Unlocking Hope:

Exploring Suicide Protective Factors through the Georgia Student Health Survey

Megan Kinsey Thrasher

Department of Community Care and Counseling, Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

Liberty University

2024

Unlocking Hope:

Exploring Suicide Protective Factors through the Georgia Student Health Survey

Megan Kinsey Thrasher

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

Liberty University, Lynchburg, VA

2024

Approved by:

Andrea Barbian-Keith, Ph.D., Committee Chair

Alysha Blagg, Ph.D., Committee Member

Abstract

The purpose of this quantitative, correlational study was to determine the relationship between teenage suicide of Georgia public high school students as it relates to school connectedness, peer support, and adult support as determined by the Georgia Student Health Survey (GSHS). The GSHS is an anonymous statewide survey instrument given to secondary Georgia public school students. Archival data from completed GSHS results were used in this analysis. The significance of the research study is to determine if the survey provides reliable information to the Georgia Department of Education and local educational agencies as a useful tool and indicator of potential student suicidality, and potential protective factors of suicidality.

Keywords: student health survey, adolescent suicide, protective factors, at-risk, mental health, mental health awareness

Dedication

This dissertation serves as a sincere tribute to the committed school counselors who have endured the deep sorrow of losing students to suicide. By extending this dedication, it underscores our shared obligation to bring about positive change. Recognizing the common challenges we face, it calls for united action, highlighting the potential for impactful transformation when we come together. The essence of this dedication lies in the unwavering commitment to making a meaningful difference in the lives of students grappling with mental health challenges.

Acknowledgements

My dissertation owes its existence to the unwavering love and support of my husband, Ben, and our four amazing children—Kinsey, James, Lillian, and Preston (*#mommyof4many*). Throughout this challenging academic journey, your enduring support, understanding, and boundless patience have been my steadfast foundation. The sacrifices made by our family have not escaped my notice, and I am deeply thankful for the love and motivation that propelled me forward at every turn. This achievement is as much yours as it is mine, and I extend my heartfelt gratitude for being the pillars of strength that sustained me. Together, we have triumphed, and I appreciate each one of you for your integral role in this success.

Table of Contents

Abstract	
Dedication	4
Acknowledgements	5
Fable of Contents	6
List of Tables	
List of Figures	
Chapter One: Introduction	
Overview	
Background	
Problem Statement	
Purpose Statement	
Significance of the Study	
Research Question(s)	
Definitions	
Summary	
Chapter Two: Literature Review	
Overview	
Theoretical Framework	
Psychodynamic Theory	
Durkheim's Theory	
Interpersonal Theory of Suicide	

Bronfenbrenner's Ecological Systems Theory	
Related Literature	30
Mental Health in Youth	
Impact of Working with Trauma Clients/Students	
National Youth Suicide and Mental Health Policy	40
Youth Suicide in Georgia	
Suicide Prevention and Interventions in Schools	
School Climate	50
Protective Factors of Suicide	52
Adult Support	53
Peer Support	54
School Connectedness	55
Gaps and Opportunities	58
Summary	59
Chapter Three: Methods	61
Overview	61
Design	
Research Questions	63
Hypotheses	63
Participants and Setting	64
Instrumentation	64
Georgia Student Health Survey: Middle/High	65
Procedures	66

Georgia Student Health Survey (GSHS) 6	7
Data Analysis	i8
Outliers 6	i9
Normality6	i9
Homoscedasticity	0
Linearity7	0
Type I Error7	1
Chapter Four: Findings	2
Overview	2
Research Questions	2
Null Hypotheses	2
Descriptive Statistics	'3
Results	5
Research Question One7	5
Research Question Two7	'9
Research Question Three	3
Chapter Five: Conclusion	6
Overview	6
Discussion	6
Implications	8
Limitations	9
Recommendations for Future Research9	0
Summary9)1

References	
Appendix A	
Appendix B	

List of Tables

Table 1. Description of Participants	74
Table 2. Pearson Correlation between Suicidality and school connectedness, peer supp	port,
and adult support	76
Table 3. Means, Standard Deviations, and Correlation	79
Table 4. Regression Results Using Suicidality as the Criterion	82

List of Figures

1 Iguie 1. Normai 1 robability 1 lots	Figure 1	1. Normal Probability	Plots
---------------------------------------	----------	-----------------------	-------

Chapter One: Introduction

Overview

The goal of this quantitative, correlational study is to examine the relationship between school connectedness, peer support, and adult support as each relates to teen suicide among Georgia public high school students, as indicated by the Georgia Student Health Survey (GSHS). The GSHS is an anonymous statewide survey administered to secondary school students in Georgia public schools. In this investigation, archival data from completed GSHS surveys from the fiscal year 2022 will be utilized. The purpose of this current study seeks to add to the literature base by including high-school school climate and student demographics. The importance of this research is to evaluate whether the survey delivers advantageous data to the Georgia Department of Education and local educational agencies as a valuable tool and indicator of likely student suicidality and potential protective variables of suicidality.

Background

The Centers for Disease Control and Prevention (CDC) reports that suicide stands as the second leading cause of death among adolescents aged 14 to 19 (CDC, 2021). Late adolescence marks the onset of suicidal thoughts for many, potentially leading to suicidal behavior or suicide itself (Bahk et al., 2017; Breet et al., 2021). For every successful teen suicide attempt there are between one hundred and two hundred failed attempts (Youth.gov, 2019), with an estimated lifetime prevalence of suicide attempts in adolescents to be 9.7% (Castellví et al., 2020). Despite the critical role school counselors in student safety, there has been insufficient urgency in providing them with essential training. Schools have become crucial for ensuring student safety and well-being, emphasizing the role of school counselors in supporting students. One survey found that over one-third of school counselors are not appropriately trained to perform crisis

intervention, with 80 school counselors (35.4%) self-reporting that they got no graduate training and no postgraduate training hours in crisis postvention (Becnel et al., 2021). *Postvention* is the process and activities undertaken to support individuals and communities in the aftermath of a crisis or traumatic event. It involves interventions and strategies aimed at assisting those affected by the crisis, preventing further harm, and promoting healing and resilience. Schools should have the resources to spot the indicators of mental health issues in pupils because that is where students spend a great deal of their time (Breux & Boccio, 2019).

The education system aims to gauge a positive school atmosphere by employing the College and Career Ready Performance Index (CCRPI) star rating. CCRPI, Georgia's yearly assessment, evaluates the effectiveness of schools, districts, and the state in readying students for higher education and career readiness (GADOE, 2018). CCRPI School Climate Star Rating assesses the quality and character of school life. A positive, long-term school environment supports youth development and student learning, crucial for academic achievement, career skills, and overall quality of life. CCRPI serves as a diagnostic tool to gauge a school's progress (GADOE, 2013; GADOE, 2018). The letter grade provides schools and communities with a fundamental assessment of whether or not the school provides a secure and nurturing setting for learning.

Problem Statement

Unfortunately, many measures used to assess the culture and climate of a school do not have sufficient evidence of reliability and/or validity to back up intended score interpretations and uses (Cohen et al., 2009; Moro et al., 2019; Thapa et al., 2012; Thapa & Cohen, 2017). Whether or not the tool adequately evaluates the idea of a school environment for children of different genders and/or ethnicities is not always obvious. Concerns about the survey's effectiveness in guiding decisions about efforts to improve the school environment are compounded by the lack of data-reporting standards. To fulfill the mandate that decisions in schools be grounded in facts, school leaders need access to accurate measurements and transparent reporting of results. The Georgia Student Health Survey (GSHS) is one such tool that assists local schools and education entities in identifying safety, climate, and health concerns that affect student success and leading school preventative and intervention programs (GADOE, 2023). The problem to be addressed through this study is whether or not there is a relationship between school connectedness, peer support, and adult support as they relate to the suicidality of public high school students in Georgia by using the Georgia Student Health Survey as a tool of measurement.

Purpose Statement

The purpose of this quantitative, correlational study is to contribute to the existing literature by investigating the relationship between suicidality and students' perceptions of their sense of belonging at school, access to supportive peers, and access to supportive adults. The study will utilize updated data samples of Georgia public high school students through the use of the Georgia Student Health Survey (GSHS), a statewide, anonymous survey administered to all secondary public school students in Georgia. GSHS archival data will be employed in this study. The significance of this research lies in determining whether the survey can provide valuable information to state and local education authorities as an indicator of future student suicidality and potential protective factors.

This study aims to expand the knowledge about how student school climate health survey results can facilitate changes within public schools to prevent adolescent suicidality. By examining data from publicly accessible sources, this study focuses on high school students in Georgia, considering both their academic success and suicidality. It suggests that future research should prioritize the prompt identification of risk factors contributing to teen suicide, utilizing academic success data in conjunction with climate surveys to detect such students earlier. Thus, there is a gap in the existing literature regarding teen suicide and school climate, emphasizing the need for more research on the utilization of school climate surveys as a tool to identify risk factors for suicidality among adolescents and promote positive mental health outcomes.

Significance of the Study

Although studies have been conducted to demonstrate links between school connection and adolescent suicidality (Flores et al., 2020; Madjar et al., 2018; Marraccini & Brier, 2017; Pfledderer et al., 2019), no studies have been conducted utilizing information from the Georgia Student Health Survey of public high school students as it relates to suicidality and potential protective factors thereof. This study on suicide protective factors among Georgia high school students is significant because it aims to evaluate the usefulness of the Georgia Student Health Survey as a tool for identifying potential protective variables of suicidality and predicting student suicidality. By utilizing data from this survey, this study seeks to fill a gap in knowledge by exploring potential protective factors that may help prevent teenage suicide. The findings of this study could have important implications for suicide prevention efforts not only in Georgia schools but also in other educational institutions across the country. Ultimately, this research has the potential to contribute to a better understanding of how to prevent teenage suicide and promote mental health among high school students.

Research Question(s)

This study will examine the following:

RQ1: Is there a relationship between school connectedness, peer support, and adult

support as each relates to suicidality of public high school students in Georgia?

RQ2: What is the best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness?

RQ3: What is the internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health Survey?

Definitions

Crisis - A mental health crisis is any circumstance where an individual's behavior jeopardizes their safety or that of others, or impairs their ability to self-care and function effectively in the community (Brister, 2018).

Death by suicide - Suicide is defined as intentionally causing lethal self-inflicted injuries. It is often described as the intentional act of ending one's own life (Levers, 2012).

Depression - Depression is a mental health condition marked by enduring feelings of sadness, hopelessness, and disinterest or lack of enjoyment in daily activities lasting beyond two weeks (Briere & Scott, 2015; Fonseca-Pedrero et al., 2022).

Georgia Student Health Survey (GSHS) - The Georgia Student Health Survey, created jointly by the Georgia Department of Education (GADOE) Assessment and Accountability Division, the Georgia Department of Public Health, and Georgia State University, covers various topics like school environment, safety, social support from peers and adults, bullying, mental health, substance abuse, and suicidal ideation (GADOE, 2013; GADOE, 2018).

Postvention - Postvention refers to the actions taken to help individuals and communities in the aftermath of a crisis or traumatic event. This includes strategies and interventions to support those affected, prevent additional harm, and foster healing and resilience (Breux & Boccio, 2019).

Protective Variables - Protective variables are those that may lessen the risk that an individual would engage in suicidal conduct (Areba et al., 2021; Ati et al., 2020).

School Climate – School climate, representing the norms, objectives, values, interpersonal interactions, teaching and learning strategies, and organizational structures, is shaped by experiences of students, parents, and staff (Kohl et al., 2013; Thapa & Cohen, 2017). *Secondary educators* - A secondary educator refers to a teacher or professional involved in instructing and guiding students in the educational levels typically encompassing ages 11 or 12 through 18 or 19 (Perie et al., 2000).

Stress - Stress is the body's reaction to any event or circumstance that disturbs its balance or normal functioning, resulting in physical and mental responses (Brister, 2018; Levers, 2012). *Suicidality* - Suicidality refers to the risk of suicide and is typically accompanied by suicidal ideation or intent and is especially concerning in the presence of a well-developed suicide strategy. It may also be defined as the presence of suicidal thoughts, plans, actions, or attempts (Harmer et al., 2023).

Suicide Risk Factors - Risk factors of suicide include past suicide attempts, the experience of loss, loneliness, prejudice, relationship breakup, mental health issues such as depression, financial troubles, chronic sickness and illness, violence, harassment, and conflict, as well as other humanitarian catastrophes (Ati et al., 2020).

Traumatic stress - Traumatic stress refers to an overwhelming emotional response resulting from exposure to distressing events. This type of stress often correlates with a higher risk of suicidal thoughts, attempts, and self-harm in adolescence and young adulthood (Tunno et al., 2021).

Summary

This quantitative correlational study using archival data attempts to determine if there is a

relationship between a student's mental health as it relates to suicidality and their relationships and connectedness within their school environment. Dependent on the outcome of this data, it could provide policymakers with the data to strategically implement suicide prevention programs in Georgia high schools as a protective factor and indicator of suicidality as it relates to student health. This research aims to examine the relationships between suicidality and protective characteristics such as peer support, adult support, and school connection and assess the reliability and validity of the Georgia Student Health Survey. This section is followed by a discussion of related literature on mental health in youth as it relates to loneliness, depression, anxiety, traumatic grief, the impact of working with trauma students, the national youth suicide and mental health policy as it relates to schools, youth suicide in Georgia, and suicide prevention and interventions in schools.

