience and those with >20 years experience. Also significant was the number of years employed and confidence level for counseling suicidal students, specifically between school psychologists with <2 years experience and those with >20 years experience. Again, showing significance, was the number of years employed and confidence level for conducting risk assessments, specifically between school psychologists with <2 years experience and those with >20 years experience. A trend in the data revealed an approaching significance between number of years employed and confidence level for providing postvention services.

The sixth question examined the relationship between degree levels and training that school psychologists have in suicide intervention and prevention, and the level of self-perceived confidence that they have when working with suicide intervention and prevention. Significant correlations were found between school psychologists' suicide intervention and prevention training through seminars/conferences over the past five years, in-service presentations over the past five years, formal courses taken over the past five years, all formal courses taken discussing the topic, and all formal courses taken specifically on the topic, and confidence levels with students presenting with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention. Most participants rated having a university class devoted specifically to suicide intervention and prevention as extremely important; however, most participants report not having this coursework available to them during their schooling.

There was also significance between level of education and confidence level for overall knowledge of suicide intervention and prevention strategies, specifically with school psychologists with a highest degree level of Master's plus School Psychology Certification and those with Doctoral Degrees ( $p = .040$ ).

There was no significant relationship between level of education and confidence level for counseling suicidal students. There was no significant relationship between level of education and confidence level for conducting risk assessments. However, these numbers came close to being significant and a trend in the right direction exists. There was no significant relationship between level of education and confidence level for providing postvention services.

### *Discussion*

The survey provided opportunities for participants to respond to a variety of questions associated with suicide intervention, prevention and postvention knowledge, training, experience, and activities, as well as demographic information. The purpose of this study was to examine the relationship between suicide intervention and prevention training and experience, and school psychologists' self-perceived confidence levels in these areas. Also investigated was whether or not school psychologists are generally involved with suicide intervention and prevention in their schools.

Results of this survey suggest that school psychologists' confidence levels are related to training when working with suicide intervention and prevention. This outcome is supported by research by Oordt et al. (2009) and Hayes et al. (2008). This is a valuable finding because most current school psychology university/college degree programs are not offering courses specifically on suicide intervention and prevention (Allen et al.,

2002) or on crisis intervention in general. One of the reasons that university/college degree programs tend to not be ranked strongest for contributing to confidence levels, may be associated with the lack of courses currently being offered, as supported by Debski et al. (2007). School psychologists may wish to use this information to motivate and encourage themselves to receive additional training in the area of suicide intervention and prevention in order to help increase their confidence levels in this area.

Analysis revealed that confidence was increased through seminars/conferences over the past five years, in-service presentations over the past five years, and all formal courses taken specifically on the topic of suicide intervention and prevention or formal courses discussing this topic. Formal courses taken over the past five years did not reveal increases in confidence. Although this study cannot confirm explanations for these findings, it suggests that participants who participated in formal courses over the past five years may have been provided with enough information about working with suicidal students to have them recognize their limitations in this area. This finding may also be explained by the low number of courses reported by participants over the past five years. Participants reported receiving suicide prevention training and suicide evaluation/intervention training most often in workshops and through professional development. Suicide postvention training was most often received through consultation with colleagues and workshops or seminars. Postvention seems to be an area in which most school psychologists are lacking training.

The amount of formal education, as specified by highest degree received, was also associated with increased confidence levels in overall knowledge of suicide intervention and prevention strategies. Generally, Ed.S and Master level school psychologists reported

being only Somewhat Confident, whereas those with Master's + School Psychology Certification and Doctorate level school psychologists reported being Confident. Debski et al. (2007) reported similar findings, describing Doctoral level school psychologists having the most involvement with suicide intervention and prevention. As is reported later in this section, the experience of being involved with suicide assessments, attempts, and completions is significantly correlated to confidence levels when working with students presenting with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention. In all areas, very few school psychologists, regardless of education level, reported being Extremely Confident (5.1%). Again, confidence is seen to increase with more training; however, even those with Doctoral level training did not report feeling Extremely Confident in any of these areas. Sheridan and Gutkin (2002) reported that school psychologists are the best trained staff in schools to deal with suicidal students. This again supports the need for additional coursework in degree programs, because entry level psychologists do not have the opportunity to immediately accrue the experience that helps to develop confidence. In addition, school districts that are interested in creating suicide intervention and prevention programs in their schools, may want to consider this information when mentoring new psychologists and when selecting personnel to organize, facilitate, and oversee these types of programs.

