

Suicide Ideation in College Students:
A Review of Predicting Factors, Buffers, and Proposed Interventions

by

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Abstract

As suicide rates in college students increase, it is imperative to direct attention to this issue in an effort to address the factors that lead to young adults ending their lives. This thesis reviews the risk factors and buffers specific to a population of college students through a review of literature available on this topic. Additionally, this thesis proposes interventions for public universities to address suicide risk among students.

Keywords: Suicide, College Students, Suicide Ideation, Risk Factors, Buffers

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Introduction

The American college experience is often regarded with fondness and anticipation. Recently-graduated high schoolers look forward to their first semesters at college where they have the opportunity to discover themselves while earning a higher education. University orientation videos paint the picture of a college student who manages to perfectly balance academic studies with social life.

While it is true that college can be a place of self-discovery and friend-making, the American Association of Suicidology lists suicide as the second leading cause of death for college aged people (American Association of Suicidology, 2016). For every 100,000 college students, about 6.5-7.5 students will die by suicide, and studies indicate that suicide risk is rising (American Association of Suicidology, 2016). The Center for Collegiate Mental Health publishes annual findings about mental health trends found in college students who utilize college counseling services. The past three publications illustrate a trend of increased suicide risk and suicide attempts in college students who participated in the research (2018).

Although there are no reports about suicide deaths at Middle Tennessee State University, this issue still strikes close to home. Tennessee lost 1,111 people to suicide in the year 2016, a rate higher than the national average (American Association of Suicidology, 2016). In September of 2016, Andrew Vermillion ended his life when he jumped off the 11th street bridge on the University of Tennessee campus at the age of 22 (Salvemini, 2016). The myth that suicide is undetectable and unavoidable is commonly heard after a suicide loss; however, the National Institute of Mental Health's website (2017) notes that "Suicide is complicated and tragic, but it is often preventable."

Many students spend the majority of their time on campus, allowing campus faculty the opportunity to intervene before a student ends their life. By studying the risk factors of suicide and considering the buffers that keep individuals from making that fatal choice, one can work to understand and consequently prevent suicide. This thesis reviews the risk factors and buffers specific to college students through a review of literature available on suicide and its prevention in college students. Additionally, this thesis proposes interventions for public universities to address suicide risk in the student body.

Background

Suicide Deaths in History

Suicide is often thought of as a modern problem predominantly affecting first world populations, but this misconception is inaccurate at best. Suicide is discussed extensively in Greek mythology; in his collection of ancient Greek myths, *The Book of Fables*, Hyginus lists a total of 40 suicide deaths throughout the various works (Miotto & Pretti, 2005). Even the bible includes several cases of suicide deaths like Samson (Judges 16:28) and the prophet Ahithophel (2 Samuel 17:23) to name just two. Suicide also plays a role in Japanese history, specifically in the Bushido code of loyalty and honor until death. Suicide was expected to avoid failure or shame and was referred to as “seppuku” in Samurai culture (Louie, 2014).

In addition to the inclusion of suicide in historical literature and lore, the suicides of prominent individuals are littered throughout world history. The suicide of Egyptian Queen Cleopatra VII in 30 B.C. was so impactful that it inspired several artistic works, including Shakespeare’s “Antony and Cleopatra” (Crawford, 2007). Virginia Woolf, the

well-respected English author and contributor to the feminist movement, ended her life in 1941 after battling mental illness (Virginia Woolf Biography, 2018). In current events, the suicide of beloved actor and comedian, Robin Williams, rocked the United States with shock and grief.

Suicide in Philosophy

Suicide was a common theme in Greek mythology and it was discussed extensively in Ancient Greek philosophy. In his article, “Attitudes toward Suicide in Ancient Greece,” Elise P. Garrison (1991) discussed the philosophical views of Aristotle and Plato on suicide. He states: “Both Plato and Aristotle distinguish between acceptable and unacceptable suicides, and their discussions underline many of the complexities and ambiguities involved in reactions to suicide” (p. 14-15).