Chapter Two: Literature Review

Overview

The goal of this quantitative, correlational study is to assess the relationship between adolescent suicidality and student peer support, adult support, and school connectedness as measured by the Georgia Student Health Survey (GSHS). The GSHS is a statewide anonymous survey instrument administered to secondary Georgia public school students. This research relied on archival data from completed GSHS findings. A secondary cluster analysis of the data will be utilized to identify suicide risk variables.

The chapter begins with a discussion of this study's guiding theories of Freud's (1953) Psychodynamic Theory, Durkheim's (1951; 2005) Theory of Suicide, Joiner's (2005) Interpersonal Theory of Suicide, and Bronfenbrenner's (1977) Ecological Systems Theory. The related literature section follows, presenting and discussing relevant findings on mental health in youth as it relates to loneliness, depression, anxiety, and traumatic grief, the impact of working with trauma students, the national youth suicide and mental health policy as it relates to schools, youth suicide in Georgia, mental health as it relates to school achievement, and suicide prevention and interventions in schools.

As students spend a great majority of their time at school, it is logical to assume that school systems are in a role to identify and provide assistance to students who indicate a mental health need (Breux & Boccio, 2019). As academic performance is one indicator of a student's overall well-being, data suggests that students with poor grades have a greater probability of experiencing mental illnesses such as depression and suicidal behaviors (Sörberg Wallin et al., 2018; Taliaferro & Muehlenkamp, 2014). Existing studies on adolescent suicide have examined suicide prevention programs (Brann et al., 2021; Breet et al., 2021; Breux & Boccio, 2019; Joiner, 2009; Singer, 2019) and students' perceptions of their school environment as indicators of suicidal thoughts and behaviors (Flores et al., 2020; Madjar et al., 2018; Pfledderer et al., 2019). However, no research has utilized data from the GSHS of public high school students in Georgia to explore the relationship between adolescent suicidality and school connectedness.

Theoretical Framework

In exploring the complex phenomenon of teenage suicide, it becomes evident that no single theory comprehensively, accurately, and effectively explains its underlying causes. Instead, a multitude of hypotheses exist, each attempting to shed light on the reasons behind suicidal behavior, particularly as it pertains to adolescents. This recognition emphasizes the need to consider diverse perspectives that are uniquely relevant to this age group.

Among the theories that aim to provide insights into teenage suicide, several will be briefly discussed. The Interpersonal Theory of Suicide, the Psychodynamic Theory, Durkheim's Theory, and theories of suicide prevention and intervention in schools offer distinct frameworks to comprehend this grave issue. These theories encompass various factors such as social relationships, individual psychological dynamics, societal influences, and targeted intervention strategies. Furthermore, this study will delve into Bronfenbrenner's (1977) Ecological Systems Theory, which aims to explain a child's development within their environment's interconnected systems. This theory emphasizes considering various influences, such as family, peers, schools, and the broader community, to comprehend the complexities of teenage suicide.

By examining these theories and frameworks, it becomes possible to gain a deeper understanding of the intricate interplay between individual, social, and environmental factors that contribute to teenage suicide. Such comprehensive exploration is essential for developing effective prevention and intervention strategies to address this critical issue affecting adolescents.

Psychodynamic Theory

The first theory to explain suicidal tendencies was developed by Freud. This identifying process establishes a "critical agency" (superego). The superego's constant assault on the ego for falling short of the initial aim causes the internalization of aggression that defines melancholy (Freud et al., 1953). According to the psychodynamic theory, suicide is a multifaceted phenomenon that may be explained by a wide range of psychological elements, such as innate personality characteristics, the circumstances of early infancy, and the dynamics of interpersonal interactions. In spite of the fact that this idea has been called into question for lacking supported empirical data, it continues to be an essential viewpoint for comprehending suicide from a psychological point of view (Akbari & Tizdast, 2017).

Freud's psychoanalytical framework is a model of personality development that provides a structured framework for psychotherapy. The psychodynamic approach emphasizes three fundamental elements: the role of unconscious ideas as key causes of human action, the tension between biological urges and social expectations, and the formative experiences of infancy in shaping personality development. This approach suggests that our behavior is influenced by unconscious thoughts and desires that we may not be aware of, as well as by societal norms and expectations. Additionally, early childhood experiences play a significant role in shaping our personality and behavior later in life. Overall, the psychodynamic approach offers a unique perspective on understanding human behavior and has been influential in shaping modern psychology (Akbari & Tizdast, 2017).

Durkheim's Theory

Durkheim's work highlights the importance of social factors in understanding suicidal behavior. He argued that individuals' social integration and the level of control exerted by

societal norms and values contribute to their propensity for suicide (Durkheim, 1951; 2005). Durkheim's theory emphasizes the influence of social bonds and the role of social integration as protective factors against suicide. The research conducted by Durkheim revealed that suicide rates differ among various social groups, indicating the significant influence of social factors on individuals' susceptibility to suicidal behaviors. This theory remains relevant in current research as it provides a framework for examining the connection between social factors and the risk of suicide (Joiner, 2005).

By acknowledging the significance of Durkheim's findings, researchers and scholars in the field of suicidology have been able to advance their understanding of the complex interplay between social connections, social integration, and suicide rates (Joiner, 2005). Suicidology is the systematic examination of suicidal behavior, the factors contributing to suicidality, and the implementation of measures to prevent suicide (Joiner, 2005). Durkheim's theory serves as a starting point for exploring the social dynamics that contribute to suicide and informs interventions and preventive strategies aimed at promoting social support and reducing suicide rates. The concepts of social control and social integration, as developed by Durkheim, offer explanations for the patterns observed in statistical data. These concepts, which include terms like anomie, have implications that reach beyond the study of suicide, inspiring a broader field of research on deviance and related subjects (Pickering & Walford, 2000).

Interpersonal Theory of Suicide

The Interpersonal Theory of Suicide (ITS), developed by Joiner (2005), states that suicidal behavior happens when a person's capability and suicidal desire combine. The fundamental reasons for the desire to die are two psychological situations called "felt burdensomeness" (to others) and "thwarted belongingness" (from others). ITS posits that for an individual to act on suicidal intentions, they must possess the means to end their own life. The theory suggests that repeated exposure to circumstances, such as violence, which diminish an individual's sensitivity to pain and reduce their fear of death, plays a crucial role in developing the capacity to carry out suicidal acts (Joiner, 2005). The three key assumptions of the ITS provide insights into its underlying framework. First, the theory asserts that the study of suicide, or suicidology, is considered pathological, indicating a focus on understanding and addressing abnormal or disordered aspects of suicidal behavior. Second, the ITS views suicidology as a science, emphasizing the systematic and empirical examination of suicide and related factors. Last, the theory underscores the individual nature of suicidal tendencies, emphasizing that each person's experience and risk factors for suicide are unique (Joiner, 2005). Overall, the ITS combines psychological, sociological, and individual factors to offer a comprehensive perspective on the development of suicidal tendencies.

ITS, introduced by Joiner (2005), is a comprehensive framework that elucidates the underlying mechanisms behind suicidal behaviors. This theory places particular emphasis on the interplay between social and psychological processes, shedding light on how these factors contribute to the development of suicidal tendencies. By considering the interaction of these factors over time, the ITS addresses a significant gap in previous theories that lacked this temporal perspective. Extensive research has been conducted to investigate the applicability of the ITS across various populations. Joiner, along with other researchers, has highlighted the significance of incorporating nonlinear feedback when studying suicide dynamics, thus enhancing our understanding of this complex phenomenon. Notably, recent studies, such as the work of Chung et al. (2022), underscore the necessity for refining the theory to accommodate the influence of post-suicide-attempt treatments and the dynamic developmental processes

experienced during adolescence. These modifications are crucial as they capture the evolving nature of suicide behaviors over time and account for the unique challenges and influences faced by individuals in their developmental journey.

By continuously refining and adapting the ITS, researchers can enhance its utility in guiding prevention and intervention efforts. This ongoing exploration of the theory enables a deeper comprehension of the multifaceted factors contributing to suicidal behaviors and informs targeted strategies to mitigate risk and support individuals at risk of suicide.

Bronfenbrenner's Ecological Systems Theory

According to Bronfenbrenner's ecological systems theory, the environment significantly shapes a child's development through a series of systems, directly or indirectly (Bronfenbrenner & Morris, 1998; El Zaatari & Maalouf, 2022). Consequently, a child's growth is affected by both biology and environmental systems (Bronfenbrenner & Morris, 1998; El Zaatari & Maalouf, 2022).

The bio-ecological theory developed by Bronfenbrenner later confirmed the need to investigate school climate in order to comprehend how the environment affects children. A child has direct face-to-face interaction with important persons like parents, friends, and teachers, according to the ecological theory's microsystem (Hong & Eamon, 2012).

Microsystem

The microsystem is the first and most immediate level of influence in Bronfenbrenner's theory. It refers to the specific face-to-face settings where the child directly interacts with people, objects, and activities within their local surroundings (Bronfenbrenner & Morris, 1998). These settings can include the child's home, school, daycare center, neighborhood, or any other environment where the child spends a significant amount of time.

Within the microsystem, there are various elements that shape the child's experiences. These elements include activities, social roles, and interpersonal relationships. Activities refer to the actions and engagements that take place within the microsystem, such as playing, learning, or participating in family routines (Bronfenbrenner & Morris, 1998). Social roles are the positions and expectations that individuals hold within the microsystem, such as the roles of parents, siblings, teachers, or peers. Interpersonal relationships encompass the connections and interactions that the child has with others within their immediate environment, such as the bond with parents, friendships with peers, or interactions with teachers.

The microsystem is not limited to physical aspects alone; it also incorporates social and symbolic dimensions. The physical environment includes the tangible features of the setting, such as the child's bedroom, the school classroom, or the playground. The social environment encompasses the social norms, values, and expectations that exist within the microsystem, influencing the child's behavior and interactions. The symbolic environment refers to the shared meanings, beliefs, and cultural practices that shape the child's understanding and engagement within their immediate context.

Importantly, the microsystem is characterized by the dynamic and reciprocal nature of relationships. It is not a one-way influence, but rather a bi-directional process. This means that the child's views, behaviors, and development can be influenced by others in their microsystem, such as parents, siblings, or teachers (Bronfenbrenner & Morris, 1998; El Zaatari & Maalouf, 2022). While the child's environment may be influenced by the child's actions, attitudes, and behaviors, the child can also influence the environment, such as children challenging authority figures, like parents or teachers, can lead to changes in rules, expectations, or disciplinary approaches within the microsystem.

The microsystem represents the immediate and direct influences that shape a child's development within their local surroundings. It encompasses activities, social roles, interpersonal relationships, and the physical, social, and symbolic aspects of the environment (Bronfenbrenner & Morris, 1998; El Zaatari & Maalouf, 2022). The relationships within the microsystem are dynamic and bidirectional, with both the child and others in the microsystem influencing and being influenced by one another.

Mesosystem

The mesosystem is a concept in ecological systems theory that refers to the interactions between a child's microsystems, such as those between parents and teachers or relationships between school classmates and siblings. The mesosystem plays an important role in determining a child's development because it represents the connections between different environments that a child experiences (El Zaatari & Maalouf, 2022). For example, if a child is experiencing conflict at home, this may affect their behavior and performance at school. Similarly, positive relationships with teachers or peers can have a positive impact on a child's development. The mesosystem highlights the importance of considering multiple environments when studying human development and emphasizes that these environments are interconnected and can influence each other (El Zaatari & Maalouf, 2022). Overall, the mesosystem is an important concept in understanding how different environments interact to shape a child's development.

Exosystem

The exosystem can have an indirect effect on the school climate, as the exosystem refers to the broader social and cultural context in which the school is situated, including factors such as community resources, social norms, and public policies. These factors can indirectly influence school climate by affecting the availability of resources and support for students and families, shaping community attitudes towards mental health and suicide prevention, and influencing public policies related to education and mental health (Bronfenbrenner & Morris, 1998; Hong & Eamon, 2012; Zullig et al., 2010). For instance, if there is a lack of community resources or support for mental health services, it may be more difficult for schools to offer enough assistance for kids who are coping with mental health difficulties. This may be especially challenging for schools located in low-income communities.

Similarly, negative attitudes towards mental health or suicide prevention in the broader community may create a stigma that makes it more difficult for students to seek help when they need it. It is important to recognize that public policies related to education funding or mental health services may impact the resources available to schools for promoting positive mental health outcomes among students (Hong & Eamon, 2012; Zullig et al., 2010). Therefore, while the exosystem does not directly impact school climate, it can indirectly influence school climate by affecting the availability of resources and support for students and families, shaping community attitudes towards mental health and suicide prevention, and influencing public policies related to education and mental health.

Macrosystem

The macrosystem is a higher-level component of Bronfenbrenner's theory that examines the influence of broader societal and cultural factors on a child's development. It considers elements such as socioeconomic status, wealth, poverty, ethnicity, and cultural norms that shape the overall growth and development of an individual (Bronfenbrenner & Morris, 1998).

The macrosystem recognizes that the cultural environment in which a child is immersed plays a crucial role in shaping their perspectives, values, and beliefs about life. It also influences the significance they assign to various events and experiences. For instance, cultural values, traditions, and social norms within a particular community or society can shape a child's understanding of social roles, gender expectations, or the importance of education.