Participants reported they feel it is Extremely Important to have one university class devoted specifically to crisis management, including suicide intervention and prevention, which is consistent with findings reported in Allen et al. (2002). However, when surveyed, respondents generally reported not having any classes that specifically

concentrated on suicide intervention and prevention throughout their entire academic training. Participants reported that university or college degree coursework was the most important factor in building confidence levels in the areas of suicide intervention and prevention, followed by on-the-job experience. Allen et al. (2002) and Debski et al. (2007) also found similar results when they conducted survey research to assess whether or not school psychologists felt they had been subjected to enough training during their schooling to be able to handle suicidal students effectively. Although the frequency with which students present with suicidal behaviors is relatively low, school psychologists must have the confidence and knowledge to act effectively. The potential consequences of suicidal behaviors are so great that intervention and prevention actions must be researched and studied in advance. Suicide intervention and prevention is a life or death situation.

Also, when asked about the information and resources that would be most helpful toward informing school psychologists about suicide intervention and prevention practices, 24.2% of participants reported needing local trainings and 20.8% reported needing specific classes in university degree programs. These findings are consistent with findings reported by Allen (2002) and Debski et al. (2007). Half of the participants surveyed reported encountering students who were experiencing suicidal ideation, had attempted suicide, or had completed a suicide during their internship or practicum experiences. As previously noted, if training relates to confidence in these areas, universities need to be doing more to train their students in order to foster confidence when encountering these situations in their first experiences on the job as school

psychologists. These findings underscore the need for universities and colleges to increase their suicide intervention and prevention coursework.

Results of this survey also suggest that school psychologists generally do not have a great deal of experience in working with suicide. When looking at experience with suicide assessment, attempts, and completions combined, 72% of participants fell in the Low range, only one step above Novice. Further analysis of this issue finds that the experience of being involved with suicide assessments, attempts, and completions is significantly correlated to confidence levels when working with students presenting with suicidal ideation, conducting risk assessments, providing postvention services, and overall knowledge of suicide intervention and prevention. Although these were not necessarily surprising findings, they are supported by the findings of Adamek and Kaplan (2003), Mulder et al. (2009), and Mackay, Paterson, and Cassells (2005) that also showed evidence of experience contributing to confidence levels.

Results also suggest that obtaining experience with suicidal students is not always easily done. In contrast to the research done by Debski et al. (2007), which reported three-fourths of survey participants having involvement with a suicidal student within the past two years, one-half of the participants in this study reported not having any completed suicides in their districts over the past five years and not having any counseling cases dealing with the loss of a friend or a loved one to suicide. This may be attributed to the age ranges with whom school psychologists work or possibly to the low incidence of suicide in general. Because of the relatively infrequent occurrence of suicide, it is difficult to acquire the much-needed experience. Training, however, also promotes confidence in this area and should therefore be promoted as a more accessible



means of increasing self-confidence. Role plays, case studies, consultation, and group consultation concerning suicidal students should be part of all school psychology degree programs in order to give training school psychologists exposure to the continuum of suicidal behaviors.

The number of years as a school psychologist was related to an increase in confidence levels in overall knowledge of suicide intervention and prevention. More years of experience as a school psychologist may result in more frequent exposure to suicidal students. Generally, school psychologists employed <2 years reported being only Somewhat Confident, whereas those employed >20 years reported being Very Confident. There were very few psychologists (5.1%), regardless of number of years employed, that reported being Extremely Confident.

None of the participants in this study ranked crisis work as a top function in their role as a school psychologist. Even when reporting second and third ranked duties, only 6.4% ranked crisis work as a second ranked top duty, and 10.3% as a third ranked top duty. Debski et al. (2007) reported that assessment and remediation became barriers to focusing more frequently on suicide intervention activities in the schools. However, school psychologists generally assume the responsibility in their districts when a suicidal student presents, as also supported in research by Allen et al. (2002), Nickerson and Zhe (2004), and Debski et al. (2007). Schools do not seem to be utilizing their school psychologists to their fullest potential in this area, potentially putting suicidal students closer than necessary into harm's way. Crisis work should fall higher on the list of work duties of a school psychologist, leading to providing prevention strategies before tragedy strikes and possibly eliminating some of these situations in the first place. This lack of

time that school psychologists have for suicide intervention and prevention activities is very disconcerting, because school psychologists are thought to be the most highly trained professionals working in the schools to deal with crises (Berman 2009).