This sentiment can also be applied to modern day views on suicide. The subject of physician-assisted suicide, also referred to as euthanasia, death with dignity, or assisted death, is hotly debated in philosophy communities. There are numerous arguments for and against physician-assisted suicide, even with the legalization of assisted suicide in Colorado, California, Montana, Oregon, Vermont, and Washington. On one hand, supporters of assisted death argue that it supports the autonomy of individuals and their “right to death.” On the other hand, opponents of assisted suicide argue that legalization of assisted death could lead to medical professionals picking and choosing which patients get the most care (Novelli & Banerjee, 2017). Suicide clearly continues to be an ethical dilemma discussed through a philosophical lens however, this thesis aims to address suicide in a more psychological approach.

The Development of Suicidology

Suicidology is defined as a “scientific discipline which examines and studies suicidal tendencies and possibilities to prevent it” with contributors typically from the psychology and sociology field (Nugent, 2013). The article “The Politics of Suicide: Historical Perspectives on Suicidology before Durkheim. An Introduction,” sources the beginning of Suicidology to the Enlightenment period in Europe, which was fueled by a moral curiosity on the subject. Sociologists, referred to as social physicists at the time, studied the topic in the hopes of eliminating this “sensational” moral issue (Rancaccio, Engstrom, & Lederer, 2013).

The beginnings of suicidology in the United States can be linked to the works of Dr. Edwin Shneidman and Dr. Norman Farberow. The pair conducted several studies on suicide and its prevention, including the article “Clues to Suicide” published in the *Public Health Reports*. This study indicated that people who are contemplating suicide are most often not of sound mind and that suicide can be linked to mental illness. Independently, Edwin Shenidman was known as the “father of Suicidology” for his numerous influential studies and his founding of the first suicide prevention crisis line, accompanied by Drs. Norman Farberow and Robert Litman (Spencer-Thomas & Jahn, 2012). In 1993, Dr. Shenidman published his article “Suicide as Psychache: A clinical Approach to Self-Destructive Behavior.” This first introduced the theory that suicide is the result of unbearable psychological pain or distress. This theory contributed to a modern understanding that people who contemplate suicide don’t want to end their life, per se, they want to end their pain.

In their study “Tracking a Movement: U.S. Milestones in Suicide Prevention,” Sally Spencer Thomas, PsyD and Danielle R. Jahn, MAS (2012) surveyed 27 prominent persons in the field of Suicidology to determine which studies, theories, persons, and events were the most influential to the field. The results of the study support that both Dr. Edwin Shneidman and Dr. Norman Farberow helped to shape theory and research on suicide and its prevention. Additionally, Dr. Thomas Joiner (2007) and his publication “Why People Die by Suicide” were considered to be instrumental in the development of our understanding of suicide. Dr. Joiner, whose work is utilized extensively in this thesis, demonstrated in his research that both prevented belongingness and feelings of burdensomeness contribute to suicidal ideation. Those risk factors in addition to a learned ability to withstand self-injury lead to suicide deaths.

Risk factors

American societal values promote the avoidance of negative emotions (Irvine, 1997). This rejection of emotional expression contributes to the stigma around mental health. Suicide carries an extra layer of stigma, even within mental health communities. The myth that asking a person about suicide could cause them to experience suicidal thoughts creates additional barriers for those in need of help. Various studies demonstrate that the comfortability of mental health professionals in assessing clients for suicide risk is directly correlated with the likelihood of that client receiving appropriate, and potentially life-saving care (Pompili, Girardi, Ruberto, Kotzalidis, & Tatarelli, 2005). The attitudes and beliefs of mental health professionals in Puerto Rican college counseling centers were assessed through the use of a questionnaire in the publication “University

Mental Health Professionals in Puerto Rico: Suicide Experiences, Attitudes, Practices, and Intervention Skills.” The results of the questionnaire demonstrated that about one-third of the participants were concerned about legal ramifications when assessing someone for suicide. The stigma around suicide is clearly portrayed through the results of the survey; 15% of participants reported that they would rather refer a client who reports a history of suicide (Jiménez-Chafey, Serra-Taylor, & Irizarry-Robles, 2013).