Unlike the micro- and mesosystems, which focus on the immediate surroundings and relationships of an individual child, the macrosystem encompasses a broader social and cultural backdrop. It takes into account the larger societal context in which the child is raised. Factors such as socioeconomic disparities, political climate, educational systems, healthcare access, and prevailing cultural norms all fall within the scope of the macrosystem. The macrosystem acknowledges that these broader social and cultural factors can have a significant impact on the child's development. They can influence the opportunities available to the child, the resources they have access to, and the overall quality of their environment. For example, a child from a disadvantaged socioeconomic background may face different challenges and have different opportunities compared to a child from a more privileged background. Research has shown that macrosystem factors can influence various aspects of a child's life, including their educational attainment, health outcomes, social interactions, and overall well-being (Hong & Eamon, 2012; Zullig et al., 2010). Therefore, understanding the macrosystem is essential for comprehending the broader social and cultural influences that shape a child's development and outcomes.

According to Bronfenbrenner's ecological systems theory, the influence of larger socioeconomic and cultural variables on a child's growth and development may be studied by looking at the macrosystem (Bronfenbrenner & Morris, 1998). This system encompasses elements such as socioeconomic status, wealth, poverty, ethnicity, and cultural norms. The macrosystem recognizes that the cultural environment and societal context in which a child is raised significantly shape their perspectives, values, and opportunities. Considering these macrolevel factors provides a deeper understanding of how broader social and cultural influences impact a child's development.

Chronosystem

The chronosystem encompasses all the environmental changes that occur throughout an individual's lifespan and influence their development. These changes can range from major life transitions to historical events. The chronosystem deals with changes and transitions throughout a child's life. These environmental changes can be planned, such as starting school, or unplanned, like parents divorcing or changing schools due to a job relocation, which can be stressful. Regardless of their nature, these changes can greatly affect a person's capacity to adapt and flourish (Hong & Eamon, 2012; Zullig et al., 2010).

School climate can be defined as a characteristic associated with the school, where the school itself acts as the central focus for understanding climate. According to this perspective, individuals who come into contact with the school, such as parents, students, teachers, principals, and community members, all perceive and engage with the school's climate. Therefore, it can be inferred that a chronosystem may impact school climate by referring to changes over time in individuals' experiences and contexts (Hong & Eamon, 2012; Zullig et al., 2010). For example, changes in school policies or leadership may impact the overall climate of a school over time. Additionally, external events such as natural disasters or economic downturns may also impact the overall climate of a school and its students.

Moreover, Bronfenbrenner's ecological systems theory suggests that a sense of belonging in school is established through positive interactions between students and various individuals in the school community, including teachers, peers, and other members (Hong & Eamon, 2012; Zullig et al., 2010). These interactions primarily occur within the mesosystem, where experiences in one microsystem, such as the family, can influence experiences in another microsystem, such as the school (El Zaatari & Maalouf, 2022). As a result, cultivating positive relationships and offering support within both the home and school environments can have a substantial impact on a student's sense of belonging, leading to potentially reduced levels of depression and improved mental well-being.

Related Literature

Suicide is statistically the second most common cause of death for adolescents between the ages of 14 and 19, according to the Centers for Disease Control and Prevention (2021). The first signs of suicidal ideation and conduct among American teenagers who die by suicide appear in late adolescence (Breet et al., 2021). One survey indicated that almost one-third of school counselors needed to be appropriately qualified to conduct crisis intervention, with 80 school counselors (35.4%) self-reporting that they obtained no graduate training and no postgraduate training hours (Becnel et al., 2021). Since school is where most students spend their time, it makes sense that school systems should be able to recognize and help students who show signs of mental health problems (Breux & Boccio, 2019). One sign of a student's general well-being is indicated through their academic success.

In a study conducted by Orozco et al. (2018), a multilevel regression model was used to examine the relationship between school climate and student well-being outcomes, including depressive symptoms, suicidal ideation, tobacco use, alcohol use, marijuana use, and academic grades. The study involved 33,572 high school students from 121 schools in Los Angeles County. The findings showed that the lifetime prevalence of attempted suicide was 3.0% among middle school students and 4.2% among high school students. In middle school, factors associated with suicide attempts included not being a student the previous year, poor self-perceived performance, and a higher number of failed courses. In high school, predictors of

suicide attempts were failed courses and lower self-perceived academic performance. Similarly, Gase et al. (2017) observed limited correlations between student outcomes and how school staff and administrators assessed the school atmosphere. Existing studies regarding adolescent suicide have assessed suicide prevention programs (Brann et al., 2021; Breet et al., 2021; Breux & Boccio, 2019; Joiner, 2009; Singer, 2019), as well as student's perception of their school environment as an indicator of suicidal thoughts and behaviors (Flores et al., 2020; Madjar et al., 2018; Pfledderer et al., 2019), but little research has been conducted on Georgia public high school students as it relates to the GSHS and suicide frequency and potential protective factors.

Mental Health in Youth

For this study, *death by suicide* is when someone injures themselves intending to die. A suicide attempt occurs when someone harms themselves with intent to end their life but does not succeed. Suicide is frequently described as the human act of intentionally ending one's own life (Levers, 2012). Although research has been conducted on the impact of clinical and mental health providers serving adolescents and adults who have died by suicide (Abrutyn & Mueller, 2018; La Guardia et al., 2019; Lai et al., 2018; Mueller & Abrutyn, 2016; Nanayakkara et al., 2013), there have been few studies that address the impact of non-clinical and mental health care providers serving youth, with limited studies describing secondary administrators' experiences when a student dies from suicide. *Secondary administrators*, for this study, refers to public school administrators who are school leaders working with students in grades 9 through 12.

A *crisis* is the immediate time of danger, trouble, or difficulty, and *stress* is the body's response to any event or situation that can bring about disruption to our daily life, not always necessarily traumatic (Brister, 2018; Levers, 2012). Stress is linked to our hormones and nervous systems. *Traumatic stress* is defined as a typical reaction to an extraordinary event, can occur

from witnessing or having a close connection to highly distressing situations, often leading to an increased likelihood of suicidal thoughts, attempts, and self-harm in adolescence and young adulthood (APA, 2019; Tunno et al., 2021).

Loneliness and Depression

Loneliness has emerged as a significant contributor to a range of negative health implications and concerns, with particular attention given to its association with depression (Ahadi et al., 2018; Lee et al., 2019; Madjar et al., 2021). Loneliness, a subjective emotional state, can profoundly impact individuals, potentially causing or worsening depression, a prevalent mood disorder marked by changes in thoughts and behaviors (Di Blas et al., 2021; Primack et al., 2017). This condition, characterized by enduring feelings of sadness, hopelessness, and decreased motivation lasting over two weeks, may gradually arise due to traumatic grief (Briere & Scott, 2015; Fonseca-Pedrero et al., 2022). The impact of loneliness and depression on adolescents is particularly concerning, carrying potential life-threatening risks. According to a study, around thirteen percent of adolescents experience a twelve-month prevalence of major depression, emphasizing the alarming prevalence and potential severity of the condition in this age group (Kalin, 2021). Discrepancies exist in reported prevalence rates across studies. Saluja et al. (2004) reported nearly 20% of young adolescents in grades 6, 8, and 10 in the United States exhibit symptoms consistent with depression. In a study by Juul et al. (2021), they found a notable prevalence of significant depressive symptoms among children aged 11-14, challenging earlier research suggesting that the proportion of youth facing a substantial burden of depressive symptoms stays relatively low until early adolescence, increasing only later up to the age of 17-18. Adolescence is a critical period of development, and the presence of depression during this stage can have far-reaching consequences, affecting various aspects of

their lives, including academic performance, social interactions, and overall well-being.

Addressing the relationship between loneliness, depression, and adolescents' mental health is of utmost importance. It requires comprehensive efforts from various stakeholders, including parents, educators, healthcare professionals, and the broader community. Creating awareness about the detrimental effects of loneliness and depression, implementing preventive measures, and providing access to appropriate mental health support are crucial steps in mitigating the potential life-threatening outcomes associated with these conditions. By fostering a supportive and connected environment for adolescents, fostering positive mental health, reducing the prevalence of depression, and enhancing overall well-being during this critical stage of development is achievable.

Depression and Anxiety

It is not uncommon for a traumatic event to manifest as another mental health issue, such as anxiety or depression. Individuals may be unaware that their experiences of panic attacks or persistent sadness are actually connected to unprocessed trauma, which can be reactivated by current events (Levers, 2012). Depression, characterized by persistent feelings of sadness, hopelessness, and lack of motivation lasting for more than two weeks, can develop over time as a result of traumatic grief (Briere & Scott, 2015; Fonseca-Pedrero et al., 2022).

Depression negatively affects one's health and daily life, and at its worst, leads to suicide, and both are strongly correlated with one another (Di Blas et al., 2021; Madjar et al., 2021; McQuaid et al., 2020). According to one meta-analysis, women between the ages of 16 and 20, and over 58, were more likely than men to experience loneliness and engage in suicidal thinking or activity (McClelland et al., 2020). Research suggests that teenagers who possess internal risk factors for suicide, such as engaging in unhealthy lifestyle choices, experiencing sleep difficulties, excessive smartphone use, and lacking effective coping mechanisms, demonstrate a heightened propensity for suicidal tendencies (Ati et al., 2021). A study examining the relationship between sexual activity rates and suicide rates revealed a positive correlation, while also finding a negative correlation between obesity rates among adolescent girls and sexual activity rates (Park & Jang, 2018). Additionally, another study indicated that being female further increased the likelihood of experiencing both past and present depressive symptoms, serving as a significant indirect influence on current suicide behaviors and explaining approximately 61% of the total variation (Piqueras et al., 2019).

Implementing early diagnostic and intervention programs aimed at addressing depression symptoms and suicidal behaviors in young individuals can significantly reduce the occurrence of adolescent suicide (Piqueras et al., 2019). Furthermore, these students often navigate complex dynamics within their families, significant relationships, and carry additional responsibilities outside the classroom, which can contribute to heightened feelings of loneliness (Moeller & Seehuus, 2019; Park et al., 2020). It is crucial to recognize and address these interconnected factors to create a supportive and nurturing environment for adolescents, one that promotes mental well-being, fosters effective coping strategies, and reduces the risk of suicidal behaviors. By implementing comprehensive intervention programs and providing a network of support involving families, schools, and healthcare professionals, we can effectively address the underlying risk factors and enhance the overall mental health of young individuals, ultimately reducing the incidence of adolescent suicide. Relationships with school adults, speaking a language other than English at home, being born outside of the United States, and under eating were among the protective and risk variables identified in one research (Hall et al., 2018). The survey revealed that female Hispanic high school students reported having attempted suicide at least once. However, the factors contributing to suicide attempts were consistent across both

genders (Hall et al., 2018). Comprehensive intervention programs and a supportive network involving families, schools, and healthcare professionals are crucial in addressing risk factors and improving young individuals' mental health, ultimately reducing adolescent suicide rates. Recognizing consistent factors contributing to suicide attempts across genders emphasizes the necessity for individualized interventions and support systems for all vulnerable youth populations.

Research suggests that individuals with significant trauma history are at higher risk of developing major depressive disorder, a frequently co-occurring condition with post-traumatic stress disorder (PTSD) (Briere & Scott, 2015). PTSD is a mental health condition resulting from experiencing or witnessing trauma, with symptoms including intrusive memories, avoidance, negative mood changes, and heightened reactivity, impacting daily life long-term (Briere & Scott, 2015). Moreover, those displaying grief-related depression symptoms for over two weeks may receive a diagnosis of major depression (Briere & Scott, 2015; Carballo et al., 2020). Following a suicide, individuals who are bereaved may also experience suicidal thoughts themselves. This underscores the significance of schools and the implementation of postvention, which involves actions and processes aimed at assisting individuals and communities in the aftermath of a crisis or traumatic incident. It emphasizes the importance of addressing this specific concern through proactive measures and support mechanisms.

Trauma is also associated with various anxiety disorders, including generalized anxiety disorder, panic episodes, and post-traumatic phobias. Anxiety is often characterized by a persistent sense of fear, apprehension, and unease. In the context of working with young people, anxiety may manifest as panic attacks during specific situations, such as a math class, or as excessive worry about the well-being of classmates. When assessing individuals who have

experienced trauma, it is important for counselors to inquire about panic attacks and consider the possibility that they may be indicative of post-traumatic stress disorder (Briere & Scott, 2015).

Overall, it is crucial for mental health professionals to recognize the potential connection between trauma and the development of other mental health issues, such as anxiety and depression. By addressing both the underlying trauma and its associated symptoms, counselors and therapists can provide comprehensive support and facilitate the healing process for individuals who have experienced trauma. Early identification, appropriate intervention, and a holistic approach to treatment are key to promoting the well-being and recovery of those affected by traumatic experiences.

Traumatic Grief

When a traumatic experience occurs our central nervous system starts to create neurochemical pathways and physiological adaptations that support the body's reaction to the situation (Levers, 2012). A person experiences trauma when an event or series of events are deemed to be horrifying, shocking, terrible, or hazardous (Briere & Scott, 2015; Levers, 2012). Our body's capacity to process trauma to different and diverse degrees, depending on the severity and effect of the trauma on the individual, is known as the physiological reaction to trauma.

Traumatic grief can increase the risk of suicidal ideation or behavior among adolescents who have experienced the sudden loss of a loved one due to suicide. Adolescents who experience traumatic grief may struggle with feelings of shock, anxiety, anger, and self-blame. Students may also experience less social support and more isolation than those who experience natural causes of death (Cohen & Mannarino, 2011). These factors can contribute to feelings of hopelessness and despair which can then increase the risk of suicidal ideation or behavior.

Traumatic grief is related to teen suicide in that it can be a risk factor for suicidal ideation or behavior among adolescents who have experienced the sudden loss of a loved one due to suicide. Therefore, it is essential to provide support and resources for adolescents who have experienced traumatic grief to reduce their risk of suicidality (Cohen & Mannarino, 2011). These supports may involve counseling, therapy, support groups, and other treatments designed to address the individual's emotional needs and encourage good coping mechanisms.