Data also revealed that when asked about their knowledge concerning suicide prevention, evaluation/intervention, and postvention, participants generally ranked themselves as Somewhat Knowledgeable, only one step above Little or No Knowledge. This finding was also seen in the work done by Debski et al. (2007). However, participants reported that school psychologists generally assume the responsibility in their districts when a potentially suicidal student presents (44.9%), as supported by Gould et al. (2005) and Mazza (1997). Again, these results support the need for more training for school psychologists in this area.

When participants were asked to rate their own levels of confidence for counseling students who present with suicidal ideation, for conducting risk assessments on potentially suicidal students, for providing postvention services, and for their overall knowledge of suicide intervention and prevention strategies, generally participants reported feeling confident in all areas except for providing postvention services, about which they reported feeling only somewhat confident. These findings may be due to school psychologists feeling embarrassed to rate themselves at lower confidence levels because they know that they are depended upon in the schools when suicidal students present. This, again, supports the need for more training at the university level, especially in the area of postvention.

When participants were asked about Crisis Response Teams, Suicide Prevention Programs, and Comprehensive Crisis Management Plans in their districts, most

participants reported having an effective Crisis Response Team that responds during a crisis or in its aftermath in their districts; most reported having an effective Comprehensive Crisis Management Plan as well. This is a positive finding from this research; however, similar to Hayden and Lauer (2000), most participants reported not having any type of Suicide Prevention or Intervention Program in their districts. This could possibly be due to lack of funding, lack of adequate staffing, lack of time in specified job duties, or lack of appropriate knowledge of the importance of these types of programs. School psychologists should be allotted time to take the initiative in their districts, as the most thoroughly trained suicide intervention and prevention staff in the schools (Berman 2009), to disseminate information on the importance of these types of programs and to offer to be part of the implementation and organization of these types of programs to their administration.

### *Limitations*

This study explored training and experience in the area of suicide intervention and prevention and how these relate to school psychologists' self-perceived confidence levels in these areas. Although this research yielded valuable findings, some limitations may impact the generalizability of the obtained results.

One limitation of this study is the lack of randomization of subjects. Participants were limited to having to be members of the NASP-Listserv. School psychologists who were not members of the NASP-Listserv were not included. The characteristics of school psychologists who subscribe to the NASP-Listserv may be different from those who do not subscribe. Subscribing requires some comfort level with computers and indicates a willingness to check emails often in order to view the postings to the listserv. Also

required is a desire to exchange questions and information with fellow school psychologists throughout the country. Not all school psychologists are willing to or have the interest to belong to this type of information exchange. Also, not all school psychologists belong to NASP. Although not a requirement for belonging to the listserv, not being a member of NASP may limit their knowledge that such a listserv even exists.

Also to be noted is the fact that the primary investigator in this study resides in the state of New Jersey and attends graduate school in the state of Pennsylvania. It is thought that this is the reason that the frequencies of response for these two states are substantially higher than for other states in the nation. The primary investigator's name, as well as the university name, Philadelphia College of Osteopathic Medicine, is known in school psychology circles in these two states, which seem to have brought in a higher response rate from these states, which may limit generalizability to the rest of the nation.

Another limitation of this study is selection bias. The participants who completed the survey may have been willing to do so because they believed that they had knowledge about suicide intervention and prevention. Respondents may have been more willing to respond because they had a strong understanding of and a higher comfort level about suicide intervention and prevention. Only 3.7% off the entire population who were presented with surveys became participants in this study. There is a possibility that the individuals who did not complete the surveys were not as knowledgeable about suicide intervention and prevention and therefore chose not to complete it. Consequently, the sample of school psychologists used in this study may have been made up of professionals more prepared to complete the survey, thus creating selection bias.

Another limitation linked to selection bias is whether or not school psychologists answering the survey felt comfortable enough with themselves to disclose not having knowledge in suicide intervention and prevention. Most school psychologists pride themselves in having a good understanding of all aspects of their jobs. In order to respond that they are lacking in this area would require complete honesty. Some school psychologists might have been reluctant to do so, whether conscious or not, and some inflation of responses may have occurred.

Also, information obtained from participants was based on their self-perceived knowledge and comfort levels associated with suicide intervention and prevention, which could have led to responder bias. This is a subjective method of data collection and may be less accurate than other methods, such as direct observation and other more standardized methods.

