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The relationship between suicide assessment knowledge and self-efficacy among practicing school counselors

Laura L. Gallo
University of Iowa

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THE RELATIONSHIP BETWEEN SUICIDE ASSESSMENT KNOWLEDGE AND
SELF-EFFICACY AMONG PRACTICING SCHOOL COUNSELORS

by
Laura L. Gallo

A thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Rehabilitation and Counselor Education
in the Graduate College of
The University of Iowa

May 2016

Thesis Supervisors: Associate Clinical Professor Carol Klose Smith
Associate Professor Susannah M. Wood

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Graduate College
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CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

Laura L. Gallo

has been approved by the Examining Committee
for the thesis requirement for the Doctor of Philosophy
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To my father, Jeffrey: Although you were not here to see me finish my degree, in our last conversation I had told you this was my dream. Your words of encouragement have stayed with me always. I miss you everyday. To my husband, Sam: Thank you for always being a huge support in my life, I could not have completed this process without you. To my children, Joe and Emma: Thank you for letting me be a student and a mom at the same time, I love you both more than words can describe. Dream big and follow your heart. To the rest of my family, thank you for always being there for me and providing endless encouragement. And lastly, to the families who've lost a child to suicide, let's hope raising awareness and lessening the stigma surrounding mental illness will eliminate it's occurrence.

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ABSTRACT

Suicide is the second leading cause of death in the 14-24 year age group in the United States. However, awareness and discussions regarding suicides for this age group are not widely heard or found. In addition, many practitioners are not adequately trained to assess suicide risk. School counselors are often on the front lines of identifying students at risk for emotional issues and possible suicidal ideation (ASCA, 2010). The following research questions guided this study: a) Does a school counselor's knowledge in identifying students at risk for suicide affect their willingness to conduct suicide risk assessments? b) Does a school counselor's self-efficacy in conducting a suicide risk assessment affect their willingness to carry out the assessment with a student? c) Do school counselors who graduated from CACREP institutions after 2009 report increased knowledge in identifying suicidal students than those who graduated from non-CACREP institutions or from those who graduated before 2009? d) Do school counselors who graduated from CACREP institutions after 2009 report higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009? e) In which ways, if any, do the following counselor characteristic variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to suicide risk knowledge and self-efficacy in conducting suicide risk assessments?

This study examined the relationship between three variables (knowledge of suicide risk, self-efficacy in conducting suicide risk assessments, and willingness to carry out suicide risk assessments with students) for practicing school counselors through the

use of a demographic questionnaire, the Suicide Intervention Response Inventory-II, and the Crisis Leader Efficacy in Assessing and Deciding Scale. A total of 200 high school counselors from across the United States participated in the study. All participants were anonymous. The statistical analyses were completed using the Software Program for Statistical Analysis (SPSS) using correlational matrices, hierarchical regressions, and one-way ANOVA analyses.

Results revealed 71% of school counselors from the sample were performing suicide risk assessment every month however only 50% believed their graduate training adequately prepared them to assess for suicide. Results also showed self-efficacy was directly related to the number of suicide assessments school counselors conducted each month. In addition, the school counselor's willingness to conduct assessments, membership on a crisis team, and comfort identifying and assessing suicidal students related to their self-efficacy as well. Recommendations for school counselors include: continuing professional development related to suicide, securing administrative support to perform suicide assessment, and improving crisis response teams. Recommendations for counselor educators include: providing appropriate feedback, using evidence-based teaching methods, and increasing suicide related issues into coursework. Areas for future research are also discussed.

Keywords: Suicide, suicide assessment, self-efficacy, school counselors

PUBLIC ABSTRACT

Suicide is the second leading cause of death in the 14-24 year age group in the United States. Yet, awareness and discussions regarding suicides for this age group are not widely heard or found. In addition, many practitioners are not adequately trained to assess suicide risk. In order to build upon existing research, this researcher set out to examine the factors that might contribute to school counselors' willingness to conduct suicide risk assessments with their students. Specifically, investigating a school counselor's self-efficacy and training related to identifying and assessing a suicidal student may offer insight for future school counselors and counselor educators in improving educational opportunities in suicide prevention.

A survey including questions regarding training and current practices was completed by 200 practicing high school counselors across the country. Results revealed self-efficacy was directly related to the number of suicide assessments school counselors conducted each month. In addition, the school counselor's willingness to conduct assessments, membership on a crisis team, and comfort identifying and assessing suicidal students related to their self-efficacy as well. Finding ways to increase counselors' self-efficacy related to crisis intervention is important to fostering intervention efforts.

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CHAPTER I.
INTRODUCTION TO THE STUDY

Background

Suicide is a public health concern for young people in the United States and across the world. Every year, almost one million people die worldwide from suicide, roughly corresponding to one death every 40 seconds (International Association for Suicide Prevention, 2014). Suicide is the second leading cause of death in the 14-24 year age group (International Association for Suicide Prevention, 2014). The number of lives lost each year through suicide exceeds the number of deaths due to homicide and war combined (International Association for Suicide Prevention, 2014).

In addition, for every completed suicide there are approximately 100-200 attempts among young adults ages 15 to 24 years old (International Association for Suicide Prevention, 2014). In a 2011 nationally representative sample of youth in grades 9-12, 15.8% of students reported that they had seriously considered attempting suicide during the 12 months preceding the survey and 12.8% reported that they made a plan about how they would attempt suicide during those 12 months (CDC, 2012). School counselors are in a position to affect these rates.

This dissertation is a study of 200 school counselors from across the country to examine the extent to which counselors are performing suicide risk assessments, the relationship of their self-efficacy to their performance, and their beliefs about their suicide assessment training. The purpose of Chapter One is to provide an introduction to the problem of suicide with adolescents in this country and to clarify the role school

counselors can have in preventing suicide. Furthermore, focusing on possible factors that may increase the likelihood of a school counselor to conduct suicide risk assessments, such as self-efficacy, training, and years of experience are also introduced. Specifically, the role of Bandura's Social Cognitive Theory (1986) and the element of self-efficacy in counseling is identified. The research questions and hypotheses for this dissertation are also provided.

Though the rates of suicide have continued to increase for all age groups, suicide awareness in the U.S. continues to be an under-discussed topic (American Foundation for Suicide Prevention, 2015). Stigma related to mental illness and ending one's life keep these issues from receiving more attention from the general public (Juhnke, Granello, & Granello, 2011). In addition, the contemplation of suicide is considered a taboo topic and moral issue for many individuals (Juhnke, Granello, & Granello, 2011). Many mental health professionals are concerned about the lack of suicide awareness in the U.S. In addition, the increasing rates of children and adolescents lost to suicide every year are often overlooked due to society's discomfort with the topic (American Association of Suicidology, 2015; King, Foster, & Rogalski, 2013).

Concerns about suicide risk are one of the most frequently occurring mental health emergencies among adolescents (King, Foster, & Rogalski, 2013). Thousands of trips are made to the hospital each year with concerns over the mental stability of a young person (King, Foster, Rogalski, 2013). Nevertheless, there seems to be a disconnect that occurs between the high numbers of adolescents at risk for suicide and the rhetoric on the national front for this problem. Stigma continues to be a concern and thwarts dialogue and awareness of the most preventable death among young people. Those who complete

suicide are often blamed, leaving family and friends with feelings of shame, guilt, and anger (Juhnke, Granello & Granello, 2011). Since suicide is a taboo subject, families and friends are left to handle their feelings in secret and rarely discuss the event.

Organizations such as the American Association of Suicidology, American Foundation for Suicide Prevention and the National Association on Mental Illness are working to lessen the stigma, offer resources, and provide further education on mental illness and suicide prevention. Many of these organizations have developed curriculum, awareness days, funded grants, and promoted their research within the public arena. Nonetheless, little is understood about the complexity and choice of suicide for those who are suffering. Combined with the stigma of suicide, the thought of children and adolescents choosing it as an option, leaves it even more off-limits. In general, individuals do not want to consider or acknowledge that children are choosing to end their own lives and dying when there is the possibility someone could have stepped in and prevented it.

Some of the reasons for these obstacles may arise from a set of commonly held myths about suicide. Granello and Granello (2007) outlined the following commonly held misconceptions about suicide.

- Talking about suicide to adolescents increases suicide risk
- Most adolescents who attempt suicide wish to die
- Adolescents only use the word “suicide” for attention
- Every adolescent who completes suicide is depressed
- Current prevention programs are sufficient to prevent teen suicide (p. 6-7)

It is important to understand the factors that may contribute to a suicide attempt are complex and require more than one assessment or single intervention. Often there are

underlying issues that are filled with complexity and nuance unique to the individual. One event or issue does not usually push one to commit suicide, and therefore, an assessment done at the incorrect time, may not suffice in order to successfully intervene (Juhnke, Granello, & Granello, 2011). Understanding the risk factors and warning signs, in addition to using assessment tools, may in fact lead to a successful suicide intervention. Risk factors can be identified in all of the following areas: biological, emotional, cognitive, behavioral, and environmental (Juhnke, Granello, & Granello, 2011). Learning about these risk factors involves increasing suicide awareness within schools and the public domain. As the number of lives lost to suicide become more known, the nation is in a position to demand more attention and effort be placed on the prevention of this tragedy, especially for young people who may not fully understand the consequences of their choices.

Due to their developmental stage, adolescents are facing challenges and issues for the first time and may not have acquired sufficient coping strategies to deal with their problems. Developmentally, adolescents are beginning to think abstractly and are able to consider issues of life and death (King, Foster, & Rogalski, 2013). They are also able to plan and consider consequences more efficiently at this stage, but they are also vulnerable to emotional reactions and impulsive thinking (Casey & Caudle, 2013). This can put adolescents at greater risk for reckless decisions when feeling hurt, afraid or confused.

Adults need to be readily available and cognizant of what adolescents are going through to help them cope with these difficult transitions. Many experts have found that approximately 90% of the adolescents who completed suicide gave warning signs beforehand (Capuzzi, 2002; American Association of Suicidology, 2015; American

Academy of Pediatrics, 2011). It is important for adults to know the warning signs of depression and suicide and to be ready to discuss these issues with young people.

Many scholars and experts in the field believe public schools serve as an ideal location to identify students who are struggling and provide them with support (Granello & Granello, 2007; Juhnke, Granello, & Granello, 2011). Schools are the obvious places to identify suicidal students because their problems with academics, peers, or other issues are likely to be evident and warning signs may appear more frequently at school than at home (Granello & Granello, 2007). For example, when students struggle with relationships involving their peers, they are more likely to encounter disruptions at school, where the student interacts with others. In addition, many high school students are feeling the pressure to achieve and earn grades worthy of college entrance requirements, which can create stress and become evident to teachers and counselors who often talk with students about grades and scores. Students have the greatest access to multiple helpers (teachers, counselors) in their schools (Granello & Granello, 2007). Lastly, schools are ideal places for prevention activities because students are already in the environment where they are interacting with their peers and learning is taking place. Suicide awareness and prevention activities can be incorporated into the curriculum where school staff and administrators can create a culture of mental health awareness.

Schools can also provide the prevention and awareness programming necessary to detect students at-risk for suicide (Granello & Granello, 2007; Joe & Bryant, 2007; Katz et. al, 2013). Incorporating mental health screenings and educating students and staff about depression could help increase access to helpers. Juhnke, Granello, and Granello, have framed the rising rates of suicide in adolescents as a public health concern and one

in which schools can play a large preventative role (2011). When considering the professionals qualified to lead suicide prevention efforts, school counselors are in the ideal position to work with students, identify warning signs, and inform parents (Erickson & Abel, 2013; King, Price, & Telljohann, 2000; Ward & Odegard, 2011).

School counselors are employed in most schools across the country and more importantly, have been trained in suicide risk assessment, specifically since the Council for the Accreditation of Counseling and Related Educational Programs incorporated standards into their 2009 revision (CACREP, 2009). School counselors are often on the front lines of identifying students at risk for emotional issues and possible suicidal ideation (ASCA, 2010) and the American Counseling Association lists the primary responsibility of counselors as an obligation to respect the dignity and promote the welfare of clients (A.1.a. ACA, 2014). School counselors should be well-trained and confident in their abilities to assess for suicide. If counselor educators and supervisors understand what contributes to school counselors feeling confident in their abilities to conduct suicide assessments, they may be more likely to incorporate this into their teaching and training of future school counselors. In 2009, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) added suicide assessment into their standards to promote the importance of incorporating this subject into training programs. Incorporating suicide prevention programs helps schools and school counselors more readily assist students who may be struggling emotionally and contemplating suicide.

It is unclear how often school counselors conduct suicide assessments with their students. Although CACREP identifies suicide assessment for counselors within its

standards, little research has been conducted regarding how to prepare school counselors, and therefore, it is unclear how well they are being trained (Barrio Minton & Pease-Carter, 2011). In addition, not all school counseling programs are accredited through CACREP, and therefore may not include suicide assessment in their programs. It is also uncertain if school counselors feel they can recognize students who may be at risk for suicide (King, Price, Telljohann, & Wahl, 1999b). One study that has examined at school counselor's perceptions of their ability to effectively conduct suicide assessments found only 38% of the participants believed they could identify a student at risk for suicide (King, Price, Telljohann, & Wahl, 1999b). Bandura's (1986) social learning theory posits that if an individual feels confident in their abilities, they are more likely to carry out a task and will persevere even in the face of challenges. If school counselors do not have high self-efficacy in their suicide assessment abilities, it is possible the counselor will not engage in behaviors that would help identify students at risk, and therefore, deny at-risk students assistance. Clearly this violates a school counselor's ethical standards (ASCA, 2010). Counselors have an obligation to seek out students who may be struggling and provide them with supports. The consequences of not intervening in situations where students are at-risk could lead to severe harm or even death. Understanding what would prevent a counselor from actively seeking out students and conducting suicide risk assessments may inform counselor educators in their preparation of future school counselors.

This study addresses the large gap in the literature related to teaching suicide assessment and understanding what methods have produced positive results for students. Several areas of significance were considered for this study: professional application,

social change, and knowledge generation. A study that examined what practicing school counselors identify as contributors to their ability to conduct suicide risk assessments was needed.

Conceptual Underpinnings for the Study

Social cognitive theory (SCT) provides a conceptual framework to help understand how others learn and behave (Bandura, 1986). This theory centers on how an individual's beliefs about their capabilities affect what they choose to do, how much effort they exert, and how long they persist in the face of difficulty. Human behavior is regulated, to a large extent by anticipated consequences of potential actions. Individuals use their cognitive abilities to think about their behaviors. They observe others and learn through vicarious experiences. Observational learning is regulated by four subfunctions: attentional processes, retention processes, production processes, and motivational processes. However, Bandura posits that when individuals lack self-efficacy, they do not manage situations effectively (Bandura, 1997). Perceived self-efficacy is not a measure of skills, but beliefs about what an individual can do under different sets of conditions with the skills they possess (Bandura, 1997).

Self-efficacy beliefs are constructed from four principal sources of information: enactive mastery experiences that serve as indicators of capability; vicarious experiences that alter efficacy beliefs through transmission of competencies and comparison with the attainments of others; verbal persuasion and allied types of social influences that one possess certain capabilities; and physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction. (Bandura, 1997, p.79) For a counselor, self-efficacy translates into his or her ability to counsel clients

(Larson & Daniels, 1998). If counselors believe in their skills related to the issues their clients are presenting, they are more likely to provide counseling that benefits their clients (Larson & Daniels, 1998).

According to Bandura, self-efficacy also affects thought patterns and the stress related to one's environment (1986). Therefore, if a counselor has doubts regarding his or her abilities, they are less likely to confidently and competently assess their clients.

According to Larson and Daniels (1998), if a counselor has higher self-efficacy and faces a challenge, he or she will view their anxiety as perplexing, but manageable, have positive self-serving thoughts, and set realistic goals to work through the challenge (see Figure 1). Information that is relevant for judging one's capabilities, whether conveyed enactively, vicariously, persuasively, or physiologically, is not inherently informative. According to Bandura (1997), it becomes instructive only through cognitive processing of efficacy information and through reflective thought. The overall implication is that counselors with higher self-efficacy will better meet the needs of their clients, but this will require deliberate instruction and reflection.



Figure 1. Application of Bandura's Self-Efficacy Model to School Counseling

Statement of the Problem

The prevalence of suicide attempts and completions are rising for the 14-24 year age group (International Association for Suicide Prevention, 2014). Still, awareness and discussions regarding suicides for this age group are lagging behind (American Foundation for Suicide Prevention, 2015). In addition, according to the report, the *National Strategy for Suicide Prevention*, many practitioners are not adequately trained to assess suicide risk (U.S. DHHS, 2001). It was difficult to find literature that examined school counselors' experiences with conducting suicide risk assessments. One study that investigated school counselors' experiences with risk assessment could not detect if school counselors felt knowledgeable or confident enough in their ability to identify

students at risk for suicide (King, Price, Telljohann, & Wahl, 1999b). It is important to understand how practicing school counselors rate their skills and self-efficacy related to suicide in order to inform counselor educators and future practice. There were no recent studies (within the past 15 years) that investigated the relationship between school counselors' knowledge, self-efficacy and willingness to conduct suicide assessments. Preparation programs that specifically address suicide risk assessment and require an experiential component in their training have helped counseling students feel more confident in their abilities (Hoffman, Osborn, & West, 2013).

There is much to discover regarding the relationship between these three variables (knowledge of suicide risk, self-efficacy in conducting suicide assessments, and willingness to carry out suicide risk assessments with students) for practicing school counselors. The topic of suicide related to children and adolescents (Juhnke, Granello, & Granello, 2011) combined with a counselor's knowledge and self-efficacy in conducting suicide assessments (Niemeyer, Fortner, & Melby, 2001) may give researchers and school leaders pause in investigating this subject. A current study that investigates school counselors' knowledge of suicide and self-efficacy in conducting suicide risk assessments may help to identify what is currently happening in high schools today, assess the preparation of practicing school counselors, and advance the field in teaching of these techniques.

Purpose of the Study

The purpose of this study was to investigate the relationship among a school counselor's knowledge of suicide risk factors, their willingness to conduct risk

assessments, and their self-efficacy in being able to carry out the suicide risk assessment with their students.

The specific research questions of this investigation were as follows:

1. Does a school counselor's knowledge in identifying students at risk for suicide affect their willingness to conduct suicide risk assessments?
2. Does a school counselor's self-efficacy in conducting a suicide risk assessment affect their willingness to carry out the assessment with a student?
3. Do school counselors who graduated from CACREP institutions after 2009 report increased knowledge in identifying suicidal students than those who graduated from non-CACREP institutions or from those who graduated before 2009?
4. Do school counselors who graduated from CACREP institutions after 2009 report higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009?
5. In which ways, if any, do the following counselor characteristic variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to suicide risk knowledge and self-efficacy in conducting suicide risk assessments?

Hypotheses

1. School counselors who have more knowledge of suicidal risk factors are more likely to conduct suicide assessments.
2. School counselors who report higher self-efficacy in conducting suicide risk assessments are more likely to carry out the assessment.

3. School counselors who graduated from CACREP institutions after 2009 will have more knowledge in identifying students at risk for suicide.
4. School counselors who graduated from CACREP institutions after 2009 will have higher self-efficacy in conducting suicide assessments.
5. School counselors who have conducted higher numbers of suicide risk assessments and who have graduated from training programs with experiential learning opportunities will account for more of the variance in scores on the C-LEAD and SIRI-2.
5. School counselors who have conducted higher numbers of suicide risk assessments and who have graduated from training programs with experiential learning opportunities will account for more of the variance in scores on the C-LEAD and SIRI-2.

Definition of Key Terms

Suicide completion- Death caused by self-inflicted injurious behavior with any intent to die as a result of the behavior (CDC, 2013a).

Suicide attempt- A nonfatal, self-directed potentially injurious behavior with any intent to die as a result of the behavior. A suicide attempt may or may not result in injury (CDC, 2013a).

Suicidal self-directed violence- Behavior that is self-directed and deliberately results in injury or the potential for injury to oneself. There is evidence, whether implicit or explicit, of suicidal intent (CDC, 2013a).

Other suicidal behavior, including preparatory acts- Acts or preparation toward making a suicide attempt, but before potential for harm has begun. This can include anything beyond a verbalization or thought, such as assembling a method (e.g., buying a gun) or preparing for one's death by suicide (e.g., writing a suicide note; CDC, 2013a).

Suicide-risk assessment- strategies used by a mental health practitioner to inquire about suicidal thoughts and impulses in a client (King, Foster, & Rogalski, 2013).