Short-term and Long-term Effects

According to the Centers for Disease Control (2021), suicide ranks as the second leading cause of death among adolescents aged 14-19 in the United States. Additionally, research by Breet et al. (2021) indicates that the initial occurrence of suicidal thoughts and behaviors typically emerges during late adolescence in young individuals. It is estimated that for every teen suicide, there are between 100-200 unsuccessful attempts of teen suicide (Youth.gov, 2019), and the single most significant mental health risk factor to suicide is depression.

These statistics are terrible, to be sure, but what is worse is that new research suggests that disasters have a wide range of repercussions on kids' functioning, including conduct issues, substance use issues, effects on physical functioning, and suicide thoughts and attempts (Lai et al., 2018). As the rate of suicide increases among our youth, so must the rate of traumatized youth who experience the death by suicide of their friend or peer. The short term effects may include acute stress or acute trauma; however, the long-term effects may include PTSD or clinical depression. The degree to which an individual may develop grief versus traumatic grief will always differ from person to person based on a variety of factors.

The grieving young person's experience with and response to the loss, as well as their perspective of how the loss has changed their lives, have an impact on the short- and long-term

effects of the loss in adolescents (Andriessen et al., 2020). Predicting a young person's response to a situation, especially trauma, can be challenging. There is often an assumption that youth are resilient and will naturally overcome distressing experiences without assistance. It is acknowledged that individuals do not exist or grieve in isolation, and grief following suicide is influenced by social factors (Andriessen et al., 2020). It is crucial to realize that the bereaved will need to grieve with their friends, family, teachers, and neighbors. This is especially true for grieving teenagers, who frequently reside in a family setting and must complete the crucial developmental tasks of establishing their identity and individuality (Andriessen et al., 2020). The peer's healing duration and process are influenced by whether or not individuals around them show love and support. Therefore, it is crucial that those who are grieving find a source of love and support in order to prevent a repeat or copy of the downward spiral of suicidal ideations. The bereaved person's life experiences with the deceased as well as his or her perceptions of social interactions after the incident shape suicide grief (Levers, 2012).

Impact of Working with Trauma Clients/Students

Communities tend to rally around friends and families when a young person dies, but when a person commits suicide that same community tends to shun the act and the victim, and does not always offer the same love, support and nurturing as other deaths which can cause further harm to the survivors. Because of the way others view suicide, the friends and peers of a suicide victim are often left to grieve alone or without feeling the love and support that they so desperately need. Sadly, adolescents bereaved by suicide may experience more feelings of shock, anxiety, anger, and self-blame than adolescents bereaved by natural causes, and they may struggle more with "why" questions, and experience less social support which can cause further feelings of isolation and depression from their grief (Andriessen et al., 2020). The lack of social support for bereaved young people specifically, but any bereaved family or friend of a death by suicide, often triggers acting out in risky behaviors such as, turning to alcohol and substance abuse, reckless driving, fighting, inflicting self-harm, and rebellious behaviors such as standing up against authority (Andriessen et al., 2020). The study goes on to note that some of the youth felt overlooked by their parents while others felt like their privacy had been taken from them as friends and family visited or posted public messages on social media (Andriessen et al., 2020). When it comes to managing suicide risk, mental health providers play a crucial role in ensuring the safety and well-being of their clients. To effectively address this sensitive issue, providers should adopt a straightforward approach, offering clear and direct communication with their clients (Chu, 2011; Skaine, 2015). This involves creating a safe space where clients feel comfortable discussing their thoughts and feelings related to suicide. By openly addressing the topic, providers can gain a better understanding of the client's risk level and develop appropriate interventions.

Further, mental health providers must establish clear, unwavering limits within the therapeutic relationship. This means clearly communicating to clients the boundaries that are in place to maintain their safety. Providers should emphasize their commitment to utilizing all available interventions to keep the client safe and alive. This assurance helps build trust and reassures clients that their well-being is the provider's primary concern. Establishing these limits and interventions helps provide structure and guidance for clients who may be experiencing suicidal thoughts or behaviors (Chu, 2011; Skaine, 2015). When an adolescent or teenager experiences the unexpected loss of a friend or peer through suicide, it can trigger post-traumatic mechanisms that may lead to comorbidities such as depression, fear, anxiety, confusion, and anger (Joiner, 2009).

In addition to the profound grief experienced in the aftermath of suicide, emerging evidence indicates that its impact extends to various areas of functioning. These effects encompass a wide range of consequences, including behavioral issues, substance use problems, impairments in physical health, and the potential development of suicidal thoughts and subsequent attempts (Alexander & Harris, 2020; Bach et al., 2018; Lai et al., 2018). Further, childhood sexual abuse is a strong predictor of suicidal ideation in the future (Bach et al., 2018; Bahk et al., 2017).

National Youth Suicide and Mental Health Policy

According to the Centers for Disease Control and Prevention (CDC, 2023b), suicide is a leading cause of death in the United States, and was responsible for 48,183 deaths in 2021. Even more alarming, youth and young adults aged 10–24 represent 15% of all suicides, with a rate of 11 per 100,000, making it the second leading cause of death in this age group, with 7,126 deaths. Moreover, suicide rates for this demographic surged by 52.2% between 2000 and 2021 (CDC, 2023a). Research suggests that there are roughly twelve adolescent suicides per day, averaging to about two suicides every hour (CDC, 2021; Clements, Cooper, & Holt, 2011; Wiley, 2012). Among the young people in the United States who complete suicide, their first onset of suicidal ideation and behaviors occurs in late adolescence (Breet et al., 2021).

Research suggests that childhood trauma and, specifically, childhood sexual abuse is a strong predictor of suicidal ideation (Bahk et al., 2017). In one study, the goal was to present a public health paradigm for preventing community and interpersonal violence, as well as self-directed and interpersonal violence that results in suicide. The framework provides examples of important risk factors that are described at several levels by highlighting crucial intervention strategies. This method can give insight into violence at all scales, from the individual to the

larger social system (Decker et al., 2018).

In light of emergency room visits for suicidal ideation and attempts as well as suicide prevention legislation, this study aimed to evaluate the suicide fatalities of teenagers in the United States. According to the report, the legislation aimed at preventing teen suicide has not adequately slowed the rate of increase. According to the findings, either present prevention tactics need to be reevaluated in order to better prevent young suicides, or suicide prevention efforts need to be boosted in order to reach more vulnerable populations (Mishara & Stijelja, 2020).

Youth Suicide in Georgia

It is estimated that a diagnosable mental illness is linked to 80-90% of these attempted suicides and that suicide can be prevented. Mental Health America states that 13.75% of youth in Georgia presented with at least one major depressive episode (Reinert et al., 2021). The rate of teen suicide has doubled since the 1950s. Every single day, around twelve young lives are lost to suicide. Distressingly, about every two hours a person under the age of 25 tragically takes their own life (Cha et al., 2018; Clements et al, 2011). As prevalent as suicides and failed attempts are among teenagers, many cases of mental illness remain untraced. In a significant portion of these instances, teenagers feel compelled to face their illness and the world alone. In light of these challenges, it becomes imperative for society to prioritize mental health awareness and support systems to ensure no teenager feels isolated in their struggle with mental illness.

Developmental Systems for Students within the Schools

According to Espelage et al. (2022), experts are working to lower the risk of suicide among kids and teenagers in schools by utilizing new research and cutting-edge techniques. The focus was on evaluating the programs designed for minority populations to determine whether their protective qualities varied and whether other programs interacted better with those programs. It is advised to keep looking for protective factors among marginalized groups who are at risk of suicide. Additionally, they advise looking into the viability of delivering suicide prevention programs through other prevention initiatives like trauma-informed schools, schoolwide Response to Intervention (RTI) through social-emotional learning lessons, or PBIS (positive behavior interventions and supports) programming (Espelage et al., 2022).

Singer et al. (2019) selected and evaluated K–12 school-based suicide prevention programs before comparing them. In their final recommendation, Singer et al. (2019) urge schools to adopt suicide prevention programs in the same way they would with any other multitiered support system or global model for social, emotional, and behavioral support. Some of the programs listed include Good Behavior Game, a program intended to reduce suicide through social acceptance and integration, and Sources of Strength, an upstream prevention program.

The concept highlighted by Singer et al. (2019) suggests that without active implementation of suicide prevention programs in schools, the efficacy of such programs and their target population may remain unknown. An alternative approach could involve adopting a multi-tiered system akin to the Response to Intervention (RTI) model. For instance, schools could begin by implementing universal mental health education for all students, followed by targeted interventions for at-risk individuals, and finally, intensive support for those in acute need.

Suicide Prevention and Interventions in Schools

The Youth Suicide and Prevention Act of 1985 established federal financing for schoolbased prevention programs, and the National Strategy for Suicide Prevention of the U.S. Department of Health and Human Services became the first national program in 2002. Because of this particular program's emphasis on the requirement for an empirically supported strategy for planning suicide prevention in schools, the New Freedom Commission on Mental Health was founded in 2002 (Clements et al., 2011).

According to Granello and Zyromski (2018), schools are suitable settings for offering adolescent suicide prevention programs. They contend that teenagers are naturally present in large numbers in schools and that educational institutions are logical settings for instilling values for help-seeking and prosocial actions. Professional assistants who wish to build strong relationships with their pupils and encourage healthy lives work in schools by default.

One such prominent figure in the field of school crisis and suicide prevention, Dr. Scott Poland, has made significant contributions through his extensive work in authoring books and chapters on the subject. His expertise lies in providing practical guidance and step-by-step instructions for implementing successful strategies in suicide prevention, assessment, intervention, and postvention (Erbacher et al., 2015; Poland, 1989; Singer et al., 2019). Despite these valuable contributions, Singer recognized the need for a more comprehensive integration of suicide prevention programs with existing multi-tiered school projects, such as the Multi-Tiered System of Supports (MTSS). The concept of "upstream methods" has gained prominence in the field of suicide prevention, emphasizing the importance of early intervention and prevention efforts. Singer et al. (2019) conducted research and analysis to explore various K-12 schoolbased suicide prevention initiatives. Their findings underscore the recommendation that suicide prevention programs should be seamlessly integrated within schools, aligning with the principles of a multi-tiered support system or a global model for social, emotional, and behavioral support.

The MTSS framework, commonly used in schools, enables teachers to provide academic and behavioral interventions tailored to the diverse needs of students. By incorporating suicide prevention programs within the existing MTSS framework, schools can enhance their capacity to address the social, emotional, and behavioral well-being of students. This integration ensures that suicide prevention becomes an integral part of the overall support system in schools, rather than existing as a separate and isolated program.

The work of Dr. Poland has been instrumental in providing practical guidance for suicide prevention in schools. Singer and colleagues emphasize the importance of integrating suicide prevention programs within the existing framework of multi-tiered school support systems, such as the MTSS. This integration allows for a more holistic and comprehensive approach to addressing the social, emotional, and behavioral needs of students, aligning with the growing focus on "upstream methods" in suicide prevention. By implementing these integrated programs, schools can enhance their ability to identify at-risk students early on and provide timely support to prevent crises and promote overall well-being.

Role of School/Educators

Implementing suicide prevention programs in schools is crucial and should be treated as an integral part of multi-tiered support systems or global models for social, emotional, and behavioral support (Singer, 2019). Prioritizing teenage mental health becomes paramount in a high school setting, considering the delicate and susceptible nature of the adolescent psyche. The global pandemic has worsened the situation by increasing isolation and discouraging social gatherings, leading to a significant rise in mental health crises among teenagers.

When a teenager dies by suicide, it profoundly affects everyone around them, including family, friends, school, and the community-at-large. However, discussing suicide remains challenging due to the associated mental health stigma. Many school systems are reluctant to openly address suicide for several reasons. There is a widespread belief that discussing suicide

publicly can increase the risk of suicide ideation among young people. This fear stems from the idea that talking about suicide may plant the idea in vulnerable individuals' minds and lead to copycat behaviors. Consequently, numerous educational institutions sidestep addressing the topic directly to reduce perceived risks (Breux & Boccio, 2019). Educators frequently feel unprepared to offer suitable support to students grappling with suicidal thoughts or mental health issues. Specialized training and expertise are required for suicide prevention and intervention, which many teachers may not have received. This lack of training leaves educators uncertain about how to effectively address the issue, resulting in hesitancy to engage in discussions related to suicide (Mueller et al., 2021).

Despite these barriers, the severity and prevalence of the issue demand that schools play a crucial role in suicide prevention efforts. With children spending a significant amount of time in the school environment, educators and school personnel are uniquely positioned to identify warning signs, provide support, and connect students with necessary resources (Marraccini et al., 2022). However, schools often lack the training and support necessary to fulfill this responsibility. To address these challenges, it is essential to prioritize comprehensive training programs for school personnel that focus on suicide prevention, intervention, and postvention strategies. Equipping educators with the knowledge and skills to recognize signs of distress, facilitate open conversations, and provide appropriate support can create a safer and more supportive environment for students. Additionally, establishing collaborative partnerships between schools, mental health professionals, and community resources is crucial for a coordinated approach to suicide prevention. By breaking down the stigma surrounding suicide and providing the necessary training and support, schools can better fulfill their role in addressing this critical issue. Proactive and well-informed efforts can work towards creating a

culture that promotes mental health, supports those in need, and ultimately helps prevent tragic losses to suicide within our communities.