The overall sample size was also a limitation, which could have caused potential issues for this study. Prior to disseminating the surveys to potential participants, specific measures were made in order to maximize the response rate. These included investigation of and approval for use of a listserv with over 2600 members, creation of a relatively brief survey, and multiple invitations to complete the survey. Despite all of these measures being put into place, there was still a limited population sampling ( $N = 78$ ). This small response rate does limit the external validity of the findings.

Although there was a decent number of school psychologists who responded to the survey ( $N = 100$ ), this number of participants was then reduced because some participants did not meet the requirement of needing to be a school psychologist within the last five years ( $N = 93$ ). Again, the number of participants was then further reduced,

because some participants did not fully complete the survey ( $N = 78$ ). The number of participants who did not complete the survey could have been attributed to the survey's taking too long for them to fill out. Another factor that may have added to the survey's not being fully completed is possible confusion with some of the questions. Specifically, the questions that ask participants to identify the socioeconomic status of their school districts may have caused confusion if participants work in more than one area with competing socioeconomic levels. In addition, the questions that ask the responders to specify their caseload could have caused confusion, because some school psychologists are not assigned to carry specific caseloads. Further, some of the answer choices on the survey may have been confusing to the respondents. On questions in which participants were asked to check more than one response in regard to training, some of the choices that were given were very similar and may have left respondents not knowing how to answer correctly. Answer choices of workshops, district in-services, and professional development workshops may have been seen as similar answers by participants and caused some confusion. Additionally, the school psychologists may not have had a great interest in the subject matter and the questions may not have been relevant to the way in which they wanted to spend their time. Consequently, this could have contributed to the percentage of non-respondents. It is also unknown whether or not non-responders views differed significantly from those who did participate in answering the survey.

Another limitation of this study is that the survey had some forced-choice items. These responses were typically used when participants rated their own knowledge in regard to suicide intervention and prevention knowledge and training. These types of questions could have some potential disadvantages. Raters may tend to be uncomfortable

with answering questions in this way, because it forces them to make a specific choice in an answer, taking some control away from them.

Finally, the survey used in this study was created by the primary investigator. It was not tested for psychometric properties, but instead was designed for this particular study. Unless another scale with strong psychometric properties focusing on suicide intervention and prevention experience and training was in existence, there is no way to test for validity of the survey. If another scale that met the previously mentioned criteria were in existence, it would have been used in this study. There are no good tests to evaluate whether or not the questions created for this survey assessed what they were designed to measure.

Despite these limitations, this study that explored training and experience in the area of suicide intervention and prevention and how it relates to school psychologists' self-perceived confidence level in these areas, yielded valuable findings.

#### *Recommendations for Future Research*

Continued efforts are needed to improve school psychologists' competencies when working with suicide intervention and prevention. Emphasis on integrating suicide intervention and prevention training into graduate programs remains a priority. In particular, training needs to concentrate on role-playing, on conducting sample risk assessments, on counseling suicidal students, and on participating in postvention exercises. Training models are needed if school psychologists are to meet the ever-increasing demands of their diverse duties. More research is needed to determine the most effective methods for teaching school psychology students the skills necessary to be productive members of suicide intervention and prevention programs in the schools.

Efforts must be made by colleges and universities to be sure that all areas of suicide intervention and prevention issues are covered during their students' matriculation at their universities and colleges.

In addition, NASP may need to make training in this area a specific requirement for universities or college degree programs. Results of this study reveal that school psychologists feel that university and college degree programs are one of the best ways to develop and hone their skills in the area of suicide intervention and prevention. Possibly, continuing education credits could also be required in this area when an individual seeks national certification as a school psychologist; these credits could be earned either through workshops or web-based courses, which would offer another means of training that school psychologists would be able to easily access. Currently, the state of New Jersey mandates that all Boards of Education, as part of their state professional development requirement, provide at least two hours of professional development training in the area of suicide prevention to their public school teaching staff members (N.J. Stat. Ann. § 18A:6-112, 2006).

Measuring the effectiveness of suicide intervention and prevention programs may be an area of exploration for future research. As school psychologists become more confident in this area of treatment, there will be more opportunities for programs to be implemented in the schools. This influx of suicide intervention and prevention programs will allow for more much needed research to be conducted in this area. This will be difficult, however, because the incidence of suicide is low, which makes statistical evaluations very difficult. Specific pieces of suicide intervention and prevention programs could be examined separately in future research. This would create a bank of



empirically supported pieces of specific programs that could be put together to create more effective suicide intervention and prevention programs.