Self-efficacy- an individual's belief in his or her capacity to execute the behaviors necessary to produce specific performance attainments (Bandura, 1986).

School Crisis- A reaction to, or perception of, a situation or event which causes psychological trauma to students and/or staff and requires immediate action because of its disruption or potential disruption to the education process (SFUSD, n.d.)

Summary

School counselors follow the professional values set forth by the American Counseling Association, including the belief in beneficence, “working for the good of the individual and society by promoting mental health and well-being” (ACA, 2014, p. 3). School counselors follow ethical codes and standards put forth by professional counseling organizations. Suicide is a national epidemic that deserves increased attention and efforts, especially within K-12 schools. School counselors are in the ideal position to respond to students who at risk for suicidal behaviors. After reviewing the literature, it is unclear if or how self-efficacy factors into a school counselor's willingness to conduct suicidal risk assessments with their students. It is also difficult to identify if CACREP's inclusion of suicide assessments to the 2009 standards have made a difference in the preparation of future school counselors.

CHAPTER II.

REVIEW OF RELATED LITERATURE

Introduction

Chapter II presents a review of the literature related to the study variables of this investigation. The purpose of this study was to investigate the relationship between school counselors' level of knowledge and self-efficacy to the probability of carrying out suicide risk assessments. This chapter identifies the current status of suicide and awareness of suicide in the U.S. The participants in this study are practicing high school counselors, therefore, sections related to adolescent development and the role of high school counselors are provided. The theoretical framework for this study involves Bandura's (1997) social learning theory, therefore, a section reviewing the literature related to counselor self-efficacy is included. Lastly, the literature related to suicide prevention training in counselor education is reviewed. The literature in these areas will provide evidence of the paucity of information available to school counselors and counselor educators related to conducting suicide assessments. The studies reviewed will also demonstrate the need for more understanding of how self-efficacy could factor into a counselor's willingness to readily identify students at risk for suicide or conduct suicide assessments with them.

Current Status of Suicide in the US

Internationally, almost one million people die from suicide every year (International Association for Suicide Prevention, 2014). This number roughly corresponds to one death every 40 seconds (International Association for Suicide

Prevention, 2014). In the U.S., there is an average of one suicide every 13 minutes (Drapeau & McIntosh, 2014). Suicide has become a public health concern for people in the U.S. and across the world. Within the 14-24 year age group, suicide is the second leading cause of death (International Association for Suicide Prevention, 2014). This correlates into one young person killing themselves every hour and 48 minutes (Drapeau & McIntosh, 2014).

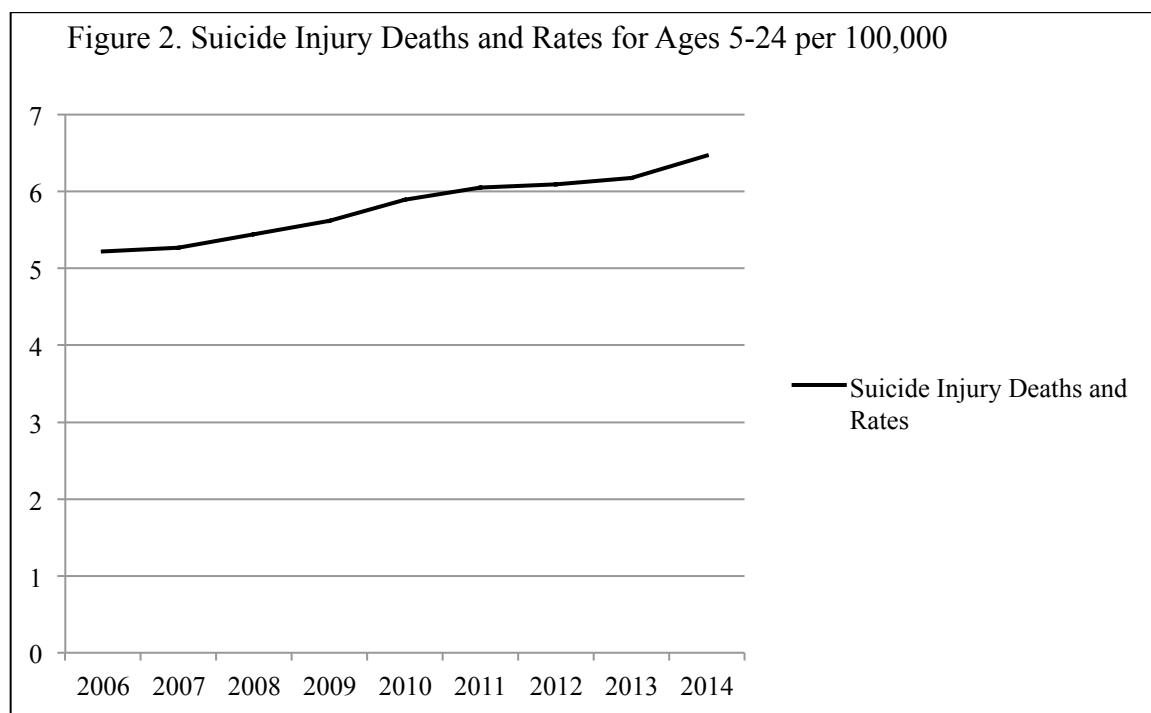


Figure 2. Suicide Injury Deaths and Rates per 100,000 in the United States from 2006-2014. All races, both sexes, ages 5-24. Data taken from National Center for Injury Prevention and Control, CDC, 2015.

The number of young people lost each year through suicide exceeds the number of deaths due to homicide and war combined (International Association for Suicide Prevention, 2014). The rates of suicide between 2002 and 2012 have steadily increased for both children and young adults (Drapeau & McIntosh, 2014). These figures do not include suicide attempts, which can be many times more frequent than completed

suicides (10, 20, or more times according to some studies; International Association for Suicide Prevention, 2014). Among young adult's ages 15 to 24 years old, there are approximately 100-200 attempts for every completed suicide, more than any other age group (International Association for Suicide Prevention, 2014). In a 2011 nationally representative sample of youth in grades 9-12, 15.8% of students reported that they had seriously considered attempting suicide during the 12 months preceding the survey and 12.8% reported that they made a plan about how they would attempt suicide during those 12 months (CDC, 2012). As Juhnke, Granello, and Granello (2011) report, these statistics are most likely an underestimation of the actual number of suicides and suicide attempts that take place each year. Many suicides are not reported and instead are considered accidental deaths. Suicide rates for adolescents have doubled since 1950 (Juhnke, Granello, & Granello, 2011).

There are many consequences to the tragedy of suicide. In addition to the emotional costs, suicide deaths cost \$44 billion annually in the U.S. (CDC, 2015). There is also the loss of potential, our nation loses what these individuals could have contributed to society throughout their lives. According to Juhnke, Granello and Granello (2011), the government labels this as "Years of Potential Life Lost" and each year the U.S. loses 270,000 years of potential life because of the number of young people committing suicide. In addition, each suicide intimately affects at least 6 other people (Drapeau & McIntosh, 2014). Family and friends are left to grieve, trying to understand the reasons for the loss, and having to move forward with their lives. There is the additional impact of enduring the social stigma, secrecy, and blame that often accompanies suicide. Family and friends may also be at risk for their own mental health

struggles, such as depression, dealing with complicated grief, and even future suicides. Suicide affects more than just the victim, including family and friends. Nevertheless, focusing efforts on preventing suicide could help decrease these numbers and even help family members become more knowledgeable about who is at risk.

Groups at Risk for Suicide

It is important to understand the breakdown in demographic groups of who is most at risk for suicide. Boys are more likely than girls to die from suicide and are more likely to use lethal means such as firearms (Drapeau & McIntosh, 2014). Girls are two to three times more likely to attempt suicide and are more likely to choose methods such as pills or poisons (Drapeau & McIntosh, 2014). Native American/Alaskan native youth have the highest rates of suicide (CDC, 2015). In a nationwide survey, Hispanic youth were most likely to attempt suicide when compared to other racial and ethnic groups (CDC, 2015). Youth who identify as lesbian, gay, bisexual, transgender, and questioning are also at higher risk for suicide (CDC, 2014). Many studies have reported LGB youth may be up to twice as likely to attempt suicide as their heterosexual peers (CDC, 2014). Transgendered students are also at risk, in one study, the authors found that 25% of transgendered students reported suicide attempts (CDC, 2014). Other groups who are at higher risk for suicide are those who have attempted suicide in the past, have a family history of suicide, have a history of depression or other mental illness, are abusing drugs or alcohol, have access to lethal means, are exposed to the suicidal behaviors of others, or who have stressful life events or loss (CDC, 2015).

A more recent group of young people receiving attention for suicidal concern are victims of cyberbullying. With the increase in social media usage, the influence of the

internet on suicide behavior is worth considering. Cyberbullying has become an anonymous way to harass and victimize others and studies have shown victims of cyberbullying are more at risk for depression and suicide (Juhnke, Granello & Granello, 2011; King, Foster, & Rogalski, 2013). Young people readily seek out the internet to communicate, interact with their peers, and form connections. Unfortunately, these interactions are not always positive, and when left unmonitored, may cause great psychological harm to victims. Unfortunately, children and adolescents who feel victimized or isolated may also use the internet to search for solutions or support for ways to end their suffering, and this includes accessing websites that support suicide (Juhnke, Granello & Granello, 2011). Information can be found encouraging suicide with tips and methods for carrying out suicidal acts (Juhnke, Granello & Granello, 2011). Although there are resources available online that can help young people who are at risk for suicide, more needs to be understood regarding how to protect young people from the potentially harmful content that can be located on the internet.

Lastly, to understand the current status of suicide, it is important to recognize that many experts believe that approximately 90% of the adolescents who completed suicide gave warning signs beforehand (Capuzzi, 2002). This leaves friends, families, and educators wondering if something may have been done to prevent a suicide from occurring. If a system was in place to help identify warning signs or a program incorporated into the curriculum that offered supports, would the adolescent have received the help they needed before considering suicide as their only option?

Adolescent Development and Risk Factors for Suicide

More than 13 adolescents commit suicide every day in the U.S. (Drapeau & McIntosh, 2014). Therefore, it is evident adolescents are capable of thinking about ending their own lives. Adolescents have the ability to think abstractly and it is a normal part of development for them to consider issues of life and death. Manor, Vincent, and Tyano (2004) believe there are two different ways adolescents think about the wish to die. The first, the suicidal act, is an expression of suicidal thoughts. The second, a death wish, can exist, but does not necessarily manifest as a suicidal expression. The authors stress the idea that adolescents may see the act of suicide as reversible. At this stage, and with their pathology, the focus may be on the act itself and not the unalterable consequences. Some experts believe suicide is not about death, but rather severe emotional pain (Juhnke, Granello, & Granello, 2011).

In addition, adolescents encounter problems just as adults, however they often have not developed the coping skills needed to adequately deal with these problems. Significant characteristics can be identified within the adolescent stage of development that are important for adults to consider when working with them. For example, teens are more impulsive, more susceptible to black and white thinking, and may struggle with finding options for dealing with stress or depression. Adolescents do not always possess the sophistication and experience of adults, who have acquired coping skills throughout their lives. According to Juhnke, Granello, and Granello (2011), adolescents today may face situations or be exposed to information that is beyond their ability to comprehend. Because they are minors, they may also have little control over their lives at home and school, which can add to their stress and hopelessness.

According to the CDC (2012), 26.1% of high school students reported feeling sad or hopeless almost every day for 2 weeks in a row. The criteria for major depression is reported in 8% of the adolescent population on any given day, yet one in five teens are reported to have had depression at some time (Pratt & Brody, 2014). Students who have been diagnosed with mental health disorders are at risk for suicide but those who have not yet been diagnosed may be at a higher risk. A reported 90% of adolescents who commit suicide suffered from some type of mental health problem, such as depression, anxiety, drug/alcohol abuse, or behavior issues (American Academy of Pediatrics, 2011). If a young person is also experiencing hopelessness and having feelings that life will not get better, they are at a great risk (Juhnke, Granello, & Granello, 2011).

In order to understand how to best approach and educate adolescents about handling stress, anxiety, depression, and thoughts of suicide, it is important to understand more about their thoughts and behaviors. Casey and Caudle (2013) examined adolescents' self-control and how this varies at different ages and in different circumstances. They stated that adolescents' impulse control is comparable to or even better than some adults in neutral situations but becomes quite strained in emotional situations when compared to children or adults (Casey & Caudle, 2013). How well an adolescent adapts to the demands of their changing environment is a product of genetic factors and environmental influences (Casey & Caudle, 2013). In other words, though adolescents are known for poor impulse control, this is more evident in times of distress and how well they adapt to this stress depends on both their innate ability and their environment. In fact because of this tendency to be impulsive, adolescents may spend less time planning a suicide, which provides even less warning for adults to intervene (Juhnke, Granello, & Granello, 2011).

It is important for adults who work with teens to understand they are not always out of control or will make the wrong choice, it is about their ability to make healthy choices during strong emotional situations. Casey and Caudle's (2013) study also emphasizes the importance of environmental influences, which can come from home, school, and other areas of a young person's life. Spending time talking with an adolescent can help an adult understand the adolescent's current level of judgment. If the teen has limited judgment, it is important to recognize they may be less likely to find positive ways of coping with their feelings and seeing their options, because of limited experience, which can increase their risk. King, Foster, and Rogalski (2013) note the importance of assessing an adolescent's insight and judgment, which varies greatly at this age. One could ask themselves, do they have good insight and recognize their risk and the need for treatment? Taking the time to interview the adolescent can help understand their level of risk.

When considering other common adolescent characteristics, risk taking is another notable area of concern. Galvan, Hare, Voss, Glover, and Casey (2006) conducted a study that looked at risk-taking during adolescence and found young people who are already prone to risky behavior experience greater risk during this time because neural systems are undergoing significant development. In other words, young people already at risk because of a genetic predisposition or negative environmental influences, should be assessed even more closely. For this reason, the authors stress the importance of looking at individual variability when considering how brain behavior corresponds to risk taking behavior. Adults, especially mental health providers, need to take the time to work with young people and consider their needs on an individual basis.

King, Foster, & Rogalski (2013) reported on the tensions that may arise for practitioners when working with adolescents. Counselors may struggle with the ability to establish rapport and create a therapeutic environment while also taking control and managing the teen's safety. Working with adolescents is different than working with adults. Adolescents are still minors and adults have a responsibility to keep them safe. Working with students who are a danger to themselves can create anxiety and fear in a counselor, prompting them to hastily suggest hospitalization without taking the time to complete a more thorough assessment of the child. This haste can damage a relationship between the student and counselor, with the student no longer trusting the counselor and ending an opportunity for long term support within the school.

As adults encounter adolescents and attempt to help them through the turmoil of this developmental stage, it is important to consider that while there are common markers of this stage, each child is different and deserves individual consideration. Adolescents do not have the sophistication of refined coping strategies or even the awareness such strategies are needed. They may fuddle their way through everyday problems and not realize when these problems are interfering with their everyday lives, and have begun to take a toll on their mental functioning. The adults in their lives have the responsibility of helping identify the warning signs of children who are at risk and need some type of intervention. It is important adults who have regular contact with children and adolescents are knowledgeable and ready to assist them.

The Role of Schools and School Counselors

When considering the adults who have frequent contact with adolescents, it is reasonable to assume those who work in schools would be a likely choice. Many scholars

and experts believe our public schools serve as an ideal location to provide the programming necessary to help find students at-risk for suicide (Granello & Granello, 2007; Joe & Bryant, 2007; Katz et. al, 2013). Students are in daily contact with staff and spend a large portion of their day in school.

Schools are also a logical place to identify suicidal students because their problems with academics, peers, or other issues are more likely to be evident and warning signs may appear more frequently at school than at home (Granello & Granello, 2007). In addition, students have the greatest access to multiple helpers (teachers, counselors) in their schools (Granello & Granello, 2007). Schools are ideal places for prevention activities because students are already in the environment where they are interacting with their peers and learning is taking place. Over twelve years ago, President Bush recognized the need for suicide prevention efforts in readily accessible settings such as schools and advocated for regularly scheduled mental health screenings to help prevent suicide (President's New Freedom Commission on Mental Health, 2003). The President's initiative raised awareness of mental health concerns across the country and provided the impetus the mental health care community needed to mobilize efforts (Iglehart, 2004). Thirteen large mental health organizations, including the National Alliance for the Mentally Ill and the National Mental Health Association joined efforts to create the Campaign for Mental Health Reform (Iglehart, 2004). The campaign works to implement the Commission's recommendations as well as other federal policy issues related to mental health services and funding (Iglehart, 2004).

Many educators and mental health experts believe schools have an ethical obligation to incorporate mental health awareness and suicide prevention efforts into their

curriculum. Experts also believe schools should not only identify students who are struggling emotionally, but also provide support for them once problems have been discovered (Juhnke, Granello, & Granello, 2011). Nonetheless, there is still no regulation or programming requiring suicide prevention in schools. Prevention programs can empower students and staff by describing how to respond to a student overtly expressing suicidal ideations or behaviors (Doan, Roggenbaum, & Lazear, 2003). Erickson and Abel (2013) implemented a school-wide prevention program that included depression screenings and reported positive results. They found that 10% of the students screened were at risk for depression. Contacts were then made with families, all of which resulted in connections with outside mental health agencies for those students. The feedback the counselors in this school received was positive and also resulted in more students seeking them out during the school year. They also had a noticeable decrease in the number of suicide attempts and hospitalizations- and in fact, had not experienced a completed suicide since the inception of the program.

To help establish a foundation for suicide prevention programming, it is important to understand what is currently happening across the country in schools and whether these efforts are successful. Gibbons and Studer (2011) found little organized training on suicide awareness in schools. Because school counselors are often the educator in a school with the most appropriate training and because there is often one in every building, the authors contacted school counselors regarding suicide prevention efforts in schools. They found only 19.1% of school counselors reported conducting formal training to school staff on suicidal warning signs. In addition, only 17.9% offered classroom guidance on suicide awareness training. The school counselors in the study noted

obstacles such as needing some type of training model to follow, heavy emphasis on academic needs (vs. social/emotional), and lack of administration support in order to promote more suicide prevention within their schools. These obstacles, along with no mandated requirement for suicide prevention in schools prevent educators from identifying students who are at-risk for suicide. In a study of high school teachers by Westefeld, Kettmann, Lovmo, and Hey (2007), the authors found that teachers wanted and needed more training related to suicide.

Nevertheless, school counselors can provide leadership in suicide prevention through the facilitation of gatekeeper trainings with staff and implementation of suicide prevention programs (Granello & Granello, 2007; Gibbons & Studer, 2008). These types of trainings can describe what staff, faculty, or students should do if they suspect that a student may be potentially at risk for suicidal ideations and/or behavior (Doan, Roggenbaum, & Lazear, 2003). Identifying criteria for assessing the lethality of a student potentially at risk for suicidal behavior may help prevent future suicide attempts and help students get the mental health support they need.

Granello and Granello (2007) described three levels of school-based prevention: universal approaches, selective interventions targeted towards groups of students who demonstrate risk factors, and individual interventions targeted at students who screened positive for a risk factor. Universal approaches have many positive components, including the education and awareness of suicide for all students in the school. With universal approaches, it is more likely educators will create a culture that promotes discussion of problems and encouragement for seeking out adults. Most teens will confide in their peers before coming to an adult. But if those peers are concerned about

their friend, they may encourage them to seek help or tell the adult themselves. Therefore, adults in the school need to be prepared when a student approaches them.

Examining what is happening in schools across the country may provide insight for school counselors and counselor educators. Crepeau-Hobson (2013) conducted a study to look at suicide risk assessment practices in three large school districts over a three year period. The author found that following implementation of prevention and intervention efforts, each district had either a decrease or small increase well below the rising numbers in suicides. In addition, of the 3,443 students who underwent a suicide risk assessment, none followed through with taking their own life. This study provides important empirical support for the use of suicide assessment procedures in the school setting.

When considering the professionals qualified to lead suicide prevention efforts, school counselors are in the ideal position to work with students, identify warning signs, and inform parents (Erickson, & Abel, 2013; King, Price, & Telljohann, 2000; Ward & Odegard, 2011). School counselors are employed in most schools across the country and more importantly, have been trained in suicide risk assessment (CACREP, 2009). The American School Counseling Association created a role statement for school counselors related to crisis prevention,

Through the implementation of a comprehensive school counseling program, professional school counselors promote school safety, assist students engaging in unhealthy or unsafe behaviors and make referrals as needed. Professional school counselors are familiar with the school community and knowledgeable about the

roles of community mental health providers and first responders such as law enforcement officials and emergency medical responders (ASCA, 2013, p. 43).

