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Suicide Prevention Strategies in Tennessee Community Colleges: A Case Study

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Suicide Prevention Strategies in Tennessee Community Colleges:

A Case Study

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ABSTRACT

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Suicide is the second leading cause of death for college students; annually approximately 1,100 students in institutions of higher education die by suicide. However, most research related to college student suicide was conducted using the sample of 4-year institutions. Community colleges have seldom been included in the sample of suicide research studies. This qualitative case study research explored the student suicide prevention strategies in the 13 community colleges in the Tennessee Board of Regents higher education system. Data were collected from surveys, institutional web sites, and interviews with institutional personnel.

Approximately half of the institutions offer suicide prevention information to students. Technology is used sparsely to educate, screen, or provide suicide referral information. Whereas only six institutions have policies that specifically address suicide, personnel at most institutions identified area agencies that serve as resources for students. Three common themes relate to the institutional response to a suicidal student: the presence of a response team, the involvement of a counselor, and referrals to community mental health resources. Institutions that employ counselors generally have more educational strategies, more suicide prevention strategies overall, and more policies that specifically address suicide than those that do not employ counselors. Internal and external factors prompted the development of suicide prevention strategies at the institutions. Internal resources such as counselor and faculty support and external

resources such as area mental health agencies and community suicide prevention agencies aid in the creation and implementation of suicide prevention efforts. Lack of resources, competing priorities, and the discomfort surrounding the topic of suicide emerged as themes inhibiting the creation and implementation of suicide prevention efforts in rural institutions. While educational and institutional suicide prevention strategies are employed, most institutional efforts are directed toward preventing students from harming others.

DEDICATION

This work is dedicated to my daughter Joanne. Sweetheart, we have crossed the river Styx together, but Cerberus would not let us enter. We returned from our voyage different women, empowered with knowledge and strength that human beings should not possess on this side. However, we are using our knowledge and strength to save others from living with what we have endured. Joanne, always remember Momma loves you.

This work is also dedicated to others who have suffered from the heart-wrenching reality of losing a loved one to suicide. I dedicate this work to you; you can go on.

Lastly, this work is dedicated to those who are struggling with thoughts of suicide. You matter. You are important. You are loved. You are a vital part of this world and, despite what you may be thinking now, the universe would have a hole in it if you were not here. Reach out and let us help you.

May the results of this work be used to save lives.

ACKNOWLEDGMENTS

On December 6, 2011, I buried my husband. The next morning I sat for my admissions interview for the doctoral program that ultimately culminated into this research. That interview was not conducted in Johnson City, Tennessee, but hundreds of miles away via web conferencing software. Glenna Winters uploaded the software, clicked the buttons, and literally placed my grieved body into a chair for that online interview. She is responsible for the journey to my degree. Glenna, I am forever grateful.

However, that is how things work at Columbia State Community College. Members of the Columbia State "family" wrote recommendations, sat for interviews, reviewed my research survey, and encouraged me when I was tired. Dr. Susan Russell insisted that I apply to the ELPA program; Susan, I still have that Sticky Note. Marilyn Hart also insisted I apply and, like Susan, encouraged me when I was down. Dr. Marilia Gerges and Cecelia Johnson were mentors during my internship. I learned from Dr. Gerges that data can be my friend and I can use them to show the good work I am doing. I learned from Ms. Johnson that, as a leader, it is not about what I need but what I can do for others to support them and help them be successful. There are many more in my Columbia State family who supported me; I thank you all.

If there was a Nobel Prize for dealing with frustrated graduate students, it would go to my cohort buddy Dearl Lampley. Dearl lifted me up when I was down and always gave me an ear when I needed to vent. Thank you, Dearl.

Lastly, I want to thank the members of the PPSL 121 Cohort. We were the first totally online EdD cohort at ETSU, and you were all my friends and online support group. Ann, Susan, Brenda, Yolanda, Sid, Stan, Paul, Tachaka, Cheryl, Jan, Bill, Patty, Angela, and Donna, I thank you all.

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CHAPTER 1

INTRODUCTION

Suicide is the second leading cause of death in individuals between the ages of 15 and 34 in the United States (Centers for Disease Control and Prevention [CDC], 2012b). Approximately 40,600 people in the United States died by suicide in 2012 (CDC, 2012a). Between 2000 and 2009, deaths by suicide increased 15%, surpassing motor vehicle accidents as the leading cause of fatal injury in the United States (Rockett et al., 2012).

Each suicide death seriously affects the lives of at least six survivors (Levine, 2008). This estimate may be higher on a college campus. A college student has numerous classmates, participates in campus organizations, and interacts with others in the college community. In addition to the shock, confusion, fear, anger, and guilt they may experience, students who know someone who died by suicide may be at an increased risk of suicide themselves (Levine, 2008).

Tennesseans are not immune to this tragic loss of life. Approximately 52,000 Tennesseans between the ages of 18 to 29, the age of many college students, seriously consider suicide each year (Crosby, Han, Ortega, Parks, & Gfroerer, 2011). Approximately 3.6% of Tennesseans 18 years old or older seriously contemplate suicide yearly (Crosby et al., 2011). An estimated 18,000 Tennesseans make suicide plans and approximately 6,000 attempt suicide each year (Crosby et al., 2011). In 2012, 978 Tennesseans died by suicide (CDC, 2012a).

Suicide has been a leading cause of death among college students for over 80 years (Schwartz, 2006b). It is currently the second leading cause of death for college students; approximately 1,100 students in institutions of higher education die by suicide yearly (Hass, Silverman, & Koestner, 2005; Turner, Leno, & Keller, 2013). The rate of college student suicide ranges between 6.17 to 7.0 per 100,000 students (Schwartz, 2011; Turner et al., 2013).

College students are in a state of life transition (Stanley, Mallon, Bell, & Manthorpe, 2009; Westefeld et al., 2006). Approximately 46.5% of students report difficulty managing academics, 34.4% report difficulty managing finances, 23.8% have difficulty with career issues, 28.8% suffer from family problems, and 32.7% have difficulty with intimate relationships (American College Health Association-National College Health Assessment [ACHA-NCHA], 2012). These data reflect the many transitional areas of college student life.

Research also indicates that many college students are not adjusting well to college life. Approximately 90% of college students report being stressed and 42.5% report experiencing above average levels of stress (ACHA-NCHA, 2012). Fifty-one percent of college students report feeling overwhelmed and 19.6% report overwhelming anxiety (ACHA-NCHA, 2012). Statistics indicate 21.6% of students feel hopeless, 15.8% feel so depressed they have difficulty functioning, and 23% of students report feeling lonely (ACHA-NCHA, 2012). These students may lack the skills and social support that serve as protective factors against suicide. In fact, 6% of undergraduate college students surveyed had seriously considered suicide; 92% of these students contemplated suicidal methods and 14% actually attempted suicide (Drum, Brownson, Denmark, & Smith, 2009).

Statement of the Problem

Community college students are different from students in 4-year colleges and universities. In addition to the transitions encountered by other college students, community college students are more likely to be first-generation college students (Green, 2006; Joshi, Beck, & Nsiah, 2009), more ethnically and racially diverse than students in 4-year colleges and universities (Green, 2006; Joshi et al., 2009; McColloch & Miller, 2010; Wellman, Desrochers, & Lenihan, 2008), employed more hours while attending college (Joshi et al., 2009), from low-

income families (Green, 2006; Joshi et al., 2009), and assessed with a lower academic aptitude (Joshi et al., 2009). The community college student endeavors to overcome these obstacles while attempting college-level courses (Green, 2006).

First generation college students lack knowledge of the academic culture, do not have family members who understand and support their academic efforts, are often unprepared for the academic rigor encountered in college, may be financially disadvantaged, and work more hours while taking classes (Jenkins, Belanger, Connally, Boals, & Duron, 2013; Orleans, 2011). Whereas first-generation students are less likely to report symptoms of depression, they are two times more likely to attempt suicide than their non-first-generation counterparts (Jenkins et al., 2013; Orleans, 2011).

First generation college students are also more likely to be ethnically and racially diverse than non-first-generation students (Jenkins et al., 2013). The numbers of ethnically and racially diverse students in community colleges are predicted to increase rapidly because of high birth rates and immigration (Green, 2006; McColloch & Miller, 2010; Wellman et al., 2008). There is a strong association between academic difficulties and suicidal ideations in ethnically and racially diverse students (DeLuca, Yan, Lytle, & Brownson, 2014). Furthermore, African American college students have a slightly greater risk for suicide than their Caucasian counterparts (Davidson & Wingate, 2011).

Working during college may decrease the number of hours students have available for study; however, work can also serve as a protective factor against student suicide (Gillman, Kim, Alder, & Durrant, 2006). Thirty-one percent of students who seriously consider suicide and 78% of students who attempt suicide cite financial problems as a contributing factor (Drum et al.,

2009; Westefeld et al., 2005). Consequently, community college students from low-income families are at risk for financial problems and subsequent suicidal ideations.

Academic problems are a major contributing factor to suicidal ideations in college students. While 43% of students who consider suicide cite school problems as a contributing factor, 100% of students who attempt suicide cite school-related stress as one of the reasons for their suicide attempt (Drum et al., 2009; Westefeld et al., 2005). Overall, community college students experiencing lower levels of academic success than their university counterparts have an increased risk for suicidal ideations.

In addition to student characteristics, the community college campus environment is different from the 4-year college or university campus environment. Student life activities on 4-year college campuses that decrease social isolation and campus firearm policies serve as protective factors against suicide for many residential college students (Gillman et al., 2006; Schwartz, 2011). In contrast to 4-year residential colleges, community college students in the Tennessee Board of Regents (TBR) system do not live on campus. Students who live off campus have an increased risk for suicidal ideations (Gillman et al., 2006). Therefore, community college students in the TBR system are at an increased risk for suicide compared to students in 4-year colleges and universities.

Community college students are at high risk for suicidal ideations, but many community colleges lack resources for counseling services and student health services that could support students or provide suicide prevention programs (Floyd, 2003). Thus, it is necessary for community college administrators to employ strategies that deter student suicide. Little is known about the existing suicide prevention practices on Tennessee community college campuses. To

understand what strategies are currently in place, improve student safety, and explore suicide prevention strategies for community college students, more research is needed.

Therefore, the purpose of this qualitative case study is to explore the student suicide prevention strategies in the 13 community colleges in the TBR higher education system. Student suicide prevention strategies are generally defined as strategies that identify students who exhibit warning signs of suicide, prepare members of the campus community to recognize warning signs and refer suicidal students to treatment, guide suicidal students to treatment, or increase awareness of student suicide (King, Vidourek, & Strader, 2008; Quinnett, 2007; Westefeld et al., 2006). For the purpose of this study three categories of suicide prevention strategies were assessed: educational strategies, technological strategies, and institutional strategies. Examples of educational strategies include gatekeeper training and student education. Examples of technological strategies include technological methods used to disseminate information, screen for at-risk students, or provide interventions. Examples of institutional strategies include campus policies or campus coalitions.

Research Questions

The purpose of this study was to explore the student suicide prevention strategies at TBR community colleges. The following research questions guided this study:

What suicide prevention strategies exist at the community colleges in the TBR system?

a. What educational strategies exist to prevent student suicide?

b. What technological strategies exist to prevent student suicide?

c. What institutional level strategies exist to prevent student suicide?

The subquestions were created after an exhaustive review of the existing literature related to suicide prevention on college campuses, presented in more detail in Chapter 2.

Significance of the Study

Research related to college student suicide has evolved rapidly since 1990. "From an epidemiological perspective, suicide rates are mainly dependent upon three variables: age, sex, and race. These three demographic variables, not the fact of being a student per se, are the major determining factors that affect the student suicide rates on campus" (Silverman, 1993, p. 338). To the contrary, research supports the conclusion that the college campus serves as a protective factor against student suicide (Schwartz, 2013; Turner et al., 2013). The college environment contains protective factors that make a difference between students and nonstudents (Schwartz, 2013). This protective environment phenomenon is found within the residential college environment, however, can only be generalized to approximately 52% of students in institutions of higher education in the United States who are enrolled in 4-year colleges and universities (Schwartz, 2006a, 2006b, 2011; Silverman, Meyer, Sloane, Raffel, & Pratt, 1997; Turner et al., 2013). Two-year institutions were not included in the research studies, limiting the generalizability of the conclusions (Schwartz, 2006a).

Means restriction is a major environmental factor that protects students from potential suicidal behavior (Schwartz, 2006a, 2006b, 2011; Silverman et al., 1997). Means restriction includes banning firearms on college campuses; restricting access or creating barriers to deter jumping from roofs, windows, or bridges; and safely securing poisons and chemicals in laboratories (Schwartz, 2006b). Students who live off campus and students who leave campus for weekends, holidays, or illness are more likely to die by suicide than students who remain on campus (Gillman et al., 2006; Schwartz, 2011).

In contrast, students in most 2-year colleges do not live on campus; therefore, they are not afforded many of the environmental protections (Schwartz, 2011). Research is needed to

determine if the suicide rate of students who attend 2-year institutions is comparable to the rate of suicide in the nonstudent general population or the student suicide rate in 4-year colleges and universities. However, quantitative research designs are difficult due to the relatively low number of student suicides associated with any single college campus (Hass, Hendin, & Mann, 2003; Schwartz, 2006a; Silverman, 1993).

Most research related to college student suicide was conducted using the sample of 4-year institutions. Community colleges have seldom been included in the sample of suicide research studies although, considering established risk factors, community college students are more likely to die by suicide than their 4-year peers. Community colleges lack the resources for counseling services and student health services to support students and provide suicide prevention programs (Floyd, 2003). More research is needed to understand the suicide prevention strategies at community colleges given the lack of 2-year college inclusion in prior research samples, the lack of campus protections and resources, and the increased risk for suicide. Therefore, this qualitative research study explored the suicide prevention strategies at the 13 community colleges in the TBR system.

Scope of the Study

This qualitative case study explored each of the 13 community colleges in the TBR system through a three-prong data collection approach: a survey of campus administrators, a document analysis of institutional websites, and interviews with administrators. Between-case and cross-case analysis was conducted to develop themes related to the TBR community college system (Merriam, 2009; Yin, 2014).

Limitations and Delimitations

Research limitations are uncontrollable weaknesses in the study that can threaten the credibility of the research (Ellis & Levy, 2009). To the contrary, delimitations are boundaries created by the researcher that deliberately constrict the scope of the study and clarify what will be addressed in the research (Ellis & Levy, 2009). Delimitations, however, diminish the generalizability of the research results (Ellis & Levy, 2009).

A limitation of the present study is the use of interviews and self-reported survey information. Nonetheless, self-report data collection is the most commonly used type of measure in the social sciences (Barker, Pistrang, & Elliott, 2002). To enhance the confirmability of self-reported data, document analyses of institutional web sites provided triangulation, increasing the rigor of findings grounded firmly in the data from the study (Anfara, Brown, & Mangione, 2002; Merriam, 2009; Stake, 1995; Yin, 2014).

The present study is delimited to a community college system in one state. Community college suicide prevention strategies from other states could enhance the findings of this study. Qualitative research case studies are bound by time and place; results cannot be broadly generalized to other community colleges or higher education systems (Yin, 2014). Despite this delimitation, a strength of the present sample is that exploring an entire community college system in one state enhances the rigorous exploration of practices within and across an entire state system that can lead to transferability, with limits, to other state community college systems.

Definition of Terms

Suicide

Suicide is defined as "a death resulting from an individual's own actions, in which the individual intended to end his or her life" (Carballo, Stanley, Brodsky, & Oquendo, 2012, p. 190).

Suicide Prevention Strategies

Student suicide prevention strategies are generally defined as strategies that identify students who exhibit warning signs of suicide, prepare members of the campus community to recognize the warning signs of suicide and refer suicidal students to treatment, guide suicidal students to treatment, or increase awareness of student suicide (King et al., 2008; Quinnett, 2007; Westefeld et al., 2006).

Technological Suicide Prevention Strategies

Technological suicide prevention strategies, such as web-based tools, social networking sites, and crisis telephone hotlines, may be used to screen students for depression and suicidal intentions, disseminate suicide prevention information, and provide suicide crisis intervention (Gould, Kalafat, Harris-Munfakh, & Kleinman, 2007; Hass et al., 2008; Manning & VanDeusen, 2011).

Institutional Suicide Prevention Strategies

Institutional suicide prevention strategies are campus-wide policies or endeavors to prevent college student suicide (Cimini & Rivero, 2013; Francis, 2003; Joffe, 2008; Kaslow et al., 2012; Schwartz, 2006b).

Educational Suicide Prevention Strategies

Educational suicide prevention strategies, such as gatekeeper training, student education, and curriculum infusion, disseminate suicide prevention information to students and prepare members of the campus community to recognize suicidal warning signs and refer at-risk individuals to life-saving care (Catanzarite & Robinson, 2013; Mitchell et al., 2012; Quinnett, 2007).

Tennessee Board of Regents

The Tennessee Board of Regents (TBR) system was created in 1972 by the Tennessee General Assembly to govern the state-funded community colleges, applied technology centers, and six universities (Who we are, 2013). In addition to mandating policies and regulations, the TBR board approves institutional budgets (About the TBR board, 2013).

Community College

The community colleges explored in this research were the 13 publically funded 2-year community colleges in the TBR system (Who we are, 2013). The community colleges offer certificates and 2-year degrees to educate Tennesseans and prepare them for the workforce (What we do, 2013).

Overview of the Study

This qualitative study includes five chapters. Chapter 1 includes an introduction of the study with the statement of the problem, research questions, significance of the study, scope of the study, limitations, and delimitations of the study. Chapter 2 presents a review of the literature that includes studies of college student suicide, strategies employed to prevent college student suicide, and a brief description of the research sample. Chapter 3 includes the research methodology with a discussion of the survey, sample, data collection, and data analysis. Chapter

4 presents the results of the study. Chapter 5 concludes with a discussion of the study with implications for future policy, practice, and research.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter addresses the literature regarding the concepts of college student suicide and the strategies employed to prevent college student suicide. It also provides a description of the sample employed in this research, the community colleges in the TBR system.

There are at least 15 referenced definitions of suicide (Silverman, 2006). For the purpose of this study suicide is defined as "a death resulting from an individual's own actions, in which the individual intended to end his or her life" (Carballo et al., 2012, p. 190). People who die by suicide deliberately kill themselves.

The literature related to college student suicide is presented in this chapter using the following thematic categories: (1) studies prior to 1950; (2) research studies conducted after 1950 categorized into epidemiological studies and psychological studies; and (3) suicide prevention strategies categorized into educational strategies, technological strategies, and institutional strategies applied on college campuses.

College Student Suicide

Literature Before 1950

The concept of college students deliberately killing themselves was first acknowledged in the late 18th century and early in the 19th century (Slimak, 1990). In Europe college student suicides increased dramatically after the publication of *The Sorrows of Werther* in the 18th century and later *Sex and Character* in 1903. The Symposium of 1910, led by Sigmund Freud, convened in Vienna to examine the relationship between education and college student suicide (Slimak, 1990).

The first studies of American college student suicide were published in 1932 and 1937 (Slimak, 1990). These early studies, prompted by media reports of a suicide epidemic in American colleges, transitioned from an epidemiological study using national statistics to a mixed-methods study of student health records on a college campus (Beeley, 1932; Raphael, Power, & Berridge, 1937).

The first study of college student suicide in the United States was conducted by Beeley (Slimak, 1990). Mortality statistics from the United States Census Bureau were used in an epidemiological approach to reveal no increase in suicides for the general population and no increase in suicides in college-age students; there was no epidemic of college student suicide (Beeley, 1932).

The first suicide research study that focused on college students on a college campus was performed by Raphael et al. (1937). In this retrospective study conducted at the University of Michigan researchers collected data on students who presented to the student health services department as suicidal or with suicidal ideations. In this innovative work the researchers not only provided descriptive statistics of the medical and mental health conditions of the suicidal students but also applied psychological and sociological principles in qualitative analysis to reveal precipitating factors that possibly led to suicidal thoughts, primary and secondary characteristics of the suicidal students, and a description of a suicidal personality derived from the data (Raphael et al., 1937). This study started a dialogue about college student suicide because at that time suicidal thinking was considered "an expectable eddy in the collegiate life stream" (Raphael et al., 1937, p. 14).

Literature After 1950

Epidemiological Studies. Campus studies were interrupted with the onset of World War II but resumed when the war ended; the public returned to college and veterans began to enroll in college (Slimak, 1990). The suicide rates in American young people increased dramatically between the years 1950 and 1980 (Hass et al., 2003). When public attention began to focus on suicide in college students, leaders in institutions of higher education conducted research to determine accurate student suicide rates. Early postwar studies were performed at prestigious competitive-entry institutions and revealed higher suicide rates in college students compared to the general population (Hass et al., 2003).

These early studies, however, contained statistical and methodological problems (Schwartz, 2006b; Silverman, 1993). Consequently, research methods evolved during the last decade of the 20th century and the early years of the 21st century as researchers sought to improve previous research methods (Schwartz, 2006b, 2013; Silverman, 1997). In addition to creating accurate student suicide rates, research methods were further expanded to assess the effectiveness of preventative measures against college student suicide (Schwartz, 2006a).