School psychologists need to take ownership of their education in this area, because they are in a perfect position to take leadership roles in the implementation of suicide intervention and prevention programs in the schools. Universities and colleges need to upgrade their student training in this area as well. However, once a student has graduated and becomes a certified school psychologist, the onus falls on the school psychologist, himself or herself.

### *Conclusions*

This study presents findings that reveal significant relationships between suicide intervention and prevention training and experience and school psychologists' self-perceived confidence levels in these areas. This research supports the need for school psychology degree programs in universities and colleges to ramp up their systematic training in suicide intervention and prevention. Students should be exposed to role-playing incidents with suicidal students, as well as conducting risk assessments, counseling suicidal students, and participating in postvention exercises. They should also be exposed to role-plays with parents of suicidal students. Current school psychologists should make note of these findings as well, in order for them to take the necessary means to educate themselves, if they have not received the much needed training in this area. School psychologists are the most highly trained members of their school districts in the area of suicide intervention and prevention; therefore, when entering a new school district, they should inquire about the crisis management plan and suicide intervention and prevention plan for that district, offering to be an integral part of the team. Also,

because of the low number of occurrences of suicidal students, which limits the exposure to experience in this area, school psychologists should take charge of their own training in this area and be sure to refresh their skills on occasion through workshops or seminars.

The fact that many participants reported feeling only somewhat confident when working with suicide intervention and prevention in the school setting suggests that school psychologists may not be prepared to respond to children in their schools who present with suicidal ideation. Many school psychologists are faced with or will be faced with suicidal students with whom they have neither the training nor the confidence to assist. College and university coursework is needed to address this concern for current school psychology students and for continuing education students; it is necessary to expand knowledge and skills in this area for current school psychologists so that they may change this situation. The low volume of suicidal students along with the seriousness in this area of practice makes achieving and maintaining competence challenging for school psychologists. It is the responsibility of the universities and colleges who train school psychologists, and the school psychologists themselves, to be sure to obtain the necessary training in order to foster confidence and competence in this area.

Continued efforts must be made to improve the skill set of school psychologists in the area of suicide intervention and prevention, which in turn will also increase their confidence levels in this area. Because suicide rates for today's youth continue to remain the third leading cause of death for teens and young adults, ages 10 through 24 in the United States, school psychologists and the associations that license and certify them, cannot become complacent and assume that they will not need to increase their knowledge and skills in this area. If school psychologists have the appropriate education

and training that allows them to identify suicidal youth and connect them with appropriate treatment, suicide rates can be drastically reduced (Berman 2009; Zenere & Lazarus, 2009).

School psychologists have an ethical and legal responsibility to prevent youth suicide whenever possible (Jacob & Hartshorne, 2007). Graduate training programs also have that same responsibility and when they do not meet it effectively, they are neglecting a key area of training for the school psychologist and are acting negligently.

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Appendixes

Appendix A

IRB Final Notification Form

Terri Erbacher  
Department of Psychology  
Philadelphia College of Osteopathic Medicine  
4190 City Avenue  
Philadelphia, PA 19131

**RE: School psychologists' confidence level with suicide intervention and prevention**  
(Protocol #H09-048X)

Dear Dr. Erbacher:

This is to confirm that your above-referenced protocol has been reviewed and approved by the PCOM Institutional Review Board. It has been determined that this protocol is exempt from informed consent requirements under 45 CR 46.101(b)(2) -- survey research in which the responses will be recorded in such a manner that the human subjects cannot be identified, directly or through identifiers linked to the subjects (e.g., name, Social Security number). Furthermore, there will be no master list linking such identifiers to the subjects.

Best wishes with your proposed research. Please notify the Institutional Review Board immediately if you anticipate any changes to the protocol. All changes must be approved by the Institutional Review Board before they can be implemented.

Sincerely,

Eugene Mochan, Ph.D., D.O.  
Chair

EM/tmf

Appendix B

Survey Participant Invitation

Subject: Suicide Intervention and Prevention Survey Invitation

Dear Fellow School Psychologist,

I am a doctoral student in the School Psychology Program at the Philadelphia College of Osteopathic Medicine (PCOM). For my doctoral dissertation, I am researching school psychologists' self-perceived confidence levels in working with suicide intervention and prevention and how that relates to the amount of previous training or experience that they have in this area. I appreciate your considering completing the survey I have developed to this end. If you choose to complete the survey, please click on this link <http://www.surveymonkey.com/s/97G2XP7>, or the one at the bottom of this invitation, and you will be directed to the survey.