Legal/Ethical Obligations for School Counselors

School counselors operate within the ethical standards developed by their professional organizations. The American Counseling Association lists the primary responsibility of counselors as an obligation to respect the dignity and promote the welfare of clients. (A.1.a. ACA, 2014).

School counselors are also trained to identify and promote social justice issues with their clients (CACREP, 2009). Traditionally marginalized groups of students, such as Lesbian/Gay/Bisexual (LGB) students, are at a higher risk for emotional distress, bullying, depression, and suicidal ideation because of a negative and harmful school climate (Hatzenbuehler, Birkett, Van Wagenen, & Meyer, 2014). LGB students are between two and seven times more likely to attempt suicide than their heterosexual peers (Hatzenbuehler et. al., 2014). In a study by Hatzenbuehler et al.(2014), the authors found that school climates that protected sexual minority youth reduced their risks of suicidal thoughts. Counselors have an ethical obligation to protect all students, but have the additional incentive to seek out more vulnerable populations of students and offer support. School counselors should also have a thorough understanding of gender differences, ethnic differences, methods, and risk factors related to suicide found in the literature (Capuzzi, 2002). Incorporating suicide prevention programs helps schools and school counselors more readily assist students who may be struggling emotionally and contemplating suicide.

In addition, the American School Counseling Association (ASCA) identifies the school counselor's obligation to inform parents/guardians of risk assessments (ASCA, 2010, Standard A.7b). School counselors should understand the legal and ethical liability for releasing a student who is in danger to self or others without proper and necessary support for that student. (ASCA, 2010, Standard A.7c). This is more likely to happen if the school counselor and school have not made efforts to understand the warning signs and risks of suicide. According to ASCA, school counselors have an ethical obligation to not only inform parents when their child is suicidal, but also to make referrals when necessary or appropriate to outside resources for student and family support (ASCA, 2010, Standard A.5a). In some cases, schools are adopting policies that require documentation and assessment from a mental health provider before the child can return to school (Capuzzi, 2002). Enforcing this type of policy may help the student get the necessary attention and support they need during this difficult period. There are times when parents may not feel their child is suicidal and refuse treatment, schools should consult with legal counsel in these situations and follow best practices (Capuzzi, 2002). Unfortunately there can be negative stigmatization of those needing services, which may prevent parents from seeking services (Erikson & Abel, 2013). School counselors can also help educate parents and families about suicide and mental health issues in general to help lessen the stigma. The incorporation of suicide prevention programs may help with many of these issues and provide an avenue for discussion with families.

Another important consideration for school counselors and other educators when advocating for suicide prevention programs is the myths surrounding the topic of suicide. For example, some individuals believe suicide programs lead to contagion and copycat

suicides will befall the school. The truth is copycat suicides occur with individuals who are already vulnerable (Granello & Granello, 2007). It is not the prevention program that leads to suicides; in fact, the programs are intended to mitigate the already existing danger of copycat suicides by helping vulnerable students more readily access help (Granello & Granello, 2007). Another myth found in the literature is the notion that asking students if they have had thoughts of suicide or educating them about suicide will somehow increase suicidal thoughts or behaviors (Joe & Bryant, 2007). There is no evidence to support the myth that iatrogenic risks increase an adolescent's likelihood to attempt suicide, rather the opposite is true (Joe & Bryant, 2007). A final myth worth mentioning is that incorporating suicide prevention programs would then allow the school to be sued in the event of a suicide. According to Granello and Granello (2007), the opposite is true; schools are more likely to be successfully sued if they ignore this area of students' lives. Educators who spend time debunking many of the common myths about suicide may help garner community support and help naysayers understand the ethical, and often legal necessity of addressing suicide in schools.

Nevertheless, there are those who are critical of suicide prevention efforts in schools. Some parents do not feel school is the appropriate place to discuss suicide. They may feel suicide should be discussed at home where issues of spirituality and beliefs about life after death can be considered. Other critics believe mental health issues should not fall under the umbrella of public education and suicide prevention efforts will be costly (Juhnke, Granello, & Granello, 2011). In addition, there are no government funds allocated for suicide prevention efforts within schools, leaving individual school districts to cover the costs associated with any programs implemented.

However there are court cases that demonstrate the liability that can be placed on the school for not providing appropriate services to students. Milsom (2002) published an article highlighting court cases involving suicide prevention in schools. The author reported on the cases that involved negligence and specifically when the court believed an educator owed a duty to a student in a suicide-related death. In the noteworthy case, *Wyke v. Polk County School Board* (1997), the courts found the school district negligent for failing to notify parents of their 13 year old son's previous two suicide attempts while at school. Interestingly enough, the school could not be found liable for failing to provide counseling services because the state of Florida had no law mandating schools to have suicide prevention programs (Milsom, 2002). Several important findings come out of the cases reported in this article, first, courts support educators informing parents of personal issues when potential harm is involved. In addition, school districts have an obligation to incorporate suicide prevention programs and not having a program, may leave a school district vulnerable to being sued for negligence.

As mentioned earlier, schools may soon be held liable by the courts for failing to include suicide prevention efforts (Capuzzi, 2002; Milsom, 2002). Capuzzi (2002) suggests using "best practices" in the process of implementing suicide prevention programs. He describes best practices as "the aspirational standards an ethical and well-informed school counselor should strive to attain in the process of planning and implementing school-based prevention, crisis management, and postvention efforts" (Capuzzi, 2002, p. 37). This includes an awareness of the guidelines that theory and research provide related to suicide prevention (Capuzzi, 2002). The American School Counseling Association's ethical standards include the guideline that school counselor's

strive to stay current with research, looking for best practices, and to incorporate this new knowledge into their work in schools (E.1.c ASCA, 2010).

Other considerations include the need for stakeholder support (Whitney, Renner, Pate, & Jacobs, 2011), funding issues (Erikson & Abel, 2013; Miller, Eckert, & Mazza, 2009), parent refusal to consent (Miller et al., 2009), and the risk of false positives or false negatives (Erikson & Abel, 2013). In addition, as mentioned earlier, some disagree with providing mental health services in schools and most schools do not have enough mental health professionals in their buildings to meet all the needs of their students (Juhnke, Granello, & Granello, 2011). School counselors and administrators may need to research the needs of their schools, provide opportunities for community input, and educate stakeholders (including parents) about the prevalence of mental illness in children and adolescents to help diminish the stigma (Whitney et al., 2011). Miller et al. (2009) advocated for a public health approach to strengthen support and address ethical and legal obligations for suicide prevention programs in schools. This model includes aspects such as using evidence-based programs, strengthening positive behavior, and emphasizing community collaboration and services (Miller et al., 2009). Utilizing a public health approach may help school and community members understand the enormity of suicide within the United States.

In a study by King, Price, Telljohann, and Wahl (1999a), health teachers' willingness to initiate suicide risk assessments was found to be based upon comfort and confidence. The authors created a 45 item questionnaire to assess 228 high school health teachers' efficacy expectations, outcome expectations, and outcome values regarding adolescent suicide. They found that only one in ten of the teachers believed they could

recognize a student at risk for suicide. Less than one-half believed they could ask the student if they were suicidal or adequately support them if they were. An important finding from this study included the result that efficacy expectations differed significantly based on whether the teacher worked at a high school with a crisis intervention team. Results also differed significantly based on whether the teacher had ever had a student express suicidal thoughts to them. Their previous experience in talking with students made a significant difference in their confidence in recognizing students at risk, as well as talking to their parents. One last important result was in the differences in efficacy expectation scores for the teachers who had received some type of in-service program on adolescent suicide within the previous five years. Those who had participated, had significantly higher self-efficacy scores. The results of this study reinforce the notion that continued professional development and training make a difference in recognizing risk in students.

If school counselors are taking an active role in educating others about suicide prevention, they may need additional training than what was provided in their graduate work. School counselors may need to find professional development opportunities to ensure they are competent to deliver programming to staff, students, and community members in the area of suicide prevention (Fiernan, 2012). In order for school counselors to effectively lead suicide prevention efforts, it is important they are adequately prepared to teach others and recognize suicidal ideation. Allen et al. (2002) also conducted a study examining the participation of school counselors in crisis interventions. From their study, the authors found that approximately 57% of school counselors reported feeling minimally or not at all prepared to deal with crisis situations. Only 18% reported feeling

well or very well prepared to deal with crisis situations. Conversely, 94% of the participants worked in a school with a crisis plan and 75% of the counselors felt familiar or very familiar with the plan. When focusing on high priority topics for school counselor education, suicide was listed as the number one topic. While these results demonstrate a need for more training, unfortunately the data is 13 years old and may not be accurate for today's school counselor. There is a lack of any recent evidence regarding the preparedness of school counselors in suicide prevention.

Because school counselors may be the most logical individual within a school to lead suicide prevention efforts, conduct suicide assessments, and identify students at risk for suicide, it is important to recognize what factors lead to increased efforts on their part to carry these out. According to the literature, the majority of school counselors believe it is their role to help suicidal students, however they do not feel confident in assisting these students or believe their efforts will make a difference (King, Price, Telljohann, & Wahl, 1999b). It is important to understand how confidence factors into a counselor's willingness to seek out, recognize, and assess students who are at risk for suicide.

Examining literature that addresses suicide prevention efforts and finding programs that have produced positive results may inform educators and practitioners in the field. King and Smith (2000) conducted a study investigating the effects of a suicide training program on school counselors in a large urban school district. The authors led a suicide prevention training titled, Project Soar, within a Dallas school district. One hundred and eighty six school counselors participated in the follow up survey. The 44 item survey as used to examine their overall knowledge and efficacy expectations regarding student suicide. The questionnaire used four subscales that assessed counselors'

perceived knowledge of student suicide prevention and intervention; actual knowledge of the risk factors for a student suicide attempt; actual knowledge of suicide intervention steps; and an efficacy expectation. The authors used a convenience sample to establish stability reliability with a test and retest method. The survey was based on a comprehensive literature review and reviewed by four national experts on student suicide. King and Smith used a series of ANCOVAs that indicated the counselors' perceived abilities to work with suicidal students differed significantly based on whether counselors had received the SOAR training in the past three years (2000). After completing the training, the school counselors reported increased confidence in identifying students at risk for suicide. The authors also found the results strongly supported the effectiveness of offering periodic training sessions to practicing school counselors. Three of four school counselors in the study reported feeling knowledgeable about the school district's policy and procedures on suicide. The authors felt this was important since school counselors often lead the suicide prevention efforts in their schools. They believed that being familiar with the district's policies increases the likelihood that appropriate intervention steps and responses will be followed. This study provides a foundation to support the continuing education of school counselors currently working with students.

Based off their earlier study with health teachers, King, Price, Telljohann, and Wahl (1999b) examined 186 school counselors' perceived self-efficacy in recognizing students at risk for suicide. The purpose of this study was to investigate high school counselors' perceived self-efficacy in recognizing students at risk for suicide. The researchers examined demographic variables such as gender, age, degree, and years of experience. They used a questionnaire to identify the school counselor's beliefs and

experience with adolescent suicide. They had questions related to outcome expectations and outcome values.

King, Price, Telljohann, and Wahl created their own instrument to use in this study (1999b). The instrument they developed was supported by feedback from 6 national experts on suicide and 3 experts on self-efficacy. They also established construct validity by using principal axis factoring with subsequent varimax rotation. They established reliability by using a test-retest procedure with a sample of 10 school counselors and reported the results. They also reported internal consistency outcomes.

A series of MANCOVAs were conducted but did not find any significant findings in efficacy expectations based on demographic variables. This leads one to wonder if the authors could have included additional variables related to prior experience, training, etc. that may have provided readers with more information (King, Price, Telljohann, & Wahl, 1999b). MANOVAs and MANCOVAs were also completed looking at outcome expectation scores related to the demographic variables but also did not find any significant results. Next, the authors looked at variables associated with high self-efficacy scores. They used a series of odds ratio analyses to examine efficacy expectation scores, outcome expectation scores, and outcome values based on four variables. A main result of this section demonstrated that school counselors who worked in schools with crisis intervention teams were 1.61 times more likely to score high on the efficacy measurement.

Lastly, King, Price, Telljohann, and Wahl (1999b) concluded that school counselors' level of understanding and awareness of suicide was a factor in their success in providing assistance to students at risk of suicide. The authors found between 22 to

51% of school counselors incorrectly identified various suicide risk factors in students. In addition, the authors found that while a majority of the school counselors believed it was their role to recognize students at risk for suicide, only 38% believed they had the knowledge and skills to recognize when a student was at risk for suicide. King et al. stated that if counselors did not feel confident in identifying students at risk, then interventions were less likely to occur, leaving students without the support and referrals needed.

Counselor Self-Efficacy and Suicide Assessment

Self-efficacy has been shown to be an important aspect of successful teaching and counseling (Bandura, 1995). According to Bandura, self-efficacy is concerned with people's beliefs in their capabilities to demonstrate skills and/or behaviors (Bandura, 1997). Bandura (1997) believes there are four core factors affecting self-efficacy: experiences, modeling, social persuasion, and physiological factors. Bandura's Social Cognitive Theory, which originates from his Social Learning Theory, lends itself to the belief that an individual's self-efficacy is an important factor in one's career performance and preparation.

Larson and Daniels (1998) have written on the connection of Bandura's social learning theory to counseling. "To be efficacious, counselors must orchestrate and continuously improvise multiple subskills to manage ever-changing circumstances in the session" (p. 179). Larson (1998) has also developed the Social Cognitive Model of Counselor Development (SCMCD) to demonstrate how Social Cognitive Theory can be applied specifically to counselors in training. The model incorporates environmental factors along with cognitions, emotional responses, and the forethought of the counselor

with the learning process and eventually, performance of the counselor (Larson, 1998). Larson and Daniels (1998) believe counselor self-efficacy beliefs are the main factor of effective counseling sessions with clients. In addition, counselors with higher self-efficacy would be more likely to view their anxiety as perplexing, but manageable. Counselors would also be able to set appropriately challenging goals, and have thoughts that are encouraging. According to Bandura, these internal influences are what make us human, they act collectively in what he labels as personal agency: A dynamic, interactive, complex system that allows humans to respond to a rapidly changing environment and to be proactive in shaping that environment (Larson & Daniels, 1998). Bandura's theory centers on how one's confidence in ability leads to a likeliness to engage in the desired behavior, a commitment to continue the behavior over time, and a willingness to persist even in times of difficulty or unknown outcomes (1986).

In a study by Daniels and Larson (2001), the authors discovered the use of positive feedback increased counselor-in- trainings' self-efficacy and the use of negative performance feedback increased the counselor-in-trainings' anxiety. Daniels and Larson believe students need multiple mastery experiences to gain confidence in their abilities, as well as skill specific feedback. The authors' use of mock counseling sessions also allowed students opportunities to practice counseling skills and enhance performance outcomes and decrease anxiety. Al-Darmaki (2004) also conducted a study that examined the influence of anxiety on counselor self-efficacy. The findings also revealed a decrease in anxiety with increased opportunities for constructive feedback within their training, as well as an increase in self-efficacy.

Larson and Daniels (1998) reviewed the counseling self-efficacy literature and found counselors-in-training with high counseling self-efficacy reported more positive expectancies and self-evaluations. They found trainees with less self-efficacy were unlikely to have the desire or put forth the effort necessary to learn effective counseling skills. Bandura (1977; 2009) has found personal judgments about one's abilities, observational learning, type of feedback, and ability to control physiological symptoms can affect motivation and performance in counseling clients. These findings have major implications for the training of future counselors who often are less confident in their counseling abilities in general, but especially in areas with high risk, such as clients who are suicidal.

Another important consideration involves how counselors feel when working with suicidal clients and how this may factor into their willingness to assess clients. Kirchberg and Neimeyer (1991) discovered beginning counselors felt very uncomfortable working with suicidal clients. In addition, they believed the level of discomfort was unrelated to experience, leading them to believe counselors with varied experience may feel similar levels of discomfort with these types of clients. Kirchberg and Neimeyer believed it was common for counselors to feel anxious or unprepared when working with suicidal clients. Working with suicidal clients is different than many other types of clients. The counselor's response to suicidal crises is a unique skill and different than other skills practiced and acquired during training (Neimeyer, Fortner, & Melby, 2001). The client is often at his or her lowest point, desperate, and feeling hopeless. These types of feelings can be overwhelming and somewhat frightening for any counselor, even those with many years of experience. Neimeyer, Fortner, and Melby (2001) conducted a study with 131

participants to assess the influence of personal and professional factors that may affect the helper's ability to intervene with a suicidal client. The participants were a mix of undergraduate psychology students, suicide hotline volunteers, and graduate students in clinical and counseling psychology who were categorized as nonprofessionals, paraprofessionals, and professionals. The participants completed demographic questions, the Death Attitude Profile-Revised, the Suicidal Behaviors Questionnaire, the Suicide Opinion Questionnaire, and the Suicide Intervention Response Inventory. The authors used a regression analysis to compare the relationships between variables. They discovered that personal factors, such as the counselor's own personal history with suicide, may also inhibit the counselor's ability to effectively counsel suicidal clients, and this may take more than conventional training to overcome. They examined what factors may contribute to increased likelihood of carrying out suicide interventions. The authors discovered that suicide assessment skills can be improved by training and experience. The authors also found counselors who remain calm but are not permissive in death-related situations such as suicide, are more likely to respond in a helpful manner.

When considering other problems that arise in assessing clients at risk for suicide, Reeves, Bowl, Wheeler, and Guthrie (2004) revealed few counselors named suicide explicitly during their session with the client. This evading may have led to the client not feeling comfortable enough to raise the issue on their own, even though they were considering it. Kaplan and colleagues (1994) found that clients were willing to discuss suicidal ideation with mental health providers, however they were reluctant to bring these up on their own.

There are many reasons why counselors may hesitate to discuss suicide with clients. One of these reasons could be they believe they are putting the thought of suicide into their client's head (Granello & Granello, 2007). Or possibly they may not have had opportunities within their training programs to feel competent and confident in their abilities (Kirchberg & Neimeyer, 1991; Trimble, Jackson, & Harvey, 2000). Lastly, the counselor's own moral views of suicide may influence their willingness to discuss suicide with the client (Kirchberg & Neimeyer, 1991). Nonetheless, Reeves, Bowl, Wheeler, and Guthrie recommended counselors use the word "suicide" explicitly when working with clients at risk (2004).

Combine a client's reluctance with a counselor's fear that discussing suicide may bring about suicidal thinking or liability risk and it becomes quickly apparent that initiating and sustaining conversations about suicide are challenging. It is important to find factors that influence self-efficacy in counselors and counseling students. Tang et al. (2004) conducted a study with 116 counselor education students to examine whether age, prior work experience, number of courses taken, and internship hours affected their self-efficacy in counseling. The authors used a demographic questionnaire and the Self-Efficacy Inventory in their study. MANOVAs were used to examine demographic differences between the two groups (CACREP vs. non-CACREP) and self-efficacy for counseling. In addition, a MANCOVA was used to control for identified demographic variables. Tang et al. (2004) found that students from CACREP accredited programs had higher self-efficacy in their skills than those from non-CACREP programs. Yet upon further examination of this difference, the authors found the variation could be attributed to the number of training hours and higher number of required courses students from

CACREP programs had taken. Therefore, it is possible requiring higher standards in training programs may make a difference in counselors' self-efficacy and ability to counsel clients.

Sawyer, Peters, and Willis (2013) also conducted a study to examine beginning counselors' self-efficacy as they counsel clients in crisis. The authors surveyed Master's level students enrolled in a crisis intervention course and assessed their self-efficacy before and after the course. They found a strong relationship between having a sense of preparedness and their self-efficacy in having the skills needed to handle crisis situations. Students scored much higher on the Counselor's Self-Efficacy Scale at the end of the semester. The different subscales included Crisis Situations, Basic Counseling Skills, Therapeutic Response to Crisis and Post-Crisis, and Unconditional Positive Regard. Participants also completed open-ended questions related to one's feelings of preparedness in crisis situations. When looking at these results, the authors found statistically significant increases in mean scores across all sub-scales. In fact, 52.8% of the variance in scores within the Unconditional Positive Regard subscale was attributed to the Crisis Preparation course. Specifically, the students were introduced to theoretical models for approaching crisis situations, were given opportunities for lengthy discussion and role play scenarios, reinforcement for being flexible and consideration of culturally sensitive crisis issues in their communities.