Methodological problems with the previous studies included the lack of a standardized method in identifying student deaths as suicides, an operational definition of who is a college or university student, a lack of confidence intervals to control for the low rate of suicides, the use of crude suicide rates that could not be compared across studies, and the lack of control for age and sex in the samples (Silverman, 1993). The "Big Ten Study" was conducted in an attempt to resolve the methodological and statistical problems encountered in previous research studies (Silverman et al., 1997). This longitudinal multi-campus research study was conducted at 12 mid-western universities, members of the Big Ten Athletic Association, with data collected from

1980 through 1990. This research is the seminal research study of college student suicide in the 20th century. The longitudinal nature of the study, the multiple sites, the operational definitions, the statistical analysis, the use of age and sex as variables, and the comparison of student demographic groups to comparable demographic groups in the general population created a standard that was used and expanded upon by future researchers.

Allan Schwartz is a pioneer of multi-campus suicide research studies and has contributed extensively to the refinement of college student suicide research methods. Schwartz (2006a) provided rationale for correcting the crude suicide rate and adjusted it to obtain a true estimate of college student suicides. Schwartz (2013) further refined the research methods used to study college student suicide by comparing college student suicide rates to suicide rates of people with comparable ages or genders in the general populations and by comparing student suicide rates to nonstudents of the same age and gender to obtain a more accurate relative risk for student suicide.

Although postwar studies revealed higher suicide rates in college students compared to the general population, the studies were performed at elite colleges with a higher concentration of male students over the age of 25, and the studies contained the previously mentioned methodological problems (Silverman, 1993). Revised research methods revealed that, while the suicide rates in American young people increased dramatically, the suicide rate in college students decreased; between 1920 and 2004 the college student suicide rate dropped from 13.4 per 100,000 to 6.5 per 100,000, approximately half the suicide rate of comparable groups in the general population at that time (Schwartz, 2006b). Thus, it was concluded that the campus environment provided a protective factor against college student suicide (Schwartz, 2006a, 2011, 2013; Turner, 2013).

In addition to providing accurate suicide statistics, research methods have been expanded to assess the effectiveness of suicide prevention measures. For example, the suicide rate of students who seek treatment in college counseling centers is three times the rate of students who do not seek treatment (Schwartz, 2006a). Students who seek treatment are 18 times more at risk to die by suicide than the remaining student population; therefore, counseling centers are effective in preventing college student suicide (Schwartz, 2006a).

Psychological Studies. While some researchers across the country were counting the number of college student suicides, attempting to determine an accurate suicide rate in college students, and struggling to compare the student suicide rate to the appropriate suicide rate in the general population, other researchers took a mental health approach to college student suicide. These researchers gathered information from living students to explore the extent of depression, suicidal ideations, and suicide attempts in college students as well as factors that precipitate suicidal ideation or prevent suicide attempts (Drum et al., 2009: Furr, Westefeld, McConnell, & Jenkins, 2001; Westefeld & Furr, 1987; Westefeld et al., 2005). The psychological studies relied on student self-reported data of depression, suicidal thoughts, feelings, and behaviors instead of student health records used by epidemiological studies, which excluded students who had not used campus mental health services.

Multi-campus research revealed 6% of undergraduates and 4% of graduate students had seriously contemplated suicide during their previous year of study; 90% of those students had created a suicide plan or had considered a suicide method (Drum et al., 2009). In this group of students from 70 colleges, 14% of undergraduates and 8% of graduate students had attempted to kill themselves; over 60% of them had recurring thoughts of suicide (Drum et al., 2009). Students reported that pain, relationship problems, academic problems, and feelings of

hopelessness and helplessness contributed to their suicidal thoughts (Drum et al., 2009). The factors that prevented students from attempting suicide included hurting or disappointing family and friends, plans for the future, and the desire to complete college (Drum et al., 2009).

Loneliness, hopelessness, general feelings of depression, and issues with boyfriends or girlfriends contributed to suicidal thoughts in college students; loneliness, hopelessness, parental issues, issues with boyfriends or girlfriends, and general depression contributed to students' suicide attempts (Westefeld & Furr, 1987). Students who attempted suicide felt lonelier and less hopeful than students who did not attempt suicide (Westefeld & Furr, 1987). Students who had thought about suicide were more likely to attempt suicide (Westefeld et al., 2005).

Approximately 40% of students surveyed knew someone who had attempted suicide and 28% knew someone who had died by suicide (Westefeld et al., 2005). Studies over time reveal the rate of reported suicide attempts in undergraduate students varies from 1% in 2001, increases to 5% in 2005, and decreases to 0.85% in 2009 (Drum et al., 2009; Furr et al., 2001; Westefeld et al., 2005). Students in the 2005 study may have simply reported their suicide attempts more than students in the other studies (Westefeld et al., 2005). Also, the sample size in the 2009 study was much larger than that used in the other studies (Drum et al., 2009; Furr et al., 2001; Westefeld et al., 2005).

When public attention began to focus on suicide in American college students, leaders in institutions of higher education conducted research to determine accurate student suicide rates and compare them to nonstudents in the general population. Overall, epidemiological studies used the number of suicides, whereas the psychological studies examined student suicidal ideations, suicide attempts, and factors that precipitated or prevented student suicide. Research

methods have been expanded to assess the effectiveness of suicide prevention measures, leading to a body of literature related to student suicide prevention strategies.

College Student Suicide Prevention Strategies

The existing literature related to college student suicide prevention can be categorized across three domains: (1) educational strategies, (2) technological strategies, and (3) institutional strategies. Examples of educational strategies included gatekeeper training and student education. Examples of technological strategies included technological methods used to disseminate information, screen for at-risk students, or provide interventions. Examples of institutional strategies included campus policies or campus coalitions.

Educational Strategies

Educational suicide prevention strategies disseminate suicide prevention information to students and prepare members of the campus community to recognize suicidal warning signs and refer at-risk individuals to life-saving care. The literature on this topic can be grouped into three major categories: (1) formal training outside the classroom, such as gatekeeper training; (2) informal student education outside the classroom; and (3) suicide education activities interwoven into classroom content, known as curriculum infusion.

Only 11% of students surveyed believed they could recognize a friend displaying warning signs of suicide, only 17% would ask if friends were having suicidal thoughts, and 71% were not aware of campus resources (King et al., 2008). Students who had received suicide education in high school or in college were significantly more confident in recognizing warning signs, asking if a friend was suicidal, and assisting a friend to get the help he or she needed (King et al., 2008). While this research indicates college students in general cannot recognize the warning signs of suicide, would not ask if a friend felt suicidal, and are not aware of campus

resources to help a suicidal friend, it also provides evidence to support the need for education and that education on suicide prevention can be effective.

Gatekeeper Training. A gatekeeper in suicide prevention literature is any person who can recognize the warning signs of suicide in another person (Quinnett, 2007). Anyone in a position to observe the behavior of others can be a gatekeeper. Most students who die by suicide have not sought mental health care (Mitchell, Kader, Darrow, Haggerty, & Keating, 2013; Quinnett, 2007). Therefore, other students, faculty members, family members, and friends are in key positions to detect warning signs and refer suicidal students to the help needed and save lives. The goal of gatekeeper training is to provide the knowledge and skills needed to recognize suicidal warning signs and refer at-risk individuals to life-saving care (Quinnett, 2007).

The QPR (Question, Persuade, and Refer) gatekeeper model was created to accomplish this goal (Quinnett, 2007). It provided a step-by-step method to prepare gatekeepers with recognition and action steps when others display suicidal warning signs. QPR can be equated to CPR (cardiopulmonary resuscitation); both types of training teach laypeople how to recognize the warning signs of death, act on what they have discovered, and refer people to life-saving health care (Quinnett, 2007). QPR is the most common gatekeeper-type suicide prevention program used on college campuses (Mitchell et al., 2013).

After gatekeeper training, participants' knowledge of suicide warning signs, the belief they would intervene when they encountered someone displaying warning signs, and the awareness of resources they could use for referrals is significantly increased and is sustained over 3 to 6 months (Indelicato, Mirsu-Paun, & Griffin, 2011; Mitchell et al., 2013). There is a significant difference between the observed behavioral skills before gatekeeper training compared to after gatekeeper training; as many as 54% of participants change their behavior after

training (Cross, Matthieu, DeQuincy, & Knox, 2010). However, this behavioral change does not lead to an increase in referrals to campus mental health services (Mitchell et al., 2013). Gatekeeper training that includes active learning techniques such as role play improves participants' self-efficacy and skills (Pasco, Wallack, Sartin, & Dayton, 2012). Group-specific, single-session, interactive gatekeeper training increases participant knowledge, increases participant comfort when talking to others about suicide, and affords participants the opportunity to role-play within their perspective roles (Cimini et al., 2014).

Student Education Outside the Classroom. Community college students are most likely to learn about health promotion initiatives by reading posters and flyers (Donovan, Chiauzzi, Floyd, Bond, & Wood, 2012). Research participants who read the warning signs of suicide report an increased ability to recognize suicidal warning signs (Van Orden et al., 2006). Therefore, posters, flyers, brochures, and campus newspapers may be used to educate students about the warning signs of suicide, how to approach people at risk for suicide, and resources for referral (Cook, 2011; Donovan et al., 2012; McCarthy & Salotti, 2006).

Two thirds of students who divulge their suicidal thoughts tell a peer first (Drum et al., 2009). Therefore, many colleges train peer educators to recognize the warning signs of suicide, the risk factors for suicide, at-risk populations, and resources for referrals (Catanzarite & Robinson, 2013). Peer educators are effective because "they are perceived by other students as being like them enough to understand their problems and points of view" (Catanzarite & Robinson, 2013, p. 44). After training peer educators can give classroom presentations, deliver programs at Greek life associations, and participate in campus awareness activities to raise awareness of mental health issues, decrease stigma associated with mental illness and

counseling, provide coping mechanisms for those with mental health issues, and connect those in need to campus resources (Catanzarite & Robinson, 2013).

Active Minds is a national student-led campus program that uses peer relationships to increase mental health awareness, promote suicide awareness and prevention, decrease stigma associated with suicide and mental health problems, and connect students to resources (Walther, Abelson, & Malmon, 2014). Campus-based chapters created and led by students can sponsor programs and projects specific to campus needs or use programs provided by the national organization (Walther et al., 2014). In addition to outreach and awareness efforts, students work with campus administrators to create changes in campus protocols and the campus environment (Walther et al., 2014).

Curriculum Infusion. Curriculum infusion is an effective means to engage faculty in student mental health promotion and provides a different avenue to disseminate mental health and suicide prevention information to students (Mitchell et al., 2012). Curriculum infusion is "developing class activities and assignments that introduce faculty and students to mental health topics such as depression, anxiety, eating disorders, or suicide while at the same time focusing on academic content" (Mitchell et al., 2012, p. 25). Examples of curriculum infusion include (a) art exhibits created by visual arts students to increase acceptance of emotional distress; (b) choreographed dances created by dance students to reflect emotional healing; (c) posters, brochures, and public service announcements created by marketing students to promote student counseling services; (d) films created by media students to create awareness of mental health issues; (e) backpacks decorated by students in health and wellness classes to represent students who died by suicide; and (f) themed writing contests in writing classes that address mental health issues (Mitchell et al., 2012.) Evaluations indicate that students find curriculum-infused

activities beneficial and increased their knowledge of campus mental health resources (Mitchell et al., 2012).

Only one educational strategy, curriculum infusion, occurs in the classroom. The other strategies require students to devote additional time or attention outside of class. However, community colleges students usually do not live on campus and often leave campus immediately after classes, decreasing the amount of time they spend on campus and their exposure to suicide prevention efforts (Donovan et al., 2012). Therefore, technology such as the Internet can be an effective means of delivering information to community college students (Donovan et al., 2012).

Technological Strategies

Technology may be used to disseminate suicide prevention information to students, staff, faculty, administrators, and the community. College web sites, social networking sites, and online courses are cost-effective means of disseminating suicide prevention information and providing suicide prevention training on college campuses (Manning & VanDeusen, 2011). Web sites can provide information about suicide warning signs, how to assist suicidal friends or family, campus resources for referrals, and training sessions (Manning & VanDeusen, 2011). Social networking sites can be used to communicate with students, increase suicide awareness, promote suicide prevention training, and link students to suicide prevention web sites (Manning & VanDeusen, 2011). Online courses may have modules that address appropriate terminology, statistics, risk factors, warning signs, protective factors, campus resources, community resources, and practical methods to intervene when suicidal students are identified (Manning & VanDeusen, 2011). In addition to improving access to multiple campuses, web-based training courses can decrease training costs and allow participants to learn at their convenience (Manning

& VanDeusen, 2011; Stone, Barber, & Potter, 2005). Web-based gatekeeper training can be as effective as face-to-face training (Lancaster et al., 2014).

Technology may be used to screen students for depression and suicidal intentions, to disseminate suicide prevention information, and to provide suicide crisis intervention (Gould et al., 2007; Hass et al., 2008; Manning & VanDeusen, 2011). Web-based tools can be used to reach students at risk for suicide and screen students for depression and suicide risk factors (Hass et al., 2008). Web-based tools can screen students for mental health problems and provide them with immediate feedback with or without referrals to mental health professionals. The web tools can be customized to provide campus-specific contact information and crisis hotline numbers to students who select specific responses. The web sites can also provide videos and written educational materials (Hass et al., 2008).

Crisis telephone hotlines can be an effective way to decrease hopelessness, psychological pain, and the intention to die in suicidal individuals (Gould, Kalafat, Harris-Munfakh, & Kleinman, 2007). The National Suicide Prevention Lifeline is a national network of suicide prevention hotlines that can be accessed throughout the country (Gould et al., 2012). The goals of this national telephone hotline network are to decrease the suicidal state of the callers and to refer callers to the mental health care they need (Gould et al., 2012). This telephone hotline is free and can be integrated easily into suicide prevention programs on college campuses (Cimini & Rivero, 2013; Cook, 2011; Kaslow et al., 2012; Washburn & Mandrusiak, 2010). The National Suicide Prevention Lifeline web site hosts a live chat line and provides suicide prevention information (National Suicide Prevention Lifeline, n.d.). Technological strategies such as crisis telephone hotlines and web-based education and screening may complement institutional-wide efforts to prevent student suicide.

Institutional Strategies

Institutional suicide prevention strategies are campus-wide endeavors employed to prevent college student suicide. Campus-wide coalitions and institutional policies, guidelines, and protocols are examples of institutional level strategies.

Campus Coalitions. Campus-based suicide prevention coalitions are a total campus enterprise with every part of the campus community investing time and resources into suicide prevention endeavors (Kaslow et al., 2012). Suicide prevention coalitions "collaborate to promote the well-being of a community by capitalizing on its strengths and its diverse constituencies, sharing resources, working toward a common goal, and improving the collective response to suicide prevention" (Kaslow et al., 2012, p. 123). No one person is responsible and all stakeholders take responsibility and contribute to the effort (Kaslow et al., 2012).

Campus Policies**.** Institutional policies can prevent college student suicide. Policies that address means restrictions, guidelines to identify and respond to suicidal students, and postsuicide protocols are used on college campuses to prevent college student suicide (Cimini & Rivero, 2013; Francis, 2003; Joffe, 2008; Schwartz, 2006b).

Means restriction is a successful strategy to prevent college student suicide (Schwartz, 2006b). Means restriction includes restricting firearms on college campuses; preventing access or creating barriers to deter jumping from roofs, windows, or bridges; and safely securing poisons and chemicals in laboratories (Schwartz, 2006b). Although suicide prevention was not the motivating factor, restricting firearms on college campuses has contributed to the relative protective factor of being a college student and may reflect the power that institutional policies can wield in the effort to prevent college student suicide (Schwartz, 2006b, 2011; Silverman, 1997).

Institutions may have policies that address identifying suicidal students, responding to suicidal students, committing suicidal students, and notifying family and appropriate campus personnel (Francis, 2003). Policies, guidelines, and protocols, however, cannot lead to violations of Section 504 of the Rehabilitation Act of 1973 (Pavela, 2006). "Educational institutions at all levels can be held accountable for violating state and federal disabilities law if they enforce inflexible rules that preclude individualized assessment and the possibility of reasonable modifications of pertinent policies and procedures" (Pavela, 2006, p. 368).

Threat assessment teams can be used to protect students' civil rights while protecting them from self-harm and may reduce institutional liability if students harm themselves (Penven & Janosik, 2012). Threat assessment teams are a "proactive measure to coordinate communication and respond to students with suicidal intentions" (Penven & Janosik, 2012, p. 309). To be effective institutional leaders must establish a team, employ the team, and provide training for team members. In addition to creating a standard plan for identifying and helping suicidal students, teams must create and implement policies and procedures to provide individualized student mental health assessments and plans for intervening based on the assessments (Penven & Janosik, 2012).

A program at the University of Illinois (UI) is an example of how institutional policy and threat assessment teams can decrease college student suicide. In 1984 UI implemented a program that required students who made a suicide threat, made preparations for a suicide attempt, carried out a suicide attempt, or reported a preoccupation with dying to attend four assessment sessions with counselors, social workers, or psychologists. "The expression of suicidal intent is comprised of actions that are subject to documentation. As a documented action, expressed suicidal intent can be subject to a code of conduct and administrative sanction"

(Joffe, 2008, p. 90). Specific observable behaviors were considered violations of the student code of conduct and were reported to the suicide prevention team. The team assessed each incident; students who violated the code of conduct were required to attend four assessment sessions with a mental health professional. Students were subject to mandatory withdrawal from the college if they did not attend the four required sessions. The program created a 45.3% reduction in student suicides over 21 years; none of the 2,017 students who took part in the program died by suicide (Joffe, 2008).

This program at UI is one example of an empirically tested strategy to demonstrate a reduction in college student suicide. It is also unique because it addresses observable behaviors or statements instead of mental health diagnoses (Joffe, 2008). These behaviors and statements can be recognized easily by the student body, increasing the likelihood of detection and treatment of suicidal students. Also, institutional personnel at UI used student conduct policies to mandate mental health assessments (Joffe, 2008). Student civil rights were preserved because students did not receive disciplinary sanctions secondary to their suicidal behavior or thoughts; disciplinary action was only employed if students refused to attend the mental health assessments (Penven & Janosik, 2012). This program demonstrates how colleges and universities can add suicidal behaviors and suicidal speech to the lists of prohibited campus behavior and use prohibited campus speech to identify suicidal students. It also demonstrates the effectiveness of threat assessment teams in suicide prevention.

In addition to policies that address means restrictions and guidelines to identify and respond to suicidal students, institutions may have postsuicide protocols. An estimated 30 coworkers and classmates are directly affected by the suicide death of a person 24 years old or younger, the age of many college students (Berman, 2011). “Exposure to suicide, whether

through a family member, peer, or other personal connection, or through figures in the media, is an established risk factor for suicide" (Cimini & Rivero, 2013, p. 90). An individual's risk for suicide increases if there is a personal connection to someone who died by suicide. Postsuicide protocols must be "delivered in a coordinated, collaborative, responsive, and proactive manner" (Cimini & Rivero, 2013, p. 84) to prevent further loss of life and to decrease the incidence of student mental health issues after a campus suicide. In addition to employing structured postsuicide protocols, staff at Cornell University conduct community support meetings to help students cope with peer suicides and to begin the healing process (Meilman & Hall, 2006). Students also receive information about support services and suggestions for dealing with postsuicide grief and loss (Meilman & Hall, 2006).

Suicide prevention education inside and outside the classroom can prepare members of the campus community to recognize suicidal warning signs and refer at-risk individuals to life-saving care. Technology can be used to enhance or supplement educational strategies, screen for at-risk students, and connect students to life-saving resources. Policies can be used in a campus-wide effort to protect students, identify at-risk students, and create individualized plans of action to keep students safe. The college student suicide prevention strategies identified in the literature review provided a foundation for this qualitative research study.

The Tennessee Board of Regents System and the Community Colleges

The purpose of this case study research was to explore the presence of the aforementioned student suicide prevention strategies in the public community colleges in Tennessee. Therefore, it is necessary to provide a brief description of the community colleges and their governing agency.

The Tennessee Higher Education Commission is the coordinating authority for higher education in Tennessee (Education Commission of the States [ECS], 1997). The commission has a statutory responsibility to coordinate the two governing boards, the University of Tennessee Board of Trustees and the Tennessee Board of Regents (ECS, 1997; Hargett, 2013). The Board of Regents governs the State University and Community College System of Tennessee, which includes the 13 community colleges in this study (Hargett, 2013).

The Tennessee Board of Regents

The TBR system was created in 1972 by the Tennessee General Assembly to govern the state-funded community colleges, applied technology centers, and six universities (Hargett, 2013; Who we are, 2013). Board members, appointed by the Governor of Tennessee, represent the congressional districts and grand divisions of the state. A faculty member and a student are appointed to the board each year. The Governor and other commissioners complete the 18-member board (Who we are, 2013). In addition to mandating policies and regulations, the TBR board approves institutional budgets (About the TBR board, 2013; Hargett, 2013).