The United States witnessed a significant step forward in suicide prevention efforts with the enactment of the Youth Suicide and Prevention Act in 1985. In a pivotal move, federal funding was allocated exclusively for school-based prevention programs as a result of this significant legislation. This initiative was followed by the introduction of the National Strategy for Suicide Prevention by the U.S. Department of Health and Human Services in 2002, representing the nation's inaugural comprehensive program aimed at addressing this crucial issue (Clements et al., 2011). These programs prioritized the implementation of evidence-based approaches to suicide prevention planning within educational institutions. Recognizing the importance of addressing mental health concerns, the establishment of the New Freedom Commission on Mental Health in 2002 further bolstered support for these initiatives (Clements et al., 2011). Through these collective efforts, policymakers and stakeholders aimed to create a comprehensive framework that would effectively address suicide prevention in schools.

The integration of evidence-based strategies, coupled with the recognition of mental health as a vital component, played a pivotal role in shaping the landscape of suicide prevention in the United States (Clements et al., 2011). These advancements in policy and program development laid the foundation for promoting a proactive and comprehensive approach to preventing suicide among the youth population.

Based on data from the Substance Abuse and Mental Health Services Administration (SAMHSA) in 2020, approximately 20% of children are projected to encounter a significant mental health condition during their lifetime. Schools offer an ideal platform for implementing suicide prevention programs targeting young individuals due to their large adolescent

populations, which facilitates the cultivation of values related to seeking help and engaging in prosocial behaviors (Granello & Zyromski, 2018). Within schools, professional assistants inherently focus on fostering strong student relationships and advocating for healthy lifestyles as part of their regular duties. By implementing the provision of free on-site mental health and career counseling services for high school students, irrespective of their insurance provider, the initiative aims to facilitate the referral process to mental health professionals. This initiative will involve collaboration between school counselors, administration, students, and parents, ensuring accessibility and support for individuals in need.

In the realm of violence prevention, the availability of timely and comprehensive public health records data is paramount. Such data serves as a crucial foundation for advancing research on violence and developing effective preventive strategies. Through thorough data analysis, including the examination of interrelationships between various forms of violence, it becomes possible to identify common risk factors and establish targeted plans for mitigating violence (Decker et al., 2018). This approach plays a pivotal role in reducing violence and fostering safer environments for individuals and communities.

In their research, Smith-Millman and Flaspohler (2019) explored the correlation between state laws governing school-based suicide prevention and the actual implementation or effectiveness of these measures within schools. Their findings revealed that a significant number of high school principals across 49 states had a limited understanding of the specific suicide prevention regulations in their respective states. Moreover, the involvement of school counselors as mental health providers seemed to influence principals' awareness of the existing regulations and preventive initiatives implemented within their schools.

Gatekeeping training has shown to improve participants' knowledge and self-efficacy,

making them more likely to intervene when necessary. However, in a meta-analysis by Mo et al. (2018), studies have shown contradictory results regarding whether attitudes and behaviors towards suicide changed following the training. In high school, relationships play a crucial role in a student's learning and self-discovery process, particularly for minority students who often feel disregarded or undervalued in academic settings. School-based relationships and school-community interactions are highly significant, as teenagers, especially those in minority subgroups, seek love and acceptance. Educational institutions that recognize and foster connection needs among students and community groups observe behaviors like nurture, acceptance, safety, and trust (Marraccini et al., 2022).

In forthcoming studies, it is advisable to incorporate protective aspects such as cultural resources while formulating preventive strategies. A student's resilience against suicide can be significantly bolstered by their feeling of acceptance and connection rooted in their cultural identity (Marraccini et al., 2022). Suicide is a common cause of death among children and young adults, prompting schools nationwide to search for strategies to reduce suicide attempts and completions. However, there is a lack of clear and uniformly implemented training programs or strategies for training teachers and school staff in suicide prevention. Federal lawmakers should urgently design and create a comprehensive suicide prevention and education plan for schools to overcome the limitations imposed by individual school districts' capabilities and resources (Kreuze et al., 2018). Currently, each state develops its own conception of suicide prevention training, often influenced by political factors, and even then, the training may only provide a general framework. Evaluation and readily available resources are necessary for evidence-based training methods (Kreuze et al., 2018). With the rise of suicide and suicidal ideation, particularly among youth and young adults, there is an increasing need for suicide education and

identification. Schools, where students spend the majority of their time, are ideal settings for implementing prevention programs. Teachers and school staff, who spend significant time with students, have the opportunity to make an immediate, positive impact. However, there is limited evidence of the influence of prevention programs on suicidal behavior, psychological distress, and overall wellness (Brann et al., 2021).

School counselors play a crucial role in connecting at-risk students with necessary mental health resources. Establishing a culture of change within school boards, districts, and specific schools is essential to proactively address this situation. Using therapeutic techniques such as Person-Centered Therapy, Cognitive Behavioral Therapy, and Dialectical Behavior Therapy in the classroom can help students feel heard, develop social skills, and handle everyday challenges while succeeding academically (Clements, Cooper, & Holt, 2011).

Further research is needed to determine the implementation and effectiveness of proposed preventive strategies. Comparative studies can assess whether outcomes differ between specific programs or across states and the country. Long-term follow-up findings should also be provided to determine the ongoing effectiveness of these programs (Brann et al., 2021). This particular study aims to highlight the importance of fostering a link between families in the community and school faculty and staff by examining the relevance of school-based suicide prevention protocols and training for school workers and student caregivers. While schools recognize the need for suicide prevention education, their efforts have varied in success due to real and perceived connections between schools and students. Teachers and school staff members express concerns about the quality and extent of their suicide prevention training (Kodish et al., 2020).

Further investigation could explore reasons behind families' failure to initiate or receive follow-up care and gather insights from the family's perspective. In addition, including the

experiences of students and parents would provide a more comprehensive understanding of the topic (Kodish et al., 2020).

School Climate

In 2018, Madjar et al. conducted a study aiming to explore the connection between adolescent behaviors, teacher and peer support, and suicidal thoughts. The researchers utilized data from the 2013-2014 Health Behaviors in School-aged Children (HBSC-WHO) Israeli survey, focusing on high school students and implementing a multi-level approach. The study's findings revealed a strong correlation between teacher support at both individual and classroom levels and suicidal thoughts and actions. When students perceived their teachers as supportive and emotionally engaged, both individually and as a group, there was a significant reduction in the prevalence of suicidal tendencies (Madjar et al., 2018). To understand the dynamics at play, it is important to first establish the concept of school climate. In this context, *school climate* refers to the characteristic environment associated with a school, with the school itself acting as the central focus (Zullig et al., 2010). It encompasses various elements such as norms, values, interpersonal relationships, teaching and learning practices, and organizational structures, essentially capturing the quality and character of school life.

The significance of school climate lies in its potential impact on students' academic performance, mental health outcomes, and overall well-being. A positive school climate plays a crucial role in promoting student engagement, motivation, and achievement. It creates an environment that reduces negative behaviors like bullying or substance abuse and fosters a sense of belonging and connectedness among students. This sense of connectedness can alleviate feelings of isolation and contribute to positive mental health outcomes.

On the other hand, a negative school climate can have detrimental effects on students'

academic performance and mental health. A school climate characterized by bullying, harassment, or other negative behaviors can lead to increased stress levels among students. This heightened stress can adversely affect academic performance and may even contribute to the development of suicidal thoughts or behaviors (Mucherah et al., 2018). Given these findings, it becomes imperative to prioritize the cultivation of a positive school climate. By actively promoting a positive school climate that supports students' social-emotional development and provides a safe and supportive learning environment, schools can help enhance academic performance and promote positive mental health outcomes among their students. Creating a nurturing and inclusive school climate not only benefits individual students but also contributes to the overall well-being and success of the school community as a whole.

Measuring School Climate

Georgia leads the way by incorporating school climate into its academic accountability system, CCRPI, making it the inaugural state to do so in the United States. Per state law (O.C.G.A. 20-14-33), schools are now assessed using a "star rating" to gauge their climate, aiding in identifying areas for improvement (GADOE, 2023). The education system aims to gauge a positive school climate via the College and Career Ready Performance Index (CCRPI) star rating, Georgia's annual measure of educational preparedness for higher education and careers (GADOE, 2018). The School Climate Star Rating refers to the quality and character of school life; a positive, long-term school environment promotes youth development and student learning, which are critical components of academic achievement, increasing career skills, and overall quality of life. Therefore, school climate is measured to ensure that schools are providing a positive environment that promotes student learning and success.

According to Flores et al. (2020), negative perceptions of educational climates may serve

as an indicator of suicidal ideation and attempts among adolescents. They suggest that assessing how adolescents perceive the school climate can provide an additional means of monitoring their risk levels for suicidal thoughts and behaviors. However, an important question arises regarding whether school climate is an inherent characteristic of schools or a reflection of individuals' perceptions. Most researchers studying school climate view it as a property of the school itself, considering the school as the primary unit for climate analysis (van Horn, 2003).

Self-Report Surveys

A *self-report survey* is a type of survey where individuals provide information about themselves. In the context of the GSHS, it is an anonymous, self-reported, internet-based survey required of all public school districts in Georgia and administered between November and February. The GSHS collects self-reported data on Georgia school students' health status and lifestyle choices. Therefore, a self-report survey is a method of data collection that relies on individuals' responses to questions about themselves, their experiences, or their behaviors. Selfreport surveys are commonly used in research studies to gather information about participant's attitudes, beliefs, behaviors, or experiences.

Protective Factors of Suicide

Problem-solving ability, socio-emotional abilities, restricted access to suicide methods, cultural and religious beliefs that prevent suicide, and social and familial support (Marraccini & Brier, 2017) are among the less well-studied protective variables. When students are trying to figure out who they are and what they want out of life during their time in high school, the relationships they have at school are an essential and intricate component of suicidal thoughts that students may have. This is especially true for minorities, who may frequently feel overlooked or undervalued in academic settings. The significance of school-based connections as

well as interactions between the school and the community is at an all-time high since the vast majority of adolescents, and notably those who belong to minority groupings, are yearning for love and acceptance. Further, peer and teacher social support can have positive effects for youth in challenging family situations, and these benefits grow stronger with more sources of support (Forster et al., 2020). Students have an insatiable need for a sense of security, trust, acceptance, and being nurtured. These kinds of behaviors are rather common in educational institutions that take great pleasure in recognizing and cultivating the relational needs of their student and community populations (Marraccini et al., 2022).

Adult Support

Suicide is a significant public health concern, particularly among teenagers, and social support from adults can play a crucial role in preventing suicide in teenagers (Bilsen, 2018; Steiner et al., 2019). Adult support can provide emotional support, practical assistance, and social validation that can help buffer against stressors and promote positive mental health outcomes (Steiner et al., 2019). One way that adult support can prevent suicide in teenagers is by building positive relationships. Adults who build positive relationships with teenagers can provide a sense of belonging and connectedness that can reduce feelings of isolation and hopelessness (Marraccini & Brier, 2017). By fostering positive relationships with teenagers, adults can create a supportive environment that promotes mental health and well-being.

The relationship between secondary instructors and students is often more formal, less personal, and more evaluative than the relationship between primary instructors and students. This formality can lead to lower feelings of closeness between secondary students and their teachers. According to research by Granziera et al. (2022) and Nielson et al. (2017), secondary students report lower feelings of closeness with their teachers than primary students. However, positive relationships between students and adults at school can play a significant role in protecting many young individuals, including those at higher risk of suicide. Research conducted by Borowsky et al. (2001), Eisenberg et al. (2007), and Marraccini and Brier (2017) suggest that the presence of positive relationships between students and adults at school can help buffer against stressors that may contribute to suicidal ideation or behavior. Positive relationships with adults at school can provide emotional support, practical assistance, and social validation that can help buffer against stressors that may contribute to suicidal ideation or behavior among adolescents. By fostering positive relationships with adults at school, adolescents can develop a sense of belonging and connectedness that can reduce feelings of isolation and hopelessness.

Thus, it becomes crucial for educational institutions to prioritize the cultivation of positive student-adult relationships as a key component of their suicide prevention endeavors. By nurturing constructive relationships between students and adults within the school environment, educational institutions can effectively shield numerous young individuals from the risks associated with suicide, simultaneously fostering favorable mental health outcomes among their student population.

Peer Support

While there is limited empirical research specifically focusing on children's peer connections compared to studies on depressive symptoms in young people, the existing research has explored the implications of peer difficulties for feelings of isolation. Schwartz-Mette et al. (2020) conducted studies that centered on the broader peer group and discovered that children who were generally disliked by their classmates had a higher prevalence of loneliness. In the context of suicide prevention, it is important to consider the role of peer relationships in adolescents' lives. Adolescents who feel connected to their peers and have supportive relationships with them are less likely to experience feelings of isolation or hopelessness, which can contribute to suicidal ideation or behavior (Madjar et al., 2018). Peer support can serve as a protective factor against teen suicide by promoting positive mental health outcomes and reducing the risk factors associated with suicidal thoughts and behaviors.

A study focused on the views of young people aged 15 to 24 regarding the design of a peer support model for promoting mental health and preventing suicide in rural towns in western Canada highlights the significance of community support, programming, and the strategic use of social media. These factors can help overcome barriers to accessing mental health support and foster a sense of belonging, which is crucial for suicide prevention (Libon et al., 2023). The study also emphasizes the importance of public awareness and attitudes towards mental illness and suicide. It suggests that policymakers, healthcare providers, media outlets, and community leaders should collaborate to improve service delivery and implement policies that promote youth mental health services and community-based suicide prevention efforts.