Suicide screening is one of the most effective strategies to prevent suicide, and asking a person about the presence of suicidal ideation is just the first step in this screening process (Suicide Prevention Resource Center, 2014). An understanding of the risk factors for suicide is essential to accurately identify those at risk of an attempted or completed suicide. This understanding can also shape the type of interventions utilized, as risk factors for suicide can vary by population. This section aims to outline the prominent risk factors in college students throughout the United States. Additionally, an examination of special populations of college students at increased risk for suicide will include demographic specific risk factors. For the purposes of this paper, risk factors, as defined by the Suicide Prevention Resource Center (n.d.), are “characteristics of a person or his or her environment that increase the likelihood that he or she will die by suicide.”

Identification and Discussion of Risk Factors

The risk factors for suicide recognized in college students do not vary greatly from the general population in the United States. However, those attending college often face new challenges that they were sheltered from at home including the stress of a college level education and exposure to alcohol use. These risk factors, in addition to others, are reviewed below.

Mental Illness. The National Alliance for Mental Illness states that 90% of people who die by suicide have experienced a mental illness during their life. Depression, specifically, is linked to high suicide risk (Moscicki, 2001). This is especially prevalent in college students as 17% screen positively for depression (Hunt and Eisenberg, 2010). Mental illness often presents itself during early adulthood, leading to students with mental health problems receiving their first diagnosis during their college career. In addition, college counseling centers are seeing an increase in students who experience severe and persistent mental illness (Barr, Rando, Krylowicz, & Reetz, 2011). As such, mental illness is a risk factor for suicide in college students.

Alcohol. Alcohol use is strongly associated with the college experience. It is common for students to pick which college or university to attend based on its status as a “party school.” Research indicates that about 72% of college students engage in alcohol consumption at least once a year (Engs, Diebold, & Hanson, 1996). Although the consumption of alcohol is typically thought of through the context of fun and socialization, it has negative outcomes for many individuals. Recent data portrays that alcohol was involved in 66% of college suicides, suggesting that an understanding of how alcohol contributes to suicide risk can aid in the understanding of why some college students die by suicide (Manza & Sher, 2008).

The article “Alcohol and Suicidal Behavior” by Hufford (2001) explores the various ways alcohol use interacts with suicidal ideation in people with and without alcohol use disorder. The author utilizes previous research on the topic to support that intoxication promotes psychological distress. Additionally, intoxication inhibits cognitive ability to identify and utilize healthy coping skills to deal with stress. Hufford goes on to

explain the link of impulsivity between alcohol use and suicide attempts. Intoxication increases impulsivity, and increased impulsivity is linked to suicide; Therefore, it is logical to conclude that a state of intoxication could contribute to a suicide death. The connection of impulsivity, alcohol use, and suicide is amplified for college students due to their already high occurrence of impulsivity. The pre-frontal cortex, the part of the brain responsible for impulse control, is still developing in most people well into their mid-twenties (Casey & Caudle, 2013).

Loneliness/Isolation. Students often start their college careers with high expectations of creating new friends and having a successful social life. While this proves to be true for some individuals, others experience feelings of isolation and loneliness in a college setting. For many people, college is their first time away from their families and high school friend groups. In his book *Why People Die by Suicide*, Thomas Joiner (2007) identifies belongingness as one of two key factors that contribute to suicide risk as part of his interpersonal-psychological theory. Joiner states that feelings of belongingness are achieved through a “combination of frequent interaction plus persistent caring” (p. 96). The effect of thwarted belongingness on suicide risk is documented in several studies (Van Orden, Witte, Gordon, Bender, & Joiner, 2008; Heisel, Flett, & Hewitt, 2003) and supports Joiner’s interpersonal-psychology theory.

Thwarted belongingness can be interpreted as social hopelessness. Those experiencing social hopelessness have negative views on their connectedness to others, and this is perpetuated by feelings of loneliness or thoughts that they do not fit in. In college students, social hopelessness was a stronger indicator of suicide risk than general hopelessness, which differs from the general non-student population. This may be due to

the significance of social interactions to young adult's perception of self-worth Heisel, Flett, & Hewitt, 2003).