The Chancellor serves as the chief executive officer of the TBR system (Office of the chancellor, 2013). The Chancellor is responsible for the implementation of board decisions and the daily operations of the system. Institutional presidents communicate to the board through the Chancellor; presidents also communicate board decisions to their constituents in the institutions (How we work, 2013). The Board views the office of institutional president as "the chief executive officer of the institution with broadly delegated responsibilities for all facets of campus management and operations. The president serves at the pleasure of the board…" (How we work, 2013, para. 3).

The Community Colleges

The TBR board members govern a system of 13 publically funded 2-year community colleges (Who we are, 2013). Community colleges offer certificates and 2-year degrees to educate Tennesseans in preparation for the workforce (What we do, 2013). Community colleges serve students who: need high school equivalency diplomas, are currently in high school, have recently graduated from high school, entered the workforce immediately after high school and decide to get a college degree, return to college to finish a degree, or need more education or skills to obtain new employment (National Center for Higher Education Management Systems [NCHEMS], 2010). The community colleges provide services that can prepare students for college-level classes, transfer to a 4-year college, or direct entry into the workforce. Community college personnel provide courses and services to enhance the quality of life in the community (NCHEMS, 2010).

There are approximately 86,236 students enrolled in TBR community colleges (Tennessee Board of Regents [TBR], 2014). Table 1 provides, in percentages, the enrollment status as well as the age, gender, and race distributions of students enrolled in the TBR community colleges in 2014.

Table 1

Enrollment Status, Age, Gender, and Race Distributions of Students in TBR Community Colleges Fall 2014

Enrollment Status		Student Age		Student Gender		Student Race			
Full-time	Part-time	< 25 years	25 + years	Female	Male	White	Black	Hispanic	Other
43%	57%	70%	30%	60%	40%	73.8%	16.8%	3.7%	5.7%

Source. Tennessee Board of Regents (2014). *Enrollment fact book*. Retrieved from https://www.tbr.edu/sites/tbr.edu/files/media/2014/12/EnrollmentFactBook_Fall2014_0.pdf

Community colleges must incorporate TBR policies and guidelines into institutional policies and guidelines (Policies and guidelines, 2014). Although suicide is a serious problem in college students, TBR does not have policies that require student health or student mental health services (Policies and guidelines, 2014). On September 19, 2014, M. Sheen confirmed that there were no pertinent policies (M. Sheen, personal communication, September 19, 2014).

In 2010 the Tennessee General Assembly enacted the Complete College Tennessee Act; this statute mandated the creation of a unified community college system to improve services to students, reduce costs, improve educational opportunities, and react more rapidly to the ever-changing needs of the workforce (NCHEMS, 2010). The statute required TBR board members to oversee the transition of the 13 community colleges into a comprehensive, statewide system (Complete College Tennessee Act, 2010). At the time of this study the transition was still in progress.

Conclusion

As recently as 1980 researchers mistakenly reported higher suicide rates in college students compared to people in the general population (Hass et al., 2003). Research was improved by using standardized methods, adding additional variables, and adjusting crude suicide rates to obtain true estimates of college student suicides (Schwartz, 2006a, 2006b, 2013; Silverman, 1993; Silverman et al., 1997). In 2013 the student suicide rate was almost half the suicide rate of the general population (Schwartz, 2013; Turner, 2013). However, these study samples were limited to 4-year institutions (Schwartz, 2006a, 2006b, 2011; Silverman, 1997; Turner et al., 2013). Two-year institutions were not included in the research samples, limiting the generalizability of the conclusions to community college students (Schwartz, 2006a).

The campus environment provides a protective factor against student suicide; this protection diminishes when students leave campus (Schwartz, 2011; Schwartz, 2013). Community college students in the TBR system do not live on campus.

The 4-year institutions in the research studies have mental health departments with psychiatrists and psychologists to assess and treat students with mental health problems that may lead to suicide. Furthermore, residential colleges have resources to promote suicide education and prevention campaigns. These 4-year institutions have student health departments staffed with practitioners to assess and treat physical problems, identify victims of suicide attempts, and manage campus health promotion initiatives. TBR does not require institutions to provide health services or mental health services to community college students (M. Sheen, personal communication, September 19, 2014; Policies and guidelines, 2014). The community colleges in the Tennessee Community College system do not have student health and student mental health resources that are available to students in 4-year institutions. Therefore, the purpose of this study is to explore the student suicide prevention strategies that exist in the TBR community colleges.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

Purpose Statement

This qualitative case study research was an exploration of the student suicide prevention strategies in the 13 community colleges in the Tennessee. Student suicide prevention strategies were generally defined as strategies that identify students who exhibit warning signs of suicide, prepare members of the campus community to recognize the warning signs of suicide and refer suicidal students to treatment, guide suicidal students to treatment, or increase awareness of student suicide (King et al., 2008; Quinnett, 2007; Westefeld et al., 2006). For the purpose of this study, three categories of suicide prevention strategies were developed from a thematic analysis of the literature related to student suicide: (1) educational strategies, (2) technological strategies, and (3) institutional strategies. Examples of educational strategies included gatekeeper training and student education. Examples of technological strategies included technological methods used to disseminate information, screen for at-risk students, or provide interventions. Examples of institutional strategies included campus policies or campus coalitions.

Research Questions

This study was an exploration of the student suicide prevention strategies at TBR community colleges. The following research questions guided the study:

What suicide prevention strategies exist at community colleges in the TBR system?

a. What educational strategies exist to prevent student suicide?

b. What technological strategies exist to prevent student suicide?

c. What institutional level strategies exist to prevent student suicide?

The subquestions were created to align with the categories presented in Chapter 2 and to provide a foundation for data collection. The questions on the survey instrument aligned with the research subquestions. Data collected from the review of institutional web sites were categorized to align with the research subquestions. The questions on the interview guide served to corroborate and expand upon data collected in the survey and web site assessments.

Design of the Study

This study followed a qualitative method design. "…all inquiry designs are affected by intended purposes and targeted audience…" (Patton, 2002, p. 12). The purpose of this study was to explore the suicide prevention strategies on community college campuses. "We conduct qualitative research because a problem or issue needs to be explored" (Creswell, 2007, p. 39). Qualitative methods promote the detailed exploration of issues and phenomena (Patton, 2002).

The targeted audiences for this research were the educators, administrators, and policymakers in the public community colleges and higher education system in Tennessee. Qualitative methods are used in the natural environment where the issues or phenomena occur; qualitative reporting permits the researcher to provide rich descriptions that can easily be interpreted by the intended audience (Creswell, 2007). Therefore, qualitative inquiry aligned with the purpose of this study.

Case Study

This research was conducted with a case study approach. Case study research "facilitates exploration of a phenomenon within its context using a variety of data sources" (Baxter & Jack, 2008, p. 544). Additionally, case study research "involves the study of an issue explored through one or more cases within a bounded system" (Creswell, 2007, p. 73). The assessment of suicide

prevention efforts on community college campuses within the TBR system aligned with this approach.

This study is an instrumental case study and did not explore attributes in the cases that did not address the research questions (Stake, 1995). This embedded multiple-case study explored the strategies in each community college in preparation for within case and cross-case analysis (Yin, 2014).

Statement of the Researcher's Perspective

Because the researcher is an instrument in qualitative research, it is important for the researcher to disclose any biases or perceptions that may influence data collection, data analysis, or data interpretation (Patton, 2002). I was awarded a degree from one of the community colleges in the study, was employed at that community college, and taught at that community college for over 20 years. Also, I was employed at the college and received tuition assistance as an employee benefit during the time this research was conducted.

I am also a survivor of suicide. A suicide survivor is not an individual who has attempted suicide, but is an individual who had a relationship with someone who died by suicide (Campbell, 2012). Moreover, I am also a registered nurse with a master's degree in nursing science. Nursing professionals are taught to cast aside personal emotions and biases and think objectively. In fact, while educators may view this research study as a type of policy analysis, nursing and public health professionals regard it as an assessment of the college community.

As a former community college student, a veteran educator in the community college system, a survivor of suicide, and a nurse, I offer a unique perspective to this research study. I am familiar with the community college setting, understand the science related to suicide, and am trained to perform objective assessments.

Ethics

Required review forms and supporting documentation were submitted to the East Tennessee State University Institutional Review Board (IRB) to obtain IRB approval for the study, with approval received on April 16, 2015 (Appendix A). Survey participants were given information about the purpose of the research and confidentiality; completion of the questionnaire served as consent (McMillan & Schumacher, 2010). The names of respondents were listed on a separate document to assist the researcher in identifying participants for follow-up interviews. The interview participant document was shredded after data collection. To ensure that all colleges were participating in the study and to triangulate data with the web site assessments, it was necessary to identify the college from which each questionnaire was submitted; however, upon submission the campus names were recoded to maintain confidentiality (Creswell, 2007). The key to the identification codes was secured to protect campus identities. The names of the interviewees were not recorded in interview notes; only the name of the institution was recorded in the notes, and it was recoded to maintain confidentiality in reporting. In an effort to prevent harm, potential survey respondents with histories of personal loss to suicide who did not wish to participate in the study were encouraged to provide an additional interview name for that campus.

It is important to emphasize that the purpose of the data interpretation in this study was to create an initial understanding of the suicide prevention efforts employed on the community college campuses. Case study researchers "have ethical obligations to minimize misrepresentation and misunderstanding" (Stake, 1995, p. 109). Therefore, comparisons between the colleges and generalizations that may be created were intended to provide a current picture of the issue being studied and were not intended to be judgmental in nature or to create a negative portrayal of any college.

Setting

Because this study was based on the community colleges in the TBR system, a review of the TBR system and the community colleges was provided in Chapter 2. Figure 1 depicts the service area of each community college in the TBR system, the counties in each service area, and the number of suicides in each county in 2010.

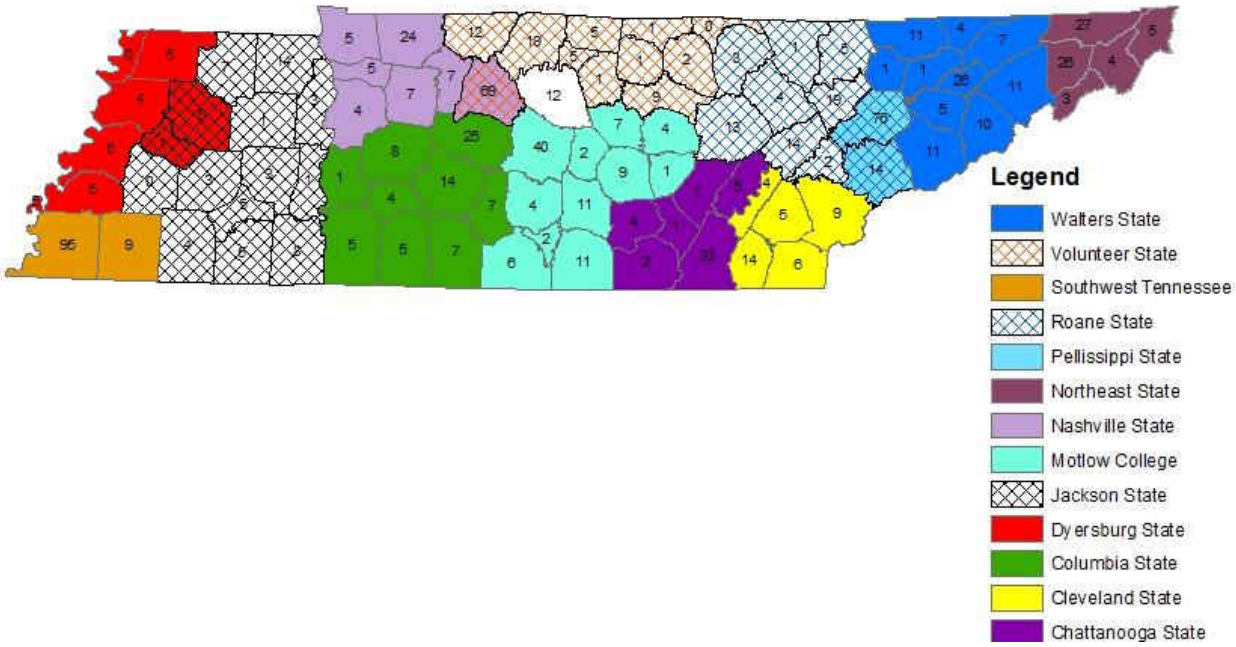

Figure 1. Community college service areas and suicides in 2010
Notes. Map was created with Geographic Information System software.
Sources. Service area information was obtained from 13 community college web sites and suicide death statistics were obtained from the Tennessee Department of Health (see References for source information details).

Cases

Units of Analysis

The researcher must define the case and bind the case prior to performing case study research (Yin, 2014). The research issue or concern may be used to select the case, or unit of analysis (Merriam, 2009). The unit of analysis may be "an individual, a community, an organization, a nation-state, an empire, or a civilization" (Sjoberg, Williams, Vaughn, & Sjoberg,

1991, p. 36). Therefore, the cases in this research study were the 13 community colleges in the TBR system.

The researcher must further bind or delimit the cases to determine what will be included and omitted from the study (Merriam, 2009; Yin, 2014). In this study the research questions that were generated from the thematic development of an exhaustive literature review related to student suicide guided data collection from the cases. The timeframe for data collection was limited to 3 weeks. Purposeful sampling was employed to select an administrator at each college who had knowledge of the suicide prevention strategies. Modified snowball sampling was used to locate administrators who served as "information-rich informants" (Patton, 2002, p. 237). Document analysis was limited to information collected on institutional web pages.

Case Descriptions

There were approximately 89,729 students enrolled in the 13 TBR community colleges (TBR, 2014). In 2010 approximately 943 Tennesseans died by suicide (CDC, 2012a). A thick, rich description of each college is provided in Appendix B. Table 2 provides the names, the number of students enrolled in fall semester of 2014, and the number of suicides in the service area in 2010 for each of the 13 community colleges.

Table 2

Community College Enrollments and Service Area Suicides

Name	Enrollment	Suicides in Service Area
Chattanooga State	9,332	46
Cleveland State	3,522	38
Columbia State	5,117	76
Dyersburg State	2,847	26*
Jackson State	4.924	51*
Motlow State	4,758	97
Nashville State	10,044	121*
Northeast State	5,865	65
Pellissippi State	10,099	90
Roane State	5,832	147*
Southwest Tennessee	10,227	104
Volunteer State	7,664	136*
Walters State	6,005	87*

Notes. Suicide data were calculated by adding the number of documented suicide deaths in each county served by the community college. Service area information was obtained from college web sites and suicide death statistics were obtained from the Tennessee Department of Health. *Sources*. Community college web sites, Tennessee Department of Health, and TBR *Enrollment Fact Book* (see references for detailed list).
* Service area overlaps with another community college

Data Collection

Survey Instrument

A hallmark and strength of case study research is the use of multiple sources of data to create a rich description of the cases and phenomena being studied (Baxter & Jack, 2008; Creswell, 2007; Yin, 2014). Given the paucity of suicide prevention research on community college campuses, the researcher created an instrument for data collection (Creswell, 2007). An extensive literature review, presented in Chapter 2, was conducted to reveal the numerous suicide prevention strategies employed on college campuses. The research questions were developed from the literature review (Creswell, 2007; Yin, 2014). Subsequently, the literature review was used to create the items on the survey instrument (Creswell, 2007; Stake, 1995). The items on the survey instrument align with the research questions (Anfara et al., 2002).

An analysis of the strategies in the literature review revealed three major categories: educational strategies, technological strategies, and institutional strategies. The survey instrument was divided into the three categories. To elicit information from each campus in the same manner and to represent the suicide prevention strategies described in the literature, an Internet-based survey with checklist items was created to identify the strategies employed on each campus (McMillan & Schumacher, 2010).

The survey solicited the name of the college and provided checklists for respondents to select strategies employed on their campuses. Given the possibility that respondents may not be familiar with suicide prevention strategies, each category had opening statements to introduce the suicide prevention strategies to the respondent. In addition to the checklists items, each category had an open-ended question to solicit strategies employed that were not included on the survey instrument (Patton, 2002).

The creation of a new instrument required pilot testing to improve the instrument and to test the instructions provided with the survey (McMillan & Schumacher, 2010). Also, given the sensitive nature of the topic, college faculty members with degrees in psychology or mental health reviewed the instrument. The survey was placed online in the software program Survey Monkey; the pilot test was conducted using the same online format as employed in the actual survey administration. The survey instrument is provided in Appendix C.

Document Review Protocol of College Web Sites

Web pages are considered documents and may be used as a source of data in qualitative research (Bowen, 2009; Merriam, 2009). Documents are used to corroborate data collected from others sources, particularly in case study research (Bowen, 2009; Yin, 2014). The researcher reviewed each of the college web sites for the presence of suicide prevention strategies by

creating a web site review protocol to organize and standardize data collection across the institutions. Items on the web site document review protocol were derived from the literature review in Chapter 2 and aligned with the research questions (Anfara et al., 2002; Creswell, 2007; Stake, 1995). The document review protocol is provided in Appendix D.

Interviews

Interviews are an important source of data in case study research and can be used to corroborate findings or to explore phenomena more thoroughly (Patton, 2002; Yin, 2014). Semistructured interviews allow the researcher to investigate an issue and provide the researcher freedom to explore new ideas or avenues of inquiry that present during the interview process (Merriam, 2009). An interview guide is a list of interview questions or prompts and provides consistency in the interview process, delimits the issues that will be addressed in the interview, and assists the researcher in collecting the data needed to address the research questions (Merriam, 2009; Patton, 2002). In this research semistructured interviews were conducted to corroborate survey and web site findings and to more thoroughly explore the suicide prevention efforts at the institutions. The semistructured interview guide is provided in Appendix E.

Emergent Institutional Characteristics

In qualitative research data analysis occurs as data are collected. "[Data] collection and analysis should be a simultaneous process in qualitative research. In fact, the timing of analysis and the integration of analysis with other tasks distinguish a qualitative design from traditional, positivistic research. A qualitative design is emergent" (Merriam, 2009, p. 169). During data collection institutional characteristics emerged that needed to be included in data collection and subsequent data analysis.

For example, interviewees from rural institutions cited a lack of resources in their rural service area and suggested that institutions in urban areas may have more resources. One interviewee stated "our campus is located in a metropolitan area; we have a lot of resources off campus." Thus, this emergent discovery led by participant data resulted in a decision to categorize the institutions according to their setting based upon their Carnegie classification. For over 40 years the Carnegie Classification system has been used to describe institutional diversity and to aid in research of postsecondary institutions (About Carnegie Classification, n.d.).

The majority of the institutions were classified as rural-serving institutions (Institutional lookup, n.d.). Urban-serving institutions are based in metropolitan areas that have a population over 500,000; institutions in areas with lower populations are defined as rural-serving (Methodology: Basic classification, n.d.). However, some rural institutions had considerably lower student enrollments than others. After consulting the Carnegie classifications, the researcher discovered that most of the rural institutions were categorized as medium in size (Institutional lookup, n.d.). Medium-sized 2-year institutions have enrollments between 2,500 and 7,500; large institutions have enrollments over 7,500 (Methodology: Basic classification, n.d.). In an effort to further discern potential differences among the medium-sized institutions, the researcher calculated the median fall 2014 student enrollment (Witte & Witte, 2010). Institutions with student enrollments below the median were subsequently classified as small.

One interviewee, a Dean of Students with counseling experience, stated "We do not have professional counselors on campus. It makes a big difference in how you approach this issue." The researcher then decided to add the employment of a behavioral health counselor as an institutional characteristic. Subsequently, through the interviewee identifications of these important characteristics, the researcher added the characteristics of setting, size, and the

employment of a mental health counselor as institutional characteristics for data collection and analysis.

Data Collection Procedures

Data were collected in two phases. During the first phase the researcher established a campus resource person, administered the survey to that campus resource person, and reviewed institutional web sites.

Community colleges in the TBR system vary in their organizational structures. For example, campuses may have a director who oversees student services or a vice-president who is responsible for health and safety concerns. Therefore, there was no specific office or officer across each campus to complete the survey. The researcher reviewed college web sites and searched for administrators who were directly responsible for student safety and well-being to determine an initial contact person on each campus.

When an initial contact person was determined, the researcher sent the person on each campus an introductory email that described the research study and solicited participation in the study. Purposeful sampling was used to locate administrators who were most knowledgeable about suicide prevention strategies on each campus (Merriam, 2009). In the introductory email all contact persons were asked to provide contact information of a different person if they believed someone else was more knowledgeable about the topic. Given the nature of the topic, respondents were asked to refer the questionnaire to another person if they were personally struggling or had lost someone to suicide.

A second email was sent to each resource person. It repeated the information presented in the introductory email, provided informed consent information, presented instructions, and offered a link to the online survey. IRB approved emails are provided in Appendix F. Survey

results were recorded in Survey Monkey software. While surveys were being completed, the researcher used the web site document review protocol to review the web sites of each community college for evidence of suicide prevention efforts.