This project has been approved by the Institutional Review Board at PCOM in Philadelphia, PA as well as the NASP Research Committee. Completion of the survey will be considered an indication of your willingness to participate in the research as well as your permission to allow me to use and interpret the data you provide for purposes of dissertation research. You may at anytime stop filling out the survey and your information will not be recorded. The survey should take approximately 10-15 minutes to complete. The results of the survey will be kept confidential and you will not be personally identified in any way.

I would be happy to send you the results of this study if you contact me at [JodiSt@pcom.edu](mailto:JodiSt@pcom.edu). I appreciate your participation in this survey. Please do not hesitate to call me or my dissertation committee chair if you have any further questions, comments, or concerns.

Just click on the address below to go to the survey:  
<http://www.surveymonkey.com/s/97G2XP7>

Thank you in advance for your time and effort.

Sincerely,

Jodi Stein-Erichsen  
(732) 706-6061, ext. 1333  
[JodiSt@pcom.edu](mailto:JodiSt@pcom.edu)

Terri Erbacher, Ph.D., Committee Chair  
(215) 871-6623  
[TerriErb@pcom.edu](mailto:TerriErb@pcom.edu)

Appendix C

Suicide Intervention and Prevention Information Inventory

**SUICIDE INTERVENTION AND PREVENTION INFORMATION INVENTORY (SIPII)****SECTION A - DEMOGRAPHIC AND BACKGROUND INFORMATION**

- |   |  |
|---|--|
| 1. What is your gender?   | Male    Female   |
| 2. What is your age?  | 22-29 years<br>30-39 years<br>40-49 years<br>50-59 years<br>60+ years  |
| 3. Do you currently work in a school as a school psychologist?  | Yes    No  |
| 4. If you answered NO to #3, have you worked in a school as a school psychologist in the past five years? | Yes    No  |
| If you answered NO to questions #3 and #4, please stop here.  |  |
| 5. Are you currently a member of the National Association of School Psychologists (NASP)?                 | Yes    No  |
| 6. What is your ethnicity?  | African American<br>Asian American<br>Biracial/Multiracial<br>Caucasian<br>Hispanic/Latino<br>Native American<br>Pacific Islander<br>Other |
| 7. What is your highest level of education?   | Master's Degree<br>Master's plus Certificate<br>Educational Specialist<br>Doctorate<br>Other   |
| 8. In what year did you obtain your highest-level graduate degree?  | _____  |
| 9. How many years have you been employed as a school psychologist?  | < 2 years<br>3 to 5 years<br>6 to 10 years<br>11 to 15 years<br>16 to 20 years<br>21 or more years   |
| 10. How many years have you been employed in your current position?                                       | < 2 years<br>3 to 5 years<br>6 to 10 years<br>11 to 15 years<br>16 to 20 years<br>21 or more years   |

11. In what type(s) of school(s) do you work? (Check all that apply)
- Public
  - Private/Nonpublic (i.e. Religious)
  - Day Treatment/Residential School
  - Other
12. What is the size of the district in which you are currently employed?
- < 500 students
  - 501 to 2000 students
  - 2001 to 3500 students
  - 3501 to 5000 students
  - 5001 to 6500 students
  - 6501 to 8000 students
  - > 8000 students
13. With which grade levels have you worked in the past five years? (Check all that apply)
- < Three-Year-Olds
  - Three to Five-Year-Olds
  - Elementary School
  - Middle/Junior High School
  - High School
  - Post secondary (i.e. vocational/abilities training for 18 to 21-year-olds)
14. Which of the following best describes the setting in which you are employed?
- Rural
  - Suburban
  - Urban
  - Rural/Suburban
  - Suburban/Urban
  - Rural/Suburban/Urban
15. What is the average household income level of the families residing in your district?
- Upper socio-economic class
  - Upper middle socio-economic class
  - Middle socio-economic class
  - Lower socio-economic class
16. What do you find yourself spending most of your time doing at work? (Rank top three choices with 1-3 with 1 being the most time)
- Evaluations and reports
  - Counseling
  - IEP and case management
  - Crisis work
  - Consultation with parents, teachers, etc.
  - Other meetings (staff, student assistance)
  - Serving on school committees
  - Other (please identify)
17. In what state are you employed?
- \_\_\_\_\_
18. About how many students are on your caseload?
- \_\_\_\_\_
19. About how many school buildings do you serve?
- \_\_\_\_\_