Sawyer, Peters, and Willis (2013) believe these findings are important in order for counselor educators to replicate evidence-based practices and help promote counselors with higher self-efficacy entering the counseling field. The ultimate goal is to help train school counselors to better meet the needs of their suicidal students.

Suicide Prevention Training in Counselor Education

Counselor educators are tasked with preparing future school counselors to competently and confidently address the needs of K-12 students across the country. Professional organizations within the counseling field can provide guidance and set standards for the level of practice that the public can expect of counselors. It is also important they provide best practices in how to adequately meet these expectations. CACREP standards were modified in 2009 to include suicide awareness training for school counselors. The standard was written as “the school counselor demonstrates the ability to use procedures for assessing and managing suicide risk” (p. 40, CACREP, 2009). Though this is a positive step forward in requiring exposure to suicide training, there is little direction from the counseling field regarding how to adequately teach suicide assessment skills nor is there any specification regarding a level that is acceptable for demonstration of these skills (Fiernan, 2012). In addition, not all school counseling programs are CACREP accredited and therefore may not provide education or experience with topics such as suicide. Counselor educators and supervisors have an ethical obligation to ensure students are ready to address suicidal ideation in their clients (ACA, 2014) regardless of CACREP accreditation. Understanding crisis theory and trauma is also essential knowledge and skills for new counselors (King & Smith, 2000). With the rising trend of violence (including suicide) in schools, counselors can play an important role in navigating crisis situations (Granello & Granello, 2007). Even with CACREP’s standards, it is important to recognize what counselor educators are doing within their programs to help prepare future school counselors.

An important consideration is understanding if counselors are leaving their training programs prepared to handle the complex and varied crises they will come across during their practice. Schmitz and colleagues (2012) published a report for the American Association of Suicidology's task force addressing what they believe, is the insufficient training for mental health professionals in the area of suicide assessment. The authors report that competence in the assessment of suicide has been consistently overlooked by training programs and licensing bodies for mental health providers. Schmitz and colleagues (2012) also noted that didactic training does not necessarily transfer into adequate skills in conducting suicide risk assessments. This lack of connection signals the need for more direction as to the teaching methods that are going to be the most effective when working with counseling students and preparing them to assess clients who are working through suicidal ideation.

The report also included six recommendations to improve suicide prevention measures across the country. The following three recommendations (of the six) which pertain to school counselors and counselor educators and are outlined below. The first recommendation addressed accrediting organizations need to include suicide specific education and skill acquisition as part of the program requirements. CACREP is one of the few organizations that has already done this in the counseling field. In addition, these skills would be observed through supervised training, but at a minimum would be measured with a skills-based demonstration such as role-playing. The second recommendation asks for state licensing boards to require suicide training and continuing education for renewal of professional licenses. Their third recommendation involves a requirement for any organization receiving state or federal funds to show evidence that

mental health professionals in their systems have received training in suicide risk assessment and prevention. As Schmitz et al. mentioned, “improving the training and competence of mental health professionals is one of the most logical ways to prevent suicide and save lives” (p. 301).

The Department of Health and Human Services (DHHS) created core competencies needed to assess and manage suicidal risk through an initiative with the American Association of Suicidology. The eight core competencies essential to practice include:

- Managing one’s reactions to suicide.
- Reconciling the difference and potential conflict between the clinician’s goal to prevent suicide and the client’s goal to eliminate psychological pain.
- Maintaining a collaborative, nonadversarial stance.
- Eliciting suicide ideation, behavior, plans, and intent.
- Making a clinical judgment of the risk that a client will attempt or complete suicide in the short and long term.
- Collaboratively developing a crisis response plan.
- Developing a written treatment and services plan that addresses the client’s immediate, acute, and continuing suicide ideation and risk for suicide behaviors.
- Developing policies and procedures for following clients closely, including taking reasonable steps to be proactive. (King, Foster, & Rogalski, 2013, p. 10).

Even though training in intervention skills has been shown to increase counselors’ competence in suicide assessments (Neimeyer, Fortner, & Melby, 2001), it is difficult to find what content was included in this training. A review of the literature revealed few studies related to the teaching and evaluation of suicide assessment in counselor

education programs or the incorporation of core competencies. Barrio Minton and Pease-Carter (2011) published a content analysis of counselor education programs' crisis preparation practices. Very little had been published examining the methods counselor training programs use to prepare students for practice, even for crisis preparation, which includes more than just suicide prevention and response. Of the 52 programs that participated in the review, all were CACREP-accredited Master's degree programs. The authors found that less than half of the programs offered a course in crisis intervention. Therefore, most student received crisis intervention instruction through their other counseling preparation courses. Barrio Minton and Pease-Carter (2011) reported that most students received instruction prior to field experiences, however one-quarter of the programs waited until students were counseling clients before covering crisis topics. The authors questioned the ethical responsibility of programs that do not provide earlier exposure to crisis situations (such as suicide awareness) before working with clients.

Most programs overall provided little clock time to crisis preparation, with one-third indicating less than two class periods and another third providing 2-4 class periods. Clearly this analysis demonstrates a lack of consistency across programs as well as a deficit in the number of hours and focus being placed on crisis intervention, including suicide assessment. While CACREP may have included crisis intervention and suicide knowledge and skill competencies, the amount of time and the nature of the training is not mandated, resulting in a lack of consistency and no clear indication of best practices. Counselor educators may need more direction in finding teaching methods that have been shown to help their students more adequately assess crisis and suicidal situations.

When looking for studies that contribute to evidence-based approaches in the classroom, only one study was found related to teaching suicide assessment and this study is over 20 years old. The study, conducted by Juhnke (1994), investigated the effects of a suicide risk assessment training with master's level counseling students and found the use of a structured suicide risk assessment that included a videotaped method of conducting clinical interviews, led to increased knowledge and confidence in suicide risk assessment. Although Juhnke's research supported method of teaching suicide assessment, it has not been replicated.

As noted in Barrio Minton and Pease Carter's (2011) content analysis, many programs use supervision sessions during student's field experiences to discuss the topic of suicide and how to conduct suicide assessments. Hoffman, Osborn, & West (2013) conducted a grounded theory investigation of counselors in training's experiences in supervision while working with suicidal clients. The participants in the study revealed that assisting suicidal clients helped them begin developing feelings of competence in working with high-risk clients. The participants also favored training early in their program that addressed suicidal issues in clients, including incorporating into the curriculum as well as offering opportunities for role-playing. The participants in this study did not feel suicide was addressed often and felt it was considered a taboo topic. The counselors in training also mentioned their fear of vicarious trauma. Nevertheless, the students also realized the high probability of encountering suicidal clients in their work and therefore understood it as a necessary part of their training. The authors concluded that counselors in training needed opportunities to develop confidence in their abilities to counsel suicidal clients.

The fear of working with a suicidal client was prevalent throughout the literature (Juhnke, Granello, & Granello, 2009; King, Foster, & Rogalski, 2013; Miller, McGlothlin, & West, 2013). Miller, McGlothlin, and West (2013) recognized that suicide produces anxiety in counseling students and developed a model to more effectively address the inherent fear that accompanies working with suicidal clients. Miller, McGlothlin and West (2013) highlighted teaching practices that may benefit counselors in training when learning about suicide risk assessment. The authors stressed forming positive relationships between counselor educators and trainees as a way to lessen anxiety and allow students to more openly express their feelings about areas in which they struggle. This open dialogue may also assist in building more opportunities for self-awareness and reflection on their abilities in conducting suicide assessments. The authors believe counselor educators need to be comfortable evaluating students' levels of experience and comfort with conducting suicide assessments. The authors incorporated various learning styles that may better meet the needs of students and essentially better prepare them to tackle difficult cases such as suicidal clients. These strategies may provide a much needed structure to teaching suicide assessment but studies need to be completed to support their value and provide evidence they work, especially with children and adolescents. It is unclear what methods are being used by counselor educators to prepare future school counselors to assess suicide in young people.

The school counseling literature is sparse when examining how practicing school counselors rate their preparation for crisis and suicide situations. One study by Allen et al. (2002) examined the preparation of school counselors for crisis intervention and found that approximately 64% of school counselors reported having some type of exposure to

crisis intervention during their graduate program. When focusing on high priority topics for school counselor education, suicide was listed as the number one topic. Allen and colleagues (2002) also reported that having a class devoted to crisis intervention would have been very important. The authors found that school counselors who graduated after 1995 reported more internship experiences than those who graduated prior to 1995. They also found that almost 70% reported experiences related to crisis intervention during field experiences compared to 38.7% of the graduates prior to 1995. These percentages show an increase in crisis preparation over time. As evidenced by the statistics, mental health issues and suicide rates have continued to rise for adolescents. It is important to understand if school counselors have continued to graduate feeling more prepared to handle students at risk for suicidal ideation. It is also important to recognize that if they are graduating feeling more prepared, what factors have contributed to this feeling and how can counselor educators replicate this across the country in their training programs.

According to Bandura's theory, if an individual has belief in their abilities, they are more likely to perform the behavior. Therefore, if a counselor has confidence in their ability to assess for suicide, they are more likely to conduct suicide assessments, will continue to do them over time, and in the face of unknown or emotional outcomes. This leads to the question, if a counselor has belief in their ability, what factors contributed to this belief? In the study mentioned previously by Neimeyer, Fortner, and Melby, the authors found that participants with higher suicide knowledge scores had a higher level of training and a greater experience with a higher number of suicidal clients counseled (2001). With the addition of CACREP's suicide assessment standards in 2009, are school counselors graduating with more skills and readiness to perform suicide risk

assessments? It is important to understand how to best prepare future school counselors so they are able to seek out and offer assistance to students.

Summary

A thorough review of the literature revealed no recent study (within the last 15 years) that examined the relationship between school counselors' ability to identify suicide risk factors and their level of self-efficacy in conducting suicide assessments. In addition, with CACREP's 2009 addition of the assessment of suicide risk for school counseling programs, it is important to consider if any change in knowledge or self-efficacy can be found in recent graduates.

CHAPTER III.

RESEARCH DESIGN AND METHODOLOGY

Introduction

The number of adolescent suicides completed each year continues to rise (International Association for Suicide Prevention, 2014). In addition, for every completed suicide, there are 100 to 200 attempts by children from this age group (International Association for Suicide Prevention, 2014). School counselors have been trained to assist students and identify warning signs when they are in distress. School counselors have an ethical obligation to meet the needs of their students and to keep them safe (ASCA, 2010). The purpose of chapter three is to introduce the methodology of the study, including the research design, participants and sample, instrumentation, data collection, and data analysis.

Although a majority of school counselors recognize their role in protecting students, research has shown most lack confidence in their abilities to conduct suicide risk assessments (King, Price, & Telljohann, 2000). School counselors are in an ideal position to be able to identify and provide assistance to teens struggling with depression or suicidal ideation. More research needs to be conducted in order to learn which factors may contribute to a school counselor's knowledge, ability, and willingness to carry out suicide risk assessments with their students (King, Price, Telljohann, & Wahl, 1999b). The purpose of this study is to examine the relationship between variables associated with counselor's knowledge of and self-efficacy in conducting suicide risk assessments. The purpose of this study was to examine the relationship between school counselors' perceived self-efficacy and their willingness to carry out suicide risk assessments.

Research Questions and Hypotheses

The following research questions guided this study:

1. Does a school counselor's knowledge in identifying students at risk for suicide affect their willingness to conduct suicide assessments?
2. Does a school counselor's self-efficacy in conducting a suicide risk assessment affect their willingness to carry out the assessment with a student?
3. Do school counselors who graduated from CACREP institutions after 2009 report increased knowledge in identifying suicidal students than those who graduated from non-CACREP institutions or from those who graduated before 2009?
4. Do school counselors who graduated from CACREP institutions after 2009 report higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009?
5. In which ways, if any, do the following counselor characteristic variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to suicide risk knowledge and self-efficacy in conducting suicide risk assessments?

The following hypotheses were developed from the guiding research questions:

1. School counselors who have more knowledge of suicidal risk factors are more likely to conduct suicide assessments.
2. School counselors who report higher self-efficacy in conducting suicide risk assessments are more likely to carry out the assessment.
3. School counselors who graduated from CACREP institutions after 2009 will have more knowledge in identifying students at risk for suicide.

4. School counselors who graduated from CACREP institutions after 2009 will have higher self-efficacy in conducting suicide assessments.
5. School counselors who have conducted higher numbers of suicide risk assessments and who have graduated from training programs with experiential learning opportunities will account for more of the variance in scores on the C-LEAD and SIRI-2.

Participants

Practicing high school counselors were the population of interest. Requests were sent to members of the American School Counseling Association (ASCA) and state level counseling associations. Approximately 6,746 emails were sent to high school counselors who were listed within the ASCA membership directory. Of these email addresses, approximately 1900 of the emails were undeliverable due to unknown or outdated email addresses. The Iowa School Counseling list-serve was also used to disseminate the study invitation. Approximately 250 school counselors are included in this list-serve, not all of whom are high school counselors. It is unknown how many of these emails were undeliverable. Lastly, the Wisconsin School Counseling list-serve was also used to disseminate the study invitation. There are approximately 1,246 individuals included in this list, not all of whom are practicing high school counselors. It is unknown how many of these emails were undeliverable. The use of associations and list-serves provided a convenience sample of high school counselors across the nation.

Participants included practicing high school counselors working with any students in 9th-12th grades. There were 250 participants who opened the survey. Of the 250 participants who opened the survey, 245 completed demographic questions, 229 completed the questionnaire through the C-LEAD instrument, and 200 completed the

entire questionnaire. A dropout rate of 26% could be attributed to the length and type of questions included in the SIRI-2. To make consistent comparisons for all three variables (demographic information, self-efficacy, and knowledge), only participants who completed the entire questionnaire were included in the study. Therefore a total of 200 participants were included in data analysis.

Tables 1 and 2 present a summary of demographic characteristics of the participants. Among the 200 participants, there was representation from 43 states and Washington DC. Additionally, there were 5 participants from international schools. The largest percentages came from Iowa (17%, $n=34$) and Wisconsin (8.5%, $n=17$). In addition, participants reported their school setting as rural (39%, $n = 78$), suburban (37.5%, $n = 75$), urban (20.5%, $n = 41$), and other (2.5%, $n = 5$). The participants' years of experience included 1-2 years (6%, $n = 12$), 3-5 years (16%, $n = 32$), 6-10 years (27%, $n = 53$), 11-15 years (23%, $n = 46$), 16-20 years (13%, $n = 26$), 21-25 years (7%, $n = 13$), 26-30 years (5%, $n = 10$), and more than 30 years (4%, $n = 8$).

Participants who reported having a school crisis response team were 82%, $n = 164$, and 16%, $n = 32$ who reported no with the remaining 2%, $n = 4$ who were unsure. Participants who reported being members of the crisis response team were 70%, $n = 139$, with 13%, $n = 27$ reporting no, and 17%, $n = 33$ not applicable.

Participants' year of graduation included: before 1994 (15%, $n = 30$), 1995-1999 (16.5%, $n = 33$), 2000-2004 (20.5%, $n = 41$), 2005-2008 (24.5%, $n = 49$), and 2009-2015 (23.5%, $n = 47$). In response to the question regarding graduate training, 64%, $n = 128$ graduated from a CACREP program, 22%, $n = 44$ did not graduate from a CACREP program, and 14%, $n = 28$ were unsure. Participants also reported on whether they had

training as mental health counselor or social worker, yes (34%, $n = 68$) and no (66%, $n = 132$). In response to questions about whether their graduate training include suicide risk assessment, yes (63%, $n = 125$), no (28%, $n = 57$), and unsure (9%, $n = 18$). In response to how suicide risk assessment was taught, lecture (37%, $n = 74$), experiential (2%, $n = 4$), and both experiential and lecture formats (61%, $n = 122$).

Table 1. *Participants by State, N=200*

State	Frequency	Percentage
Alabama	2	1%
Alaska	2	1%
Arizona	1	.5%
California	13	6.5%
Colorado	5	2.5%
Delaware	1	.5%
Florida	2	1%
Georgia	9	4.5%
Idaho	3	1.5%
Illinois	3	1.5%
Indiana	3	1.5%
Iowa	34	17%
Kansas	1	.5%
Louisiana	4	2%
Maine	2	1%
Maryland	5	2.5%
Massachusetts	1	.5%
Michigan	5	2.5%
Minnesota	9	4.5%
Mississippi	2	1%
Missouri	9	4.5%
Nebraska	2	1%
Nevada	4	2%
New Hampshire	1	.5%
New Jersey	4	2%
New Mexico	1	.5%
New York	2	1%
North Carolina	5	2.5%
North Dakota	2	1%
Ohio	4	2%
Oregon	5	2.5%
Pennsylvania	6	3%
Rhode Island	1	.5%
South Carolina	2	1%
South Dakota	1	.5%
Tennessee	3	1.5%
Texas	3	1.5%
Utah	6	3%
Vermont	1	.5%
Virginia	3	1.5%
Washington	4	2%
Wisconsin	17	8.5%
Wyoming	1	.5%
Washington D.C.	1	.5%
International Schools	5	2.5%

Table 2. *Demographic Characteristics of Participants, N=200*

Variable	Category	Frequency	Percentage
School Setting	Rural	78	39%
	Suburban	75	37.5%
	Urban	41	20.5%
	Other	5	2.5%
Years of Experience	1-2	12	6%
	3-5	32	16%
	6-10	53	26.5%
	11-15	46	23%
	16-20	26	13%
	21-25	13	6.5%
	26-30	10	5%
	30+	8	4%
Member of Crisis Response Team	Yes	139	69.5%
	No	27	13.5%
	NA	33	16.5%
Year of Graduation	Before 1994	30	15%
	1995-1999	33	16.5%
	2000-2004	41	20.5%
	2005-2008	49	24.5%
	2009-2015	47	23.5%
Graduated from CACREP	Yes	128	64%
	No	44	22%
	Unsure	28	14%
Graduate Training included Suicide Assessment	Yes	125	62.5%
	No	57	28.5%
	Unsure	18	9%
Type of Training	Lecture	74	37%
	Experiential	4	2%
	Both	122	61%

To calculate the sample size, the formula recommended by Kleinbaum, Kupper, Nizam, and Rosenberg (2014) for regression analyses has been used. Using a power level of .9, a medium effect size *Pop R²* of .15, and an α level of .01, the estimated sample size needed was 134 participants.

Procedures

Approval from the Institutional Review Board was sought before recruiting participants for the study. Once IRB approval was granted (see Appendix A), emails were distributed to ASCA members. A link on the ASCA website was also utilized. Contact was made with state level counseling organizations to ask for their permission to post a link to the study on their listserv. Two states (Iowa and Wisconsin) posted the invitation to their listservs. An email providing information and an invitation was sent to school counselors included in these organizations. In addition, a request for participants on ASCA's discussion board was posted, which included a separate research study page and is only accessible to members. It is unknown how many individuals received an invitation to participate since it was forwarded through some counseling organizations.

The University of Iowa's Qualtrics data collection tool was used to create and conduct the survey. Once participants followed the link to the study, additional information was provided as well as informed consent (see Appendix B). Potential risks were outlined for participants. After completing this page, participants completed demographic questions (see Appendix C). Next, they completed the SIRI-2 (Neimeyer & Bonnelle, 1997) and the C-LEAD (Hadley, Pittinsky, Sommer, & Zhu, 2011) instruments. Participation was voluntary and individuals could withdraw from the study at any time.

Participants had the opportunity to include their email address if they wanted to be entered into a drawing for one of ten \$20 Amazon gift cards.

Data Collection and Instrumentation

Participants completed an online survey which included demographic information, the SIRI-2 (Neimeyer & Bonnelle, 1997), and the C-LEAD (Hadley, Pittinsky, Sommer, & Zhu, 2011). Permission to use the SIRI-2 was secured from Dr. Neimeyer through an email (personal communication, February 28, 2015). In addition, permission to use the C-LEAD was also obtained through an email from Drs. Hadley and Pittinsky (personal communication, April 27, 2015).

Demographic Information

Participants completed a demographic questionnaire at the beginning of the study. The participants answered questions related to the number of years of experience, their state of residence, type of school setting, graduate training, current professional development, and experiences conducting suicide risk assessments. The demographic questions are included in Appendix C.

Suicide Intervention Response Inventory 2 (SIRI-2)-1994

SIRI-2 was created by Neimeyer and Bonnelle in 1997. The SIRI-2 is an instrument designed to measure mental health providers' knowledge of suicide risk (see Appendix D). The SIRI-2 was developed to help eliminate the ceiling effect that was found in the first version, the SIRI. It was also designed to be used with more advanced trainees. The current version uses a 7 point Likert scale to allow for a wider range of responses and scores (each item scored from "highly appropriate" to "highly

inappropriate” response). This assessment can be scored according to the number of correct responses and with a discrepancy score between the participants score and a mean rating selected by experts (Brown, n.d.).