Initially, only two participants completed the survey. Because the sample must support the purpose of the study, and the purpose of this study was to explore the suicide prevention strategies in the community colleges of the TBR system, data from only two surveys were insufficient (Patton, 2002). It was decided that the survey questions would be incorporated into the interview protocol to gather information about the strategies used on remaining campuses. The researcher adjusted the research plan and modified the interview guide to include the survey prompts as well as the original open-ended interview questions. Considering the interviewees had not completed the online survey and would be unfamiliar with the research study, the researcher created an introductory script to add to the interview guide. The modified interview guide is provided in Appendix G.

The researcher sent IRB approved emails to the resource person at each institution to solicit interviews. After no responses, the researcher made phone calls for appointments. A copy of the IRB approved email was forwarded if the researcher was referred to a different resource person for an interview. The researcher conducted semi-structured interviews with participants who agreed to be interviewed. Interviews were not recorded; however, the researcher wrote extensive notes of the interviews. Because of the sensitive nature of the topic, the researcher chose to forego recording in an attempt to encourage the participants to speak freely and at ease.

Two resource people referred the researcher to a different individual; one resource person requested a copy of the study IRB forms. Representatives from 10 institutions consented to

interviews: 5 Vice Presidents for Student Affairs, 1 Assistant Vice President, 2 Deans of Students, and 1 counselor. One interview was conducted with both the Dean of Students and a counselor present. Interviews were conducted between May 11, 2015 and May 28, 2015. With the aid of the web site document review protocol, the researcher reviewed the web sites of all 13 institutions for evidence of suicide prevention strategies. Data collected from the web sites were used in the analysis of the three institutions not represented in the interviews.

Data Management

To maintain confidentiality in reporting, each college name was recoded and assigned a pseudonym; the key to the pseudonyms was stored separately from other data. Data were organized and stored as a case study database (Merriam, 2009; Yin, 2014). Survey data, web site document review protocols, and interview notes were stored in a portfolio. Research notes were stored in a journal. In addition to providing organized data for analyses, the database provided a means for others to review the data in its original form, increasing the reliability of the study (Yin, 2014).

Data Analysis

Data analysis was performed by creating case descriptions of each college. Within-case analysis of each community college was followed by cross-case analysis of the community colleges within the TBR system.

Data analysis was conducted in two phases. In the first phase each case was evaluated as a single independent entity (Creswell, 2007; Merriam, 2009; Patton, 2002; Stake, 1995). Data were collected from 10 institutions from the survey, interviews, and web site assessments. Three institutions did not consent to the survey or interview; however, because web site data are public data, these institutions were included in the web site document analysis procedures. Data from

the open survey questions were added to data collected from the checklists. Data from the web pages were used to cross-check and supplement information from the interviews and surveys. Direct interpretation was used to create a case study for each college. In a direct interpretation strategy the researcher analyses and synthesizes data by "trying to pull it apart and put it back together again more meaningfully" (Stake, 1995, p. 75).

Within-case analysis was followed by cross-case analysis, an analysis of the entire TBR system. Data for each college were organized onto tables (Yin, 2014). The tables were used to examine the number and types of suicide prevention strategies in the colleges, identify similarities and differences between the colleges, and answer the research questions.

Notes from the semistructured interviews were processed in the second phase of data analysis. Stake (1995) presented a process to analyze and interpret data in case study research. The process begins with categorical aggregation, which is similar to open coding (Merriam, 2009). Themes and patterns between the categories were identified. Similarities and differences between the colleges were assessed. Finally, the researcher's propositional generalizations, or assertions, were developed in cross-case analysis (Stake, 1995). The research questions were used as templates for data interpretation (Stake, 1995; Yin, 2014). Research decisions, including analytic memos and notes, were recorded in a journal.

Data Presentation

Data were presented in tables and figures followed by narrative interpretations (Creswell, 2007). Tables, figures, and a narrative containing cross-case analyses were also presented. A step-by-step description of the decision-making process used to create categories and patterns was provided. Finally, findings for each research question were presented in tables and figures (Creswell, 2007).

Credibility and Consistency

At least two strategies should be employed to verify credibility in qualitative research studies (Creswell, 2007). Triangulation provides protocols to ensure credibility in case study research (Anfara et al., 2002; Merriam, 2009; Russell, Gregory, Ploeg, DiCenso, & Guyatt, 2005; Stake, 1995; Yin, 2014). The use of three methods of data collection, a survey, document analysis through web site assessments, and interviews, provided data triangulation (Bowen, 2009; Merriam, 2009; Stake, 1995). Rich descriptions of each case, as well as a narrative addressing research decisions, were presented to provide transparency (Anfara et al., 2002; Creswell, 2007; Merriam, 2009). The researcher revealed any experiences and relationships with the research topic and the community college system in a previous section (Anfara et al., 2002; Merriam, 2009; Patton, 2002). A research matrix that demonstrates the alignment between the research questions and the data collected and a data analysis blueprint were created to establish credibility (Anfara et al., 2002). The data analysis blueprint is provided in Appendix H. The research matrix is provided in Table 3.

Table 3

Research Matrix

General question: What suicide prevention strategies exist on the community college campuses in the Tennessee Board of Regents system?	
Research Subquestions	Survey question or website assessment item
1) What educational strategies exist to prevent student suicide?	S1, S2, WS1, I1, I2, I3, I4, I5
2) What technological strategies exist to prevent student suicide?	S3, S4, WS2, I1, I2, I3, I4, I5
3) What institutional level strategies exist to prevent student suicide?	S5, S6, WS3, I1, I2, I3, I4, I5

Notes: S = Survey question. WS = Website assessment item. I = Interview guide.

Data from interview questions were quoted in tables to assist readers in creating their own conclusions (Creswell, 2007; Stake, 1995). The case study database, the case study record,

the web site document review protocol, the interview guide, and the research journal increased consistency and reproducibility of the study (Baxter & Jack, 2008; Bowen, 2009; Merriam, 2009; Yin, 2014).

The researcher recorded notes in a journal to create an audit trail of the research process. "An audit trail in qualitative research describes in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry" (Merriam, 2009, p. 223). In addition to recording the research process and rationale for decisions, the researcher recorded ideas, reflections, and themes during data collection.

The research questions in this study limit the transferability of the research findings (Yin, 2014). However, the thick rich descriptions provided for each case will allow readers to create their own naturalistic generalizations that may be applied to their own cases (Merriam, 2009; Stake, 1995).

Chapter Summary

This qualitative case study research was informed by an extensive literature review that also served as the basis for the research questions. Data were collected from a checklist survey with open items, an assessment of college web sites, and interviews with resource people at the colleges. Items on the survey instrument and web site document review were derived from the literature review. Therefore, the literature review, the research questions, and the data collection process were in alignment.

Within-case and cross-case data analysis was performed through direct interpretation, categorical aggregation, and the creation of propositional generalizations. Data were presented in tables and figures followed by narrative descriptions. The research questions were also answered. Data triangulation, rich case descriptions, quotations from interviews, a case study

database, a case study record, a web site document review protocol, an interview guide, and a research journal provided credibility and consistency to the research process.

CHAPTER 4

DATA ANALYSIS

This chapter provides an analysis of the suicide prevention strategies on the community college campuses in the TBR system. Data from surveys, interviews, and document review protocols were analyzed during and after data collection.

Institutional Characteristics

Prior to data analysis the researcher addressed descriptive data from the cases in the study (Yin, 2014). The characteristics of the 13 community colleges in the TBR system are presented in Figure 2.

	Institution													
Characteristic	A	B	C	D	E	F	G	H	I	J	K	L	M	Total
Location														
West				X						X			X	3
Middle		X	X		X			X						4
East	X					X	X		X		X	X		6
Setting														
Rural	X				X		X	X	X	X	X	X	X	9
Urban			X	X		X								3
Suburban		X												1
Size														
Small										X		X	X	3
Medium	X				X		X	X	X					5
Large		X	X	X		X					X			5
Counselor	X					X	X		X	X	X	X	X	8

Figure 2. Location, setting, size, and counseling resources of the 13 institutions in the TBR system.
Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

Case Descriptions

Data from surveys, interview notes, and web site document review protocols were compiled into a case study database. A case study database is a labeled, organized data set that contains all the data that have been collected; it allows for easy data retrieval and provides a mechanism for other researchers to view the raw data, increasing the reliability of the research (Merriam, 2009; Yin, 2014).

The researcher then created a case study report for each of the 13 community colleges. A case study report is created to communicate findings to a predetermined audience (Yin, 2014). The targeted audiences for this research were the educators, administrators, and policymakers in the public community colleges and higher education system in Tennessee. The institutional characteristics and survey data were organized into a table. Most survey data were collected during interviews; responses to the survey prompts were added to the table. Data from the web site assessments were added to the table or were used to corroborate survey and interview data. The interview data were recorded in a question-and-answer format (Yin, 2014). The researcher used a structured interview guide, therefore asking each resource person the same set of questions. The answer to each question was recorded with the question, allowing the researcher to document all relevant data concisely and consistently (Yin, 2014).

Next, each case study report was organized into word tables to make it easy for a reader to locate data within a case and across cases (Yin, 2014). Direct interpretation was used to create a case study summary for each college. In a direction interpretation strategy the researcher analyses and synthesizes data by "trying to pull it apart and put it back together again more meaningfully" (Stake, 1995, p. 75). The researcher added the summaries to the tables. The rich, thick descriptions of each of the 13 institutions completed the within-case data analysis, the first

phase of data analysis in this study. To provide transparency to this research and to allow the reader to create naturalistic generalizations the rich descriptions of each case are presented in Appendix B (Anfara et al., 2002; Creswell, 2007; Merriam, 2009; Stake, 1995; Yin, 2014).

Cross-Case Analysis

Within-case analysis was followed by cross-case analysis, an analysis of the entire TBR system. Survey and web site data from all 13 institutions were organized into tables (Yin, 2014). The tables were used to examine the number of suicide prevention strategies, the types of strategies, similarities and differences between the colleges, similarities and differences considering institutional characteristics, and to answer the research questions.

The question-and-answer format of the interview notes accommodated the cross-case analysis (Yin, 2014). The researcher performed categorical aggregation of the interview notes, which is similar to open coding (Merriam, 2009). Data were arranged into tables and figures to organize themes, illustrate patterns, and aid in data analysis (Merriam, 2009).

Survey Results and Web Site Assessments

The primary research question for this study is "What suicide prevention strategies exist at the community colleges in the TBR system?" The research subquestions were created to align with the suicide prevention categories presented in Chapter 2 and to provide a foundation for data collection. The questions on the survey instrument aligned with the research subquestions. Data collected from the review of institutional web sites were categorized to align with the research subquestions. The questions on the interview guide served to corroborate and expand upon data collected in the survey and web site assessments. Survey questions were included during the interviews, providing the researcher an opportunity to expand upon the survey

responses. Data from the survey results and web site assessments supplemented by interview responses were used to address the research subquestions.

Research Subquestion A: What Educational Strategies Exist to Prevent Student Suicide?

The educational suicide prevention strategies at the community colleges are presented in Figure 3.

Strategy	Institution													Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	
Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).	X		X			X	X		X					5
Class activities or assignments that increase suicide awareness (also known as curriculum infusion).		X			X	X	X	X				X	X	7
Peer leaders who are trained to recognize the warning signs of suicide and make referrals						X								1
Peer leaders who are trained and work to train other students to increase suicide awareness														0
Suicide prevention information is distributed in student newspapers or newsletters.	X	X	X			X	X					X	X	7
Suicide prevention information is displayed on posters or on campus signage.		X			X	X				X		X		5
Suicide prevention information is presented at health fairs or other campus events.		X	X			X				X		X	X	6
Suicide prevention information includes the warning signs of potential suicidal behavior.						X	X			X		X	X	5
Suicide prevention information includes how to talk to people who display the warning signs of suicide.						X				X		X		3
Suicide prevention information includes resources for referral.			X			X	X			X		X	X	6
Suicide prevention information includes suicide prevention telephone hotline number.		X			X	X				X		X	X	6
Total	2	5	4	0	3	9	5	1	1	6	0	8	6	

Figure 3. Educational suicide prevention strategies on community college campuses.

Students in approximately half the institutions were offered suicide prevention information in newspapers, newsletters, pamphlets, and brochures or at campus events. This information included the warning signs of suicide and resources for referral. Employees were

offered gatekeeper training in less than half of the institutions. Training at one institution, however, addressed "distressed or disturbed students" instead of suicide warning signs. Faculty in approximately half of the institutions employed curriculum infusion, but interviewees indicated that it was not a deliberate or organized effort to increase suicide awareness; suicide was merely a topic addressed in psychology, sociology, or other courses. When asked about curriculum infusion, one interviewee stated "It [suicide] is addressed in social problems and psychology courses, but there is no active plan across the curriculum." Another stated suicide was addressed in some courses but "not in an organized fashion."

Interviews and web site assessments revealed educational strategies that were not on the survey. Four institutions had charts or flow sheets for employees to reference when students displayed concerning behaviors. These charts presented potential situations and referral information. At one institution emergency preparedness posters are displayed in each classroom. Although the posters did not address suicide specifically, the posters provided emergency contact information for campus resources. A counselor at another institution provided training for new faculty that addressed concerning behaviors and how to make referrals.

Research Subquestion B: What Technological Strategies Exist to Prevent Student Suicide?

The technological suicide prevention strategies at the community colleges are presented in Figure 4.

Strategy	Institution													Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	
College web site with suicide prevention information.	X					X			X	X				4
College social networking site with suicide prevention information.										X				1
Online learning modules that instruct students, faculty, and staff about suicide prevention.	X						X							2
Web-based tools that screen students for depression or suicidal risk.						X			X	X	X			4
Suicide prevention hotline telephone number on webpage/s.	X					X		X	X	X				5
Suicide prevention hotline telephone number displayed on posters or campus signage.					X	X				X				3
Suicide prevention hotline telephone number on student newspapers or newsletters.														0
Suicide prevention hotline telephone number on course syllabi.														0
Total	3	0	0	0	1	4	1	1	3	5	1	0	0	

Figure 4. Technological suicide prevention strategies on community college campuses.

Altogether, institutions with college web sites dedicated to suicide prevention had more technological strategies. One interviewee stated the online learning modules actually addressed "distressed and disturbed students" and not suicide specifically. Technology was used sparsely to educate, screen, or provide suicide referral information.

Web site designers at one institution, however, employed a unique technological approach. When the suicide prevention web site was accessed, a small pop-up box immediately appeared on the screen. This pop-up contained a message and phone numbers and guided the reader to safety. The reader was required to close the pop-up before proceeding to the web site. The web site provided a Behaviors of Concern form that could be submitted online. Online suicide screening, crisis hotline numbers, information about community partnerships, and emergency contacts were also provided. In addition to the suicide prevention web site, web

designers created a psychological disabilities web page for the Disability Services department that addressed depression and suicide and provided resources for students.

Web site designers at another institution offered an online Silent Witness form in addition to an online Behavior of Concern form. The Silent Witness form provided a method for members of the campus community to submit anonymous tips when they witnessed behaviors of concern.

Research Subquestion C: What Institutional Level Strategies Exist to Prevent Student Suicide?

The institutional level suicide prevention strategies at the community colleges are presented in Figure 5.

Strategy	Institution													Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	
Interdepartmental collaborative efforts to increase suicide awareness and resources.									X					1
Policies that address the identification of suicidal students.	X	X		X	X	X	X		X	X	X			9
Policies that address the campus response to suicidal students.	X	X		X	X	X	X		X	X	X	X	X	11
Policies that address the personnel responsible for responding to suicidal students.	X	X		X	X	X	X		X	X	X	X	X	11
Policies that address how to refer students who display suicidal warning signs to safety and care.	X	X		X		X	X		X	X		X	X	9
Personnel have identified area agencies to serve as resources for student referrals.	X	X	X	X	X	X	X		X	X	X	X	X	12
Contracts or agreements exist with area health care agencies.		X	X			X								3
Area health care agencies do not require contracts or agreements.				X	X		X			X		X	X	6
Policies that address the college's support of remaining students when a member of the college community has died by suicide.	X	X	X			X				X				5
Policies that ban firearms on campus.	X	X	X	X	X	X	X	X	X	X	X	X	X	13
Policies that restrict access to, or create barriers against, jumping from high places.			X	X	X	X	X	X		X				7
Policies that secure chemicals and poisons that may be ingested.		X	X		X	X	X			X		X	X	8
Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors.		X	X	X						X				4
Policies that require suicide prevention hotline on syllabi.														0
Policies that require suicide prevention telephone number in classrooms or buildings.														0
Total	7*	10	7	9	8	10*	9	2	7*	11*	5*	7*	7	

Figure 5. Institutional suicide prevention strategies on community college campuses.
Note: *These institutions had policies that specifically addressed suicide. Policies at the other institutions addressed "distressed students" or "harm to self or others."

Most institutions had policies that could be used to identify suicidal students, address the campus response to suicidal students, identify personnel responsible for responding to suicidal students, and refer suicidal students to safety and care. However, upon further analysis, interview and web site data revealed only six of the institutions had policies that specifically addressed suicide. The other policies addressed "distressed students" or "harm to self or others." Personnel at most institutions had identified area agencies to serve as resources for student referrals. Most institutions had policies that controlled access to high places to prevent jumping. Buildings at institutions without policies were constructed to prevent roof access and windows on upper floors did not open. One institution had a policy that required annual suicide prevention training for faculty and staff.

In addition to the strategies provided on the survey, interviews and web site assessments revealed several institutions had Behavioral Intervention Teams, or Behavioral Threat Assessment Teams. These teams were created to identify troubled students and intervene to prevent crises. In some institutions the teams also responded to crisis situations. Two institutions had a separate crisis response team.

Summary

Figure 6 summarizes the institutional characteristics and suicide prevention strategies in the 13 community colleges in the TBR system.

	Institution												
Characteristic	A	B	C	D	E	F	G	H	I	J	K	L	M
Location													
West				X						X			X
Middle		X	X		X			X					
East	X					X	X		X		X	X	
Setting													
Rural	X				X		X	X	X	X	X	X	X
Urban			X	X		X							
Suburban		X											
Size													
Small										X		X	X
Medium	X				X		X	X	X				
Large		X	X	X		X					X		
Counselor	X					X	X		X	X	X	X	X
Strategies													
Educational	2	5	4	0	3	9	5	1	1	6	0	8	6
Technical	3	0	0	0	1	4	1	1	3	5	1	0	0
Institutional	7*	10	7	9	8	10*	9	2	7*	11*	5*	7*	7
Total	12	15	11	9	12	23	14	4	11	22	6	16	13

Figure 6. Institutional characteristics and suicide prevention strategies in the 13 institutions. *Notes*. *Some policies specifically address suicide. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

Counselors were employed in all six of the institutions located in East Tennessee. Five of the institutions, most of which were rural, had policies that specifically addressed suicide prevention. Two of the three institutions located in West Tennessee employed counselors; these were small rural institutions. None of the institutions located in the middle region of the state employed counselors. Most large urban institutions did not employ counselors. On the contrary, all three of the small rural institutions employed counselors.

Highlighted in Figure 6, with the exception of Institution F, is that larger institutions reported fewer suicide prevention strategies. Institution F, located in East Tennessee, had

policies that specifically addressed suicide prevention and numerous suicide prevention strategies. Institution J was the only institution outside of East Tennessee that had policies specifically addressing suicide. This community college also had numerous suicide prevention strategies. Institutions that employed counselors generally had more educational strategies, more suicide prevention strategies overall, and more policies that specifically addressed suicide than those that did not employ counselors.

Interview Results

Interview notes recorded in the question-and-answer format were used in the cross-case analysis of the interviews. The researcher performed categorical aggregation and arranged data into tables and figures to organize themes, illustrate patterns, and aid in data analysis. An analysis of each question is presented.

Interview Question 1: What Process Would Be Followed If an Employee Encountered a Suicidal Student?

Cross-case analysis of interview responses revealed three common themes related to the institutional response to a suicidal student: the presence of a response team, the involvement of a counselor in the institutional response, and referrals to community mental health resources. Because some institutional policies did not specifically address suicide, the researcher further explored data from the surveys and web site assessments to distinguish between response teams that had policies addressing suicide and those that did not. In addition, some institutions did not employ counselors. Results from data analysis are presented in Table 4.

Table 4

Institutional Response to Suicidal Students From Interview Data

	Institution									
Theme or Characteristic	B	C	D	E	F	G	H	J	L	M
Response team		X		X	X	X		X	X	X
Counselor involved in response		X*			X	X		X	X	X
Community referrals	X	X			X			X	X	X
Policies specific to suicide					X			X		
Counselor employed by institution					X	X		X	X	X

Note: *A member of the response team is an experienced counselor.

Interviewees at most institutions reported formal or informal response teams; a member of the response team would "meet with the student, assess the student, and make referrals if necessary." Most institutions with response teams employee counselors who have "expertise and a rapport with community resources." Participants were asked to describe the process of responding to a suicidal student. From these responses, an overarching response to a suicidal student emerged; this model is presented in Figure 7.