Furthermore, Libon et al. (2023) emphasize that young people themselves can play a proactive role in their mental well-being by being more aware of their own mental health needs. By recognizing their own emotions and seeking appropriate support when needed, youth can contribute to their own mental well-being and reduce the risk of suicidal ideation or behavior.

School Connectedness

The concept of *school connectedness*, or a sense of belonging, refers to the quality of social relationships within the school environment. It encompasses how much students feel like they belong to the school community and are cared for by the educational institution (Blum, 2005; Lester & Cross, 2015; McNeely et al., 2002; Nielsen et al., 2017). When students have a

strong sense of school connectedness, it is associated with numerous positive outcomes across various domains.

In addition, it is important to highlight the significant correlation between school connectedness and positive social and emotional development in children. Extensive research has established that school connectedness is not only associated with higher academic achievement but also contributes to an overall sense of well-being among students (Lester & Cross, 2015; Nielsen et al., 2017). This implies that when students feel a strong sense of connection to their school environment, they are more likely to experience positive social and emotional outcomes, which can have a profound impact on their overall development and success. When students feel connected to their school, they are more likely to be engaged in their learning, actively participate in class, and strive for academic success (McNeely et al., 2002). This sense of belonging motivates students to invest their time and effort in their studies, leading to improved educational outcomes. Furthermore, school connectedness is associated with improved attendance rates. Students who feel connected to their school are more likely to attend classes regularly and be present in the learning environment (Lester & Cross, 2015; McNeely et al., 2002). They have a stronger sense of responsibility towards their education and are less likely to engage in truancy or absenteeism.

In addition to academic benefits, school connectedness contributes to better social relationships among students. Students who experience a sense of belonging tend to establish positive connections with their peers, teachers, and other school staff, cultivating a supportive and inclusive school environment where they feel valued and comfortable (Areba et al., 2021; Blum, 2005; Lester & Cross, 2015). As a result, students experience positive social interactions, make friends, and develop social skills that are vital for their overall well-being. School

connectedness also plays a significant role in enhancing the mental and emotional well-being of students. When students feel connected to their school, they have a support system in place that can help them cope with stress, overcome challenges, and navigate the ups and downs of adolescence (Lester & Cross, 2015). This sense of belonging acts as a protective factor against mental health issues, such as depression and anxiety, and promotes positive emotional well-being. Several factors contribute to the level of school connectedness experienced by students. A smoother transition to secondary school, where students feel supported and welcomed, fosters a sense of belonging from the outset. Additionally, a positive school climate, effective classroom management, and nurturing peer relationships all contribute to higher levels of school connectedness (Areba et al., 2021).

Conversely, factors that undermine school connectedness include social isolation, where students feel excluded or disconnected from their peers, and feeling unsafe at school. Negative experiences such as bullying or a lack of support from teachers and staff can erode students' sense of belonging and hinder their overall well-being (Borokowsky et al., 2001). Vulnerable groups such as lesbian, gay, and bisexual adolescents have been highlighted in previous studies (Eisenberg & Resnick, 2006; Taliaferro & Muehlenkamp, 2017). Nonetheless, scant focus has been directed toward investigating how the school environment might alleviate the effects of adverse childhood experiences (ACEs) on suicidality, as noted by Eisenberg et al. (2007). Furthermore, studies examining the relationship between ACEs, suicidality, and racial/ethnic differences often overlook specific racial/ethnic groups or fail to address these differences altogether. In a previous study utilizing Minnesota Student Survey data, Areba et al. (2021) discovered that school and teacher connections did not universally protect adolescents with a history of ACEs against suicidality. The study expands upon this research and examines

racial/ethnic disparities, with a particular focus on adolescents with immigrant or refugee backgrounds, thereby addressing a crucial gap in the existing literature (Areba et al., 2021).

To promote school connectedness, educational institutions should prioritize creating a positive and inclusive school environment. This includes implementing strategies to foster positive relationships among students, providing support systems for students who may be struggling, and actively addressing issues such as bullying and safety concerns. By prioritizing school connectedness, schools can cultivate a supportive and nurturing environment that positively impacts students' academic achievement, social relationships, and mental well-being.

Gaps and Opportunities

The primary objective of this study is to expand our understanding of how student school climate health survey results can be utilized to drive improvements in public schools and prevent adolescent suicidality. Specifically, this study aims to investigate the relationship between suicidality and factors such as adult support, peer support, and school connectedness among high school students in Georgia. By analyzing data from publicly available sources, this study seeks to shed light on the link between academic success, school climate, and the identification of risk factors for teen suicide. It is important for future research to focus on promptly identifying these risk variables and leveraging academic success data in conjunction with climate surveys to enable early detection and intervention for at-risk students.

In secondary public education, the lack of interventions for suicide is a significant concern, given its status as the second leading cause of mortality among young people in the United States. There is limited research on how secondary administrators perceive their role in crisis intervention and its impact on overall school responses to student suicide prevention, intervention, and postvention. Shockingly, findings from Smith-Millman and Flaspohler (2019) revealed that only about 25% of principals (N = 656) were able to identify the regulations governing school-based suicide prevention in their states. Moreover, just 66.1% indicated that their schools' suicide prevention programs fully adhered to these regulations.

In a subsequent study approximately a decade later, Zalsman et al. (2016) conducted a comprehensive analysis on a sample of 1,797 papers. This diverse set of papers encompassed various study designs, including 22 ecological or population-based studies, 40 randomized controlled trials (RCTs), 67 cohort trials, 23 systematic reviews, and 12 meta-analyses. These studies explored the impact of gatekeeper training on different demographics, ranging from military personnel, public school teachers, peer counselors, youth workers, clinicians, depressed individuals, to Indigenous populations. Despite the extensive research conducted, the direct impact of gatekeeper training alone on suicide rates lacks conclusive evidence from randomized controlled trials (Zalsman et al., 2016). However, the effectiveness of gatekeeper surveillance or communication training in schools is contingent upon the level of suicide awareness, student identification, and the presence of an appropriate response system. In schools with limited preparation, providing basic gatekeeper training to all individuals within a surveillance model can significantly improve the ability to identify explicit warning signs of suicide (Wyman, 2008).

Summary

The GSHS serves as an important anonymous statewide survey tool for assessing the mental health of Georgia public school students. This study's exploration of guiding theories, including Durkheim's Theory of Suicide, Joiner's Interpersonal Theory of Suicide, Freud's Psychodynamic Theory, and Bronfenbrenner's Ecological Systems Theory, provides valuable insights into the multifaceted factors that contribute to suicidal behaviors among adolescents.

Additionally, the literature highlighted the connection between mental health and school

achievement, as well as the importance of implementing effective suicide prevention and intervention strategies within educational settings. By synthesizing these theoretical frameworks and existing research, this study aims to contribute to the understanding of adolescent suicidality and identify potential avenues for prevention and intervention. The findings from this research endeavor have the potential to inform policy development and enhance support systems within schools to better address the mental health needs of students and promote positive outcomes.

Further, this quantitative correlative study seeks to determine the relationship, the best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness, and the validity and reliability of those domains within the Georgia Student Health Survey.

Chapter Three: Methods

Overview

This chapter expounds on a quantitative, correlative analysis research study that aimed to investigate the potential relationship between the frequency of suicidality and three factors: peer support, adult support, and school connectedness. This study utilized data from the Georgia Student Health Survey (GSHS). The primary objective of the research was to determine whether a significant association existed between the aforementioned factors and suicidality.

To attain this overarching objective, this chapter provided a thorough and detailed explanation of the study design implemented. This included a careful examination of how the chosen design was strategically aligned with the research objectives and hypotheses, emphasizing its effectiveness in exploring the intended relationships. This study took a meticulous approach in considering the variables of the frequency of suicidality, peer support, adult support, and school connectedness, systematically analyzing their potential interrelationships to uncover insights into the dynamics at play. This comprehensive exploration laid the groundwork for understanding the intricacies of the research study and set the stage for the subsequent analyses and discussions.

Furthermore, this chapter describes the participants involved in the study. It provides detailed information about the selection criteria, sample size, and any relevant demographic characteristics. Additionally, the chapter outlines the environment in which the research was conducted, considering factors such as the educational institutions participating in the GSHS and the context of the survey administration. To enhance clarity and rigor, the description of the research participants and environment was presented after a thorough discussion of the research questions and null hypotheses. This ensured a comprehensive understanding of this study's

framework and enabled readers to grasp the context within which the analysis was carried out.

Design

The objective of this study was to examine the relationship between the frequency of suicidality and the levels of school connectedness, peer support, and adult support among Georgia public high school students. Additionally, the study aimed to measure the internal consistency and reliability of the four domains: suicidality, peer support, adult support, and school connectedness, within the Georgia Student Health Survey (GSHS) using Cronbach's alpha. Cronbach's alpha was employed to assess the internal consistency of the instrument by examining the inter-correlations among items that measure the same concept (Cronbach, 1951).

During the 2021-2022 school year, the GSHS was administered to a sample of 196,546 secondary students in Georgia public schools, and the responses were obtained from the Georgia Department of Education for analysis (Georgia Department of Education, 2022c). Cronbach's alpha was calculated to determine the internal consistency of the GSHS, considering that the survey questions were measured on a Likert scale (Creswell, 2002).

The link between two variables was examined using a straightforward correlational design, and the relationship was then described statistically (Heppner et al., 2015; Warner, 2021a; Warner, 2021b). Frequently, researchers employed studies with correlational designs to describe correlations among a wide range of variables. However, researchers often wanted to describe the relationships between more than two different factors. Multiple regression, in its simplest form, was used to explain how various predictor variables related to a single "dependent" variable (Bruce et al., 2018; Wiley, 2019). The statistical technique of multiple regression was used to examine the independent and the sum of one or more predictor factors' contributions to the variation of a variable under control (Hackett, 2019; Heppner et al., 2015).

The ability to accurately forecast the criteria variable was a topic that researchers regularly brought up. The multiple correlation coefficient R, which is a measurement of how well the predictor scores correlate to the actual scores of dependent variables, expressed the link between a dependent variable and a collection of numerous independent variables (Heppner et al., 2015; Warner, 2021a; Warner, 2021b).

Research Questions

This study examined the following:

RQ1: Is there a relationship between school connectedness, peer support, and adult support as each relates to suicidality of public high school students in Georgia?

RQ2: What is the best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness?

RQ3: What is the internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health Survey?

Hypotheses

The null hypotheses for this study were:

Hypothesis $_{0}1$: There is no relationship between school connectedness, peer support, and adult support to suicidality of public high school students in Georgia.

Hypothesis ₀**2**: There is no best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness.

Hypothesis ₀**3**: There is no internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health Survey.

Participants and Setting

In this study, archived data from a convenience sample of high school students in public high schools across Georgia were utilized. The data were obtained from the Georgia Student Health Survey conducted during the 2021-2022 school year. The archival data were sourced from the Georgia Department of Education, which routinely collects information through the Georgia Student Health Survey (GSHS) each school year. The survey is administered to all public school students in grades 3-12 in the state of Georgia.

For the purposes of this study, the data from the Fiscal Year 2022 (FY2022) GSHS were employed. The survey was completed by a total of 196,546 students attending Georgia public high schools in grades 9-12 (Georgia Department of Education, 2022c). This comprehensive dataset served as the foundation for the investigation into the relationships between various factors, including the frequency of suicidality and levels of school connectedness, peer support, and adult support among high school students in Georgia during the specified academic year.

Instrumentation

In this study, the GSHS obtained from the Georgia Department of Education was utilized. The survey, accessible to all secondary students in Georgia, served as a comprehensive tool for measuring various factors related to the school environment and safety. These factors included but were not limited to bullying, peer and adult social support, mental health, drug misuse, and suicidal thoughts.

The survey, administered to all secondary students in Georgia, played a crucial role in capturing a broad spectrum of information relevant to the well-being and experiences of students within the school context. The data derived from this survey formed the basis for examining and understanding the relationships between different variables, particularly focusing on the

dynamics related to school environment, social support systems, mental health, and associated factors among secondary students in Georgia during the study period.

Georgia Student Health Survey: Middle/High

The Georgia Student Health Survey (GSHS) is an anonymous statewide survey instrument administered to all Georgia public school students. This instrument assesses various topics regarding school climate and safety, peer and adult social support, bullying, mental health, substance abuse, and suicidal ideation (Georgia Department of Education, 2022b). The GSHS instrument consisted of 91 questions and primarily uses a four-point Likert scale ranging from Strongly Agree to Strongly Disagree. Likert responses were as follows: Strongly Disagree = 4, Somewhat Disagree = 3, Somewhat Agree = 2, and Strongly Agree = 1. Eight questions on the survey measured self-harming habits, suicidal thoughts, and suicide attempts. The frequency of these actions, according to the participants surveyed, was either a variation of never, "on 1-2 occasions," "on 3-5 occasions," or "on more than 5 occasions" (Georgia Department of Education, 2021b). The study will utilize eight questions from the survey specifically determining the frequency of self-ham and suicide attempts, and the likely reasons for those thoughts and ideations (Georgia Department of Education, 2021b). See appendix A for the specific survey questions that will be utilized in this analysis.

The GSHS is considered to be a valid and reliable tool for assessing the climate of traditional public and charter schools. The GSHS plays a dual role by not only serving as a comprehensive tool for gathering information on various aspects of student well-being but also acting as a valuable data source for the School Climate Rating, as outlined by the guidelines established by the Georgia Department of Education (2022b). This dual functionality highlights the survey's significance in contributing to the broader evaluation of

the overall climate within educational institutions. The School Climate Rating, being informed by the data collected through the GSHS, is crucial for gauging the quality of the learning environment, student engagement, and the overall atmosphere within schools. By incorporating insights from the survey into the School Climate Rating, education authorities can gain a more nuanced understanding of the factors influencing the educational experience and well-being of students in Georgia.