To validate the SIRI-2, it was administered to Master’s level counseling students and psychology students. Neimeyer and Bonnelle (1997) reported internal reliability with coefficient alphas ranging from .90 to .93 as well as a test-retest score over a 2 week period ($r = .92$) (Brown, n.d.). Lower scores represent greater response skills on the SIRI-2 (less discrepancy from the expert criterion) and higher scores represent greater scores on the SIRI, therefore a negative correlation was expected. The SIRI and SIRI-2 were significantly and negatively correlated with each other ($r = .84$ to $.88$) (Neimeyer & Bonnelle, 1997). Average time to complete the SIRI-2 was between 15-25 minutes.

In a review of the literature, studies that examined the validation or use of the SIRI-2 within the last 10 years could not be located. Numerous studies could be found that utilize the SIRI-2 as an instrument within their study. The most current study found related to the development or validation of the SIRI-2, was from 1997, the year it was created. In doing a search for the use of SIRI-2, it was noted that it was being used in many gatekeeper trainings across the country. For example, Pasco, Wallack, Sartin, and Dayton (2012) utilized the SIRI-2 in a gatekeeper training conducted for resident advisors (R.A.’s) on a college campus. The authors assessed the type of suicide prevention programming they offered the R.A.’s to determine the best teaching modality. A cronbach’s alpha will be conducted from the data of the proposed study to help with the scale’s reliability.

Crisis Leader Efficacy in Assessing and Deciding (C-LEAD) Scale- 2011

The C-LEAD was created by Hadley, Pittinsky, Sommer, and Zhu (2011) and can be found in Appendix E. The C-LEAD was developed to assess the efficacy of individuals to perform critical behaviors during times of crisis despite the demands this type of high stress the situation might place upon them. The scale measure's the individual's ability to assess information and make decisions during crisis situations, specifically within the three areas of ambiguity, high stakes, and urgency.

The C-LEAD was developed after thorough literature reviews in the areas of organizational behavior, organizational psychology, psychology, government, and public health (Hadley, Pittinsky, Sommer, & Zhu, 2011). Hadley and colleagues (2011) considered Bandura's definition of self-efficacy when creating their instrument. It was refined from analyses of interviews with 50 leaders of public health and safety crisis situations. This measure yields an overall score range from one to 63 as well as sub-test scores on Ambiguity, High Stakes, and Urgency. The Ambiguity subscale score ranges from four to 28, High Stakes subscale score from three to 21, and Urgency subscale score from two to 14. Test-retest reliability was conducted for this measure. The first survey was administered to 300 managers with an average of 42 years of experience and a second survey was administered to this same group 10 days later. The authors found the C-LEAD was positively correlated with Leadership Self-Efficacy (LSE; $r = .54$) and with procedural preparedness ($r = .43$). It was not significantly correlated with the Social Desirability Scale.

A factor analysis was conducted with all of the items on the scale. The results showed all items loaded strongly on their intended subscales at .50 or above and did not

load above .40 on other factors. The three subscales demonstrated strong internal consistency (Ambiguity, $\alpha = .8$; High stakes, $\alpha = .73$, and Urgency, $\alpha = .67$). A confirmatory factor analysis was also conducted. This showed the three-factor model fit the data well with all major test statistics at or above recommended standards. Inter-correlations among subscales showed a slight overlap in both study populations with average inter-correlation in study 2 of .46 and in study 3, an inter-correlation of .45. Discriminant validity was also examined for the C-LEAD. The authors reported preliminary differences between their measure of crisis leader efficacy and general leader efficacy. In both studies 1 and 2, scores on C-LEAD and the Leader Self-Efficacy scale overlapped by approximately 50%. This supports their hypothesis that crisis leader efficacy is related to, but not the same as general leadership self-efficacy. Reliability coefficients (α) ranged from .60 to .97 (all but one being .84 or higher).

The C-LEAD consists of 9 statements that participants rate on a Likert scale from 1 to 7, (one-strongly disagree to seven-strongly agree). The participants' scores are derived by adding the score from each item and taking the mean to create a total score (total scores range from 9 to 63).

The C-LEAD authors created a user guide and provide a thorough description of its development and its psychometric properties. It is also the only self-efficacy measurement specifically related to crisis intervention.

Data Analysis

This non-experimental cross-sectional study utilized descriptive statistics, correlational matrices, ANOVAs, and a multiple regression analysis to test the hypotheses and answer the research questions.

Preliminary Data Analysis

Cronbach's alpha coefficients for the SIRI-2 and the C-LEAD instruments were calculated to check for reliability. In addition, skewedness and kurtosis for two variables (SIRI-2 and number of assessments conducted per month) were explored to examine whether those variables had substantial deviation from normality. Correlations between continuous variables determined potential controlling variables used in the analyses.

Main Study Analysis

To answer research question 1: Does a school counselor's knowledge in identifying students at risk for suicide make a difference in their willingness to conduct suicide assessments, a multiple regression analysis was used. The regression analysis is a multivariable technique concerned with the relationship between a set of variables (Kleinbaum, Kupper, Nizam, & Rosenberg, 2014). It should be used when the research questions are theoretically based (such as the effect of Bandura's social learning theory) and when the degree to which predictor variables (score on SIRI-2) entered after independent variables, can account for more of the variance in the model (Petrocelli, 2003). The question was answered using a hierarchical regression analysis with the number of suicide assessments conducted as the dependent variable. The other independent variables included: years of experience, type of graduate training, professional development, and membership in a crisis response team. These were controlled for in this analysis. These were entered before the predictor variable (score on SIRI-2).

In order to examine whether a school counselor's self-efficacy in conducting a suicide risk assessment made a difference in their willingness to carry out the assessment

with a student, a hierarchical regression analysis was used. The participants' willingness was measured through the number of assessments conducted. The number of suicide assessments conducted by the participant served as the dependent variable. The other independent variables included: years of experience, type of graduate training, professional development, and membership in a crisis response team. These variables were all conceptualized as experience and were controlled for in this analysis. These were entered before the predictor variable (score on C-LEAD).

For research question 3: Do school counselors who graduated from CACREP institutions after 2009 report increased knowledge in identifying suicidal students than those who graduated from non-CACREP institutions or from those who graduated before 2009, ANOVAS were conducted as provided information about differences between groups (Field, 2009). The three groups compared in this question included: those who graduated from CACREP institutions after 2009, those who graduated from CACREP institutions before 2009, and those who graduated from non-CACREP institutions. The third hypothesis, school counselors who graduated from CACREP institutions after 2009 will have more knowledge in identifying students at risk for suicide, was tested by comparing their SIRI-2 scores and their answers related to their training program to those participants from non-CACREP institutions and/or graduates before 2009.

To answer research question 4: Do school counselors who graduated from CACREP institutions after 2009 report higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009, ANOVAs were conducted. ANOVAs will provide information about any differences between the groups (Field, 2009). The three groups compared in

this question included: those who graduated from CACREP institutions after 2009, those who graduated from CACREP institutions before 2009, and those who graduated from non-CACREP institutions. The fourth hypothesis, school counselors who graduated from CACREP institutions after 2009 will have higher self-efficacy in conducting suicide assessments, was tested by examining their scores on the C-LEAD related to the training program when compared to other groups of participants, non-CACREP and/or graduates before 2009.

For research question 5: In which ways, if any, do the following variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to suicide risk knowledge and self-efficacy in conducting suicide risk assessments, two hierarchical regression analyses were used. This question was divided into two regression analyses due to the necessity of using two different dependent variables to measure suicide knowledge and self-efficacy. Therefore, they were labeled research question 5a. and 5b. The first regression analysis examined the suicide risk knowledge and the second analysis examined the suicide risk self-efficacy. Based on past research, demographic variables were loaded first in order of importance in predicting the outcome (Field, 2009; Tang et al., 2004; Juhnke, 1994; & Hoffman, Osborn, & West, 2013). To help determine the relationship between school counselors' self-efficacy scores, number of suicide assessments conducted, and training programs, a hierarchical regression analysis was used. School counselors' scores on the self-efficacy and the suicide knowledge instruments served as dependent variables and demographic information such as years of experience, type of training program, and number of suicide assessments conducted, as

independent variables. A hierarchical regression analysis allowed for variables to be added in blocks and to examine the effects of each variable while controlling for other variables (Kleinbaum, Kupper, Nizam, & Rosenberg, 2014). The use of a hierarchical regression analysis allowed the researcher to describe the extent, direction, and strength of the relationship between the independent and dependent variables used in this study (Kleinbaum, Kupper, Nizam, & Rosenberg, 2014). SPSS software was used to perform the hierarchical regression analysis. The SPSS program provided beta weights which were then used in a regression equation to determine the predictive strength of each variable (Kleinbaum, Kupper, Nizam, & Rosenberg, 2014). The researcher was able to examine the relationship between their scores on the two instruments (C-LEAD and SIRI-2) while controlling for different variables (for example, type of training program). Correlational matrices provided information about any correlation that existed between the variables.

There is lack of previous research to help with the design of this study, therefore it was important to select variables based on their substantive importance (Field, 2009). One significant result from King, Price, Telljohann, and Wahl's (1999) study was the participants who scored higher on the self-efficacy expectations had been part of a school with a crisis intervention team. Therefore, a school counselor's membership on this team may prove to be a predictor of self-efficacy and/or knowledge of suicide risk. It was also important to consider the addition of CACREP's suicide risk assessment to training programs in 2009 and any potential impact this could have had on more recent graduates' knowledge and/or efficacy. In addition to the type of institution, the type of training program students' encounter could relate to their self-efficacy and/or knowledge. In a

study by Juhnke (1994), students who participated in an experiential setting where they were able to watch and assess clients through videotapes, performed better on a suicide knowledge assessment than their peers who did not receive the same type of instruction. Hoffman, Osborn, and West (2013) found similar findings in their study as participants requested additional opportunities to learn about conducting suicide assessments through methods such as role-playing. The use of experiential learning versus a reliance on solely didactic methods may relate to school counselors self-efficacy and/or knowledge of suicide. Years of experience and number of suicide risk assessments conducted could also impact a school counselor's feelings of self-efficacy and/or the knowledge of risk factors (Larson & Daniels, 1998).

Previous studies that examined the relationship between variables such as type of training program, years of experience, suicide risk knowledge, member of crisis response team and years since graduation can impact a high school counselor's self-efficacy regarding conducting suicide risk assessments were difficult to find. While the use of ANOVAS would allow for a demonstration of differences between groups, a correlational research design allows for the analysis of the relationships among these variables. A related study conducted by Neimeyer, Fortner, and Melby (2001) used a correlational design to examine the relationship of professional and personal factors of counselors' abilities to respond appropriately to suicidal verbalizations. The authors used a stepwise regression analysis to determine impact of professional variables on responses to suicidal verbalizations. They then entered personal variables to determine their contribution of the variance beyond the effects of training. Because the purpose of this study was to build an explanatory model, stepwise regression would not be the best fit,

but ANOVAs, correlation matrices, and a hierarchical model based on theoretical importance of the variables may provide helpful information (Field, 2009).

CHAPTER IV.

RESULTS

Chapter 4 presents the findings for the research questions. The chapter includes results of the data analysis in seven sections: (a) data cleaning (b) reliability of the measures; (c) descriptive analysis; (d) the results for Research Question 1; (e) the results for Research Question 2 (f) the results for Research Question 3 and 4; (g) the results for Research Question 5; and (h) analysis of the qualitative remarks. The analyses included: hierarchical regression analyses, ANOVAs, and a qualitative analysis. An alpha level of .05 was chosen for the study. The researcher utilized SPSS version 23 to analyze the data.

Data Cleaning

Before performing the specified statistical analysis listed for the research questions, a number of procedures were performed. The initial data set included 250 participants. Six individuals did not identify as a practicing school counselor and were therefore excluded. Individuals who did not complete both the SIRI-2 and the C-LEAD instruments were also excluded. A total of 50 individuals were not included in the study based on these parameters, resulting in a final sample size of 200.

For experiences asking about experience and training, “not applicable” and “unsure” were combined with “no” responses. To create the SIRI-2 total score, each participants’ answer was compared to the “expert’s” scores as provided by the authors of the SIRI-2 and a difference computed. A new transformed score for the SIRI-2 was then

calculated and included as a new variable. To create the C-LEAD total score, responses to the 9 questions were added together and a new variable created with the total score.

Reliability of the Measures

Cronbach's Alpha coefficients were used to examine the reliability of the two scales used in this study. Reliability coefficients over .7 are generally regarded as an acceptable level in social science research (UCLA, 2016). The original internal consistency reported for the Suicide Intervention Response Inventory-2 ranged from .90 to .93 (Neimeyer & Bonnelle, 1997). The internal consistency estimate of the SIRI-2 was .85 in this study. Though this is slightly lower than in the original study, it is still in the acceptable range.

For the Crisis Leader Efficacy in Assessing and Deciding Scale (C-LEAD), the original reliability coefficients (α) ranged from .60 to .97, with all but one being .84 or higher (Hadley, Pittinsky, Sommer, & Zhu, 2011). The internal consistency estimate of the CLEAD was .87 for this study.

Descriptive Analysis

Participant responses associated with the different variables related to training, current practices, and the number of suicides completed in their respective schools can be found in Table 3. The majority of participants (50.5%), at the time of the study were conducting 1 to 2 suicide assessments per month, with another 16.5% conducting 3 to 6 per month. In other words, approximately two-thirds of respondents are conducting multiple suicide risk assessments per month. In addition, approximately three-fourths of participants (72%) were actively seeking out professional development related to suicide training. Table 3 provides additional counselor characteristics related to demographic

responses of current or professional practices. In response to whether their school district provides training, 124 (62%) school counselors responded yes, 66 (33%) school counselors responded no, and 10 (5%) reported being unsure. 100 (50%) school counselors responded that they had received training within the past year and 100 (50%) school counselors reported that they had not received training. 58 (29%) school counselors reported conducting an average of zero risk assessments per month, 101 (50.5%) school counselors reported conducting an average of 1-2 assessments per month, 33 (16.5%) school counselors reported conducting an average of 3-6 assessments, 4 (2%) school counselors reported conducting an average of 7-10 assessments per month and 10 (2%) school counselors reported conducting an average of more than 10 assessments per month. Six (3%) school counselors reported performing no suicide risk assessments over their career, 60 (30%) school counselors reported performing 1-10 assessments over their career, 48 (24%) school counselors reported performing 11-30 assessments over their career, 36 (18%) school counselors reported performing 31-50 assessments over their career and 50 (25%) school counselors reported performing more than 50 suicide risk assessments over their career.

Table 3. *Counselor Characteristics Related to Suicide Risk Assessments*

Variable	Category	Frequency	Percentage
School District provides training	Yes	124	62
	No	66	33
	Unsure	10	5
Seeks out suicide training	Yes	144	72
	No	56	28
Average risk assessments per month	None	58	29
	1-2	101	50.5
	3-6	33	16.5
	7-10	4	2
	10+	4	2
Risk assessments performed over career	None	6	3
	1-10	60	30
	11-30	48	24
	31-50	36	18
	50+	50	25
Completed suicides over previous 3 years	None	132	66
	1-3	58	29
	4+	10	5

When examining participants' ratings of suicide assessment related characteristics, 93% agreed or strongly agreed that administrative support was important when conducting suicide risk assessments (see Table 4). In addition, 95% of participants agreed or strongly agreed it was their role to assess for suicidal risk. Lastly, the majority (94.5%) agreed or strongly agreed in a willingness to assess for suicide. When examining training, participants ratings were generally lower. Approximately half of respondents (50.5%) agreed or strongly agreed that their training prepared them to assess suicidal students and 59% of participants believed their training prepared them to identify students at risk for suicide.

Table 4. *Participant Ratings of Suicide Assessment Related Characteristics (%ages)*

	Strongly Disagree	Disagree	Agree	Strongly Agree
Administrative Support for Conducting Suicide Assessments (M=3.52; SD=.72)	3	4	31.5	61.5
I Believe it's My Role to Assess for Suicidal Risk (M=3.70; SD=.59)	1	4	19	76
My Willingness to Assess for Suicide (M=3.70; SD=.64)	2	3.5	17.5	77
Comfort Assessing (M=3.27; SD=.84)	6	7	41	46
Comfort Identifying (M=3.65; SD=.74)	4	4	43.5	48.5
Graduate Training Assessing (M=2.49; SD=.99)	19.5	30	33	17.5
Graduate Training Identifying (M=2.64; SD=.97)	15.5	24.5	38	21

Scores on the C-LEAD revealed a range from 21 to 63 with a mean of 50.44 and a Standard Deviation of 6.997. Scores on the SIRI-2 revealed a range for 24.38 to 99.72 with a mean of 50.513 and a Standard Deviation of 12.685 (see Table 5).

Table 5. *C-LEAD and SIRI-2 Scores*

	N	Minimum	Maximum	Mean	Std. Deviation
C-LEAD	200	21.00	63.00	50.440	6.997
SIRI-2	200	24.38	99.72	50.513	12.685

Bi-variate correlation coefficients among the continuous variables were calculated in order to determine potential controlling variables utilized in the hierarchical regression analyses. As presented in Table 6, the Pearson product-moment coefficients were

calculated among all of the continuous variables used in the study. The effect size was interpreted based on Cohen's (1988) convention; .10 can be considered a small effect, .30 as a moderate effect and .50 as a large effect.

Table 6. *Correlations among the Continuous Variables*

Variables	1	2	3	4	5	6
1. Years of experience	-					
2. Assessments conducted per month	-.071	-				
3. Assessments conducted over career	.280***	.630***	-			
4. Administrative support for conducting assessments	.053	.100	.114	-		
5. View of counselor's role in conducting assessments	-.015	.299***	.325***	.176*	-	
6. Willingness to conduct assessments	.031	.316***	.369***	.192**	.703***	-

* $p < .05$, ** $p < .01$, *** $p < .001$

The findings revealed a positive and significant correlation between the number of assessments conducted over career and years of experience ($r = .280, p < .001$) and between assessments conducted over career and assessments conducted per month ($r = .630, p < .001$). The view of counselor's role was positively and significantly correlated with assessments conducted per month ($r = .299, p < .001$), assessments conducted over career ($r = .325, p < .001$), and administrative support ($r = .176, p < .05$). Lastly, willingness to conduct assessments was positively and significantly correlated with assessments conducted per month ($r = .316, p < .001$), assessments conducted over career ($r = .369, p < .001$), administrative support ($r = .192, p < .01$), and view of counselor's role ($r = .703, p < .001$).

Main Analysis

Regression Diagnostic Analysis

Skewedness and kurtosis for the variables in each research question were explored to examine whether those variables had substantial deviation from normality. Homoscedacity and independence of residuals assumptions were analyzed through the use of scatter plots and visual analyses. Normal probability plots were also created for each regression analysis in order to check the normality of error assumption. The visual inspection showed all of the regression analyses met the normality of error assumption. Lastly, collinearity diagnostics were also conducted for each regression analysis and inspected for issues of tolerance and high variance inflation factors (IVF). There were no issues with collinearity found in the study.

Analysis for Research Question 1

In order to answer the question: 1. Does a school counselor's knowledge in identifying students at risk for suicide affect their willingness to conduct suicide assessments, two hierarchical regressions were used. First, to conceptualize "knowledge", scores from the SIRI-2 were used as the variable of interest. Then in order to identify other potential contributing factors, other counselor demographics were included. Because there was not much previous research to help determine the order of entry for the variables, they were entered into the regression analysis based on the researcher's hypothesis of potential controlling effects and those with the highest prediction. In the first regression analysis, years of experience was entered into the first block, CACREP designation entered into the second block, membership on a crisis team entered in the third block, and the SIRI-2 score entered into the last block. The number of suicide

assessments conducted on average per month was used as the dependent variable. The results of this analysis indicate the years of experience, CACREP, membership on crisis team, and scores from the SIRI-2 variables were not significant predictors of conducting suicide assessments ($p = .245$). However, there was a significant correlation between CACREP and the number of assessments conducted per month ($r = .118, p = .048$) as well as between CACREP and membership on a crisis team ($r = .143, p = .022$), indicating some type of relationship exists between these variables (see Table 7).