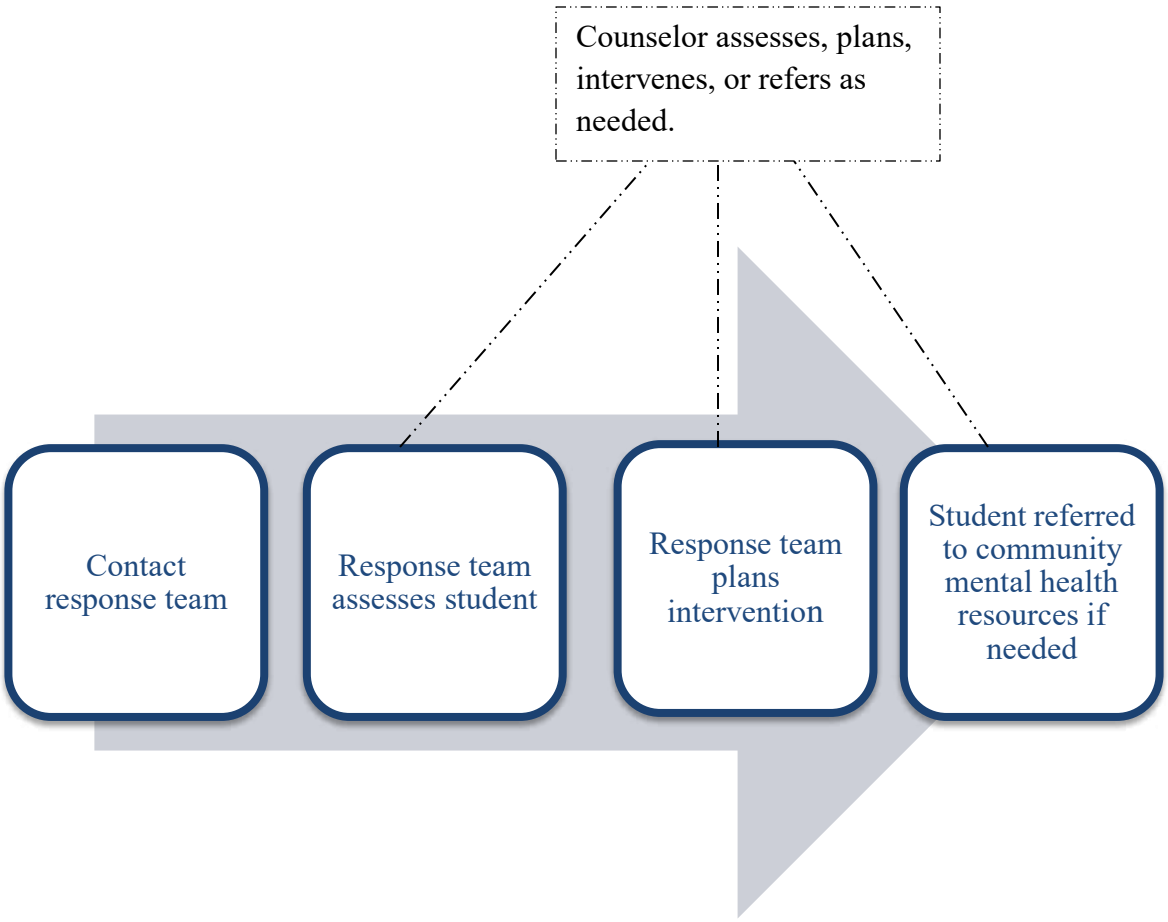

Figure 7. Institutional response to suicidal students

Two institutions that had policies specifically addressing suicide also employed counselors. These data, however, only addressed institutions represented in the interviews; the three institutions that did not agree to interviews were not represented. Web site data were used to expand the analysis to include all institutions. This analysis is provided in Table 5.

Table 5

A Comparison of Suicide Prevention Policies and the Employment of a Counselor Across All Institutions

Characteristic	Institution												
	A	B	C	D	E	F	G	H	I	J	K	L	M
Institutional policies specific to suicide	X					X			X	X	X	X	
Counselor employed by institution	X					X	X		X	X	X	X	X

Analysis revealed that the six institutions that had policies specific to suicide also employed counselors.

Cross-case analysis revealed institutions that did not have policies that specifically addressed suicide had policies that addressed "distressed or disturbed students" or "harm to self or others" to guide the actions of the response teams. Interviewees stated the policies are for disciplinary use and are not intended for suicide prevention. When asked about suicide prevention policies, a Vice President of Student Affairs stated "we have disciplinary policies that address disruptive students, but from the mental health lens, no." Policies were created in response to the Virginia Tech incident, student success efforts, and TBR policy requirements. "The Behavioral Response Team was created to monitor students of concern." A Vice President for Student Services stated the response team was activated when there was a "threat of harm to another student." As one participant stated, "[We] don't really have a plan in place that specifically addresses suicide."

Interview Question 2: What Prompted the Development of These Suicide Prevention Strategies At Your Institution?

Cross-case analysis of interview responses revealed internal and external factors prompted the development of suicide prevention strategies at the institutions. The results are presented in Figure 8.

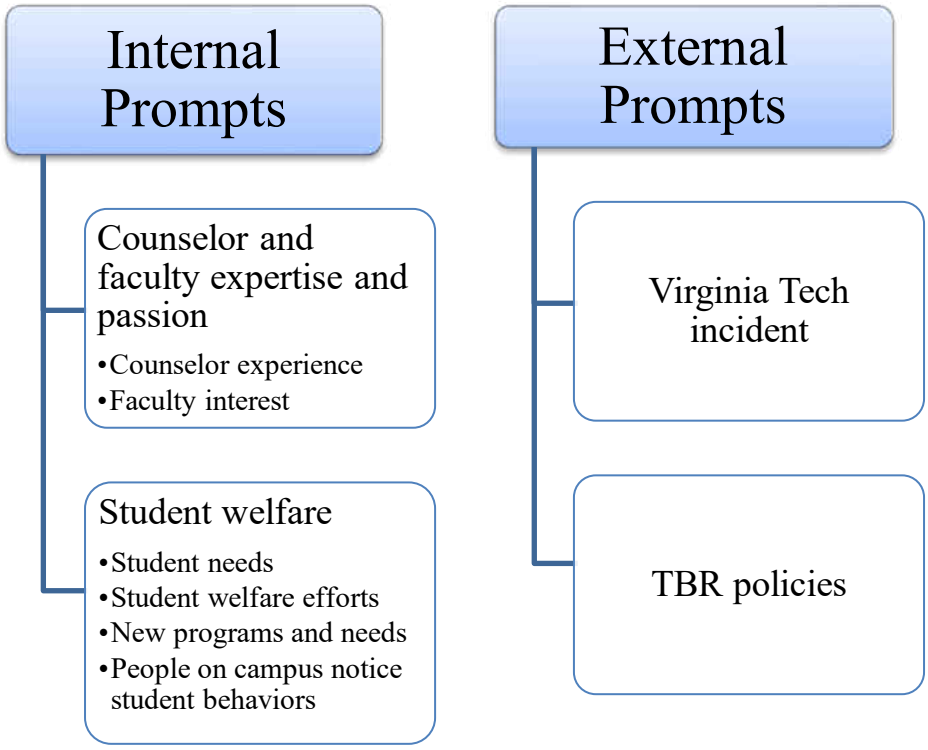

Figure 8. Factors prompting the development of suicide prevention strategies

A counselor's expertise was a prompt for suicide prevention efforts in most institutions that employed a counselor. The leadership at one institution that had no counselor intentionally hired a Dean of Students with counseling experience to create and promote student initiatives. Student welfare also prompted suicide prevention efforts. As one interviewee expressed, "The bottom line is student success, be it academically, personally, or physically. Promoting wellness includes mental health. The wellness effort extended out to overall wellbeing. Suicide prevention evolved out of this wellness effort." Uniquely, two interviewees located in the East

Tennessee cited the Virginia Tech incident as the prompt for their suicide prevention efforts; Virginia borders northeast Tennessee.

Interview Question 3: What Resources Aid in the Creation and Implementation of Suicide Prevention Efforts At Your Institution?

Cross-case analysis of interview responses revealed internal and external resources aided in the creation and implementation of suicide prevention strategies at the institutions. Results are presented in Table 6.

Table 6

Resources Aiding in the Creation and Implementation of Suicide Prevention Efforts

	Institutions									
	Small			Medium			Large			
Resources	J	L	M	E	G	H	B	C	D	F
Internal resources										
Administrative support			X					X		X
Faculty support		X	X	X		X		X		
Counselor	X	X	X					X*		X
Campus police		X					X			
College nurse					X					
External resources										
Community resources	X	X	X					X		X
TBR				X	X					

Note: *An employee in Student Services is an experienced counselor

Interview data revealed institutional counselors relied heavily on community resources. Community resources included local mental health agencies and the Tennessee Suicide Prevention Network (TSPN). Mental health agencies were available for student referral. One participant noted "it would change our student experience here if we did not have them [the local mental health agency]." The TSPN provided free resources, conducted training, conducted campus workshops, and provided speakers for campus events. "TSPN provides free brochures

and they provide our information. TSPN is wonderful; they offer to go out and train people free." Another interviewee stated "TSPN drives a lot of what we do."

Interviewees from institutions that employed counselors cited the counselor's efforts as an important internal resource. "The counselor has expertise and a rapport with community resources." Table 6 revealed that the small institutions employed counselors and used community resources. To the contrary, the medium-sized institutions did not use community resources and did not employ counselors. Correspondingly, as previously displayed in Figure 6, the small institutions employed more educational strategies than the medium-sized institutions.

Interview Question 4: What Factors Prohibit the Creation and Implementation of Suicide Prevention Efforts At Your Institution?

In the cross-case analysis of interview responses the lack of resources, competing priorities, and the uncomfortable aspect of suicide emerged as themes inhibiting the creation and implementation of suicide prevention efforts in the rural institutions. The themes are presented in Figure 9.

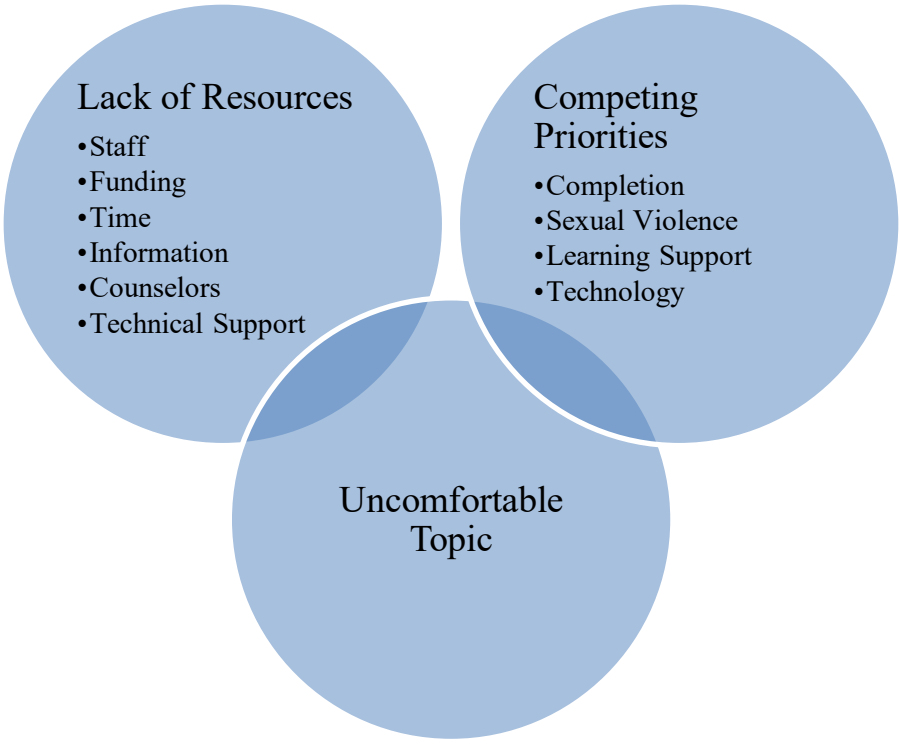

Figure 9. Factors that inhibit suicide prevention efforts in rural institutions

A lack of resources and competing priorities dominated the interviewees' responses. When asked to discuss factors that inhibited suicide prevention efforts, a Vice President of Student Affairs emphatically stated "Lack of resources, which would be time, people, and money. We are basically told to redirect our focus. Our lives are now dominated by completion. We had to make choices." Another Vice President of Student Affairs stated:

> I don't know of anything prohibiting us. Other topics have been prevalent. Suicide has not been an entity of concern from TBR or the federal government. The reason more is not done is that it is not a high enough priority. Each office in community colleges have such limited staff, they are replying to topics from the federal government and TBR, and doing their regular job, they just barely keep it under control.

Another interviewee stated "lately, energy has been spent on learning support and technology to improve student learning opportunities. [Suicide] has not risen to the top of concerns."

One interviewee expanded on the theme that suicide was an uncomfortable topic and stated:

> It is easier to say "don't drink and drive" than it is to say "don't commit suicide." Socially, we as a society are uncomfortable using the word "suicide" and will cover it up with other synonyms instead of saying the word itself. We need to get over that hurdle. It's a topic that's avoided. Sad, really, because the numbers are high starting in junior high on up.

Interviewees from the large urban institutions, however, cited resources for web site development and the logistical challenge of getting information out to all campuses as factors inhibiting suicide prevention efforts. The needs in large urban institutions were different from those indicated by interviewees in the rural institutions.

Interview Question 5: What Other Information Do I Need to Know to Create a Complete Picture of the Suicide Prevention Efforts at Your Institution?

The last interview question solicited a variety of responses. It is significant that when the interviewees were given an opportunity to speak without prompts, their responses reflected some of the common themes that were woven throughout the interviews.

An interviewee at a rural institution suggested some attributes of rural institutions were helpful in suicide prevention efforts:

> People at the institution are concerned and students are concerned about each other. Everyone knows everyone. This is a rural institution and people notice behavior and can

> refer them to resources as needed at an early stage. People look out for each other or tell someone if something is not right.

On the contrary, another interviewee stated the rural setting made suicide prevention efforts more difficult:

> Our service area is primarily rural. Economically, unemployment is high and income is lower. These play a factor in suicide ideation. We have students whose basic needs aren't being met; we have a food pantry. Many are coming to be retrained secondary to unemployment. All this creates lot of pressure on them. Larger urban areas are going to have more resources compared to rural areas.

Equally important, this interviewee represented an institution that had specific suicide prevention policies, employed a counselor, and used most of the suicide prevention strategies presented in the survey. In contrast, an interviewee from an urban institution stated "our campus is located in a metropolitan area; we have a lot of resources off campus." However, this institution did not have suicide prevention policies, counseling, or specific suicide prevention strategies on campus. These contrasting scenarios provide the opportunity to employ a maximum variation sampling strategy in future research studies using location of institution as the lens to examine this phenomenon (Patton, 2002).

One interviewee hurriedly responded "this is important to all of us. Suicide prevention is one thing that everyone is on the same page about." Conversely, another interviewee stated "we have not had a focused conversation about suicide in a number of years."

An interviewee from an institution that relied on external resources stated "We do not have professional counselors on campus. It makes a big difference in how you approach this issue."

Comments from a Dean of Students best represent the suicide prevention efforts in many institutions:

> We used to have college-wide programming each semester by our counselor. But, secondary to federal mandates, our focus has had to move to alcohol and sexual violence. We have nothing, in my opinion, that addresses the best way to handle suicidal students. The policies are under disciplinary offenses. We have definitely dealt with students. More could be done if we had time, money, and resources.

Summary

In this qualitative case study research data collected from surveys, interviews, and web site assessments were used to create a case study report for each of the 13 community colleges and, using a direct interpretation strategy, create a case study summary for each institution.

This with-in case analysis was followed by cross-case analysis. Survey and web site data from all institutions were organized into tables. The tables were used to examine the number of suicide prevention strategies, the types of strategies, similarities and differences between the colleges, similarities and differences considering institutional characteristics, and to answer the research questions. The researcher performed categorical aggregation of the interview notes; data were arranged into tables and figures to organize themes, illustrate patterns, and aid in data analysis.

Students in approximately half of the institutions were offered suicide prevention information on campus. Institutions with college web sites dedicated to suicide prevention had more technological strategies. However, technology was sparsely used across the institutions to provide suicide prevention education, screen for suicidal students, or provide referral information. Whereas only six institutions had policies that specifically addressed suicide,

personnel at most institutions had identified area agencies to serve as resources for students. Several institutions had Behavioral Intervention Teams to identify troubled students; these teams intervened to prevent crisis situations or respond to students in crisis. Large urban institutions had fewer suicide prevention strategies. All institutions located in East Tennessee, as well as all small institutions, employed counselors. Most institutions in East Tennessee had policies that specifically addressed suicide.

There were three common themes related to the institutional response to a suicidal student: the presence of a response team, the involvement of a counselor in the institutional response, and referrals to community mental health resources. An overarching response to a suicidal student emerged and is presented in Figure 7. Internal and external factors prompted the development of suicide prevention strategies at the institutions; counselor expertise was a prompt for institutions that employed counselors. The incident at Virginia Tech was an external prompt. Internal resources such as counselor and faculty support and external resources aided in the creation and implementation of suicide prevention efforts. External resources included local mental health agencies and community organizations that provided free information and training. Counselors relied heavily on community resources. Small institutions, institutions J, L, and M, employed counselors and used community resources. To the contrary, the medium-sized institutions did not use community resources and did not employ counselors. The lack of resources, competing priorities, and the uncomfortable aspects of suicide emerged as themes inhibiting the creation and implementation of suicide prevention efforts in the rural institutions.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This qualitative study included five chapters. Chapter 1 provided an introduction to the study with the statement of the problem, research questions, significance of the study, scope of the study, and limitations and delimitations of the study. Chapter 2 presented a review of the literature that included research on college student suicide, strategies employed to prevent college student suicide, and a brief description of the research sample. Chapter 3 outlined the research methodology with a discussion of the survey, interview guide, web site document review protocol, cases, data collection, and data analysis. Chapter 4 presented the results of the study. Chapter 5 concludes with a discussion of the results with recommendations for further research, policy, and practice.

Summary

This qualitative case study research explored the student suicide prevention strategies in the 13 community colleges within the TBR higher education system. The research subquestions were created to align with the suicide prevention strategy categories presented in the literature review and to provide a foundation for data collection. The questions on the survey instrument aligned with the research subquestions. Data collected from the document review protocol were categorized to align with the research subquestions. The questions on the interview guide served to corroborate and expand upon data collected in the surveys and web site assessments.

Representatives from 10 institutions consented to interviews. Data collected from the web sites were used in the analysis of all 13 institutions, including the three institutions not represented in the interviews. Data analysis was performed by creating case descriptions of each

college and answering the research questions. Within-case analysis of each community college was followed by cross-case analysis of the community colleges within the TBR system.

Students in approximately half of the institutions were offered suicide prevention information on campus. Technology was used sparsely to educate, screen, or provide suicide referral information. Whereas only six institutions had policies that specifically addressed suicide, personnel at most institutions had identified area agencies to serve as resources for students. Several institutions had Behavioral Intervention Teams to identify troubled students; these teams intervened to prevent crisis situations or respond to students in crisis. There were three common themes related to the institutional response to a suicidal student: the presence of a response team, the involvement of a counselor in the institutional response, and referrals to community mental health resources. Institutions that employed counselors generally had more educational strategies, more suicide prevention strategies overall, and more policies that specifically addressed suicide than those that did not employ counselors. Internal and external factors prompted the development of suicide prevention strategies at the institutions. Internal resources such as counselor and faculty support, and external resources such as area mental health agencies and community suicide prevention agencies aided in the creation and implementation of suicide prevention efforts. Lack of resources, competing priorities, and the discomfort surrounding the topic of suicide emerged as themes inhibiting the creation and implementation of suicide prevention efforts in rural institutions.

Conclusions

Most research on college student suicide was conducted using a sample of 4-year institutions. Community colleges have seldom been included in the sample of suicide research studies, although these students are at higher risk for suicide than their 4-year peers. Community

colleges lack the resources for counseling services and student health services that support students or provide suicide prevention programs (Floyd, 2003). More research was needed on the suicide prevention strategies at community colleges given the lack of inclusion in the sampling strategies of prior research, the lack of campus protections and resources, and increased risk for suicide. Therefore, this research study was an exploration of the suicide prevention strategies at the 13 public community colleges in the TBR system. This study was delimited to the 13 community colleges.

It is important to emphasize that the purpose of data interpretation in this study was to create an initial understanding of the suicide prevention efforts employed on the community college campuses. Case study researchers "have ethical obligations to minimize misrepresentation and misunderstanding" (Stake, 1995, p. 109). Therefore, comparisons between the colleges and generalizations that were created were intended to provide a current picture of the issue being studied and were not intended to be judgmental in nature or to create a negative portrayal of any institution.