Moreover, the credibility of the Georgia Student Health Survey is underscored by its widespread adoption in various research studies. Notable examples of GSHS's reliability include studies conducted by Greer et al. (2021), La Salle et al. (2017), and Rajbhandari-Thapa et al. (2022). These studies attest to the survey's reliability and validity as a research instrument. The consistent utilization of the GSHS in diverse research endeavors underscores its versatility and effectiveness in capturing valuable data for studies spanning different aspects of student health, well-being, and the overall educational climate. This collective body of research not only reinforces the survey's credibility but also contributes to the establishment of a robust foundation for evidence-based practices and policies in the field of education.

These demographic characteristics provide important information about the sample being studied and can help to identify potential biases or limitations in the study. For example, if the sample is not representative of the population being studied, the results may not be generalizable to the larger population. Overall, collecting demographic information is an important step in conducting research and can help to ensure that the results are valid and reliable.

Procedures

This non-experimental, quantitative correlative research design involved collecting

archival health survey data. All the required data for the Georgia Student Health Survey were obtained freely from the Georgia Department of Education domain. Once the data was acquired from the public domain, it was uploaded into the Statistical Package for Social Sciences (SPSS) software program for analysis.

This study aimed to examine the relationship between a predictor factor determining the frequency of suicidality and its impact on peer support, adult support, and school connectedness. The research sought to understand the significance of these variables and their potential effects on one another. Specifically, it explored how changes in the frequency of suicidality might influence the levels of peer support, adult support, and school connectedness among the participants.

Georgia Student Health Survey (GSHS)

The GSHS is an annual, anonymous, self-reported, internet-based survey mandated for all public school districts in Georgia and administered between November and February. Using a Georgia Department of Education provided internet portal, all surveys were completed at the high school under the supervision of a qualified educator. The data for this study utilized the FY2022 academic school year, incorporating self-reported data on the health status and lifestyle choices of Georgia school students (Georgia Department of Education, 2022b).

The Georgia Department of Education released the survey's data as open records on their public database. All surveys were completed anonymously and online using laptops or other electronic devices provided by the school. There was no personally identifiable information in the data that could be obtained from the Georgia Department of Education. Participants had the option to decline to take the survey before or during its administration. Each participant was required to respond to each question before continuing the survey through an internet portal used for survey administration (Georgia Department of Education, 2022b; Salle et al., 2018).

The state of Georgia implements a passive parental permission process for the Georgia Student Health Survey, providing parents the opportunity to decide whether or not their child would participate in the survey (Georgia Department of Education, 2022b). This process involved distributing a form to parents at the commencement of the school year, allowing them to express their preference regarding their child's involvement in the survey. If parents chose not to grant permission, their child would be excluded from participating.

In addition to parental control over participation, participants themselves were also given the option to decline to take the survey. This dual-layered approach to obtaining consent ensured a level of autonomy for both parents and individual students. By incorporating these voluntary aspects into the survey administration process, the state of Georgia aimed to uphold principles of informed consent and respect for the choices and preferences of both parents and students. This approach aligns with ethical standards in research and survey administration, emphasizing the importance of voluntary participation and respect for individual autonomy.

Data Analysis

In this study, Pearson r was employed to ascertain the relationship between suicidality, serving as the independent variable, and the dependent variables of peer support, adult support, and school connectedness. The research design incorporated a multivariate linear regression, using the frequency of suicidality as the independent variable and peer support, adult support, and school connectedness as the dependent variables.

During the collection of archival data, various potential issues may have surfaced. However, prior to conducting the final analyses, adjustments could be made to address any identified concerns. The research team took the initiative to scrutinize potential issues and assumptions, providing a comprehensive overview of these considerations to enhance transparency and rigor in the analytical process. This approach allowed for a proactive stance in refining the methodology and ensuring the validity of the study's findings.

Outliers

This study addressed the presence of outliers by considering various strategies such as elimination, reduction, or replacement with less extreme scores, a technique known as Winsorizing, as outlined by Warner (2021b). This approach allowed the research team to manage extreme values that could potentially influence the statistical outcomes.

While it is generally considered good practice to include information about outliers in the study, there was acknowledgment that outliers could be omitted if it became evident that the data had been entered incorrectly or if the outlier had no substantial impact on the study's outcomes. This recognition of flexibility in handling outliers reflected a pragmatic and context-sensitive approach to data analysis, emphasizing the importance of accurate and meaningful representation in statistical assessments.

Normality

This study implemented various strategies to mitigate the risk of a Type I error, which occurs when a statistical test incorrectly rejects a true null hypothesis (Warner, 2021a). This included reporting multiple correlations, with a careful restriction on the number of correlations provided. Additionally, the study incorporated the practice of repeating or cross-validating correlations. To further enhance the rigor of the analysis, the Bonferroni method, a statistical technique used to adjust significance levels in order to reduce the likelihood of false positives was applied, was applied as outlined by Warner (2021a). The implementation of the Bonferroni procedure was particularly highlighted as the most conservative measure in this context. While it

contributes to minimizing the likelihood of making a Type I error, it was also acknowledged that such a conservative approach might limit the ability to observe any serendipitous discoveries during the analysis process (Warner, 2021a). This nuanced approach to statistical analysis aimed to strike a balance between reducing errors and allowing for the exploration of unexpected findings, emphasizing a methodical and cautious handling of the data.

Homoscedasticity

In this study, attention was given to the assumption of homoscedasticity, which is deemed unsatisfied when the dependent variable exhibits uneven amounts of variation across the range of values for an independent variable. The crux of this assumption lies in the requirement for homoscedasticity of residuals, indicating equal error variances. To evaluate this assumption, a visual test was employed.

A careful examination of the plot of residual (error) variances was conducted to determine if the residuals displayed relative equality. This assessment involved scrutinizing the figure for a box shape, as recommended by Warner (2021a). The visual test aimed to provide insights into the uniformity of errors across the range of the independent variable, ensuring that the assumption of homoscedasticity was met. Addressing this assumption was crucial for maintaining the validity and reliability of the statistical analyses performed in the study.

Linearity

The linearity assumption was addressed in this study by asserting that the research variables or the variable of interest should exhibit a linear relationship. To ensure the fulfillment of this assumption, efforts were made to identify theoretically linear variables, maintaining the linearity of the relationship between them.

A key tool employed in this process was the scatter plot, recognized as one of the most

popular visual tests for linearity, as highlighted by Verma and Abdel-Salam (2019). The scatter plot provided a visual representation of the relationship between the variables, allowing for a direct observation of whether the data points formed a linear pattern. This approach was fundamental in assessing and confirming the linearity assumption, a crucial prerequisite for conducting valid statistical analyses in the study. The emphasis on maintaining linearity added a layer of precision to the research methodology, ensuring the appropriateness of the chosen statistical techniques for the data at hand.

Type I Error

Type I error, also known as a false positive, arises when a researcher rejects a null hypothesis that is, in fact, true. The delicate balance between minimizing the risk of Type I errors and the increased likelihood of Type II errors was acknowledged, indicating that altering one risk may impact the other, as discussed by Kaur and Stoltzfus (2017). In this study, the potential occurrence of Type I and Type II errors was a crucial consideration when reporting null hypothesis significance tests. Null hypothesis significance testing (NHST) was employed as a form of argumentation seeking to challenge a claim by assuming its truth and subsequently demonstrating that accepting this assumption leads to contradictory outcomes, as highlighted by Warner (2021a).

Commonly stemming from sample errors, Type I errors occur when the researcher incorrectly rejects the null hypothesis. The potential consequences of Type I errors were noted in the context of the study, with references to research by Emmert-Streib and Dehmer (2019) and Warner (2021a). The study took a thoughtful approach to managing these types of errors, recognizing the importance of maintaining a balance between the risks associated with Type I and Type II errors in the context of null hypothesis testing.

Chapter Four: Findings

Overview

The primary objective of this quantitative, correlational investigation is to examine the relationship between the occurrence of suicidal thoughts and behaviors and the levels of school connectedness, peer support, and adult support among students in Georgia's public high schools. Furthermore, the study aims to assess the internal consistency and reliability of four key domains—suicidality, peer support, adult support, and school connectedness—as outlined in the Georgia Student Health Survey (GSHS).

Research Questions

RQ1: Is there a relationship between school connectedness, peer support, and adult support as each relates to suicidality of public high school students in Georgia?

RQ2: What is the best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness?

RQ3: What is the internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health Survey?

Null Hypotheses

The null hypotheses for this study is:

Hypothesis $_{0}1$: There is no relationship between school connectedness, peer support, and adult support as each relates to suicidality of public high school students in Georgia.

Hypothesis $_{0}2$: There is no best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness.

Hypothesis ₀**3**: There is no internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health

Survey.

Descriptive Statistics

This study utilized data from 196,546 secondary student responses to the 2021-2022 Georgia Student Health Survey conducted in public schools across Georgia. The survey investigated the occurrence of suicidal thoughts and behaviors among secondary students in Georgia and to assess the influence of school connectedness, peer support, and adult support on their experiences. Demographic characteristics of participants are present in Table 1.

Demographic variables.

Demographic variables are presented in Table 1, providing descriptive data for grade level, gender, and ethnicity. This study comprised a total of 196,546 participants, distributed across grade levels as follows: 30.7% in 9th grade, 27.5% in 10th grade, 23.3% in 11th grade, and 18.5% in 12th grade. In terms of gender distribution, 48.8% of the sample identified as male, 47.6% as female, and 3.5% chose not to disclose their gender. The ethnic composition of the sample was diverse, with 35.7% identifying as Black or African American, 14.5% as Hispanic or Latino, 36.4% as White or Caucasian, 3.5% as Asian or Pacific Islander, 0.4% as Native American, 7.2% as Mixed Race, and 2.2% opting not to disclose their ethnicity.

Table 1

Demographic Characteristics

Participants	n	%	
Grade			
9 th	60,376	30.7	
10 th	53.995	27.5	
11 th	45,766	23.3	
12 th	36,409	18.5	
Gender			
Male	95,957	48.8	
Female	93,620	47.6	
Prefer not to answer	6,969	3.5	
Ethnicity			
Black or African American	70,214	35.7	
Hispanic or Latino	28,492	14.5	
White or Caucasian	71,614	36.4	
Asian or Pacific Islander	6,884	3.5	
Native American	880	0.4	
Mixed Race	14,225	7.2	
Prefer not to answer	4,237	2.2	

Results

Research Question One

The first hypothesis asks if there is a relationship between school connectedness, peer support, and adult support to suicidality of public high school students in Georgia. The null hypothesis asserts that there is no relationship between school connectedness, peer support, and adult support and the suicidality of public high school students in Georgia. To answer this research question, this study used multiple regression analysis. The first step in this process was to check the assumptions of normality, multicollinearity, heteroscedasticity, and linearity. Normality was explored using P-P plots, statistical graphs used to compare observed data with a theoretical distribution, often the normal distribution, and Suicidality was subjected to a log transformation to make the distribution closer to a normal shape. Multicollinearity, which refers to the high correlation between two or more independent variables in a regression model, was checked using VIF values, which were found to be 1.70 or less, suggesting no problems with multicollinearity.

Assumption tests. After checking the assumptions, the multiple regression analysis was conducted to examine the relationship between the three predictor variables (School Connection, Peer Support, and Adult Support) and the outcome variable (Suicidality). The process for arriving at the results of hypothesis one involved checking the assumptions of normality, multicollinearity, heteroscedasticity, and linearity, conducting a multiple regression analysis, and examining the regression coefficients, standardized regression coefficients, and squared semipartial correlations for each predictor variable. The results showed that greater School Connection, Peer Support, and Adult Support were all significantly negatively related to Suicidality.

Table 2 presents the Pearson correlation coefficients between Suicidality and three predictor variables: School Connectedness, Peer Support, and Adult Support. The correlation coefficients between Suicidality and each of the predictor variables are negative and statistically significant, indicating that higher levels of school connectedness, peer support, and adult support are associated with lower levels of suicidality. The correlation coefficient between Peer Support and Adult Support is 0.419, which indicated a moderate positive correlation between these variables. The largest correlation coefficient is between School Connectedness and Suicidality, which is -0.269, indicating a moderate negative correlation between these variables. These results suggest that fostering a sense of school connectedness among students is not only associated with lower rates of suicidality but is also a key contributor to overall mental health.

Table 2

Pearson Correlation between Suicidality and school connectedness, peer support, and adult support.

		Suicidality	School Connectedness	Peer Support	Adult Support
Suicidality	Pearson Correlation	1	269**	201**	199**
	Sig. (2-tailed)		.000	.000	.000
	N	196546	196546	196546	196546
School Connectedness	Pearson Correlation	269**	1	.592**	.474**
	Sig. (2-tailed)	.000		.000	.000
	N	196546	196546	196546	196546

		Suicidality	School Connectedness	Peer Support	Adult Support
Peer Support	Pearson Correlation	201**	.592**	1	.419**
	Sig. (2-tailed)	.000	.000		.000
	N	196546	196546	196546	196546
Adult Support	Pearson Correlation	199**	.474**	.419**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	196546	196546	196546	196546

** Correlation is significant at the 0.01 level (2-tailed).

Results from hypothesis one. The outcomes derived from hypothesis one provide substantial evidence supporting the notion that various interconnected elements play pivotal roles in mitigating suicidality among public high school students in Georgia. In essence, these findings underscore the significance of school connectedness, peer support, and adult support as crucial factors contributing to a reduction in suicidal tendencies within this demographic. The intricate relationship between these elements and their collective impact on mental well-being becomes evident when examining the data presented in Table 3. The correlation coefficient between School Connectedness and Suicidality is -0.27, which indicates a moderate negative correlation between these variables. The correlation coefficient between Peer Support and Suicidality is -.201, which indicates a moderate negative correlation between these variables, and the correlation coefficient between Adult Support and Suicidality is -. 199, which indicates a moderate negative correlation between these variables. The correlation coefficients between Suicidality and each of the predictor variables (School Connection, Peer Support, and Adult Support) are negative and statistically significant, indicating that higher levels of school connectedness, peer support, and adult support are associated with lower levels of suicidality.