Academic Stress. Academic stress is an unavoidable aspect of the college attendance. The National Health Assessment, published by the College Health Association in 2014, states that one-half of the 80,000 college students surveyed reported intense anxiety. Stress related to academic performance is one of the most commonly identified reasons college students seek assistance through counseling centers (Pérez-Rojas, et al, 2017). The connection of stress to suicide is demonstrated through the higher incidence of youth suicide in countries with intense exam cultures, such as China and Japan (Sharp, 2013). This relates to academic stress being a particularly important risk factor in students who come from Asian backgrounds, but this will be explored further in the next section.

Demographic Considerations and Risk Factors

Although the risk factors seen in college students do not vary greatly from general populations, the previous section outlined risk factors that differentiate college students from other populations. This next section breaks down college students into smaller demographics, looking at variations of risk factors by gender, racial and ethnic identity, and LGBT status.

Differences by Sex. Men in the United States are at a greater risk of dying by suicide than women, who are more likely to attempt suicide than men. This is partly due to men choosing more violent methods for suicide, such as firearms, resulting in a higher chance of death when an attempt occurs (American Association of Suicidology, 2016). This fact holds true in college populations, as men make up the majority of college

student suicides (Schwartz, 2011; Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). In addition to variations in suicide prevalence by sex, certain risk factors are more indicative of risk in men versus women or vice versa.

Chapter three of *Understanding and Preventing College Student Suicide* (Lamis & Lester, 2011) outlines the research conducted on sex differences in suicide risk. The authors suggest that cross-gender behavior in college students could indicate greater risk. As an example: more women than men are diagnosed with depression, but men diagnosed with depression are at a significantly increased risk for suicide than women diagnosed with depression. Although college men are more commonly affected by alcohol use disorders, women diagnosed with this disorder are at greater risk of suicide death (Lamis & Lester, 2011).

In addition to outlining biological risk factor differences in college students, the authors of *Understanding and Preventing College Student Suicide* explore the relationship of socialized gender roles and variances in risk factors by gender. Men are socialized into believing that their social status is a direct reflection of their self-worth. Consequently, this leads men to associate success with masculinity, and academic failure can cause additional stressors for male college students. This suggests that academic stress had a greater impact on the suicide risk of college men versus women. Finally, the studies summarized in chapter three indicate that engagement in risk-taking behavior was a risk factor found uniquely in female college students (Lamis & Lester, 2011).

Ethnic/Racial Differences. Research about risk factors that specifically affect college students is limited, and this is especially true about research on risk factors for ethnic/racial minority college students. Survey results from recent years express greater

suicide risk in ethno-racial minorities on college campuses in comparison to Caucasian college students (Kisch, Leino, & Silverman, 2005). The need for culturally sensitive interventions for preventing suicide is demonstrated through the disparity of minority students who utilize campus counseling services. Studies state that only 5-10% of African American students will utilize counseling services, and this can be attributed to the extra layer of stigma surrounding mental health care in African American communities (Lester & Lamis, 2017). According to the 2015 MTSU census, the largest populations of ethnic and racial minorities on campus are African American, Hispanic, and Asian (MTSU Student Profiles, 2015). The risk factors specific to those three groups of college students are reviewed below.

As expected, discrimination plays a role in the suicide rates of students who are ethnic minorities (Morrison & Downey, 2000). It could be stated that the role of discrimination in the South has an amplified effect due to a culture of racism, but little-to-no significant research has been conducted on this. Several studies demonstrated that acculturative stress in ethnic minority students contributed to higher rates of suicidality in that population (Crockett et al., 2007; Torres, 2010; Zvolensky, Jardin, Garey, Robles, & Sharp, 2016). Learning a new language, acclimating to a different culture, and facing conflicting cultural values are suggested causes of acculturative stress (Zvolensky, Jardin, Garey, Robles, & Sharp, 2016).