The primary research question for this study was "What suicide prevention strategies exist at the community colleges in the TBR system?" Data from the survey results and web site assessments supplemented by interview responses were used to address the research subquestions.

Research Subquestion A: What Educational Strategies Exist to Prevent Student Suicide?

Students who receive suicide education in high school or in college are significantly more confident in recognizing warning signs, asking if a friend is suicidal, and assisting friends to get the help they needed (King et al., 2008). The educational suicide prevention strategies on the community colleges campuses were presented in Figure 3. Students in approximately half the

institutions were offered suicide prevention information in the form of newsletters, newspapers, pamphlet, brochures, or campus events. Faculty in approximately half of the institutions employed curriculum infusion, but suicide was incidentally addressed in courses. Less than half of the institutions offered gatekeeper training to employees. Many interviewees stated they relied heavily on community suicide prevention agencies to acquire information and training. "TSPN provides free brochures and they provide our information. TSPN is wonderful; they offer to go out and train people for free."

Consequently, even at institutions that provided suicide prevention education, students only received it by chance. Students had to pick up a brochure, attend an event, or inadvertently take a course that addressed suicide. There was no deliberate or organized educational effort to increase suicide awareness.

Research Subquestion B: What Technological Strategies Exist to Prevent Student Suicide?

Technology may be used to screen students for depression and suicidal intentions, to disseminate suicide prevention information, and to provide suicide crisis intervention (Gould et al., 2007; Hass et al., 2008; Manning & VanDeusen, 2011). As previously presented in Figure 4, technology was used sparsely across the institutions to provide suicide prevention education, screen for suicidal students, or provide referral information. Only one institution had online learning modules to instruct students, faculty, or staff about suicide prevention. Four institutions used web-based screening tools to screen students for depression and suicidal risk.

Research Subquestion C: What Institutional Level Strategies Exist to Prevent Student Suicide?

The institutional level suicide prevention strategies on the community colleges campuses were presented in Figure 5. Institutional policies that address means restrictions, guidelines to identify and respond to suicidal students, postsuicide protocols, and student conduct policies are

used on college campuses to prevent college student suicide (Cimini & Rivero, 2013; Francis, 2003; Joffe, 2008; Schwartz, 2006b). However, only six of the institutions had policies that specifically addressed suicide.

Cross-case analysis of interview responses revealed three common themes related to the institutional response to a suicidal student: the presence of a response team, the involvement of a counselor in the institutional response, and referrals to community mental health resources. An overarching response to a suicidal student emerged; the model was presented in Figure 7.

Interviewees at most institutions reported formal or informal response teams; a member of the response team would "meet with the student, assess the student, and make referrals if necessary." Most of the response teams used policies that addressed "distressed or disturbed students" or "harm to self or others" to guide the actions of the response teams. "The Behavioral Response Team was created to monitor students of concern." Most response teams were created for disciplinary purposes.

After 32 people were killed on the campus of Virginia Tech in 2007, institutions created threat assessment teams to prevent campus violence (Flynn & Heitzmann, 2008). Also known as behavioral intervention teams, they serve as a depository for information about distressed students and to monitor the behavior of students who might perform violence against others (Keyes, 2012). With only a few exceptions, the response teams described by the interviewees were created to prevent campus violence. One interviewee stated "[We] don't really have a plan in place that specifically addresses suicide."

Eight of the institutions employed counselors. Institutions that employed counselors generally had more educational strategies, more suicide prevention strategies overall, and more policies that specifically addressed suicide than those that did not employ counselors. In addition

to participating in the institutional response to a suicidal student, counselors were cited as a prompt for the development of suicide prevention efforts, an important resource in the creation and implementation of suicide prevention strategies, and a crucial link to community resources. "The counselor has expertise and a rapport with community resources." The lack of counselors was cited as a factor that prohibited the creation and implementation of suicide prevention efforts. "We do not have professional counselors on campus. It makes a big difference in how you approach this issue."

Personnel at most institutions had identified local agencies to serve as resources for student referrals. Community resources also aided in the creation and implementation of suicide prevention efforts. Community suicide prevention agencies provided free informational resources, training, and speakers for campus events. "TSPN (Tennessee Suicide Prevention Network) drives a lot of what we do."

Recommendations for Further Research

Recommendations for further research include employing a maximum variation sampling strategy to examine the differences in institutions that have numerous student suicide prevention strategies compared to those that have few strategies. More research is needed to explore the finding that factors inhibiting the creation and implementation of suicide prevention efforts in rural institutions were different and more numerous than those cited by interviewees at urban institutions.

Small institutions employed counselors and used numerous community resources. To the contrary, the medium-sized institutions did not employ counselors or use community resources. Also, the six institutions that had policies specifically addressing suicide employed counselors.

The importance of the counselors, their presence or absence on campus, the size of the institutions, and the varied use of community resources are areas for further research.

A follow-up study from this research would be to perform in-depth case studies of the information-rich cases identified in the data analysis. Finally, further research could explore the attitudes of the community college administrators relative to suicide, suicide prevention efforts on campus, and their sense of social responsibility to educate the community about suicide prevention.

Recommendations for Policy

This research was conducted during a time when the organizational structure of Tennessee higher education was transforming. The Complete College Tennessee Act of 2010 mandated the creation of a unified community college system to improve services to students, reduce costs, improve educational opportunities, and react more rapidly to the ever-changing needs of the workforce (NCHEMS, 2010). The statute required TBR board members to oversee the transition of the 13 individual community colleges into a comprehensive, statewide community college system that would consolidate services and standardize processes across the institutions (Complete College Tennessee Act, 2010).

This provides a unique opportunity for policy development. As revealed in this study, the 13 institutions have varied suicide prevention policies. As system-wide policies are created, suicide prevention policies can be included, providing uniform policies for all the institutions as well as establishing policies in institutions where they currently do not exist, employing the best practices and expertise of institutions with the richest educational, technological, and institution-wide responses.

Policy creation includes assessing the problem and creating policy alternatives (Weimer & Vining, 2011). The literature review for this research provides information about college student suicide with a focus on community college students and strategies to prevent college student suicide. The literature review also provides recommendations for policies to address college student suicide. Additionally, this research has revealed institutions that already have policies that address suicide prevention; these existing policies may be used in the establishment of system-wide policies.

It is recommended that institutions create policies that address identifying suicidal students, responding to suicidal students, and notifying family and appropriate campus personnel (Francis, 2003). Policies need to address the personnel responsible for responding to suicidal students and how to refer these students to safety and care. Additionally, institutions may include postsuicide protocols to support students when a member of the college community has died by suicide. Student suspension or withdrawal secondary to suicidal warning signs may also be addressed.

The National Suicide Prevention Lifeline is a national network of suicide prevention hotlines that can be accessed throughout the country (Gould et al., 2012). This telephone hotline is free and can be integrated easily into suicide prevention programs on college campuses (Cimini & Rivero, 2013; Cook, 2011; Kaslow et al., 2012; Washburn & Mandrusiak, 2010). Therefore, a policy is recommended requiring the suicide prevention hotline number on course syllabi. In addition, a brief statement about the warning signs of suicide would be provided. Campus contact numbers, if applicable, may be included as well.

Recommendations for Practice

In the cross-case analysis of interview responses the lack of resources, competing priorities, and the uncomfortable aspect of suicide emerged as themes inhibiting the creation and implementation of suicide prevention efforts in the rural institutions. Interviewees stated they needed funding, technical support, information, time, and counselors. It is imperative that administrators value suicide prevention and allocate funds for prevention efforts.

In addition to institutional funding, grant funds may be used to initiate gatekeeper training. Some community suicide prevention agencies offer training at no cost. Grant funds may also be used for web site development and the creation of online learning modules that could teach students, faculty, and staff about suicide prevention. One interviewee stated "departments are siloed; it is hard to get the message out to all" and that it was a logistical challenge to get information out to all campuses. Web-based modules could be created in the pre-existing course management systems, providing access to the entire campus community. Additionally, community suicide prevention agency web sites contain free information; institutional web pages could easily link to those sites.

The findings from this research might indicate counselors are needed at each institution. Institutions that employed counselors generally had more educational strategies, more suicide prevention strategies overall, and more policies that specifically addressed suicide than those that did not employ counselors. However, only 26% of 4-year college students are aware of campus suicide prevention resources (Westefeld et al., 2005). Perhaps other approaches would be more feasible to prevent student suicide.

Community college students are more likely to be first generation students; first-generation students are less prone to report symptoms of depression that would alert faculty and

peers (Green, 2006; Jenkins et al., 2013; Joshi et al., 2009). Moreover, first-generation students are twice as likely to attempt suicide than their non-first-generation counterparts (Orleans, 2011). Given the scarce resources available to community colleges, the multiple campuses, the distance between some campuses, and the unique characteristics of first-generation college students, a paradigm shift from an individual focus on at-risk students to a focus on the entire campus population would address the lack of resources, the logistical challenges, encompass all students on campus, and decrease suicidality in the student population (Drum et al., 2009; Jodoin & Robertson, 2013).

The interpersonal theory of suicide proposes thwarted belongingness and perceived burdensomeness as prominent causes of suicidal desire (Joiner, 2005). "Social isolation is one of the strongest and most reliable predictors of suicidal ideation, attempts, and lethal suicidal behaviors across the lifespan" (Van Orden et al., 2010, p. 9). Perceived social support is a protective or buffering factor against suicide (Christensen, Batterham, Soubelet, & Mackinnon, 2013; Joiner et al., 2009; Kleiman & Riskind, 2013; Van Orden, Witte, Gordon, Bender, & Joiner, 2008).

Positive social support and supportive relationships may serve as a buffer against suicide in college students (Hirsch & Barton, 2011). Research conducted on a college campus revealed the highest level of suicidal ideation in college students occurred in the summer semester when feelings of belonging were lower (Van Orden, Witte, James et al., 2008). "The belongingness conferred by participation in a college campus community in the form of student support services and peer companionship has been put forth as one explanation for the seemingly protective nature of college attendance" (Van Orden, Witte, James et al., 2008, p. 429). This concept was

supported by one interviewee who stated "we may hear about a student [suicide] but it is only because someone saw it in the newspaper. They are often not connected."

Research on social support for college students is not confined to the suicide prevention literature. Students who perceived social support on campus were better adjusted to college life, performed better academically, and were committed to graduation (Grant-Vallone, Reid, Umali, & Pohlert, 2004). Comparatively, the desire to complete college was a factor that kept students from attempting suicide (Drum et al., 2009).

Social support and student engagement contribute to college student success. "The more students are academically and socially engaged with faculty, staff, and peers, the more likely they are to succeed in college" (Tinto, 2012, p. 7). Therefore, social support serves as a protective factor against suicide and a contributing factor to student academic success.

When asked about factors that inhibited suicide prevention efforts, an interviewee stated "Lack of resources, which would be time, people, and money. We are basically told to redirect our focus. Our lives are now dominated by completion. We had to make choices." Administrators at the community colleges are directing funds and resources to student success and retention. A caring and supportive campus environment can increase student success and decrease suicidal thoughts. Strategies that increase student perceptions of social support increase retention and decrease suicidal ideation. This researcher suggests that instead of treating suicide prevention and student retention as competing priorities we consider them as two problems with the same solution.

In summary, technological suicide prevention strategies are sparsely employed on Tennessee's community college campuses. While educational and institutional suicide prevention strategies are employed, most efforts are directed toward preventing students from

harming others. A lack of resources and competing priorities inhibit student suicide prevention efforts at the institutions. A Dean of Students summarized "We have nothing, in my opinion, that addresses the best way to handle suicidal students. The policies are under disciplinary offenses. We have definitely dealt with students. More could be done if had time, money, and resources."

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APPENDICES

APPENDIX A

Institutional Review Board Approval Letter

EAST TENNESSEE STATE UNIVERSITY
Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707
Phone: (423) 439-6053 Fax: (423) 439-6060

IRB APPROVAL – Initial Expedited Review

April 16, 2015

Sandra Perley

Re: Suicide Prevention Strategies in Tennessee Community Colleges: A Case Study
IRB#: c0315.27sd
ORSPA #:

The following items were reviewed and approved by an expedited process:

- xform New Protocol Submission; Email Invite to Participate; Consent Email for Online Survey (no version date, stamped approved 4/16/2015); Consent Email for Phone Interview (no version date, stamped approved 4/16/2015); Survey Questions; Interview Questions; Website Assessment Guide; Bibliography; CV of PI

On **April 16, 2015**, a final approval was granted for a period not to exceed 12 months and will expire on **April 15, 2016**. The expedited approval of the study will be reported to the convened board on the next agenda.

This study has been granted a **Waiver of Requirement for Written Documentation of Informed Consent** under category 45 CFR 46.117(c)(2) as the research involves no more than minimal risk to the participants as it involves survey and interview questions primarily about the practices of the institution. The research involves no procedures for which written consent is normally required outside of the research context because Signed consent not normally required for answering questions.

The following **enclosed stamped, approved Informed Consent Documents** have been stamped with the approval and expiration date and these documents must be provided to each participant prior to participant enrollment:

- Consent Email for Online Survey (no version date, stamped approved 4/16/2015)
- Consent Email for Phone Interview (no version date, stamped approved 4/16/2015)

Full AAHRPP Accreditation

Accredited Since December 2005

Projects involving Mountain States Health Alliance must also be approved by MSHA following IRB approval prior to initiating the study.

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 (www.etsu.edu/irb). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Ph.D., Chair
ETSU Campus IRB

Appendix B

Case Descriptions

Table B1

Description, Prevention Strategies, and Interview Results for Institution A

Characteristic	Data
Description	
Location	East Tennessee
Setting	Rural
Size	Medium
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training). Suicide prevention information is distributed in student newspapers or newsletters. Not included in list – an action guide that gives the campus community info on how to refer with certain behaviors
Technological strategies	College web site with suicide prevention information. Online learning modules that instruct students, faculty, and staff about suicide prevention. Suicide prevention hotline telephone number on webpage/s. Not included in list – links to suicide education pamphlets from various colleges.
Institutional strategies	Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Policies that address the college's support of remaining students when a student or other member of the college community has died by

	suicide. Policies that ban firearms on campus. Note: Some policies address suicide specifically.
	Did not accept invitation for interview
	Case summary
Web site assessment of this medium-sized rural institution revealed 4 educational strategies, 4 technological strategies, and numerous policies that address suicide specifically. There is a counselor and a college web site with suicide prevention information, with links to pamphlets created at other institutions and resources for student referrals.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor and prevention strategies was obtained from web site assessment.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

Table B2

Description, Prevention Strategies, and Interview Results for Institution B

Characteristic	Data
Description	
Location	Middle Tennessee
Setting	Suburban
Size	Large
Employs behavioral health counselor	No
Prevention strategies	
Educational strategies	Class activities or assignments that increase suicide awareness (also known as curriculum infusion). Suicide prevention information is distributed in student newspapers or newsletters. Suicide prevention information is displayed on posters or on campus signage. Suicide prevention information is presented at health fairs or other campus events. Suicide prevention information includes local or national suicide prevention telephone hotline number. Note: Faculty and most staff are required to update on effective management of the classroom that addresses how to work with disturbed students and includes harm to self/others, but not suicide.
Technological strategies	None found.
Institutional strategies	Policies that address the identification of suicidal students.* Policies that address the campus response to suicidal students.* Policies that address the personnel responsible for responding to suicidal students.* Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Contracts or agreements exist with area health care agencies to serve as resources for referrals. Policies that address the college's support of remaining students when a student or other member of the college community has died by

	suicide.* Policies that ban firearms on campus.* Policies that secure chemicals and poisons that may be ingested. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors. Note: Policies were not specific to suicide. Not on list: Emergency Management Plan for "catastrophic events." Student services works with campus police.*
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	One would contact the office of the VP of Student Services or campus police. The director of advising (who had been QPR certified) is the point person on campus. This person would meet with the student, assess the student, and intervene. Has "MDUs" for referrals to community agencies if needed. Afterward, the director of advising summarizes the incident and sends a report out to all involved .
What prompted the development of these suicide prevention strategies at your institution?	"Something we needed to be better at." Changes in the Clery Act. "Trying to develop a comprehensive educational program for students and comprehensive training for faculty and staff." Preventative education. Because they are trying to comply with Clery, they are taking the opportunity to address student and employee education in other areas.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	The director of advising is QPR trained. (NOTE: there is no behavioral health counselor employed by the institution).
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Budgetary issues." "The human resource aspect; picking up additional work." "Difficult to have a person devoted to prevention education. Has to be spread around." The Clery Act involves Student Services, campus police, and HR… spread among many offices.
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"Campus police have a different protocol based on legislation. We have armed bona fide police officers. They have a different set of rules."

	"Student Services deals with stuff and works closely with campus police."
Case summary	
Assessment of this large suburban institution revealed policies that identified students in psychological crisis and a crisis recovery plan. These were not specific to suicide. They did address interventions for "immediate and secondary victims." Suicide information is available in brochures and presented at campus events. Interviewee states campus police would play a role in suicide prevention due to their legal power.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B3

Description, Prevention Strategies, and Interview Results for Institution C

Characteristic	Data
Description	
Location	Middle Tennessee
Setting	Urban
Size	Large
Employs behavioral health counselor	No
Prevention strategies	
Educational strategies	Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training). Suicide prevention information is distributed in student newspapers or newsletters. Suicide prevention information is presented at health fairs or other campus events. Suicide prevention information includes resources for referral.
Technological strategies	None found
Institutional strategies	Personnel have identified area agencies to serve as resources for student referrals. Contracts or agreements exist with area health care agencies to serve as resources for referrals. Policies that address the college's support of remaining students when a student or other member of the college community has died by suicide. Policies that ban firearms on campus.* Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges. Policies that secure chemicals and poisons that may be ingested. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors Note: Policies do not address suicide specifically, but "threatening and disruptive conduct." Not on list: Behavioral Intervention (BIT) team reviews

	student situations that involve a crisis. Emergency management plan.
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	"Employees would go to the Dean or lead faculty; they would refer the situation to the BIT team."
What prompted the development of these suicide prevention strategies at your institution?	The Dean's background in counseling; saw a need. A major change in the college brought about new programs and new needs. As programs were started, students became involved in events that would address the subject. Willingness of faculty to lead students in campus events.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	Administrative support to have it happen. Faculty and student willingness to work on fairs and events. Support from community resources (TSPN and mental free local mental health agency). They do things for fairs and serve as referrals for students. "It would significantly change our student experience here if we did not have them (the local mental health agency)." Local community agency conducted QPR training for staff.
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Lack of resources for web site development – content and technical. Would have an online presence with this issue."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"We do not have professional counselors on campus. It makes a big difference in how you approach this issue. In (campus location) we have free counseling available remotely; this service is available to all campuses."
Case summary	
Assessment of this large urban institution reveals three educational strategies, including Gatekeeper training and distribution of suicide prevention information on campuses, and numerous policies. Policies do not address suicide specifically. The Dean has a background in counseling. This factor, along with support from community agencies and faculty, has contributed to current strategies. Interviewee states the institution would have an online presence if it had the resources and cites a need for institutional counselors.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).
*Information confirmed by web site assessment

Table B4

Description, Prevention Strategies, and Interview Results for Institution D

Characteristic	Data
Description	
Location	West Tennessee
Setting	Urban
Size	Large
Employs behavioral health counselor	No
Prevention strategies	
Educational strategies	None
Technological strategies	None
Institutional strategies	Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Area health care agencies do not require contracts or agreements; can easily refer students to agencies. Policies that ban firearms on campus.* Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors. Note: Policies do not address suicide specifically but "harm to self/others." Address "threat of harm to another student."
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	"There is no systematic approach to suicide prevention on our campuses."
What prompted the development of these suicide prevention strategies at your institution?	"TBR policies"
What resources aid in the creation and implementation of suicide prevention efforts at	None

your institution?	
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Nothing. There is nothing that keeps us from doing more."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"Our campus is located in a metropolitan area; we have a lot of resources off campus."

Case summary

Assessment of this large urban institution revealed a lack of educational and technological strategies. The interviewee attributed the numerous policies to TBR system policies; policies are not specific to suicide. While there is not specific suicide prevention plan and "nothing that keeps us from doing more," the interviewee stated the institution is in a metropolitan area that provides numerous off-campus resources.