**SECTION B – EXPERIENCE WITH SUICIDE (ideation, attempts, and completions)**

*Please report your best estimate of the number of times that you have had experience with the situation being reported in your work in the schools throughout your career. Please note that the actual situation did not have to take place on school grounds, but it did have to have an impact on students and/or staff at the school.*

20. Occurrences of involvement with suicide assessments in the schools, throughout your career.
- 0  
1-5  
6-10  
11-15  
> 15
21. Occurrences of involvement with suicide attempts that impacted students and/or staff, throughout your career.
- 0  
1-5  
6-10  
11-15  
> 15
22. Occurrences of involvement with completed suicides that impacted students and/or staff, throughout your career.
- 0  
1-5  
6-10  
11-15  
> 15
23. In the past five years, about how many completed student suicides have occurred in your current district?
- 0  
1  
2  
3  
4  
> 4
24. In the past five years, about how many individual counseling cases have you had dealing with losses of friends or loved ones to suicide?
- 0  
1-3  
4-6  
7-9  
10-12  
> 12

**SECTION C – SUICIDE PREVENTION AND INTERVENTION STRATEGIES**

25. Within your district, who assumes the responsibility when a possibly suicidal student presents?

- Principal
- School Nurse
- School Counselor
- School Psychologist
- Social Worker
- Student Assistance Counselor
- Teacher
- Community Mental Health Professional
- Other (please identify)

26. What other professionals are involved in the crisis prevention and intervention activities in your district? (Check all that apply)

- Principal
- School Nurse
- School Counselor
- School Psychologist
- Social Worker
- Student Assistance Counselor
- Teacher
- Community Mental Health Professional
- Other (please identify)

27. Which of the following intervention techniques do you feel competent to employ with regard to suicidal ideation? (Check all that apply)

- Parent consultation
- Parent education
- Risk assessment
- Individual counseling
- Social/group counseling
- Teacher consultation
- Teacher education
- Administrative consultation
- None of these
- Other (please identify) \_\_\_\_\_

28. Does your school or school district have a crisis response team that responds during a crisis or in its aftermath?

- Yes
- No
- Not Sure

29. If Yes, how effective do you believe that crisis response team is?

- Very Effective
- Effective
- Neither
- Ineffective
- Very Ineffective

30. What is your role on that crisis response team? (Check all that apply)

- Development
- Prevention
- Evaluation/Intervention
- Postvention
- No Role

31. Does your school have a suicide prevention program?      Yes      No      Not Sure
32. If Yes, how effective do you believe that suicide prevention program is?  
 Very Effective  
 Effective  
 Neither  
 Ineffective  
 Very Ineffective
33. What is your role in that suicide prevention program? (check all that apply)  
 Development  
 Prevention  
 Evaluation/Intervention  
 Postvention  
 No Role
34. Does your school have a comprehensive crisis management plan that touches on suicide intervention and prevention?      Yes      No      Not Sure
35. If Yes, how effective do you believe that comprehensive crisis management plan is?  
 Very Effective  
 Effective  
 Neither  
 Ineffective  
 Very Ineffective
36. What is your role in that comprehensive crisis management plan? (check all that apply)  
 Development  
 Prevention  
 Evaluation/Intervention  
 Postvention  
 No Role

**SECTION D – PREVIOUS EDUCATION AND TRAINING**

37. How would you rate your level of knowledge about suicide prevention?

- Expert level
- Very knowledgeable
- Knowledgeable
- Somewhat knowledgeable
- Little or no knowledge

38. How would you rate your level of knowledge about suicide evaluation/intervention?

- Expert level
- Very knowledgeable
- Knowledgeable
- Somewhat knowledgeable
- Little or no knowledge

39. How would you rate your level of knowledge about suicide postvention?

- Expert level
- Very knowledgeable
- Knowledgeable
- Somewhat knowledgeable
- Little or no knowledge

40. What training have you received in suicide prevention?  
(check all that apply)

- University/college degree program
- Workshops or seminars
- District In-Services
- Professional Development  
Workshops
- Independent Study
- Parents or students with issues in  
this area
- Consultation with colleagues
- Internet websites
- None
- Other (please identify) \_\_\_\_\_

41. What training have you received in suicide evaluation/intervention? (check all that apply)

- University/college degree program
- Workshops or seminars
- District In-Services
- Professional Development  
Workshops
- Independent Study
- Parents or students with issues in  
this area
- Consultation with colleagues
- Internet websites
- None
- Other (please identify) \_\_\_\_\_

42. What training have you received in suicide postvention? (check all that apply)

- University/college degree program
- Workshops or seminars
- District In-Services
- Professional Development Workshops
- Independent Study
- Parents or students with issues in this area
- Consultation with colleagues
- Internet websites
- None
- Other (please identify) \_\_\_\_\_

43. During your internship and practicum experiences, did you encounter any students who were experiencing suicidal ideation, attempted suicide, or completed a suicide?