One study (Chang, et al., 2017) about risk factors for Latino college students evaluated the relationship between ethnic identity and loneliness through the lens of Thomas Joiner's interpersonal-psychological theory. The study showed that Latinos who experienced distress with their identity as a Latino college student had higher levels of

thwarted belongingness, in turn increasing their suicide risk. Additional research about ethnic identity and loneliness in African American college students also identified distress with ethnic identity as risk factor for this population (Joiner & Walker, 2002). High family expectations of academic success pose an additional risk factor for Asian-American college students in addition to an avoidance of disclosing personal issues (Shadick & Akhter, 2014).

LGBTQ(+). The American College Health Association-National College Health Assessment found that 7.2% of college students identified as LGBTQ(+) (2015). This percentage is higher than the general public, and fails to include students who choose not to identify as LGBTQ(+) due to the marginalization of LGBTQ(+) identifying people. The high percentage of college students who belong to the LGBTQ(+) community implies a need for suicide prevention efforts tailored to this community. Both LGBTQ(+) adults and youth are at a higher risk for suicide ideation and attempts than their straight and cisgender identifying peers (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998). The suicide of Tyler Clementi, a freshman at Rutgers University, sparked media attention and outrage in the LGBTQ(+) community. Tyler's death was directly connected to the nonconsensual release of a video showing Tyler engaging in sexual acts with another man (Lamis & Lester, 2011). This event, in conjunction with the suicides of other LGBTQ(+) identifying youth, inspired an increase of research on suicide risk in the LGBTQ(+) community. It is unfortunate that the loss of life is what prompted this shift of focus, but one can hope that the growing understanding about suicide risk in LGBTQ(+) communities will help to prevent further deaths.

Despite an increase in research on suicide in LGBTQ(+) communities, research on this topic specific to LGBTQ(+) college students is few and far between. There is even less research about transgender, non-binary, and gender non-conforming people despite the additional challenges this population faces, including discrimination and marginalization within the LGBTQ(+) community itself. Almost all of the research available on suicide risk in LGBTQ(+) college students excluded transgender individuals, and focused only on gay, lesbian, and bisexual identifying people.

Studies show that gay, lesbian, and bisexual identifying students reported being lonelier and more depressed than their heterosexual peers, increasing their risk for suicide (Westefeld, Maples, Buford, & Taylor, 2001). LGBTQ(+) students have higher levels of substance abuse than their peers, which has also been connected to suicide risk in this population (Bontempo & D'Augelli, 2002). The high levels of suicide risk in LGBTQ(+) people has less to do with the identity itself and more to do with societal views of LGBTQ(+) identifying people. LGBTQ students are more likely to be assaulted or harassed on campus (Rankin, 2005). The authors of "Suicide Prevention for LGBT Students" explain how harassment due to the status as an LGBTQ(+) individual creates mental un-wellness, and in turn can lead to suicidal ideations (Johnson, Oxendine, Taub, & Robertson, 2013).

It is also worth exploring the intersectionality of race, sexual orientation, and suicidality. A study on this topic by Richard Shadick, Faedra Backus Dagirmanjian, and Baptiste Barbot (2015) found that suicide rates were higher in students of color who also identified as lesbian, gay, or bisexual. The authors suggest that belonging to multiple

minority groups results in increased marginalization, but further research is needed to make this conclusion.

Buffers

Similar to understanding the risk factors for suicide in college students, an understanding of factors that prevent suicide can assist in the development of interventions that reduce the incidence of suicide in college students. The factors that assist in preventing suicide are referred to as buffers or protective factors. These terms will be used interchangeably throughout this paper. After identifying the buffers to suicide in college students, colleges can use this information to create a college climate that includes buffers to suicide for their students. Comparatively, risk factors are best used to identify students at risk since some of those factors are not easily changed, whereas buffers/protective factors are utilized to create effective interventions.

Identification and Discussion of Buffers

Although suicide is the second leading cause of death for college students, they are statistically less likely to die by suicide than non-students in the same age group (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997; Schwartz, 2013). Allan J. Schwartz (2013) hypothesizes that attendance at college and the college environment itself serve as protective factors for those attending. Other buffers to suicide have been identified for college students, but this section will focus on restriction to firearm access, social support, and hope for the future.