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B5

Description, Prevention Strategies, and Interview Results for Institution E

Characteristic	Data
Description	
Location	Middle Tennessee
Setting	Rural
Size	Medium
Employs behavioral health counselor	No
Prevention strategies	
Educational strategies	Class activities or assignments that increase suicide awareness (also known as curriculum infusion). Suicide prevention information is displayed on posters or on campus signage. Suicide prevention information includes local or national suicide prevention telephone hotline number. Not on list: Student Behavior Guide for employees – Has different types of behaviors. Guide provides a flowchart for interventions and to direct the reader to referral numbers as indicated.
Technological strategies	Suicide prevention hotline telephone number displayed on posters or campus signage.
Institutional strategies	Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Personnel have identified area agencies to serve as resources for student referrals.* Area health care agencies do not require contracts or agreements; can easily refer students to agencies. Policies that ban firearms on campus.* Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges. Policies that secure chemicals and poisons that may be ingested. Note: Policies do not address suicide

	specifically. Not on list: Behavioral Referral Form and Behavioral Intervention Team (BIT).
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	If a student is in distress, members of the campus community would contact the Student Affairs office or a member of the BIT team. Members of the BIT team would assess and intervene.
What prompted the development of these suicide prevention strategies at your institution?	"Being a rural institution, people would notice things in students. It began to become more frequent, so we created the BIT team. This put in place a process to track and document (student behaviors) over time."
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	Faculty and staff interest in student welfare. Also assessed what other institutions did (web search and phone calls).
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"The lack of staff dedicated to doing it continuously." "Lack of funding."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"People at the institution are concerned and students are concerned about each other. Everyone knows everyone. This is a rural institution and people notice behavior and can refer them to resources as needed at an early stage. People look out for each other or tell someone if something is not right." "We use the Behavioral Referral Form very frequently."
Case summary	
Assessment of this medium-sized rural institution revealed three educational strategies, the use of the telephone hotline, and several policies, including a Behavioral Intervention Team and referral form. The policies do not address suicide specifically. The interviewee cites the rural and intimate campus community as a prompt for development, a resource for a development, and a protective factor. Interviewee stated "this has been a great opportunity to learn and hopefully improve our institution" and requested a copy of the survey instrument.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral

health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).
*Information confirmed by web site assessment

Table B6

Description, Prevention Strategies, and Interview Results for Institution F

Characteristic	Data
Description	
Location	East Tennessee
Setting	Urban
Size	Large
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).*
	Class activities or assignments that increase suicide awareness (also known as curriculum infusion).*
	Peer leaders who are trained to recognize the warning signs of suicide and make referrals
	Suicide prevention information is distributed in student newspapers or newsletters.
	Suicide prevention information is displayed on posters or on campus signage.
	Suicide prevention information is presented at health fairs or other campus events.*
	Suicide prevention information includes the warning signs of potential suicidal behavior.
	Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask "are you thinking of hurting yourself."
	Suicide prevention information includes resources for referral.
	Suicide prevention information includes local or national suicide prevention telephone hotline number
	Not on list:
	President proclaims September Suicide Awareness month. All campuses have special educational and awareness activities that month. TSPN memorial quilt on each campus a week.
	Faculty provided with a chart with behaviors and resources.*
	"No active plan across the curriculum" in response to curriculum infusion.

Technological strategies	College web site with suicide prevention information.* Web-based tools that screen students for depression or suicidal risk.* Suicide prevention hotline telephone number on webpage/s.* Suicide prevention hotline telephone number displayed on posters or campus signage. Not on list: Online "Behavior of Concern" referral form* Online "Silent Witness" (Anonymous Tip) form*
Institutional strategies	Policies that address the identification of suicidal students.* Policies that address the campus response to suicidal students.* Policies that address the personnel responsible for responding to suicidal students.* Policies that address how to refer students who display suicidal warning signs to safety and care.* Personnel have identified area agencies to serve as resources for student referrals. Contracts or agreements exist with area health care agencies to serve as resources for referrals. Policies that address the college's support of remaining students when a student or other member of the college community has died by suicide. Policies that ban firearms on campus.* Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges. Policies that secure chemicals and poisons that may be ingested. Note: Policies address suicide specifically. Not on list: Behavioral Intervention Team (BIT Team) is composed of faculty, staff, administrators, security, etc. to handle "red flag" students, which includes suicidal students. Team works together to help student.*

Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	They would contact counseling services. If needed, the counselor would contact the BIT team or make a referral to an outside agency.
What prompted the development of these suicide prevention strategies at your institution?	"The Virginia Tech incident. The BIT was created to monitor students of concern. Counselor backgrounds. Many have background in working with people in crisis."
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	"Support from the VP of Students Affairs and all the way up to the President. Administrators know the value of counseling. Several community partners. TSPN drives a lot of what we do. Director made it financially possible for everyone (the counselors) to get QPR training. She made that a priority. Counselors receive money for campus community education." "The counseling center, with 8 counselors, leads the suicide prevention efforts at the institution. The counselors do all the programming and QPR training. "
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Departments are siloed; it is hard to get the message out to all." "Logistical challenge" to get information out to all campuses." "We have 5 campuses."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"This is very important to all of us. Suicide prevention is one thing that everyone is on the same page about."
Case summary	
Assessment of this large urban institution revealed the use of most educational, technological, and institutional strategies found in the literature. Policies specifically addressed suicide. Additional strategies not found in literature review are employed as well. Interviewee stated that although the strategies were prompted by the Virginia Tech incident, support from all levels of administration as well as extensive support from community resources aided in the suicide prevention efforts. "Suicide prevention is one thing that everyone is on the same page about."	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies

were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).
*Information confirmed by web site assessment

Table B7

Description, Prevention Strategies, and Interview Results for Institution G

Characteristic	Data
Description	
Location	East Tennessee
Setting	Rural
Size	Medium
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training). Class activities or assignments that increase suicide awareness (also known as curriculum infusion). Suicide prevention information is distributed in student newspapers or newsletters Suicide prevention information includes the warning signs of potential suicidal behavior Suicide prevention information includes resources for referral. Not in list: Emergency preparedness poster in each room on campus – Not specific for suicide; refers people to college nurse, campus police, or 911 for emergency situations.
Technological strategies	Intranet web page with training for employees. Required. Addresses "disturbed, distressed, or distraught" students.
Institutional strategies	Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Area health care agencies do not require contracts or agreements; can easily refer

	students to agencies. Policies that ban firearms on campus.* Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges. Policies that secure chemicals and poisons that may be ingested. Note: Policies do not address suicide specifically.
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	A faculty member would alert the Threat Assessment team, which includes campus counseling, campus police, and Student Affairs. The Threat Assessment Team would assess and intervene."
What prompted the development of these suicide prevention strategies at your institution?	"Virginia Tech." "Connecting the dots" across campus.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	Student health nurse sends out information for "suicide month." The Board of Regents came and helped them create the information for the employee training to address "disturbed, distressed, and distraught" students. Then people at the institution put it together online, in the intranet.
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"I don't know of anything prohibiting us. Other topics have been prevalent. Suicide has not been an entity of concern from TBR or the federal government. The reason more is not done is that it is not a high enough priority. Each office in community colleges have such limited staff, they are replying to topics from the federal government and TBR, and doing their regular job, they just barely keep it under control." "It would hit the radar screen a lot higher if we had a couple of students affected by it." "It is easier to say 'don't drink and drive' than it is to say 'don't commit suicide'. Socially, we as a society are uncomfortable using the word 'suicide' and will cover it up with other

	synonyms instead of saying the word itself. We need to get over that hurdle. It's topic that's avoided. Sad, really, because the numbers are high starting in junior high on up."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"Our campus profile. "Acceptance of suicide as a cultural option is influenced by demographics." Age, ethnicity, urban vs. rural locations, dual enrollment numbers, age of students.

Case summary

Assessment of this medium-sized rural institution revealed the use of four educational strategies, one technological strategy, and numerous policies. The policies addressed "disturbed, distressed, and distraught" students and did not address suicide specifically. The interviewee cited the lack of prioritization of suicide prevention and socio-cultural factors as deterrents to creating and implementing more prevention strategies.

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B8

Description, Prevention Strategies, and Interview Results for Institution H

Characteristic	Data
Description	
Location	Middle Tennessee
Setting	Rural
Size	Medium
Employs behavioral health counselor	No
Prevention strategies	
Educational strategies	Class activities or assignments that increase suicide awareness (also known as curriculum infusion).
Technological strategies	Link to suicide prevention hotline on psych department web site as additional resources and violence prevention site.*
Institutional strategies	Policies that ban firearms on campus.* Policies that secure chemicals and poisons that may be ingested.
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	"I can't recall any campus focused initiative."
What prompted the development of these suicide prevention strategies at your institution?	"Passion of the instructors." Also, well-being is part of the curriculum in psychology, sociology and nursing curricula.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	Faculty and former counselor
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Nothing necessarily prohibits." Curriculum and policies are driven by many entities: federal compliance, textbook content, accreditation bodies, professional organizations. "Suicide is not a high ranking topic among those entities." Lately, energy has been spent on learning support and technology to improve student learning opportunities. "Has not risen to the top of concerns."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"We have not had a focused conversation about suicide in a number of years. Competing topics rise to the top." People uncomfortable

	with the topic.
	Case summary
Assessment of this rural medium-sized institution revealed the use of curriculum infusion, deep web links to the suicide prevention hotline, and policies that ban firearms and protect students from chemicals and poisons. These are attributed to the "passion of instructors" and a former counselor. Suicide "is not a high ranking topic" with external governing bodies, and internal resources and energies have been prioritized to address learning support and technological issues. "Competing topics rise to the top."	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B9

Description, Prevention Strategies, and Interview Results for Institution I

Characteristic	Data
Description	
Location	East Tennessee
Setting	Rural
Size	Medium
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).
Technological strategies	College web site with suicide prevention information. Web-based tools that screen students for depression or suicidal risk. Suicide prevention hotline telephone number on webpage/s. Not listed: Behaviors of Concern online form Immediate pop-up on screen when one accesses suicide prevention site, with phone numbers and info to guide the reader to safety. Community partnerships and emergency contacts in addition to crisis hotlines. Disability Services has a psychological disabilities page that addresses depression and suicide.
Institutional strategies	Interdepartmental collaborative efforts to increase suicide awareness and provide suicide prevention resources to students (Safe Campus Committee) Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals.

	Policies that ban firearms on campus. Note: Policies address suicide specifically. Not listed: Policy for annual training for faculty and staff.
Did not accept invitation for interview Case summary	
Web site assessment of this medium-sized rural institution revealed the use of Gatekeeper training, an extensive web presence that included a pop-up when one accessed the suicide prevention web page, and numerous policies. There is also a policy for annual training. The web presence includes off-campus emergency resources. The Disability Services web page includes psychological services, including depression and suicide; it is the only campus to do so.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor and prevention strategies was obtained from web site assessment.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

Table B10

Description, Prevention Strategies, and Interview Results for Institution J

Characteristic	Data
Description	
Location	West Tennessee
Setting	Rural
Size	Small
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Suicide prevention information is displayed on posters or on campus signage. Suicide prevention information is presented at health fairs or other campus events. * Suicide prevention information includes the warning signs of potential suicidal behavior. Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask "are you thinking of hurting yourself." Suicide prevention information includes resources for referral. Suicide prevention information includes local or national suicide prevention telephone hotline number. Not on list: A TSPN representative will be on campus next week to present to our Human Rights Club, focusing on LGBTQ suicide issues but will be expanded to a broader audience as well. The Student Intervention Team has created a chart that employees may use when students display concerning behaviors. The chart leads the employee to the correct referral to help the student.*
Technological strategies	College web site with suicide prevention information. * College social networking site with suicide prevention information. Web-based tools that screen students for depression or suicidal risk. * Suicide prevention hotline telephone number on webpage/s. * Suicide prevention hotline telephone number

	displayed on posters or campus signage. Not on list: Student Intervention Team has an online referral form that, when it is filled out by a concerned person, notifies the Dean of Students and Counselor to a student behavior.
Institutional strategies	Policies that address the identification of suicidal students. * Policies that address the campus response to suicidal students. * Policies that address the personnel responsible for responding to suicidal students. * Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Area health care agencies do not require contracts or agreements; can easily refer students to agencies. Policies that ban firearms on campus. Policies that secure chemicals and poisons that may be ingested. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors. Policy to address support for remaining students.* Note: Policies address suicide specifically. Not on list: Student Intervention Team responds to behavioral concerns. The Dean of Students, the Counselor, a psychology faculty member, and others are members of the team and follow up on student behaviors. An Immediate Response Team responds to immediate and dangerous threats.
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	Employees would call the Immediate Response Team or Dean of Students if a student displayed behaviors of concern. They could also call campus police, who would activate the Immediate Response Team as well. These actions would connect the student with the

	Student Success Counselor who has gone through Tennessee Suicide Prevention Network (TSPN) training, and, if possible, other members of the IRT. The counselor will work with the student and offer to connect them with the local mental health care facility with which we work. The Student Intervention Team (SIT) will follow up with the counselor to establish a post-intervention plan of support and assistance for the student.
What prompted the development of these suicide prevention strategies at your institution?	"The bottom line is student success, be it academically, personally, or physically. Promoting wellness includes mental health. The wellness effort extended out to overall wellbeing. Suicide prevention evolved out of this wellness effort." "Student support efforts are shifting to overall wellness. Wellness promotes success and retention. We can't retain our students if their needs aren't being met, be it physical or mental." Also have a counselor who promotes the efforts.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	TSPN provides free brochures and they provide our information. "TSPN is wonderful. They offer to go out and train people free." Community resources are readily available for referrals. Counselor.
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Lack of funding. Money is definitely an issue." "Suicide is not pleasant to talk about." "Denial that this would never happen here."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"Our service area is primarily rural. Economically, unemployment is high and income is lower. These play a factor in suicide ideation. We have students whose basic needs aren't being met; we have a food pantry. Many are coming to be retrained secondary to unemployment. All this creates a lot of pressure on them."

	"Larger urban areas are going to have more resources compared to rural areas."

Case summary

Assessment of this small rural institution revealed extensive, complete information around campus and at campus events, an extensive web presence, and numerous policies. The policies address suicide specifically. The interviewee attributed the extensive strategies to a shift in the campus atmosphere to promote the students' overall wellbeing, including mental health, in efforts to increase student success. A counselor and an outside agency contribute to implementation. The interviewee cites the lack of resources in the rural service area and lack of institutional funding as deterrents to doing more. However, the community resource partner provides free information and training.

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B11

Description, Prevention Strategies, and Interview Results for Institution K

Characteristic	Data
Description	
Location	East Tennessee
Setting	Rural
Size	Large
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	None found
Technological strategies	Web-based tools that screen students for depression or suicidal risk. Not on list: Counseling web site has a FAQ "when should I see a counselor" and refers to suicidal thoughts; counseling and campus emergency numbers on the link.
Institutional strategies	Policies that address the identification of suicidal students. Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Personnel have identified area agencies to serve as resources for student referrals. Policies that ban firearms on campus. Note: Some policies specifically address suicide.
Did not accept invitation for interview	
Case summary	
Web site assessment of this large rural institution revealed the use of an online screening tool for depression and suicide risk and a few policies that specifically address suicide. The counseling web site has a FAQ "When should I see a counselor" and refers to suicidal thoughts; provides contact numbers to students.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor and prevention strategies was obtained from web site assessment.
Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

Table B12

Description, Prevention Strategies, and Interview Results for Institution L

Characteristic	Data
Description	
Location	East Tennessee
Setting	Rural
Size	Small
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Class activities or assignments that increase suicide awareness (also known as curriculum infusion). Suicide prevention information is distributed in student newspapers or newsletters. Suicide prevention information is displayed on posters or on campus signage. Suicide prevention information is presented at health fairs or other campus events. Suicide prevention information includes the warning signs of potential suicidal behavior. Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask "are you thinking of hurting yourself." Suicide prevention information includes resources for referral. Suicide prevention information includes local or national suicide prevention telephone hotline number. "Not in an organized fashion" in response to curriculum infusion.
Technological strategies	None
Institutional strategies	Policies that address the campus response to suicidal students.* Policies that address the personnel responsible for responding to suicidal students.* Policies that address how to refer students who display suicidal warning signs to safety and care.* Personnel have identified area agencies to serve as resources for student referrals. Area health care agencies do not require contracts or agreements; can easily refer students to agencies.

	Policies that ban firearms on campus.* Policies that secure chemicals and poisons that may be ingested. Note: Some policies do not specifically address suicide; they address "disturbed or distressed students." Not on list: Critical Incident Plan, which is different from the other policies, addresses the campus response to a suicidal student and who is responsible for the response. Note: Does not have a formal Behavioral Intervention Team. Stated "disciplinary policies address disruptive students, but from a mental health lens, no."
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	Would contact director of counseling center. They would meet with student, assess the student, and make referrals if necessary. "The counselor has the expertise to recognize and refer." Does not have a Behavioral Intervention Team. "We are a small campus. We have an informal process, not a policy. It operates informally."
What prompted the development of these suicide prevention strategies at your institution?	"It is common sense. We recognize we need to be aware of issues that students bring." Counselor. Faculty sponsor student events, such as health fairs by nursing students.
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	Counselor. Faculty support of student events. Police department on campus. "Counselor has expertise and a rapport with community resources."
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"Lack of resources, which would be time, people, and money. We are basically told to redirect our focus. Our lives are now dominated by completion. We had to make choices."
What other information do I need to know to create a complete picture of the suicide	"Fortunately, it is something that we haven't had to deal with."

prevention efforts at your institution?	"We may hear about a student but it is only because someone saw it in the newspaper. They are often not connected." National Mental Health Screening Day and National Depression Screening Day in the past. When asked about "in the past" stated "our lives are now dominated by completion."

Case summary

Assessment of this small rural institution revealed some suicide prevention information is distributed on campus and at campus health fairs. A Critical Incidence Plan included suicide. Other policies addressed "harm inflicted on self" or "disturbed or distressed students" as a disciplinary offense. While there is no formal Behavioral Intervention Team, there is an informal process. Interviewee indicated that resources have been redirected to address the student completion effort.

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Table B13

Description, Prevention Strategies, and Interview Results for Institution M

Characteristic	Data
Description	
Location	West Tennessee
Setting	Rural
Size	Small
Employs behavioral health counselor	Yes
Prevention strategies	
Educational strategies	Class activities or assignments that increase suicide awareness (also known as curriculum infusion). Suicide prevention information is distributed in student newspapers or newsletters. Suicide prevention information is presented at health fairs or other campus events. Suicide prevention information includes the warning signs of potential suicidal behavior. Suicide prevention information includes resources for referral. Suicide prevention information includes local or national suicide prevention telephone hotline number. Not on list: Speakers on campus to promote suicide awareness/prevention. New Faculty Academy – During this new faculty training, the Counselor gives faculty information about when to make referrals and to whom to make the referrals.
Technological strategies	None
Institutional strategies	Policies that address the campus response to suicidal students. Policies that address the personnel responsible for responding to suicidal students. Policies that address how to refer students who display suicidal warning signs to safety and care. Personnel have identified area agencies to serve as resources for student referrals. Area health care agencies do not require contracts or agreements; can easily refer

	students to agencies. Policies that ban firearms on campus.* Policies that secure chemicals and poisons that may be ingested. Note: Policies do not specifically address suicide. Not on list: Behavioral Threat Assessment Team – a standing committee that addresses behavioral problems. Can make plan of action if needed. Referrals come from Dean and Counselor. Emergency Response Plan in place.
Critical Interview Responses	
What process would be followed if an employee encountered a suicidal student?	"Don't really have a plan in place that specifically addresses suicide." If a student is in crisis, contact Counselor, Dean, or security. They would assess the student and contact police (off campus) if in immediate danger. Police would take student to the ER. Would be referred to community counseling resources if not in immediate danger.
What prompted the development of these suicide prevention strategies at your institution?	"Were in place when I took this position several years ago."
What resources aid in the creation and implementation of suicide prevention efforts at your institution?	"Great support from administration." Institutional counselor. Community resources for referrals "At one time a faculty member, now retired, would speak on campus. Also, outside resources used to come and speak."
What factors prohibit the creation and implementation of suicide prevention efforts at your institution?	"We are rural and lack quality resources. Don't have readily available resources of information to use." "Having qualified staff. If I could hire three counselors I could keep them busy all day long." "We are limited by what we can afford."
What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?	"We used to have college-wide programming each semester by our counselor. But, secondary to federal mandates, our focus has had to move to alcohol and sexual violence."

	"We have nothing, in my opinion, that addresses the best way to handle suicidal students. The policies are under disciplinary offenses." "We have definitely dealt with students. More could be done if we had time, money, and resources. But, when we are aware, we act appropriately."
Case summary	
Assessment of this small rural institution revealed the distribution of suicide prevention information at the counselor's office and some policies; policies do not specifically address suicide. New faculty receives information about behaviors for referral, as well as referral resources. Historically, there was regular programming. However, administrators have been forced to refocus limited resources to address federal mandates. This rural institution lacks internal and external resources for creation and implementation of strategies.	

Notes. Locations were obtained from the Tennessee's Community Colleges web site. Setting was obtained from the Carnegie classification. Size was determined by Carnegie classification. Medium-sized institutions were further divided by calculating the median enrollment; institutions with enrollment below the median were subsequently classified as small. Presence of behavioral health counselor was derived from interviews and web site assessments. Prevention strategies were obtained from surveys, interviews, and web site assessments. Interview results were obtained via phone interview.

Sources. Carnegie classification web site, TBR *Enrollment Fact Book*, and Tennessee's Community Colleges web site (see references for detailed list).

*Information confirmed by web site assessment

Appendix C

Survey Instrument

Section A: Educational Strategies

This section of the survey assesses the educational strategies that your institution might employ to prevent student suicide. Educational strategies include efforts to educate students about suicide prevention and gatekeeper training.