Yes    No

44. In the past five years, how many seminars/conferences did you attend that discussed the topic of suicide intervention and prevention? \_\_\_\_\_

45. In the past five years, how many in-service presentations did you attend that discussed the topic of suicide intervention and prevention? \_\_\_\_\_

46. In the past five years, how many formal courses did you attend that discussed the topic of suicide intervention and prevention? \_\_\_\_\_

47. Throughout your entire schooling, approximately how many formal courses did you attend that discussed the topic of suicide intervention and prevention? \_\_\_\_\_

48. Throughout your entire schooling, approximately how many formal courses did you attend specifically on the topic of crisis management, including suicide intervention and prevention? \_\_\_\_\_

49. How important do you think it is to have one university class devoted specifically to crisis management, including suicide intervention and prevention?

- Extremely Important
- Very Important
- Important
- Somewhat Important
- Not Important

**SECTION E – CONFIDENCE LEVEL**

50. How confident are you in counseling students who present with suicidal ideation?

- Extremely Confident
- Very Confident
- Confident
- Somewhat Confident
- Not Confident

51. How confident are you in your professional skills for conducting risk assessments on possibly suicidal students?

- Extremely Confident
- Very Confident
- Confident
- Somewhat Confident
- Not Confident

52. How confident are you in your professional skills for providing postvention services (i.e. after a completed student suicide)?

- Extremely Confident
- Very Confident
- Confident
- Somewhat Confident
- Not Confident

53. How confident are you in your overall knowledge of suicide intervention and prevention strategies?

- Extremely Confident
- Very Confident
- Confident
- Somewhat Confident
- Not Confident

54. What do you feel are the most important factors in building confidence levels in the area of suicide intervention and prevention? (Rank top three choices)

- Collegial support
- On-the-job experience
- Years of experience
- University or college degree coursework
- Workshops or seminars
- District In-Services
- Professional Development Workshops
- Independent Study
- Other (please identify)

55. What information/resources are needed to help inform school psychologists about suicide intervention and prevention practices? (check all that apply)

- Local trainings (seminar/workshop)
- On-site consultation
- Specific classes in university degree programs
- Empirical studies
- National/local crisis teams to provide services
- Crisis books/manuals
- Other (please identify) \_\_\_\_\_

**THANK YOU so much for your time and participation in this study!!**  
**Jodi Stein-Erichsen**

Appendix D

Follow-up Survey Participant Invitation



Subject: REMINDER - Suicide Intervention and Prevention Survey Invitation

Dear Fellow School Psychologist,

I value your feedback!

On 1/26/2010, you should have received an invitation inviting you to participate in a survey. For my doctoral dissertation, I am researching school psychologists' self-perceived confidence levels in working with suicide intervention and prevention and how that relates to the amount of previous training or experience that they have in this area.

If you have not already done so, please click the link below to complete the survey,

<http://www.surveymonkey.com/s/97G2XP7>

If you have already completed the survey, thank you for your participation and please disregard this invitation.

I am a doctoral student in the School Psychology Program at the Philadelphia College of Osteopathic Medicine (PCOM). This project has been approved by the Institutional Review Board at PCOM in Philadelphia, PA as well as the NASP Research Committee. Completion of the survey will be considered an indication of your willingness to participate in the research as well as your permission for allowing me to use and interpret the data you provide for purposes of dissertation research. You may at anytime stop filling out the survey and your information will not be recorded. The survey should take approximately 10-15 minutes to complete. The results of the survey will be kept confidential and you will not be personally identified in any way.

I would be happy to send you the results of this study if you contact me at [JodiSt@pcom.edu](mailto:JodiSt@pcom.edu). I appreciate your participation in this survey. Please do not hesitate to call me or my dissertation committee chair if you have any further questions, comments, or concerns.

Thank you in advance for your time and effort.

Sincerely,

Jodi Stein-Erichsen  
(732) 706-6061, ext. 1333  
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