Restriction to Firearm Access. It goes without saying that firearms are the most lethal method for suicide. Even just having access to a firearm increases the likelihood of

death by suicide three times (Miller, Azrael, & Hemenway, 2002). Firearms were the second most common method for suicide in college students after hanging, although this varies by gender (Schwartz, 2011). Doris Iarovici (2015) connects the reduced risk of suicide in college students to the limited access to firearms on college campuses in her *Psychiatric Times* article, “Perspectives on College Student Suicide.” Doris Iarovici refers to the 2011 publication by A.J. Schwartz in *Understanding and Preventing College Student Suicide* to support her statement that: the use of firearms for suicide is decreased by two-thirds in college students when compared to the general population. Most colleges ban firearms on campus, and MTSU is no exception to this rule. This information supports that reduced access to firearms on college campuses serves as a buffer to suicide for college students.

Social Support. Students can receive support on college campuses from several sources: parents, peers, and faculty. Social support is shown to increase an individual’s self-esteem and aid in the development of coping skills (Bille-Brahe et al.,1999). As loneliness/isolation serves as a risk factor for college students, it is logical to conclude that social support is a buffer to suicide for college students. Support from a student’s family has been found to reduce a student’s overall risk for suicide. Additionally, support from the family serves to buffer the effect of loneliness on suicide risk (Chang, et al., 2017).

The authors of *Understanding and Preventing College Student Suicide* (Lamis & Lester, 2011) stress the importance of social support from peers for college students as distance from parents typically results in a reduction of parental support. Lamis and Lester reference the works of Compton et al., 2005 and Clum & Febbraro, 1994 while

demonstrating the buffering effect of social support from peers on depression and stress from life-changes. Since attending college is, in of itself, a life change and depression is common among college students, social support is an especially prevalent protective factor for college students.

Hope for the Future. For many people, hope is the driving force for getting through negative life events. Hope can be thought of as positive beliefs and attitudes about the future. Since attendance at a university is typically precipitated by goal-oriented plans for the future, it could be assumed that college students naturally possess hope for the future. The role of hope and hopelessness in suicide risk has been extensively researched; studies found that just as hopelessness is a significant risk factor for suicide, hope serves as a buffer/protective factor for suicide (Hagan, Podlogar, Chu, & Joiner, 2015; Range & Penton, 1994). In college students hope not only served as a protective factor for suicide, it also reduced the risk of suicide in college students who experienced depression symptoms (Griggs, 2017).

The authors of “The Role of Help and Hope in Prevention and Early Intervention with Suicidal Adolescents: Implications for Mental Health Counselors” discuss the various factors that increase or decrease hope in college students. College students who felt “confidence that external resources and strategies are available to make goal achievement possible” (39) experienced higher levels of hopefulness (Roswarski & Dunn, 2009). This confidence was enabled through the support of parents, faculty, and peers, suggesting an existing relationship between social support and hope as buffers to suicide (Roswarski & Dunn, 2009).

Demographic Considerations and Buffers

This paper suggests a culturally sensitive approach to suicide, and the need to review variations in the buffers that effect different demographics of suicide. This variation in protective factors by demographic implies that culture intersects with the buffers in reducing suicide risk. Buffer differences according to sex/gender, ethno-racial identity, and LGBTQ(+) status are reviewed below.

Differences by Sex. College attendance appears to act as more of a buffer for male college students than female college students. The rate of suicide for male college students is significantly lower than the general population, but the rates for women remain almost the same for both students and non-students (Silverman, Meye, Sloane, Raffel, & Pratt, 1997). This may be, in part, related to the access to firearms on campus. Since firearms are the primary method of choice for men, the restricted access to firearms on campus could explain the reduced rates of male college students (Iarovici, 2015). A sense of purpose in life is a stronger buffer to suicide in college men than women (Edwards & Holden, 2003). Since college attendance creates a sense of purpose for many students, this could be another cause of the decreased suicide rates in college men. In one study (Edwards & Holden, 2003), a sense of coherence was found to be a buffer against the effects of poor coping mechanisms on suicide risk for women. Coherence was defined as the confidence that life has meaning, is understandable, and that hardships can be overcome. Research also supports buffer variations by gender in ethno-racial minority communities, but these differences are explored in the sub-section following the present one.