Table 7. *Relation Between Suicide Knowledge and Suicide Assessments Conducted per Month*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.072 ^a	0.005	0.000	0.847	0.005	1.027	1	197	0.312
2	0.126 ^b	0.016	0.006	0.844	0.011	2.144	1	196	0.145
3	0.160 ^c	0.026	0.011	0.842	0.010	1.955	1	195	0.164
4	0.166 ^d	0.028	0.007	0.843	0.002	0.356	1	194	0.552

^aPredictors: (Constant), Yrsexp

^bPredictors: (Constant), Yrsexp, CACREP

^cPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam, SIRI-2

Dependent Variable: permonth

Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	0.736	1	0.736	1.027	.312 ^b
	Residual	141.183	197	0.717		
	Total	141.920	198			
2	Regression	2.264	2	1.132	1.589	.207 ^c
	Residual	139.656	196	0.713		
	Total	141.920	198			
3	Regression	3.650	3	1.217	1.716	.165 ^d
	Residual	138.270	195	0.709		
	Total	141.920	198			
4	Regression	3.903	4	0.976	1.372	.245 ^e
	Residual	138.017	194	0.711		
	Total	141.920	198			

^bPredictors: (Constant), Yrsexp

^cPredictors: (Constant), Yrsexp, CACREP

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^ePredictors: (Constant), Yrsexp, CACREP, Memberofteam, SIRI-2

Dependent Variable: permonth

To examine any potential differences using a slightly different marker for ‘willingness’, the number of suicide assessments conducted over their career instead of per month was used in an additional analysis. This analysis utilized the same independent variables entered in the same order as the first analysis, but with the number of suicide assessments conducted over their career used as the dependent variable. When looking at the R^2 statistic for each of the variables, the results show that years of experience

accounted for 7.3% of the variance while the remaining variables: CACREP ($\Delta R^2 = .014$), member of a crisis team ($\Delta R^2 = .000$), and scores on the SIRI-2 ($\Delta R^2 = .002$) only accounted for an additional 1-2% of the variance. None of these variables were significant predictors in this model (see Table 8).

Table 8. *Relation Between Suicide Knowledge and Suicide Assessments Conducted per Career*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.271 ^a	0.073	0.069	1.185	0.073	15.584	1	197	0.000
2	0.295 ^b	0.087	0.078	1.180	0.014	2.920	1	196	0.089
3	0.295 ^c	0.087	0.073	1.183	0.000	0.035	1	195	0.852
4	0.299 ^d	0.090	0.071	1.184	0.002	0.003	1	194	0.459

^aPredictors: (Constant), Yrsexp

^bPredictors: (Constant), Yrsexp, CACREP

^cPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam, SIRI-2

Dependent Variable: overcareer

Analysis for Research Question 2

In order to answer the question: Does a school counselor's self-efficacy in conducting a suicide risk assessment affect their willingness to carry out the assessment with a student, two hierarchical regressions were used. The analyses conducted for these research questions parallel those conducted for Research Question 1. The difference being the primary explanatory variable of interest in Research Question 2, the school counselor's self-efficacy, as measured by their score on the C-LEAD instrument. In the first regression analysis, years of experience was entered into the first block, CACREP designation entered into the second block, membership on a crisis team entered in the third block, and the C-LEAD score entered into the last block. The number of suicide assessments conducted on average per month was used as the dependent variable. The

results of this analysis indicate the years of experience, CACREP, and membership on crisis team variables were not significant predictors of conducting suicide assessments ($p = .165$). In addition, the R^2 change shows these variables accounted for less than 3% of the variance in the model (see Table 9). C-LEAD scores were entered into the final model and were predictive of the number of suicide assessments completed on average per month ($\Delta R^2 = .052$, F change (11.030) = 4.110, $p < .01$).

Table 9. *Relation Between Self-Efficacy and Suicide Assessments Conducted per Month*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.072 ^a	0.005	0.000	0.847	0.005	1.027	1	197	0.312
2	0.126 ^b	0.016	0.006	0.844	0.011	2.144	1	196	0.145
3	0.160 ^c	0.026	0.011	0.842	0.010	1.955	1	195	0.164
4	0.280 ^d	0.078	0.078	0.059	0.052	11.030	1	194	0.001

^aPredictors: (Constant), Yrsexp

^bPredictors: (Constant), Yrsexp, CACREP

^cPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam, C-LEAD

Dependent Variable: permonth

Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	0.736	1	0.736	1.027	.312 ^b
	Residual	141.183	197	0.717		
	Total	141.920	198			
2	Regression	2.264	2	1.132	1.589	.207 ^c
	Residual	139.656	196	0.713		
	Total	141.920	198			
3	Regression	3.650	3	1.217	1.716	.165 ^d
	Residual	138.270	195	0.709		
	Total	141.920	198			
4	Regression	11.088	4	2.772	4.110	.003 ^{e**}
	Residual	130.831	194	0.674		
	Total	141.920	198			

^bPredictors: (Constant), Yrsexp

^cPredictors: (Constant), Yrsexp, CACREP

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^ePredictors: (Constant), Yrsexp, CACREP, Memberofteam, C-LEAD

Dependent Variable: permonth

* $p < .05$, ** $p < .01$

To examine any potential differences using a slightly different marker for ‘willingness’, the number of suicide assessments conducted over their career was used. The second regression analysis completed to answer research question 2 utilized the same independent variables as the first analysis but with the number of suicide assessments conducted over their career used as the dependent variable. When looking at the R^2 statistic for each of the variables, the results show that years of experience accounted for 7.3% of the variance. When adding CACREP and member of a crisis team, only 1-2% of the variance could be accounted for with these variables. When looking at the contribution of the C-LEAD scores, 5.2% of the variance ($\Delta R^2 = .052$, F change (11.617) could be accounted for in this model (see Table 10).

Table 10. *Relation Between Self-Efficacy and Suicide Assessments Conducted per Career*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.271 ^a	0.073	0.069	1.185	0.073	15.584	1	197	0.000
2	0.295 ^b	0.087	0.078	1.180	0.014	2.920	1	196	0.089
3	0.295 ^c	0.087	0.073	1.183	0.000	0.035	1	195	0.852
4	0.372 ^d	0.139	0.121	1.152	0.052	11.617	1	194	0.001

^aPredictors: (Constant), Yrsexp

^bPredictors: (Constant), Yrsexp, CACREP

^cPredictors: (Constant), Yrsexp, CACREP, Memberofteam

^dPredictors: (Constant), Yrsexp, CACREP, Memberofteam, C-LEAD

Dependent Variable: overcareer

Analysis for Research Question 3

In order to answer the question: Do school counselors who graduated from CACREP institutions after 2009 report increased knowledge in identifying suicidal students than those who graduated from non-CACREP institutions or from those who graduated before 2009, a one-way ANOVA was used. The researcher examined the differences between participants who: graduated from a CACREP accredited counseling

program before 2009, graduated from a CACREP accredited counseling program after 2009, and those who graduated from a non-CACREP accredited counseling program (see Table 11). Scores on the SIRI-2 were used as the dependent variable.

Results did not indicate accreditation of program or time of graduation had a significant relationship to scores on the SIRI-2 ($F = .694, p = .501$; see Table 12). Group 1 represents participants who graduated from a CACREP program after 2009, group 2 represents participants who graduated from a CACREP program before 2009, and group 3 represents those who did not graduate from a CACREP program. As noted earlier, lower scores on the SIRI-2 signify better performance. Scores are determined according to a discrepancy score between the participants score and a mean rating selected by experts.

Table 11. *Mean Differences of Three Groups on the SIRI-2*

Group	N	Mean
2 (CACREP before 2009)	91	49.3664
1 (CACREP after 2009)	36	51.1778
3 (non-CACREP)	73	51.6148

Table 12. *Univariate Test for the Mean Differences of the SIRI-2 among the Three Groups*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	224.170	2	112.085	.694	.501
Within Groups	31797.771	197	161.410		
Total	32021.941	199			

Analysis for Research Question 4

In order to answer the question: Do school counselors who graduated from CACREP institutions after 2009 report higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009, a one-way ANOVA was used. The researcher examined the difference between participants who: attended a CACREP accredited counseling program before 2009, attended a CACREP accredited counseling program after 2009, and those who attended a non-CACREP accredited counseling program (see Table 13). Scores on the C-LEAD were used as the dependent variable.

Results did not indicate accreditation of program or time of graduation had a significant relationship to scores on the C-LEAD ($F = 1.025, p = .361$; see Table 14). Group 1 represents participants who graduated from a CACREP program after 2009, Group 2 represents participants who graduated from a CACREP program before 2009, and Group 3 represents those who did not graduate from a CACREP program.

Table 13. *Mean Differences of the Three Groups on the C-LEAD*

Group	N	Mean
1 (CACREP after 2009)	36	51.4722
2 (CACREP before 2009)	91	50.7253
3 (non-CACREP)	73	49.5753

Table 14. *Univariate Test for the Mean Differences of the C-LEAD among the Three Groups*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	100.340	2	50.170	1.025	.361
Within Groups	9642.940	197	48.949		
Total	9743.280	199			

Analysis for Research Question 5a

There were significant positive correlations among different variables used in Research Question 5. For example, participants' comfort in assessing suicidal students was significantly correlated with: CACREP ($r = .182, p = .005$), number of assessments conducted per month ($r = .328, p = .000$) and number of assessments conducted over career ($r = .339, p = .000$). In addition, the participant's comfort in identifying suicidal students was significantly correlated with the number of assessments conducted per month ($r = .316, p = .000$) and the number conducted over their career ($r = .288, p = .000$).

In order to answer the question: In which ways, if any, do the following counselor characteristic variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to suicide risk knowledge and self-efficacy in conducting suicide risk assessments, two hierarchical regression analyses were used. For the first regression analysis, CACREP was entered into the first block, years of experience into the second block, both the number of suicide assessments conducted per month and over career were entered into the third block, membership on a crisis team in the fourth block, willingness to conduct suicide assessments in the fifth block, and both comfort identifying and comfort assessing students at risk for suicide were entered in the sixth block. The score from the SIRI-2 was used to conceptualize 'suicide knowledge' and was the dependent variable used in this analysis. Results did not show any of these variables were significant predictors of scores on the SIRI-2 ($F = .646, p = .739$; see Table 15).

Table 15. *Relation Between Counselor Characteristics and Suicide Knowledge*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.066 ^a	0.004	-0.001	12.72158	0.005	0.004	1	197	0.355
2	0.074 ^b	0.005	-0.005	12.74717	0.001	0.210	1	196	0.648
3	0.142 ^c	0.020	0.000	12.71701	0.015	1.466	2	194	0.234
4	0.143 ^d	0.021	-0.005	12.74795	0.000	0.059	1	193	0.808
5	0.143 ^e	0.021	-0.010	12.78067	0.000	0.013	1	192	0.910
6	0.163 ^f	0.026	-0.015	12.80915	0.006	0.574	2	190	0.564

^aPredictors: (Constant), CACREP

^bPredictors: (Constant), CACREP, Yrsexp

^cPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer

^dPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam

^ePredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing

^fPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing, comfortidentify, comfortasses

Dependent Variable: SIRI-2

Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	139.365	1	139.365	.861	.355 ^b
	Residual	31882.181	197	161.838		
	Total	32021.546	198			
2	Regression	173.420	2	86.710	.534	.587 ^c
	Residual	31848.126	196	162.490		
	Total	32021.546	198			
3	Regression	647.433	4	161.858	1.001	.408 ^d
	Residual	31374.113	194	161.722		
	Total	32021.546	198			
4	Regression	657.073	5	131.415	.809	.545 ^e
	Residual	31364.473	193	162.510		
	Total	32021.546	198			
5	Regression	659.182	6	109.864	.673	.672 ^f
	Residual	31362.365	192	163.346		
	Total	32021.546	198			
6	Regression	847.439	8	105.930	.646	.739 ^g
	Residual	31174.107	190	164.074		
	Total	32021.546	198			

^bPredictors: (Constant), CACREP

^cPredictors: (Constant), CACREP, Yrsexp

^dPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer

^ePredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam

^fPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing

^gPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing, comfortidentify, comfortasses

Dependent Variable: SIRI-2

Analysis for Research Question 5b

In order to answer the question: In which ways, if any, do the following counselor characteristic variables: type of graduate training and institution, years of experience, number of suicide assessments conducted, and participation in crisis response team, contribute to self-efficacy in conducting suicide risk assessments, a final regression analysis were used. For this analysis, CACREP was entered into the first block, years of experience into the second block, both the number of suicide assessments conducted per month and over career were entered into the third block, membership on a crisis team in the fourth block, willingness to conduct suicide assessments in the fifth block, and both comfort identifying and comfort assessing students at risk for suicide were entered in the sixth block. The score from the C-LEAD was the dependent variable used in this analysis. Results did not show CACREP or years of experience as significant predictors of scores on the C-LEAD ($F = 1.056, p = .350$; see Table 16). But, the number of suicide assessments conducted per month and over career were predictive of C-LEAD scores, ($F = 4.149, p = .003$). In addition, membership on a crisis team, willingness to conduct suicide assessments and both comfort identifying and comfort assessing students at risk for suicide were found to be significant predictors of the C-LEAD score ($F = 4.792, p = .000$).

Table 16. *Relation Between Counselor Characteristics and Self-Efficacy in Conducting Suicide Assessments*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.097 ^a	0.009	0.004	6.99726	0.009	1.864	1	197	0.174
2	0.103 ^b	0.011	0.001	7.01054	0.001	0.255	1	196	0.614
3	0.281 ^c	0.079	0.060	6.79956	0.068	7.176	2	194	0.001
4	0.311 ^d	0.097	0.074	6.74938	0.018	3.895	1	193	0.050
5	0.319 ^e	0.102	0.074	6.74961	0.005	0.987	1	192	0.322
6	0.410 ^f	0.168	0.133	6.53003	0.066	7.565	2	190	0.001

^aPredictors: (Constant), CACREP

^bPredictors: (Constant), CACREP, Yrsexp

^cPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer

^dPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam

^ePredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing

^fPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing, comfortidentify, comfortasses

Dependent Variable: C-LEAD

Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	91.253	1	91.253	1.864	.174 ^b
	Residual	9645.441	197	48.962		
	Total	9736.693	198			
2	Regression	103.762	2	51.881	1.056	.350 ^c
	Residual	9632.931	196	49.148		
	Total	9736.693	198			
3	Regression	767.289	4	191.822	4.149	.003 ^{d**}
	Residual	8969.405	194	46.234		
	Total	9736.693	198			
4	Regression	944.733	5	188.947	4.148	.001 ^{e***}
	Residual	8791.960	193	162.510		
	Total	9736.693	198			
5	Regression	989.695	6	164.949	3.621	.002 ^{f**}
	Residual	8746.998	192	45.557		
	Total	9736.693	198			
6	Regression	1634.837	8	204.355	4.792	.000 ^{g***}
	Residual	8101.856	190	42.641		
	Total	9736.693	198			

^bPredictors: (Constant), CACREP

^cPredictors: (Constant), CACREP, Yrsexp

^dPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer

^ePredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam

^fPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing

^gPredictors: (Constant), CACREP, Yrsexp, permonth, overcareer, memberofteam, willing, comfortidentify, comfortasses

Dependent Variable: C-LEAD

* $p < .05$, ** $p < .01$, *** $p < .001$

Analysis of Qualitative Remarks

The study included a final question that allowed for participants to respond to the following open-ended question, “In your own words, can you think of any factors that would keep you from conducting a suicide risk assessment with a student?” Asking this type of question allowed for participants to include other thoughts or comments they wished to convey to the researcher regarding their thoughts on potential barriers to conducting suicide risk assessments.

There were 138 responses coded utilizing an open coding format. Common words were identified and underlined and divided into large categories such as counselor characteristics, outside forces, or student characteristics. These responses were divided into 13 separate categories. The majority of the responses (60) were identified as some version of “nothing would keep me from conducting the assessment” type of answer. The remaining 78 responses indicated there might be some type of reason they would not carry out a risk assessment (see Table 17) . Of the remaining categories, the one with the highest response was labeled as ‘referrals’, indicating the school counselor would rather refer the student to an outside agency for the suicide risk assessment. There were 14 responses in this category. The second highest category was related to ‘permission from administrators or district policy restricting the use of suicide risk assessments’, with a total of 12 responses related to this obstacle. The third highest category, with 11 responses, was related to concerns about the participants’ training in being able to competently conduct the risk assessment.

The next highest category, with five responses, was related to dual relationships and how these might keep a school counselor from conducting a risk assessment. There

were many categories with four responses, these included: a potential language barrier, parents' denial of access to the student, and student reluctance to come forward. Three areas reported that each had 3 responses included: worry of counselor's own safety, high caseloads, and students that are looking for attention, all of which were listed as factors that would keep a school counselor from conducting a suicide risk assessment. Two participants felt it was outside their scope of practice. Two other participants mentioned a lack of community resources and cultural factors as obstacles. Related to the idea of the difficulty in assessing for suicide, 11 participants commented on issues such as being told at the end of the day or through an email, friends not reporting, knowing the parents will not follow through with referrals, the sensitive nature of the topic, feeling ill, their own fear, and a lack of comfort and liability issues, as factors that would keep a school counselor from assessing.

Table 17. *Qualitative Responses for Question Related to Potential Barriers to Conducting Suicide Risk Assessments*

Rank	Frequency	Type of Response
1	60	Nothing would keep me from conducting a suicide risk assessment
2	14	Refer student to outside agency due to fear or level of competence
3	12	Lack of permission from administrators or district policy
4	11	Concerns about my lack of training in this area
5	5	Dual relationships
6	4	Potential language barriers
	4	Parents' denial of access to the student
	4	Student reluctance to come forward
9	3	Worry about my own safety
	3	High caseload
	3	Concern student is looking for attention
12	2	Outside my scope of practice
	2	Lack of community resources and cultural factors

CHAPTER V.

DISCUSSION

According to the literature, there is a paucity of information related to preparing school counselors-in-training to conduct suicide assessments. In addition, suicide rates for adolescents continue to rise and have now become the second leading cause of death for this age group (International Association for Suicide Prevention, 2014). Due to their training and proximity to students, school counselors are in an ideal position to be able to identify and provide assistance to teens struggling with depression or suicidal ideation (Juhnke, Granello, & Granello, 2011). It is unclear which factors contribute to a school counselor's knowledge and ability to carry out suicide risk assessments with their students (King, Price, Telljohann, & Wahl, 1999b). This study examined what practicing school counselors identified as contributors to their ability to conduct suicide risk assessments.

This chapter will provide: (a) review of the study; (b) discussion of the findings; (c) implications for school counselors and counselor educators; (d) limitations of the study; and (e) suggestions for future research.

Discussion of Findings

The findings that emerged from this study provided new insight into the relationships among school counselors' training, self-efficacy, and attitudes toward conducting suicide risk assessments. This section is divided into the different research questions and the analyses that helped answer each of these.

The School Counselor's Role

Some important correlations were discovered related to the school counselor role. For example, the view of the counselor's role was positively and significantly correlated with assessments conducted per month and assessments conducted over career. This finding is important due to the direct relationship between understanding how one's role of seeking out students is part of a school counselor's ethical obligation in carrying out those assessments (ASCA, 2013). An increased understanding of this obligation may correspond to a willingness to conduct assessments.

An unexpected finding was the positive correlation between the view of the counselor's role in conducting suicide assessments and the rating of administrative support. This may indicate a close relationship between how the school counselor views their services within the school tied to the autonomy given to them by their administration. Other researchers have found suicide assessments can create uneasiness for counselors and fear of liability are concerns many practitioners have (Erikson & Abel, 2013; King, Foster, & Rogalski, 2013; Milsom, 2002). With formal support from a building principal, the school counselor may feel confident they are working within their defined role as determined by stakeholders and the school counselor themselves.

Sutton and Fall (1995) also found that school counselor self-efficacy was greatly influenced by school climate. In their study, support from both colleagues and the administration greatly influenced outcome expectancy for the counselor's behavior and their self-efficacy in working with individual students. If school counselors are seen as leaders within the building and experts in adolescent development, they need to have the knowledge, self-efficacy, and respect of their co-workers to competently respond to crisis situations that arise.

Participants' responses related to their training revealed that 50% felt adequately prepared to assess students and 59% felt adequately prepared to identify suicidal students. This represents an increase as compared to the study conducted by Allen et al. (2002), where only 43% of school counselors felt prepared to deal with crisis situations. Allen et al. also found that school counselors who graduated after 1995 reported more internship experiences than those who graduated prior to 1995. They stated that almost 70% reported experiences related to crisis intervention during field experiences compared to 38.7% of the graduates prior to 1995. These percentages combined with those from this study, demonstrate an increase in crisis preparation over time.