1. Which of the following educational strategies are employed at your institution? Select all that apply.
    a. Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).
    b. Class activities or assignments that increase suicide awareness (also known as curriculum infusion).
    c. Peer leaders who are trained to recognize the warning signs of suicide and make referrals
    d. Peer leaders who are trained to recognize the warning signs of suicide, make referrals, and work to train other students to increase suicide awareness
    e. Suicide prevention information is distributed in student newspapers or newsletters.
    f. Suicide prevention information is displayed on posters or on campus signage.
    g. Suicide prevention information is presented at health fairs or other campus events.
    h. Suicide prevention information includes the warning signs of potential suicidal behavior.
    i. Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask “are you thinking of hurting yourself.”
    j. Suicide prevention information includes resources for referral.
    k. Suicide prevention information includes local or national suicide prevention telephone hotline number.
    l. None of the above, that I am aware of.
2. Please provide any educational suicide prevention strategies employed at your institution that were not listed above.

Section B: Technological Strategies

This section of the survey assesses the technological strategies that your institution might employ to prevent student suicide. Technological strategies use technology to disseminate information, screen for at-risk students, or provide suicide prevention interventions.

3. Which of the following technological strategies are employed at your institution? Select all that apply.

    a. College web site with suicide prevention information.
    b. College social networking site with suicide prevention information.
    c. Online learning modules that instruct students, faculty, and staff about suicide prevention.
    d. Web-based tools that screen students for depression or suicidal risk.
    e. Suicide prevention hotline telephone number on webpage/s.
    f. Suicide prevention hotline telephone number displayed on posters or campus signage.
    g. Suicide prevention hotline telephone number on student newspapers or newsletters.
    h. Suicide prevention hotline telephone number on course syllabi.
    i. None of the above, that I am aware of.
4. Please provide any technological suicide prevention strategies employed at your institution that were not listed above.

Section C: Institutional Strategies

This section of the survey assesses the institution-wide strategies that might be employed at your college. Examples of institutional strategies include campus policies and campus coalitions.

5. Which of the following institutional strategies are employed at your institution? Select all that apply.
    a. Interdepartmental collaborative efforts to increase suicide awareness and provide suicide prevention resources to students.
    b. Policies that address the identification of suicidal students.
    c. Policies that address the campus response to suicidal students.
    d. Policies that address the personnel responsible for responding to suicidal students.
    e. Policies that address how to refer students who display suicidal warning signs to safety and care.
    f. Personnel have identified area agencies to serve as resources for student referrals.
    g. Contracts or agreements exist with area health care agencies to serve as resources for referrals.
    h. Area health care agencies do not require contracts or agreements; can easily refer students to agencies.
    i. Policies that address the college's support of remaining students when a student or other member of the college community has died by suicide.
    j. Policies that ban firearms on campus.
    k. Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges.
    l. Policies that secure chemicals and poisons that may be ingested.
    m. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors.
    n. Policies that require suicide prevention hotline (telephone number) on course syllabi.
    o. Policies that require suicide prevention hotline telephone number postings in classrooms or buildings.
    p. None of the above, that I am aware of.
6. Please provide any institutional suicide prevention strategies employed at your institution that were not listed above.

Appendix D

Web Site Document Review Protocol

1. Review the suicide prevention strategies on pages 2 and 3.
2. Enter the word “suicide” into the college website search box.
3. Document the results of the search.
4. Access each site and document the suicide prevention strategies that are identified.
5. Access the Student Services, Student Life, or other web pages that may have information pertaining to possible student counselling, student mental health services, or student health services may provide prevention strategies. Document.
6. Categorize findings into the three suicide prevention strategy categories on the worksheet for data analysis (refer to list of strategies on pages 2 and 3).

Name of Institution_____Date_____

Search results and suicide prevention strategies identified.

Item 1 Educational Strategies	Item 2 Technological Strategies	Item 3 Institutional Strategies

1. Educational Strategies.
    a. Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).
    b. Class activities or assignments that increase suicide awareness (also known as curriculum infusion).
    c. Peer leaders who are trained to recognize the warning signs of suicide and make referrals
    d. Peer leaders who are trained to recognize the warning signs of suicide, make referrals, and work to train other students to increase suicide awareness
    e. Suicide prevention information is distributed in student newspapers or newsletters.
    f. Suicide prevention information is displayed on posters or on campus signage.
    g. Suicide prevention information is presented at health fairs or other campus events.
    h. Suicide prevention information includes the warning signs of potential suicidal behavior.
    i. Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask "are you thinking of hurting yourself."
    j. Suicide prevention information includes resources for referral.
    k. Suicide prevention information includes local or national suicide prevention telephone hotline number.

2. Technological Strategies.
    a. College web site with suicide prevention information.
    b. College social networking site with suicide prevention information.
    c. Online learning modules that instruct students, faculty, and staff about suicide prevention.
    d. Web-based tools that screen students for depression or suicidal risk.
    e. Suicide prevention hotline telephone number on webpage/s.
    f. Suicide prevention hotline telephone number displayed on posters or campus signage.
    g. Suicide prevention hotline telephone number on student newspapers or newsletters.
    h. Suicide prevention hotline telephone number on course syllabi.

3. Institutional Strategies
    a. Interdepartmental collaborative efforts to increase suicide awareness and provide suicide prevention resources to students.
    b. Policies that address the identification of suicidal students.
    c. Policies that address the campus response to suicidal students.
    d. Policies that address the personnel responsible for responding to suicidal students.
    e. Policies that address how to refer students who display suicidal warning signs to safety and care.
    f. Personnel have identified area agencies to serve as resources for student referrals.
    g. Contracts or agreements exist with area health care agencies to serve as resources for referrals.
    h. Area health care agencies do not require contracts or agreements; can easily refer students to agencies.
    i. Policies that address the college's support of remaining students when a student or other member of the college community has died by suicide.
    j. Policies that ban firearms on campus.
    k. Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges.
    l. Policies that secure chemicals and poisons that may be ingested.
    m. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors.
    n. Policies that require suicide prevention hotline (telephone number) on course syllabi.

Appendix E

Interview Guide

1. Describe the student suicide prevention strategies employed at your institution.

   Prompts: Student education
   Faculty education
   Signage
   Telephone
   Web-based strategies
   Institutional policies

2. What prompted the development of these suicide prevention strategies at your institution?

   Prompts: Student body (student death)
   Faculty/staff (scholars/practitioners)
   Institutional (other institutions shared best practices, grants)
   Community (grants, collaborative efforts)

3. What resources aid in the creation and implementation of suicide prevention efforts at your institution?

   Prompts: Monetary resources
   Faculty/staff resources
   Community resources
   Physical resources

4. What factors prohibit the creation and implementation of suicide prevention efforts at your institution?

   Prompts: Monetary resources
   Faculty/staff resources
   Community resources
   Physical resources

5. What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?

APPENDIX F

Emails Sent to Respondents

Survey Invitation (email)

To whom it may concern:

My name is Sandra Perley, and I am a doctoral candidate at East Tennessee State University. For my dissertation research, I am exploring the student suicide prevention strategies employed on the community college campuses in the TBR system.

Suicide is the second leading cause of death for college students in the United States. Approximately 1,100 college students die by suicide each year. There is little research, however, about suicide prevention in the community college setting. The purpose of this research is to assess the suicide prevention efforts at your institution.

In this study you will be asked to complete an electronic survey. Although I must know the responses, the name of your college will be removed and replaced with a pseudonym to maintain confidentiality in reporting. Your participation in this study is voluntary. The survey should take only 10 minutes to complete. You may also be contacted later for a follow-up interview.

Because of the sensitive nature of the topic, it is important that the appropriate staff member at your institution complete the survey. Therefore, if someone else at your institution has more knowledge about your campus activities and policies, if you have recently suffered a loss, if you are personally struggling, or if would prefer not to complete the survey, please send me the name and email address of another person so I can contact them instead. It is crucial to this research that all the TBR community colleges are represented.

I will send the survey out within the week. If you have any questions or concerns regarding the survey or this research project in general, please feel free to contact me at this email address.

Thank you for your time and cooperation with this research,

Sandra Perley, MSN, RN
Doctoral Candidate
Post-Secondary and Private Sector Leadership
Educational Leadership and Policy Analysis
East Tennessee State University
perley@goldmail.etsu.edu

Dear Participant:

My name is Sandra Perley, and I am a doctoral student at East Tennessee State University. I am working on my doctorate in Education. In order to finish my studies, I need to complete a research project. The name of my research study is Suicide Prevention Strategies in Tennessee Community Colleges: A Case Study.

The purpose of this study is to explore the student suicide prevention strategies on the community college campuses in the Tennessee Board of Regents system. I would like to give a brief survey questionnaire to a college administrator who has knowledge of student policies and campus activities. It should only take about ten minutes to complete. You will be asked questions about suicide prevention activities and policies at your institution. Since this project deals with suicide, it might cause some minor stress. However, you may also feel better after you have had read the lists of suicide prevention strategies employed on college campuses. This study may provide benefit by providing more information about suicide prevention in community college students.

This method is confidential. Your name will not be on the survey. No personal information will be collected. There is no anticipated risk for you or your institution; no names of institutions will be attached to the report. The name of your college will be removed from the survey data and replaced with a pseudonym for reporting purposes. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the ETSU IRB, and I have access to the study records.

If you do not want to fill out the survey, it will not affect you in any way. There are no alternative procedures except to choose not to participate in the study. Participation in this research study is voluntary. You may refuse to participate. You can quit at any time.

Please click the link below to go to the survey web site (or copy and paste the link into your Internet browser). You cannot reenter the survey after you have logged out of it. Based on the results of this survey, you may be contacted for a follow-up interview.

http://coscforms.columbiastate.edu/Sandra-Perley.aspx

If you have any research-related questions or problems, you may contact me at (931) 540-2598. I will be working on this project under the supervision of Dr. Bethany Flora, my dissertation chair. You may reach her at (423) 439-7609. Also, the chairperson of the Institutional Review Board at East Tennessee State University is available at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you can't reach the study staff, you may call an IRB Coordinator at 423/439-6055 or 423/439/6002.

Sincerely,

Sandra Perley

APPROVED
By the ETSU IRB
APR 16 2015
By CA
Chair/IRB Coordinator

DOCUMENT VERSION EXPIRES
APR 15 2016
ETSU IRB

Dear Participant:

My name is Sandra Perley, and I am a doctoral student at East Tennessee State University. I am working on my doctorate in Education. In order to finish my studies, I need to complete a research project. The name of my research study is Suicide Prevention Strategies in Tennessee Community Colleges: A Case Study.

The purpose of this study is to explore the student suicide prevention strategies on the community college campuses in the Tennessee Board of Regents system. Based on a survey completed earlier, your institution emerged as a leader in student suicide prevention. I would like to give a brief phone interview to a college administrator who has knowledge of student policies and campus activities. It should only take about 30 minutes. You will be asked questions about suicide prevention activities and policies at your institution. Since this project deals with suicide, it might cause some minor stress. However, you may also feel better after you have had the opportunity to express yourself about student suicide prevention. This study may provide benefit by providing more information about suicide prevention in community college students.

This method is confidential. Only the name of your institution will be recorded in my interview notes. The interview will not be recorded electronically. No personal information will be collected. There is no anticipated risk for you or your institution; no names of institutions will be attached to the report. The name of your college will be removed from the data and replaced with a pseudonym for reporting purposes. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the ETSU IRB, and I have access to the study records.

If you do not want to be interviewed, it will not affect you in any way. There are no alternative procedures except to choose not to participate in the study. Participation in this research study is voluntary. You may refuse to participate. You can quit at any time.

Please reply to this email to schedule a date and time for a brief phone interview.

If you have any research-related questions or problems, you may contact me at (931) 540-2598. I will be working on this project under the supervision of Dr. Bethany Flora, my dissertation chair. You may reach her at (423) 439-7609. Also, the chairperson of the Institutional Review Board at East Tennessee State University is available at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you can't reach the study staff, you may call an IRB Coordinator at 423/439-6055 or 423/439/6002.

Sincerely,

Sandra Perley

Appendix G

Modified Interview Guide

My name is Sandra Perley, and I am a doctoral candidate at East Tennessee State University. For my dissertation research, I am exploring the student suicide prevention strategies employed on the community college campuses in the TBR system.

Before I begin, I want to offer my condolences if you have recently lost a member of your college community to suicide.

Suicide is the second leading cause of death for college students in the United States. Approximately 1,100 college students die by suicide each year.

There is little research, however, about suicide prevention in the community college setting. Community colleges students are more likely to: be first-generation college students (Green, 2006; Joshi, Beck, & Nsiah, 2009); be more ethnically and racially diverse than students in 4-year colleges and universities (Green, 2006; Joshi et.al., 2009; McColloch & Miller, 2010; Wellman, Desrochers, & Lenihan, 2008); work more hours while attending college (Joshi et. al., 2009); belong to low-income families (Green, 2006; Joshi et. al., 2009); and often less academically prepared for college work (Joshi et. al., 2009). These factors may place a community college student at a higher risk for suicide than their residential 4-year college peers. Approximately 3.6% of Tennesseans 18 years old or older seriously contemplate suicide yearly (Crosby et. al., 2011, p. 24). An estimated 18,000 Tennesseans make suicide plans and approximately 6,000 attempt suicide each year (Crosby et al., 2011, pp. 33, 42). In 2012, 978 Tennesseans died by suicide (CDC, 2012a).

The purpose of this research is to assess the suicide prevention efforts at the 13 TBR community colleges.

This method is confidential. Only the name of your institution will be recorded in my interview notes. The interview will not be recorded electronically. No personal information will be collected. No names of institutions will be attached to my final research report. The name of your college will be removed from the data and replaced with a pseudonym for reporting purposes. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the ETSU IRB, and I have access to the study records.

If you do not want to be interviewed, it will not affect you in any way. Participation in this research study is voluntary. You may refuse to participate. You can quit at any time.

First, let's do a quick survey of the suicide prevention strategies that you might be using at your institution. My research has revealed three major types of strategies. (Go through the survey instrument, marking the ones that are being employed by the institution, as indicated by the participant).

Survey Instrument

Section A: Educational Strategies

This section of the survey assesses the educational strategies that your institution might employ to prevent student suicide. Educational strategies include efforts to educate students about suicide prevention and gatekeeper training.

7. Which of the following educational strategies are employed at your institution? Select all that apply.
    a. Training to help people recognize the warning signs of suicide and refer the suicidal person to care (also known as Gatekeeper training).
    b. Class activities or assignments that increase suicide awareness (also known as curriculum infusion).
    c. Peer leaders who are trained to recognize the warning signs of suicide and make referrals
    d. Peer leaders who are trained to recognize the warning signs of suicide, make referrals, and work to train other students to increase suicide awareness
    e. Suicide prevention information is distributed in student newspapers or newsletters.
    f. Suicide prevention information is displayed on posters or on campus signage.
    g. Suicide prevention information is presented at health fairs or other campus events.
    h. Suicide prevention information includes the warning signs of potential suicidal behavior.
    i. Suicide prevention information includes how to talk to people who display the warning signs of suicide and how to ask “are you thinking of hurting yourself.”
    j. Suicide prevention information includes resources for referral.
    k. Suicide prevention information includes local or national suicide prevention telephone hotline number.
    l. None of the above, that I am aware of.
8. Please provide any educational suicide prevention strategies employed at your institution that were not listed above.

Section B: Technological Strategies

This section of the survey assesses the technological strategies that your institution might employ to prevent student suicide. Technological strategies use technology to disseminate information, screen for at-risk students, or provide suicide prevention interventions.

9. Which of the following technological strategies are employed at your institution? Select all that apply.

    a. College web site with suicide prevention information.
    b. College social networking site with suicide prevention information.
    c. Online learning modules that instruct students, faculty, and staff about suicide prevention.
    d. Web-based tools that screen students for depression or suicidal risk.
    e. Suicide prevention hotline telephone number on webpage/s.
    f. Suicide prevention hotline telephone number displayed on posters or campus signage.
    g. Suicide prevention hotline telephone number on student newspapers or newsletters.
    h. Suicide prevention hotline telephone number on course syllabi.
    i. None of the above, that I am aware of.

10. Please provide any technological suicide prevention strategies employed at your institution that were not listed above.

Section C: Institutional Strategies

This section of the survey assesses the institution-wide strategies that might be employed at your college. Examples of institutional strategies include campus policies and campus coalitions.

11. Which of the following institutional strategies are employed at your institution? Select all that apply.
    a. Interdepartmental collaborative efforts to increase suicide awareness and provide suicide prevention resources to students.
    b. Policies that address the identification of suicidal students.
    c. Policies that address the campus response to suicidal students.
    d. Policies that address the personnel responsible for responding to suicidal students.
    e. Policies that address how to refer students who display suicidal warning signs to safety and care.
    f. Personnel have identified area agencies to serve as resources for student referrals.
    g. Contracts or agreements exist with area health care agencies to serve as resources for referrals.
    h. Area health care agencies do not require contracts or agreements; can easily refer students to agencies.
    i. Policies that address the college's support of remaining students when a student or other member of the college community has died by suicide.
    j. Policies that ban firearms on campus.
    k. Policies that restrict access to, or create barriers against, jumping from high places like roofs, windows, or bridges.
    l. Policies that secure chemicals and poisons that may be ingested.
    m. Policies that address student suspension or withdrawal secondary to suicidal warning signs or behaviors.
    n. Policies that require suicide prevention hotline (telephone number) on course syllabi.
    o. Policies that require suicide prevention hotline telephone number postings in classrooms or buildings.
    p. None of the above, that I am aware of.
12. Please provide any institutional suicide prevention strategies employed at your institution that were not listed above.

6. What process would be followed if an employee encountered a suicidal student?

    Prompts: Who would they contact?
    What would happen to the student?
    How would these decisions be made?

7. What prompted the development of these suicide prevention strategies at your institution?

    Prompts: Student body (student death)
    Faculty/staff (scholars/practitioners)
    Institutional (other institutions shared best practices, grants)
    Community (grants, collaborative efforts)

8. What resources aid in the creation and implementation of suicide prevention efforts at your institution?

    Prompts: Monetary resources
    Faculty/staff resources
    Community resources
    Physical resources

9. What factors prohibit the creation and implementation of suicide prevention efforts at your institution?

    Prompts: Monetary resources
    Faculty/staff resources
    Community resources
    Physical resources

10. What other information do I need to know to create a complete picture of the suicide prevention efforts at your institution?

Appendix H

Data Analysis Blueprint

Item	Method of analysis
Survey Question 1	Document and add number employed. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Survey Question 2	Add strategy to list of strategies. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analyses). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Survey Question 3	Document and add number employed. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Survey Question 4	Add strategy to list of strategies. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop naturalistic generalizations (cross case analysis).
Survey Question 5	Document and add number employed. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).

Item	Method of analysis
Survey Question 6	Add strategy to list of strategies. Include in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Website Assessment Item 1	Document strategies employed. Include in case study for each case. Compare to data collected from survey. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Website Assessment Item 2	Document strategies employed. Include in case study for each case. Compare to data collected from survey Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Website Assessment Item 3	Document strategies employed. Include in case study for each case. Compare to data collected from survey Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).

Item	Method of analysis
Interview Question 1	Compare to survey responses to provide richer description of cases. Include quotations in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Interview Question 2	Compare to survey responses to provide richer description of cases. Include quotations in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Interview Question 3	Compare to survey responses to provide richer description of cases. Include quotations in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Interview Question 4	Compare to survey responses to provide richer description of cases. Include quotations in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).
Interview Question 5	Compare to survey responses to provide richer description. Include quotations in case study for each case. Perform categorical aggregation (within case analysis and between case analyses). Identify themes and patterns between the categories (between case analysis). Assess similarities and differences (between case analysis). Develop generalizations (cross case analysis).

VITA

SANDRA PERLEY

Education:	A.A.S. Medical Technology, Columbia State Community College, Columbia, Tennessee, 1980
	M.S.N. Acute/Critical Care Nursing, Vanderbilt University, Nashville, Tennessee, 1991
	Ed.D. Educational Leadership and Policy Analysis, East Tennessee State University, Johnson City, Tennessee, 2015
Professional Experience:	Medical Technologist, Maury Regional Hospital, Columbia, Tennessee, 1980-1991
	Registered Nurse, Vanderbilt University Medical Center, Nashville, Tennessee, 1991-1993
	Instructor of Nursing, Columbia State Community College, Columbia, Tennessee, 1993-1999
	Assistant Professor of Nursing, Columbia State Community College, Columbia, Tennessee, 1999-2003
	Associate Professor of Nursing, Columbia State Community College, Columbia, Tennessee, 2003- present
	Interim Coordinator of Program Planning, Columbia State Community College, Columbia, Tennessee, 2013
	Starfish Retention Solutions Software Implementation - Functional Leader, Columbia State Community College, Columbia, Tennessee, 2014- present
Honors and Awards:	Distinguished Faculty Award, Columbia State Community College
	Member Sigma Theta Tau International Honor Society for Nurses
Licenses:	Tennessee State Nursing License #085562, 1991-present