Ethnic/Racial Differences. The various protective factors to suicide, unique to black or African-American college students, are reviewed in the article “Examining Suicide Protective Factors Among Black College Students” (Wang, Lightsey, Tran, & Bonaparte, 2013). This exploration of the cultural effects on suicide is imperative to suicide prevention movements. The authors point out significant gender differences for buffers/protective factors in Black students, signifying intersections between race and gender in suicide risk. The study concluded that life satisfaction is a protective factor for suicide in male African-American college students, and a high number of reasons for living served as a buffer for female African-American college students. The authors offer suggestions for these differences- including that Black women are often raised as the nurturers in the family, and so personal life satisfaction has less value to them.

In Latino youth, family support is an important protective factor. Family support includes both the presence of parental figures and the child’s perception that they are able to communicate with their parent about problems (Garcia, Skay, Sieving, Bearinger, & Naughton, 2008). The referenced study was conducted on Latino youth in grades 9-12, and it is unclear if these results can be generalized to Latino college students. Some researchers have suggested that a sense of pride in a student’s ethnic background could buffer the effects of loneliness in Latino college students, but research has yet to support this suggestion (Chang, et al, 2017).

In a study on suicide in Asian-American college students, participants were asked to provide a personal account on their struggle with suicide. The personal narratives of participants were evaluated for common themes, and the researchers found that self-reliance, a desire to avoid hurting or burdening others, and social support were re-

occurring reasons for surviving suicidal crises. The authors recommend that the desire to avoid hurting or burdening others is reflective of the values of Asian culture which places value in others before oneself (Tran, et al., 2015).

LGBTQ(+). Due to the limited research on suicide in LGBTQ(+) college students, information about the protective factors specific to this population is scarce. In their article about suicide risk in LGBTQ(+) college students, Johnson, Oxendine, Taub, & Robertson (2013) briefly summarize the limited studies on protective factors for this population. The summary provided is only a paragraph long; a testament to the lack of available research for this population. The summary lists family support, school safety, culturally appropriate mental health services, supportive adults, and support from other LGBTQ(+) students as protective factors for suicide in LGBTQ(+) college students.

The identification of school safety as a protective factor for LGBTQ(+) students warrants more attention. As mentioned previously, LGBTQ(+) students experience harassment and violence at much higher rates than their cis and straight peers. This implies that the culture of a university campus can be either a protective factor or risk factor for LGBTQ(+) students. School safety has special implications for trans, non-binary, and gender non-conforming students. Transgender people report feeling less safe on campuses that lack bathrooms for trans identities (Seelman, 2016). This information supports that access to bathrooms fosters campus safety as a buffer for transgender students, resulting in a decrease in suicide risk.

Interventions

Suicide risk in college students continues to be an issue gaining more media attention. Non-profits, like the Jed Foundation, collaborate with college institutions to create specific programs to address suicide risk in the student body. This section suggests specific interventions for Middle Tennessee State University to reduce suicide risk in their students; However, it is the author's hope that the suggested interventions will be considered at colleges and universities throughout the United States.

The interventions suggested primarily focus on prevention efforts for the general student body. Additionally, a more collaborative approach to suicide prevention is encouraged as almost 80% of students who died by suicide had no contact with the counseling services on campus (Kisch, Leino, & Silverman, 2005). The suggested interventions, determined by the risk factors and buffers reviewed in this paper are as follows: 1) Collection and Publication of statistics, 2) Training for students, parents, and faculty, 3) Changing the college climate.

Collection and Publication of Statistics

The first, and questionably most important intervention, is the collection and publication of statistics pertaining to suicide deaths in the student body. As mentioned previously, no suicide deaths have been reported for MTSU. This may have more to do with the absence of mandated reporting, rather than an absence of suicide occurrence. MTSU, along with the majority of public colleges and universities, does not collect or report statistics on suicide deaths or attempts in their student body (Binkley, 2018). Dr. Debra Sells, the Vice President for Student Affairs at MTSU, made the following statement regarding the barriers to collecting information about suicide deaths:

“The majority of our students live off campus, and we receive notification of any deaths via parents, police, or the media, and the cause of death is not typically released. As you can well imagine, not all families are willing to publicly share suicide as a cause of death, due to their own emotional reaction to the death” (D. Sells, personal communication, February 12th 2018).