Another important finding included participants' ratings of their training in assessing and identifying suicidal students as significant predictors of the number of assessments conducted per month. School counselors who rated their training highly, were more likely to conduct suicide assessments with their students. This result is important due to the difficulty of finding research connecting training to the number of assessments conducted in practice.

Interestingly, the type of suicide assessment training received during graduate school did not produce any significant results in this study. A relationship between these variables may have been helpful in understanding better teaching methods in suicide assessment training. Findings suggest that participant's willingness to seek training was predictive of the number of assessments conducted per month. Therefore, though the type of training did not seem to help predict the number of assessments conducted, the counselor's attitude and rating of their training program, as well as their current willingness to continue seeking out training were significant predictors in this model.

Findings from this study supported those of King and Smith (2000). They discovered that school counselors who participated in professional development related to suicide training reported increased confidence in identifying students at risk for suicide. King and Smith's (2000) results strongly supported the effectiveness of offering periodic training sessions to practicing school counselors.

Predicting School Counselors' Administration of Suicide Assessment

When examining school counselors' knowledge in identifying students at risk for suicide and their willingness to conduct suicide assessments, results from the hierarchical regressions did not produce significant predictors of school counselors conducting suicide assessments. The results of this analysis indicated that years of experience, CACREP, membership on crisis team, and scores from the SIRI-2 variables were not significant predictors of conducting suicide assessments ($p = .245$).

This lack of significance may be due to the assessment tool used. SIRI-2 scores were used as indicators of suicide knowledge in this study. After further investigation of participants' SIRI-2 scores, it was found there was no correlation of this assessment tool to any of the variables used in this study. This was an unfortunate finding and prompted the researcher to further investigate the possible reasons for the lack of usefulness of the SIRI-2. First, the researcher examined the highest and lowest scores to identify any patterns in counselor characteristics. No significant patterns were detected. The researcher then went back to the literature to search for differences between previous studies and this one. One notable difference between this study and other studies, was the participant groups utilized. Other studies were able to find more discrepancy among participants, potentially because the participants were being compared across disciplines,

for example, clergy and crisis line volunteers (Royal, 2003) or among counselors and psychologists who were still in training (Neimeyer & Bonnelle, 1997). It is possible the SIRI-2 was not sensitive enough to find differences within one professional group (school counselors) who were all currently practicing.

When examining school counselors' self-efficacy in conducting suicide risk assessments and their willingness to carry out suicide assessments with students, findings from the current study revealed that C-LEAD scores were a significant predictor of the number of suicide assessments conducted per month for the school counselors in this sample ($p < .005$). The C-LEAD instrument was used as a key tool to examine school counselors' self-efficacy in crisis situations. C-LEAD scores contributed 5.2% of the variance to the model, which according to Cohen's guidelines, represents between a small to medium effect size (1988). With the instrument being relatively new, no previous studies were found that have utilized the C-LEAD in which to make comparisons. Nevertheless, knowing the maximum range of scores (9-low, 63-high) possible, one can compare the range of 21 to 63, with a mean of 50.44 ($SD = 6.997$) from this study. Perceived self-efficacy is not a measure of skills, but beliefs about what an individual can do under different sets of conditions with the skills they possess (Bandura, 1997). This finding is consistent with Bandura's theory that individuals who lack self-efficacy are less likely to manage situations effectively (1997). For counselors, this translates into their ability to counsel and adequately assess their clients (Larson & Daniels, 1998).

School Counselor Training

When examining whether school counselors who graduated from CACREP institutions after 2009 reported increased knowledge in identifying suicidal students than

those who graduated from non-CACREP institutions or from those who graduated before 2009, the results from the ANOVA did not reveal any significant differences between the groups. Nonetheless, when looking at the mean differences between the groups, it was possible to analyze even small differences. For example, those who graduated from CACREP institutions before 2009 scored better on the SIRI-2 (lower scores indicate higher correlation with experts). In addition, newer graduates from CACREP institutions also scored slightly better than non-CACREP graduates, regardless of year of graduation.

Though it is difficult to find studies to compare differences between CACREP and non-CACREP programs and how this impacts students, Adams (2006) investigated differences between the two groups on the National Counselor Exam over a five year period and found graduates from CACREP programs scored significantly higher than non-accredited test-takers. In the present study, a significant correlation between CACREP and the number of assessments conducted per month ($r = .118, p = .048$) as well as between CACREP and membership on a crisis team ($r = .143, p = .022$) were found, indicating some type of relationship existed between these variables. It is possible the higher number of credit hours often required in CACREP programs provided students with more awareness of crisis intervention strategies and their role as school counselors to provide these services.

When examining whether school counselors who graduated from CACREP institutions after 2009 reported higher self-efficacy in counseling suicidal students than those who graduated from non-CACREP institutions or those who graduated before 2009, the study revealed no significant differences between participants. These are similar to Tang et al.'s (2004) results, which did not find significant differences between those who

attended CACREP vs. non-CACREP programs. Tang et al. (2004) found the label of CACREP was not the determining factor in higher self-efficacy, instead it was the greater number of hours and the coursework required in their training programs.

Even though the differences among the three groups were not statistically significant, one can still examine the disparities in scores between the three groups. As hypothesized, participants from CACREP institutions scored higher (indicating more self-efficacy) than those from non-CACREP institutions. Traditionally, CACREP programs do require more credit hours and greater number of internship hours than non-CACREP programs (CACREP, 2009). Similarly, in Sawyer, Peters, and Willis' study (2013), participants who took part in a crisis intervention course reported much higher self-efficacy in counseling clients who are in crisis after the completion of the course.

One surprising result was that of those who graduated from CACREP institutions, newer graduates reported higher self-efficacy as compared to those who graduated before 2009. There may be a few possible explanations for this result. First, with changes to CACREP's standards to include more suicide assessment training as of 2009, newer graduates may have had more recent instruction in this area and therefore, feel more confident in addressing these issues with their students. The second possibility could be related to new graduates' developmental levels. According to the Integrated Development Model by Stoltenberg, McNeil, and Delworth (1998), newer counselors may sometimes overestimate their abilities and thus report higher ratings of self-confidence.

Counselor Characteristics

When examining which counselor characteristic variables contribute to knowledge in conducting suicide risk assessments, the results of the hierarchical regression analysis did not reveal any significant predictors. Similar to findings from Research Question 1, the lack of significance may be due in part to the use of the SIRI-2 scores as the indicator of suicide knowledge in this study. The lack of correlation of this assessment tool to any of the variables used in this study was an unfortunate finding and leaves the researcher inclined to look for a different measure or to create an assessment tool for future research.

When examining which counselor characteristic variables contribute to self-efficacy in conducting suicide risk assessments, results from the hierarchical regression analysis revealed membership on a crisis team and comfort identifying and assessing suicidal students were significant predictors of scores on the C-LEAD ($p < .001$). Each of these variables accounted for a variation in C-LEAD scores ($R^2 \Delta = 1.8\%, 6.6\%$). According to Bandura, self-efficacy affects thought patterns and the stress related to their environment (1986). Therefore, if a counselor has doubts or is uncomfortable, they are less likely to confidently and competently assess their clients. King, Price, Telljohann, and Wahl (1999b) also found school counselors who were part of a crisis team were more likely to score higher on an efficacy measurement. It is possible the increased exposure to crisis related information and training from being part of a crisis team may provide reassurance and confidence for a school counselor and therefore a corresponding increase in self-efficacy to handle these situations.

The relationship between years of experience and scores on the C-LEAD revealed no significant findings. Years of experience was not a significant predictor of scores on

the C-LEAD. This is similar to the findings from the study by King, Price, Telljohann, and Wahl (1999b). The authors did not find demographic variables such as gender, age, degree, or years of experience were significant predictors of self-efficacy scores in recognizing suicidal students (King, Price, Telljohann, & Wahl, 1999b).

Upon examination of the overall ratings of participants' responses to comfort in crisis situations, the vast majority of school counselors felt comfortable in identifying and assessing suicidal students. Unlike King, Price, Telljohann, and Wahl's (1999b) study which found only 38% of school counselors felt they had the knowledge and skills to recognize a student at risk, the current study found 92% felt comfortable identifying suicidal students. According to the regression analysis, ratings of comfort assessing and identifying suicidal students were predictive of the number of assessments completed each month.

Kirchberg and Neimeyer (1991) discovered level of discomfort in working with suicidal clients was unrelated to years of experience, leading them to believe counselors with varied experience may feel similar levels of discomfort. Similar to Kirchberg and Neimeyer (1991), the current study revealed years of experience was not correlated with comfort in working with suicidal students. Kirchberg and Neimeyer believed it was common for all counselors to feel anxious or unprepared when working with suicidal clients. Urbani et al. (2002) recommended providing clear and demanding standards of performance while counselors are in training, as well as helping them recognize, accept, and use their anxiety effectively to better handle difficult situations in the future. Nevertheless, in the present study, comfort was significantly correlated with and a predictor of the number of assessments conducted per month ($r = .300$, $R^2 \Delta = 5.3\%$).

This is consistent with how Larson and Daniels (1998) conceptualize counselor self-efficacy and the importance it plays in effective counseling sessions with clients. In addition, they found counselors with higher self-efficacy were more likely to view their anxiety as perplexing, but manageable.

The participants' ratings of comfort in assessing students was also highly correlated with graduation from CACREP programs (add $r = .182$). Although this study did not find a significant difference between the CACREP versus non-CACREP groups mentioned earlier, it may be possible that participants who graduated from CACREP programs rate their comfort in assessing students higher than those who do not graduate from CACREP programs. Similar to the discussion earlier, the very nature of CACREP programs having higher credit hours and more time spent in internship may impact a counseling student's overall professional confidence.

School Counselor Open Responses

The 78 responses that indicated a reason the participant would not carry out a risk assessment were coded into 13 separate categories. One major theme that emerged was related to feelings of incompetence by the school counselor. Comments such as: lack of training, issues of fear and comfort, liability, and believing conducting suicide assessments was outside of their scope of practice, were all mentioned by participants and indicated that some school counselors do not feel qualified to assess students and would rather refer them out to mental health providers in the community. One participant responded, "I have never been trained to do any kind of suicide risk assessment with a student so I don't feel qualified to make that judgment. I do not ever want to have a child's life be solely up to me and my judgment." Another referred to the liability issue

and stated, “my fear of making an incorrect diagnosis and then the person trying to or succeeding in taking their life, I would have to live with that guilt, likely face legal action, perhaps lose my job, etc”. This fear has been echoed in the literature numerous times, but it is not a sanction for avoiding the topic of suicide or neglecting potentially at-risk students (Juhnke, Granello, & Granello, 2011; Milsom, 2002).

The second theme that emerged was related to obstacles from outside sources, for example, administrators, parents, school boards, and the community culture. One participant responded “the administration with whom I most recently worked believe administrators are really the only people who can deal with suicide or suicidal behavior.” Another participant remarked, “the school administration not trusting in the ability of a school counselor to handle risk assessment. This is a constant issue in our school”.

There can also be obstacles from parents and the community. This coincides with what has been found in the literature related to the stigma of suicide (Juhnke, Granello, & Granello, 2011). Parents may feel as if schools are not the place to discuss these issues and refuse consent (Juhnke, Granello, & Granello, 2011; Miller, Eckert, & Mazza, 2009). One participant remarked, “the educational community doesn’t accept the responsibility for caring for the feeling, emotional part of our students”. Another stated, “I currently work in a cultural setting that disapproves of preventative suicidal awareness for students. The topic of suicide is very taboo.”

Another response that could be included in this category would be language barriers. If translators are not available to school counselors, it would be difficult to carry out an assessment. Lastly, high caseloads were mentioned by some of the participants as major obstacles to conducting suicide risk assessments. If administration is not able to

support the recommended caseload of 250, as stated by ASCA (2012), school counselors are more limited in their ability to adequately identify and assess students at risk.

The next theme that developed out of the comments provided by the participants were related to the difficult nature of suicide. For example, the complex issue of dual relationships and whether a student or their friends will even come forward if they are suicidal. In addition, assessing whether the student is just seeking attention or if the parents will carry through with the referral from the school counselor when contacted was another concern. Considering an adolescent's developmental level, one can see why it may be hard at times to determine the seriousness of their behavior. Adolescents are very focused on their friends and relationships, which, as they navigate through various social situations, can be confusing and frequent. They also have a decreased ability to manage their self-control (Casey & Caudle, 2013). They struggle with suppressing inappropriate feelings, desires, and actions (Casey & Caudle, 2013). One participant stated, "feeling like I know the student well enough that they have threatened suicide many times before and this time may be no different that I don't perform an adequate suicide assessment." Participants communicated some of their frustrations in understanding adolescent behaviors and how to appropriately respond in suicidal situations.

Implications for Practicing School Counselors

Findings from this study revealed that school counselors who had a good understanding of their role seemed to have a better sense of their ethical obligations and willingness to conduct suicidal assessments with students. ASCA states school counselors should thoroughly understand their role and carry out the duties associated

with this role (2010). They should also recognize their ethical obligations to help identify and assess students who may be in danger of harming themselves (ASCA, 2013).

Participants also rated the importance of their administrators' support as an important predictor of the number of suicide assessments conducted. Educating administrators about the school counselor role, showing data to support the need for incorporating suicide assessment and the benefits of suicide prevention may help school counselors and administrators collaborate more effectively. Securing stakeholder support while researching suicide prevention programs could also help ensure buy in and garner trust in the school counselor's role within a school building. King, Foster, and Rogalski (2013) advocate for the incorporation of parent education in working with teenagers at risk for suicide. School counselors could provide basic knowledge such as: warning signs for suicidal behavior, language for asking about suicidal thoughts, crisis contact information, and discussion about the importance of means restrictions (King, Foster, & Rogalski, 2013). School counselors who provide this type of outreach may impact many others who have consistent contact with children and adolescents.

School counselors who were part of crisis teams in this study also reported higher scores on the C-LEAD, indicating a higher self-efficacy in working through crisis situations. In addition, Crepeau-Hobson's (2013) study where evidenced-based suicide prevention and risk assessment practices were in place, provided empirical proof of the benefit this type of programming can provide in schools. Of the 3,443 students who were assessed for suicide, none went on to complete the act. Schools should be working to develop a comprehensive suicide preparation plan that includes not only prevention and intervention, but also postvention planning in the event a suicide or suicide attempt

occurs (King, Foster, & Rogalski, 2013). Lastly, as school counselors develop a crisis team, they can collaborate with community mental health practitioners to help provide more holistic care for students.

Training related to suicide risk and assessment was another important area focused on in this study. Participants who sought out and engaged in more training, were more likely to report increased self-efficacy as well as conduct more suicide risk assessments per month. This finding adds more evidence for the importance of high quality training during counseling programs, as well as afterward, through continuing education opportunities. In addition, continuing education in understanding child and adolescent behavior, specifically development of the brain and common issues that can arise during this period of transition. Recent advancements in neurology have continued to influence how mental health providers understand brain development and the impact this has on working with adolescents (Casey & Caudle, 2013; Galvan Hare, Voss, Glover, & Casey, 2006).

Implications for Counselor Educators

Findings from this study may provide some helpful considerations for counselor educators as they work with counselors-in-training. Participants who reported higher self-efficacy were conducting more suicide risk assessments in their practice. Counselor educators who provide opportunities to build self-efficacy related to suicide risk may increase the likelihood that their students, as future school counselors, will conduct suicide assessments in the future. Related to this idea, participants who rated their training programs highly, were also conducting more suicide risk assessments in their schools. This is another indication that participants were able to recall the impact their

training had on their current practice. Unfortunately, the study did not reveal any additional information regarding what type of training related to suicide risk assessment was especially helpful, which may have helped counselor educators further refine their teaching methods related to this subject. Nevertheless, Barnes (2004) found the use of vicarious learning experiences and mastery performances builds stronger self-efficacy than verbal persuasion or feedback alone, although, the use of positive corrective feedback can be very helpful in difficult counseling situations (such as crisis scenarios). Barnes advocated for a solid understanding of self-efficacy theory when implementing this type of training for students (2004). Urbani et al. (2002) used the skilled counselor training model (SCTM) to help build self-efficacy in counseling students. The model incorporated learning processes such as

- (a) focusing on skills mastery from the beginning of training;
- (b) providing appropriate and regular modeling of the skills to be performed;
- (c) insisting that students provide critical feedback on skills attainment; and
- (d) because a moderate level of arousal is effective in creating optimal readiness for learning (p. 103).

Bandura (1997) advocates for the use of enactive mastery experiences to increase self-efficacy because they provide the most authentic evidence of whether one has what it takes to succeed; “A resilient sense of efficacy requires experience in overcoming obstacles through perseverant effort” (p. 80).

Another implication of the study is the benefit of professional development opportunities for practicing school counselors. Sawyer, Peters, and Willis (2013) found a course specific to learning crisis intervention strategies produced much higher self-

efficacy in beginning counselors after the completion of the course. Counselor educators across the country can look for ways to promote advanced training, especially in the area of suicide assessment, an area many have fears addressing.

Counselor educators and supervisors who consider multiple opportunities to infuse suicide prevention and intervention knowledge into the curriculum are more likely to have graduates of their programs confidently address suicide with their clients. For example, creating case scenarios during an Ethics course that allows counselors-in-training to work through an ethical decision making model may provide invaluable examination of making informed decisions related to suicide. In addition, an Assessment course that allows counselors-in-training to practice conducting a suicide assessment with their peers may help build confidence and self-efficacy related to even saying the words necessary to assess for suicide. Most importantly, creating opportunities for counselors-in-training to either assess a client or watch a supervisor assess a client during their practicum or internship experience is crucial to understanding the nuances of suicide risk assessment.

Lastly, counselor educators can increase the discussion of suicide related topics within their training programs. Instructors can not only increase the experiential learning opportunities through role-playing, but they can also incorporate general knowledge and awareness of suicide related issues into classes. New school counselors may enter their buildings with a blank slate, with no crisis team formed, no suicide prevention curriculum in place, and no stakeholder awareness of the prevalence of suicide for children and adolescents. Offering education about evidenced-based suicide programs, creating policies and procedures for forming a crisis team, and how to present suicide related

topics to parents and school boards, could all be incredibly helpful for a fledgling school counselor.

Future Research

After completing this study, many ideas surfaced for consideration in future research. First, finding or creating a new suicide knowledge measure, possibly specific to suicide risk/knowledge related to those who work with children and adolescents, might produce more significant findings. It was difficult to find an assessment that addressed the unique needs and populations specific to school counselors. A tool targeted for this group might be sensitive enough to uncover subtle differences and relationships that exist between suicide knowledge, training, and self-efficacy within the school setting.

Another area for consideration for future study includes an investigation into the types of suicide assessment training provided in university-based counselor preparation programs. It is valuable to understand what current counselor educators are using to teach these important, and sometimes daunting skills of suicide risk assessment. Finding a way to measure and evaluate these teaching methods and determining how to replicate the best programs across the country could further the counseling profession in profound ways. In addition, a longitudinal study could provide information about the efficacy of the implemented programs. The better prepared counselors are to address suicide risk in their clients, the more likely they are to recognize suicidal ideation and to successfully intervene.

A final area worthy of research would be an examination of the current status of school counselors as educators and advocates in their building for other staff.

Investigating how school counselors and administrators work together to tackle crisis

situations, including suicide risk is important. School counselors are often in the position of creating and leading crisis management teams for a school, including responses to suicidal threats (Doan, Roggenbaum, & Lazaer, 2003). Unfortunately, crisis situations occur in schools on a regular basis, therefore, schools have an ethical obligation to be prepared for these by informing and educating their school communities about how they will handle these situations. Because there are no required mandates or regulations from governing bodies, it is difficult to assess how many schools and school counselors are prepared for crisis situations or have set up protocols in their buildings. Both quantitative and qualitative studies that investigate how school counselors across the country are managing crises as well as the results they are having in these efforts could provide valuable information for other schools.

Limitations

Limitations for this study included outdated literature that did not provide recent information regarding the potential importance or relevance of investigating school counselors' knowledge or self-efficacy in conducting suicide risk assessments. In addition, experts have identified the difficulty in measuring suicide and how one defines a program's "success". Related to this idea, the different language that is used in suicide and crisis prevention, may have created some confusion for participants. For example, a few participants were confused by the term 'suicide risk assessment'. It was not clear to them what this entailed. Definitions of the terms 'assessment' or 'screening' may have been helpful for participants.