While these challenges are valid reasons for making collection of data a difficult task, it is arguably still a necessary need. The effectiveness of any implemented interventions will be difficult to determine without comparing the statistics before and after the intervention is used.

Training

The fact that most students who die by suicide have had no contact with campus mental health professionals, as mentioned earlier, implies that peers, parents, and campus faculty need to be utilized for identifying students at risk. Research indicates that students are more likely to speak with their parents or friends about issues, and that peers are the primary source of referrals to counseling in minority students (Taub & Robertson, 2015). Training for community members is often referred to as gatekeeper training and focuses on helping people feel comfortable asking about suicidal thoughts, identifying the risk factors and buffers, and appropriate referral (Taub & Robertson, 2015). Referral to support services is an important aspect of gatekeeper training as studies show that college counseling centers are effective in reducing suicide rates in the students they serve (Schwartz & Friedman, 2009).

In addition to gatekeeper training for students, parents, and faculty, this author suggests training on restricting access to firearms. MTSU already has a no-firearm policy on campus but according to the correspondence with Debra Sells, the majority of MTSU students live off campus. Additionally, it is common knowledge that firearms are more popular in southern states such as Tennessee. Restricting access to firearms does not necessarily include removal of firearms from the home, rather it encourages safe gun ownership practices. Gun owners who keep their firearm either locked or unloaded decrease their suicide risk by 60% (Shenassa, Rogers, Spalding, & Roberts, 2004).

College Climate

Multiple factors contribute to the climate on college campuses including student involvement, the attitudes of faculty, and an overall acceptance of diverse student populations. The relationship between college climate and various risk and protective factors has been explored extensively throughout this thesis. One suggested way of changing the college climate so that it best serves to buffer suicide risk is to foster a “culture of caring” (Schwartz & Friedman, 2009, p. 93). Schwartz and Friedman (2009) suggest that this culture can be achieved through faculty and students expressing concern and interest in one another. They also recommend that senior leadership publicly announce their dedication to suicide reduction, as this implies that the college climate prioritizes this issue.

Another facet of changing the campus climate is increasing connectedness in college students. This relates directly to social support as a buffer to suicide in college students, and the loneliness experienced by students in marginalized communities. Living-Learning communities on college campuses have been very successful in

increasing connectedness in addition to freshman college programs that set up students to be in multiple classes with the same people (Lamis & Lester, 2011).

Facilitating inclusivity for diverse college populations poses a challenge for many college institutions. Loneliness was identified as a risk factor in both ethno-racial minorities and LGBTQ(+) identifying students. The prevalence of loneliness in both these groups supports an ongoing need for college clubs catered to these groups to facilitate social support. Additionally, bathroom accessibility for transgender students on campus can help them to feel more included and safer on college campuses.

Conclusion

Suicide is a complex issue, and the need for more research on the subject is evident. Specifically, the lack of information on suicide in LGBTQ(+) college students in comparison to their relative risk is discouraging. Despite this, many colleges have taken the lead in suicide prevention efforts and have implemented effective interventions.

This thesis discussed both the risk factors and buffers to suicide and their relationship to college campuses. The roles of mental illness, alcohol use, loneliness/isolation, and academic stress as risk factors for suicide was examined through the context of a college education. This approach was replicated while reviewing restriction of access to firearms, social support, and hope for the future as buffers to suicide. Special attention was paid to certain demographics of college students who reported higher risk. Ultimately, it was found that the college environment has an effect on both risk factors and buffers in minority and general population students alike.

The suggestions to train gatekeepers, change the campus climate, and implement collection of suicide statistics were formulated from the conclusion that the college environment has an effect on suicide risk in all college students. These recommendations are directed at Middle Tennessee State University, although they may be applicable to other public universities. The hope of this author is that the information presented highlights the privileged role that colleges have in reducing suicide, and that it inspires Middle Tennessee State University to prioritize suicide prevention efforts.

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