An additional limitation involved the use of the SIRI-2. Unfortunately, there is no assessment tool that measures self-efficacy and suicide together, therefore, two separate

measures were used for the study. The SIRI-2 was not sensitive enough to detect any relationships among the variables and therefore, did not provide any useful information in this study. In addition, the length of the SIRI-2 may have increased drop-out rates as the highest rates occurred during that stage of the survey.

Another limitation included the use of self-rating instruments which may not be as reliable as other assessment tools as participants may provide socially desirable responses or have difficulty recalling past experiences (Brutus, Aguinis, & Wassmer, 2013).

Another limitation could be the use of the ASCA directory and the two state-level listserves which may be more likely to contain bias in that school counselors who are active in organizations are more likely to seek out training and stay informed of current research. It is also possible there was response bias as the participants who chose to complete the survey had the time and inclination to do so. It may also have been difficult for school counselors to recall their graduate level training if it had occurred many years ago. Therefore, results are limited to the 200 participants included in the study.

Lastly, performing a hierarchical regression analysis in a non-experimental setting makes it difficult to infer causality in an explanatory study. Even with significant results, the researcher should interpret the results with caution. In addition, the researcher had to use subjective interpretation of the importance of each variable in determining the order of entry into the analysis. As Pedhazur stated,

Practical considerations in the selection of specific predictors may vary, depending on the circumstances of the study, the researcher's specific aims, resources, and frame of reference, to name some. Clearly, it is not possible to

develop a systematic selection method that would take such considerations into account (1997, p. 211).

Conclusion

The school setting accounts for the highest ratio of attempts and deaths by suicide (King, 1997). Of all the adults within a school building, school counselors have the most training to identify and respond to students at-risk for suicidal ideation. However, it is difficult to find literature that identifies the factors that lead to the likelihood of school counselors conducting suicide risk assessments with their students. This study examined the relationship between school counselors' perceived self-efficacy and their willingness to carry out suicide risk assessments.

Results from this study showed self-efficacy and comfort were related to the number of suicide assessments conducted. In other words, practicing school counselors who had higher self-efficacy were assessing more students for suicidal ideation. In addition, the school counselor's perception of their role was predictive of the number of suicide assessments conducted.

Lastly, school counselors who rated their graduate training highly and those who were still actively seeking out training, were more likely to conduct suicide risk assessments with their students. These results provide evidence of the impact self-efficacy can have on a counselor's eagerness to perform suicide risk assessments. The insight from this study provides helpful information for practicing school counselors and counselor educators as they work to increase efforts in the prevention of adolescent suicide.

APPENDIX A. IRB APPROVAL FORM

IRB ID #: 201509796

To: Laura Gallo

From: IRB-02 DHHS Registration # IRB00000100,
Univ of Iowa, DHHS Federalwide Assurance # FWA00003007

Re: Suicide Assessment Knowledge and Self-efficacy Among School Counselors

Approval Date: 09/30/15

**Next IRB Approval
Due Before:** N/A

Type of Application:

- New Project
 Continuing Review
 Modification
 Fetuses, Neonates

Type of Application Review:

- Full Board:
 Meeting Date:
 Expedited
- Exempt

Approved for Populations:

- Children
 Prisoners
 Pregnant Women,

Source of Support:

This approval has been electronically signed by IRB Chair:
 John Wadsworth, PHD
 09/30/15 1223

IRB Approval: IRB approval indicates that this project meets the regulatory requirements for the protection of human subjects. IRB approval does not absolve the principal investigator from complying with other institutional, collegiate, or departmental policies or procedures.

Agency Notification: If this is a New Project or Continuing Review application and the project is funded by an external government or non-profit agency, the original HHS 310 form, "Protection of Human Subjects Assurance Identification/IRB Certification/Declaration of Exemption," has been forwarded to the UI Division of Sponsored Programs, 100 Gilmore Hall, for appropriate action. You will receive a signed copy from Sponsored Programs.

Recruitment/Consent: Your IRB application has been approved for recruitment of subjects not to exceed the number indicated on your application form. If you are using written informed consent, the IRB-approved and stamped Informed Consent Document(s) are attached. Please make copies from the attached "masters" for subjects to sign when agreeing to participate. The original signed Informed Consent Document should be placed in your research files. A copy of the Informed Consent Document should be given to the subject. (A copy of the *signed* Informed Consent Document should be given to the subject if your Consent contains a HIPAA authorization section.) If hospital/clinic patients are being enrolled, a copy of the IRB approved Record of Consent form should be placed in the subject's electronic medical record.

Continuing Review: Federal regulations require that the IRB re-approve research projects at intervals appropriate to the degree of risk, but no less than once per year. This process is called "continuing review." Continuing review for non-exempt research is required to occur as long as the research remains active for long-term follow-up of research subjects, even when the research is permanently closed to enrollment of new subjects and all subjects have completed all research-related interventions and to occur when the remaining research activities are limited to collection of private identifiable information. Your project "expires" at 12:01 AM on the date indicated on the preceding page ("Next IRB Approval Due on or Before"). You must obtain your next IRB approval of this project on or before that expiration date. You are responsible for submitting a Continuing Review application in sufficient time for approval before the expiration date, however the HSO will send a reminder notice approximately 60 and 30 days prior to the expiration date.

Modifications: Any change in this research project or materials must be submitted on a Modification application to the IRB for prior review and approval, except when a change is necessary to eliminate apparent immediate hazards to subjects. The investigator is required to promptly notify the IRB of any changes made without IRB approval to eliminate apparent immediate hazards to subjects using the Modification/Update Form. Modifications requiring the prior review and approval of the IRB include but are not limited to: changing the protocol or study procedures, changing investigators or funding sources, changing the Informed Consent Document, increasing the anticipated total number of subjects from what was originally approved, or adding any new materials (e.g., letters to subjects, ads, questionnaires).

Unanticipated Problems Involving Risks: You must promptly report to the IRB any serious and/or unexpected adverse experience, as defined in the UI Investigator's Guide, and any other unanticipated problems involving risks to subjects or others. The Reportable Events Form (REF) should be used for reporting to the IRB.

Audits/Record-Keeping: Your research records may be audited at any time during or after the implementation of your project. Federal and University policies require that all research records be maintained for a period of three (3) years following the close of the research project. For research that involves drugs or devices seeking FDA approval, the research records must be kept for a period of three years after the FDA has taken final action on the marketing application.

Additional Information: Complete information regarding research involving human subjects at The University of Iowa is available in the "Investigator's Guide to Human Subjects Research." Research investigators are expected to comply with these policies and procedures, and to be

familiar with the University's Federalwide Assurance, the Belmont Report, 45CFR46, and other applicable regulations prior to conducting the research. These documents and IRB application and related forms are available on the Human Subjects Office website or are available by calling 335-6564.

APPENDIX B. INFORMED CONSENT

We invite you to participate in a research study. The purpose of this research is to explore practicing high school counselors' thoughts and feelings related to conducting suicide risk assessments. The researcher hopes to examine any potential relationships that may exist between training and current practice within the field.

We are inviting you to be in this study because you are a practicing school counselor who works with adolescents. We obtained your email address from state and national counseling associations. Approximately 1000 people will take part in this study across the nation.

If you agree to participate, we would like you to complete an online Qualtrics-created survey. You will be asked demographic questions including years of experience and state of residence. In addition, you will be asked some questions regarding your training and current practice as a school counselor. Lastly, you will be asked questions related to knowledge and self-efficacy regarding suicide assessments. The survey will take approximately 30 minutes to complete. The study may take you more or less time to complete. You may opt to withdraw from the study at any time. You will not be paid for your participation. You may not experience any personal benefit from participation in the study.

We will keep the information you provide confidential, however federal regulatory agencies and the University of Iowa Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. To help protect your confidentiality, the survey will be anonymous so it will not be possible to link you to the study information. All study information will be stored in locked files in locked offices and in password protected computer files on secured computers. The survey results will be aggregated for the analysis and report so individuals cannot be directly identified. If we write a report about this study we will do so in such a way that you cannot be identified.

The topic of suicide may bring up negative feelings or emotions. If you are feeling suicidal, please contact the Suicide Prevention Hotline at 1-800-273-8255. There are no known benefits for being part of this survey. However we hope that others may benefit in the future from what we learn as a result of this study.

You will not have any costs for being in this research study.

You will not be paid for being in this research study.

Taking part in this research study is completely voluntary. If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits

for which you otherwise qualify. You will have an opportunity to win one of ten \$20 Amazon gift cards if you choose to leave your email information at the end of the survey.

If you have any questions about the research study itself, please contact Laura Gallo (319) 654-5246, laura-gallo@uiowa.edu, or Dr. Carol Smith, carol-smith@uiowa.edu. If you have questions about the rights of research subjects, please contact the Human Subjects Office, 105 Hardin Library for the Health Sciences, 600 Newton Rd, The University of Iowa, Iowa City, IA 52242-1098, (319) 335-6564, or e-mail irb@uiowa.edu. To offer input about your experiences as a research subject or to speak to someone other than the research staff, call the Human Subjects Office at the number above.

Thank you very much for your consideration. Completing the survey will indicate your willingness to participate in the study. If you wish to keep a copy of this information page, please save or print the page before going on to the survey. If you do not wish to be in the study, please close your web browser window now or at anytime before submitting the survey.

Sincerely,

Laura Gallo, Doctoral candidate
Department of Rehabilitation and Counselor Education, The University of Iowa
(319) 654-5246, laura-gallo@uiowa.edu

APPENDIX C. DEMOGRAPHIC QUESTIONS

Q1 I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

- Yes
- No

Q2 Are you a practicing school counselor?

- Yes
- No

Q3 In which state do you practice as a school counselor?

Q4 Check all grades you work with:

- 9th grade
- 10th grade
- 11th grade
- 12th grade

Q5 What is your case load?

Q6 In which type of setting is your school located?

- Rural
- Suburban
- Urban
- Other _____

Q7 How many years have you practiced as a school counselor?

- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 26-30 years
- More than 30 years

Q8 Does your school have a crisis response team?

- Yes
- No
- Unsure

Q9 If your school does have a crisis response team, are you part of that team?

- Yes
- No
- Not Applicable

Q10 What year did you graduate from your Master's program in school counseling?

- Before 1994
- 1995-1999
- 2000-2004
- 2005-2008
- 2009-2015

Q11 Was your Master's program CACREP accredited? (Council for Accreditation of Counseling and Related Educational Programs)

- Yes
- No
- Unsure

Q12 Do you have training as a social worker or mental health counselor in addition to your training as a school counselor?

- Yes
- No

Q13 Did your school counseling graduate training include teaching related to suicide risk assessment?

- Yes
- No
- Unsure

Q14 If your graduate training did include suicide risk assessment, was it taught through lecture, experiential (role-playing or video-modeling), or both formats?

- Lecture only
- Experiential only
- Both lecture and experiential strategies

Q15 Does your school district provide professional development related to suicide prevention or intervention?

- Yes
- No
- Unsure

Q16 Do you actively seek out professional development for suicide risk assessment?

- Yes
- No

Q17 Within the last year, have you participated in any suicide risk assessment training?

- Yes
- No

Q18 Suicide risk assessment can be defined as strategies used by a mental health practitioner to inquire about suicidal thoughts and impulses in a client. Approximately how many suicide risk assessments do you conduct per month on average?

- None
- 1-2
- 3-6
- 7-10
- More than 10

Q19 Approximately, how many suicide risk assessments do you believe you've performed over your career as a school counselor?

- None
- 1-10
- 11-30
- 31-50
- More than 50

Q20 How many completed suicides have occurred in your student population over the past 3 years, that you are aware of?

- None
- 1-3
- 4-8
- 9-15
- More than 15

Q21-27 Choose the response that most adequately fits with your beliefs.

	Disagree	Somewhat Disagree	Somewhat Agree	Agree
I am comfortable assessing a student at-risk for suicide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable identifying a student at-risk for suicide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My graduate training adequately prepared me to assess a student at-risk for suicide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My graduate training adequately prepared me to identify a student at-risk for suicide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My administration supports suicide prevention efforts in our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe suicide risk assessment is an important part of my role as a school counselor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to conduct a suicide risk assessment with a student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q62 Optional: In your own words, can you think of any factors that would keep you from conducting a suicide risk assessment with a student?

APPENDIX D. SIRI-2

SIRI-2
Suicide Intervention Response Inventory (Form 2)

The following items represent a series of excerpts from counseling sessions. Each excerpt begins with an expression by the client concerning some aspect of the situation he or she faces, followed by two possible helper responses to the client's remark.

You are to rate *each* response in terms of how appropriate or inappropriate you feel the reply is to the client's comment. In the blank, you should record a rating from -3 to +3, corresponding to the chart below.

Be sure to respond to each item and try not to leave any blanks.

+3: Highly appropriate response +2: Appropriate response +1: Marginally appropriate response

0: Neither appropriate nor inappropriate

-1: Marginally inappropriate response -2: Inappropriate response -3: Highly inappropriate response

1. Client: I decided to call in tonight because I really feel like I might do something to myself...I've been thinking about suicide.
 Helper A: You say you're suicidal, but what is it that's really bothering you?
 Helper B: Can you tell me more about your suicidal feelings?

2. Client: And now my health is going downhill too, on top of all the rest. Without my husband around to care for me anymore, it just seems like the end of the world.
 Helper A: Try not to worry so much about it. Everything will be all right.
 Helper B: You must feel pretty lonely and afraid of what might happen.

3. Client: But my thoughts have been so terrible...I could never tell them to anybody.
 Helper A: You can tell me. I'm a professional, and have been trained to be objective about these things.
 Helper B: Some of your ideas seem so frightening to you that you imagine other people would be shocked to know you are thinking such things.

4. Client: No one can understand the kind of pain I've been through. Sometimes I just feel like I have to hurt myself, so I cut my wrists.
 Helper A: It seems like you've been suffering so much that cutting our wrists is the only way you can make the pain go away.
 Helper B: But you're so young, you have so much to live for. How can you think of killing yourself?

5. Client: What are you anyway? Are you a doctor? How do you know what I've been going through?
 You've probably always had it pretty soft.
 Helper A: So you are wondering if I can understand how you feel.
 Helper B: You're not even giving me a chance. I've had a pretty rough life too; you're not the only one who's seen some hard time?.

6. Client: My life has been worthless ever since my wife, Emma, died four years ago. The kids are grown and married now, and I've been retired from my job at the railroad for some time. It just seems that I'd be better off dead.
 Helper A: But try to think of what Emma would want for you. She'd want you to continue leading a productive life, wouldn't she?
 Helper B: It sounds like everything just collapsed around you when Emma died...But what happened recently to make things even worse, to make you think that dying is the only way out?

7. Client: I really need help... it's just... [voice breaks; silence]
Helper A: It must be hard for you to talk about what's bothering you.
Helper B: Go on, I'm here to listen to you talk.
8. Client: When you sum up my problem like that, it makes it seem less confusing and not so scary.
Helper A: See, it really isn't so bad after all. It certainly isn't anything you would think of killing yourself over, is it?
Helper B: Sometimes talking about problems does make them a bit clearer. I think you realize how dangerous your suicidal feelings were, that's why you decided to contact me.
9. Client: You were supposed to help me, but you've only made things worse.
Helper A: I'm sorry. I was only trying to help.
Helper B: You sound pretty angry.
10. Client: How could you ever help me? Have you ever wanted to kill yourself?
Helper A: It sounds like you're concerned about whether I can understand and help you.
Helper B: Sure, I've thought about suicide sometimes. But I always found more realistic solution to my problems.
11. Client: I don't know This whole thing with my wife really gets to me. [Sobs] I try so hard to keep from crying.
Helper A: Do you think that the reason it's hard for you to cry is because you're a man.
Helper B: With all the hurt you're feeling it must be impossible to hold those tears in.
12. Client: How can I believe in God anymore? No god would ever let this happen to me; I've never done anything to deserve what's happened.
Helper A: Things have gotten so bad, that it's difficult to see any meaning in the things that have happened to you.
Helper B: Well, God works in mysterious ways. Maybe this is His way of testing your faith.
13. Client: I don't know why I'm calling you. My family is financially well off, and my husband spends plenty of time with me, even though he has a successful law career. Even my kids have been doing well. They get good marks at school and have lots of free time activities with their friends. But nothing seems to interest me. Life is just a bore...
Helper A: Considering all you have going for you, your problems can't be all that serious. Try to focus more on the positive aspects of your situation.
Helper B: So even though things seem to be going well at one level, life still seems pretty depressing, even if it's hard to say exactly why.
14. Client: I have to hang up now. My mother's coming home soon and I don't want her to know I've been talking to you.
Helper A: Okay, but if you keep feeling suicidal, remember you can always call back.
Helper B: All right, but first I want you to promise me you won't do anything to hurt yourself, until you call back and talk to me. Will you repeat that promise?
15. Client: Is it really true, that many people feel this way. I thought I was the only one who had such dreadful, sinful ideas.
Helper A: No, there are many people who suffer from mental illness. But with appropriate treatment by a qualified physician, some of these patients can be cured.
Helper B: It is true. You're not the only one who has suicidal thoughts. And you can be helped to get through this crisis, just as others have been.
16. Client: I'm so lonely, so tired, [crying] There just isn't anywhere left to turn.
Helper A: You seem so alone, so miserable. Have you been feeling suicidal?
Helper B: Come on now. Things can't be all that bad.

17. Client: [over telephone] it's hard to talk here with all these people.
Helper A: Would it help if I asked questions?
Helper B: Why don't you call back some other time when you can talk more easily.
18. Client: I have a gun pointed at my head right now, and if you don't help me. I'm going to pull the trigger.
Helper A: You seem to be somewhat upset.
Helper B: I want you to put down the gun so we can talk.
19. Client: Why should you care about me, anyway?
Helper A: I've been trained to care about people. That's my job.
Helper B: Because I think your death would be a terrible waste, and it concerns me that things are so bad that you are considering suicide. You need help to get through this critical period.
20. Client: I really hate my father! He's never shown any love for me, just complete disregard.
Helper A: You must really be angry with him for not being there when you need him.
Helper B: You shouldn't feel that way. After all, he is your father, and he deserves some respect.
21. Client: I don't think there's really anyone who cares whether I'm alive or dead.
Helper A: It sounds like you're feeling pretty isolated.
Helper B: Why do you think that no one cares about you anymore?
22. Client: I tried going to a therapist once before, but it didn't help.... Nothing I do now will change anything.
Helper A: You've got to look on the bright side! There must be something you can do to make things better, isn't there?
Helper B: Okay, so you're feeling hopeless, like even a therapist couldn't help you. But has anyone else been helpful before - maybe a friend, relative, teacher or clergyman?
23. Client: My psychiatrist tells me I have an anxiety neurosis. Do you think that's what's wrong with me?
Helper A: I'd like to know what this means to you, in this present situation. How do you feel about your problem?
Helper B: I'm not sure I agree with that diagnosis. Maybe you should seek out some psychological testing, just to be certain.
24. Client: I can't talk to anybody about my situation. Everyone is against me.
Helper A: That isn't true. There are probably lots of people who care about you if you'd only give them a chance.
Helper B: It must be difficult to find help when it's so hard to trust people.
25. Client: [Voice is slurred, unclear over telephone]
Helper A: You sound so tired. Why don't you get some sleep and call back in the morning?
Helper B: Your voice sounds so sleepy. Have you taken anything?

APPENDIX E. C-LEAD

CRISIS LEADER EFFICACY IN ASSESSING AND DECIDING (C-LEAD)
SCALE (Hadley, Pittinsky, Sommer, & Zhu, 2011)

Please indicate the degree to which you agree with the following statements.

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
Statement	Degree of Agreement						
1. I can anticipate the political and interpersonal	1	2	3	4	5	6	7
2. I can summarize the key issues involved in a situation to others regardless of how much data I have.	1	2	3	4	5	6	7
3. I can make decisions and recommendations even when I don't have as much information as I would like.	1	2	3	4	5	6	7
4. I can assess how the members of the general public are being impacted by my unit's actions or inactions during times of	1	2	3	4	5	6	7
5. I can determine which information is critical to relay to other units in advance of them requesting it.	1	2	3	4	5	6	7
6. I can keep others abreast of my work activities without over-informing or under-informing them.	1	2	3	4	5	6	7
7. I can make decisions and recommendations even under extreme time pressure.	1	2	3	4	5	6	7
8. I can estimate the potential deaths and injuries that may occur as the result of my decisions or recommendations at work.	1	2	3	4	5	6	7
9. I can modify my regular work activities instantly to respond to an urgent need.	1	2	3	4	5	6	7

Items do not need to be randomized during administration. To calculate the C-LEAD score, take the mean of all items.

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