The results of the analysis showed that greater School Connection, Peer Support, and Adult Support were all significantly negatively related to Suicidality in the full multiple regression model. The variables as a set explained 8.8% of the variance in Suicidality. Among the predictors, School Connection had the largest standardized regression coefficient and squared semi-partial correlation, indicating that it was the best of the three predictors.

The results suggest that fostering a sense of school connectedness among students is not only associated with lower rates of suicidality but is also a key contributor to overall mental health. Students who reported a stronger connection to their school environment exhibited a notable decrease in suicidal tendencies. This highlights the importance of creating a supportive and inclusive school atmosphere that fosters a sense of belonging and emotional well-being. The data indicates that the presence of robust peer support is linked to a decrease in suicidality among high school students. When students feel supported by their peers, they are more likely to experience positive mental health outcomes, including a reduced likelihood of engaging in suicidal thoughts or behaviors. This emphasizes the role of peer relationships in creating a protective buffer against the challenges that may contribute to mental health struggles. Additionally, adult support emerges as a significant protective factor against suicidality in high school students. Students who perceive a supportive environment from adults, whether it be from teachers, counselors, or other trusted figures, are less prone to suicidal tendencies. This emphasizes the crucial role that adult figures within the school community can play in promoting mental health and well-being among students.

The analysis of the data, as presented in Table 3, reinforces the interconnected nature of school connectedness, peer support, and adult support in influencing suicidality outcomes among public high school students in Georgia. These findings underscore the importance of

implementing strategies and interventions that enhance these supportive elements within the school environment to foster a mentally healthy and resilient student population.

Table 3

Means, Standard Deviations, and Correlations

Variable	М	SD	Range	1	2	3
1. Suicidality	0.79	1.94	0.00 - 9.75			
2. School Connectedness	9.04	2.19	3.25 - 13.0	27**		
3. Peer Support	7.41	1.56	2.33 - 9.33	20**	.59**	
4. Adult Support	6.93	1.82	2.33 - 9.33	20**	.47**	.42**

Note. M and *SD* are used to represent mean and standard deviation, respectively. * Indicates p < .05. ** indicates p < .01.

Research Question Two

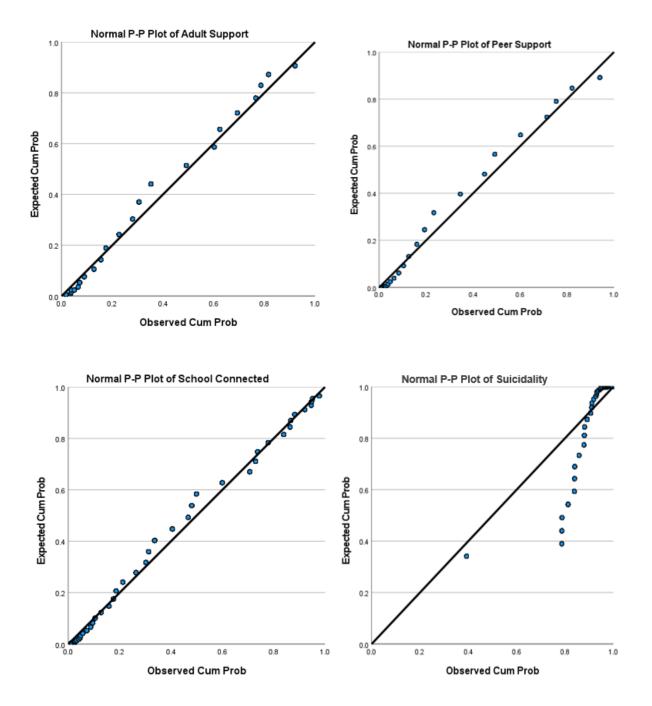
The second hypothesis asks what is the best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness? Null hypothesis two states there is no best predictor of suicidality of public high school students in Georgia: peer support, adult support, or school connectedness. The purpose is to rigorously test and analyze whether any of these factors stand out as a superior indicator in predicting the occurrence of suicidality within the specified context.

Assumption tests. To assess the normality assumption, normal probability plots presented Figure 1 were employed, assuming a linear relationship between the independent and dependent variables. Additionally, a probability-probability (P-P) plot was utilized to gauge the similarity between two distributions. Specifically, a P–P plot is a graphical technique that approximates a straight line when data are normally distributed, with deviations from this line indicating departures from normality (Mishra et al., 2019). It is essential to clarify that P-P plots are primarily utilized for testing the normality of errors, comparing error distribution to a normal distribution, rather than evaluating heteroscedasticity. Scatterplots served as a visual tool to assess the linearity of relationships between the independent and dependent variables.

The first step in this process was to check the assumptions of normality, multicollinearity, heteroscedasticity, and linearity. Normality was explored using P-P plots, and Suicidality was subjected to a log transformation to make the distribution closer to a normal shape. Multicollinearity was checked using the variance inflation factor (VIF) values, which were found to be 1.70 or less, suggesting no problems with multicollinearity. After checking the assumptions, the multiple regression analysis was conducted to examine the relationship between School Connectedness and Suicidality, while controlling for Peer Support and Adult Support. The results of the analysis were presented in Table 3, which shows the regression coefficients, standardized regression coefficients, and squared semi-partial correlations for each predictor variable.

Figure 1

Normal Probability Plots



Results from hypothesis two. This study aimed to identify the most significant predictor of suicidality among public high school students in Georgia, utilizing school connectedness, peer support, and adult support as independent variables and suicidality as the dependent variable. Multiple regression analysis was employed to assess the relationships between these variables. The results, presented in Table 4, revealed that greater levels of school connectedness, peer support, and adult support were all associated with lower levels of suicidality in the full multiple regression model. Together, these variables accounted for 8.8% of the variance in suicidality. However, among the predictors, school connectedness emerged as the strongest predictor, as indicated by its larger standardized regression coefficient and squared semi-partial correlation. This suggests that school connectedness is the most influential factor in mitigating suicidality among high school students in Georgia, highlighting the importance of fostering a sense of belonging and support within the school environment. The process for arriving at the results of research question two involved checking the assumptions of normality, multicollinearity, heteroscedasticity, and linearity, conducting a multiple regression analysis, and examining the regression coefficients, standardized regression coefficients, and squared semi-partial correlations for each predictor variable.

Table 4

Predictor	b	b^*	sr ²	
(Intercept)	0.52**			
School Connectedness	-0.03**	-0.22	.03	
Peer Support	-0.01**	-0.04	.00	
Adult Support	-0.01**	-0.09	.01	

Regression Results Using Suicidality as the Criterion

Note. $R^2 Model = .088^{**}A$ significant *b*-weight indicates the beta-weight and semi-partial

correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. Analyses use the log of suicidality as the criterion. * indicates p < .05. ** indicates p < .01.

Research Question Three

The third hypothesis aims to assess the internal consistency and reliability within the Georgia Student Health Survey concerning four specific domains: suicidality, peer support, adult support, and school connectedness. Null hypothesis three states there is no internal consistency and reliability for the four domains of suicidality, peer support, adult support, and school connectedness in the Georgia Student Health Survey. This investigation delves into the reliability of the survey instrument across these diverse areas, seeking to understand the degree to which the survey items within each domain consistently measure the intended constructs. The focus extends beyond merely identifying the reliability of individual domains; it involves a comprehensive analysis of how dependable and internally consistent the survey is across the board. By examining these aspects, this study seeks to enhance the overall trustworthiness and validity of the data collected through the Georgia Student Health Survey, providing a more robust foundation for drawing conclusions about the relationships and patterns within the domains of suicidality, peer support, adult support, and school connectedness.

Assumption tests. Considering the reliance on survey data in this study, it was necessary to assess the reliability of the measuring instruments and their consistency over time, as stressed by Sürücü and Maslakci (2020). To do so, a Cronbach Alpha test, widely used for this purpose, was employed. This test evaluates the consistency and stability of questionnaires, measuring each latent variable (Bujang et al., 2018). This analysis is a standard tool for research studies with numerous Likert questions, ensuring the scale's reliability.

The objective of this research question was to identify the best predictor of suicidality of public high school students in Georgia among the independent variables of school connectedness, peer support, and adult support. The statistical method used to analyze this relationship was multiple regression. The results showed that all three independent variables significantly predicted suicidality, with school connectedness having the strongest negative relationship with suicidality, followed by adult support and peer support. This suggests that school connectedness is the best predictor of suicidality among public high school students in Georgia, and interventions aimed at improving school connectedness may be particularly effective in reducing suicidality among high school students. The SPSS output tables to interpret for this research question include the multiple regression output table, which provides information on the coefficients, standard errors, and significance levels of each independent variable, as well as the overall model fit statistics.

Results from hypothesis three. The internal consistency and reliability of the four domains measured in the Georgia Student Health Survey, including school connectedness, peer support, adult support, and suicidality, were assessed using Cronbach's alpha. The reliability output indicated that school connectedness had a Cronbach's alpha of .76, peer support had .66, adult support had .88, and suicidality had .86. These values suggest that all four domains demonstrated adequate reliability. Specifically, school connectedness and suicidality showed moderately reliable internal consistency, while adult support exhibited very high internal consistency. Peer support, although slightly lower, still indicated acceptable reliability. Overall, these results indicate that the survey items within each domain were internally consistent and reliable measures of their respective constructs. Internal consistency is an important measure of the reliability of a scale or questionnaire. In this report, Cronbach's alpha was used to assess the internal consistency of four domains: school connectedness, peer support, adult support, and suicidality. The results showed that all four domains demonstrated adequate reliability. Specifically, school connectedness had an alpha coefficient of .76, peer support had an alpha coefficient of .66, adult support had an alpha coefficient of .88, and suicidality had an alpha coefficient of .86. These coefficients indicate that the items within each domain were highly correlated with each other, suggesting that they were measuring the same underlying construct. In other words, the items were consistent with each other and provided a reliable measure of the domain they were intended to assess. These findings suggest that the scales used in this study were internally consistent and can be used with confidence to assess the constructs of interest. Overall, assessing internal consistency is an important step in ensuring the validity and reliability of a scale or questionnaire, and the results of this study suggest that the scales used were reliable measures of the constructs they were intended to assess.

Chapter Five: Conclusion

Overview

The Georgia Student Health Survey (GSHS) is an important tool for assessing the mental health of Georgia public school students. The purpose of this study was to explore the relationship between school connectedness, peer support, adult support, and suicidality among Georgia public high school students using data from the GSHS. This study found that school connectedness, peer support, and adult support were all negatively correlated with suicidality among Georgia public high school students. However, school connectedness was the strongest predictor of suicidality, followed by peer support and adult support. These results indicate that fostering school connectedness and social support among students could serve as an effective approach to mitigate the risk of suicide among high school students in Georgia.

Discussion

The purpose of this study is to ascertain the association between the incidence of suicidal thoughts and behaviors and the degrees of school connectedness, peer support, and adult support among students in Georgia's public high schools. Additionally, this study seeks to evaluate the internal consistency and reliability of four key domains: suicidality, peer support, adult support, and school connectedness, as delineated within the Georgia Student Health Survey (GSHS).

The first hypothesis of this study posited that there exists a relationship between school connectedness, peer support, adult support, and suicidality among Georgia public high school students. The study aimed to explore the nature of this relationship and further investigate which of these factors serves as the most robust predictor of suicidality. The findings of the study support the hypothesis, revealing a negative correlation between school connectedness, peer support, adult support, and suicidality among Georgia public high school students. This outcome

aligns with established research, emphasizing that social support and connectedness function as protective factors against suicide in adolescents. For instance, Wyman et al. (2010) demonstrated in their study that school connectedness played a pivotal role as a protective factor against suicidal ideation and behavior in high school students. Likewise, King et al. (2015) reported in their research that social support from both peers and adults correlated with reduced levels of suicidal ideation among adolescents.

The second hypothesis addressed in the study aimed to determine which of these factors stands out as the most effective predictor of suicidality among Georgia public high school students. The results contribute to the understanding of this hypothesis, shedding light on the relative significance of school connectedness, peer support, and adult support in predicting suicidality within this demographic. As mentioned above, school connectedness was found to be the strongest predictor of suicidality among Georgia public high school students, followed by peer support and adult support. This finding is consistent with previous research that has shown that school connectedness is a key protective factor against suicide among adolescents.

The outcomes of the regression analysis, focusing on suicidality as the criterion for hypothesis three, revealed noteworthy relationships. Specifically, heightened levels of school connectedness, peer support, and adult support were associated with lower levels of suicidality within the comprehensive multiple regression model. When collectively considered, these variables explained 8.8% of the observed variance in suicidality. Among these predictors, school connectedness emerged as the most impactful, evident in its possession of the largest standardized regression coefficient and squared semi-partial correlation. This highlights the significance of school connectedness as the most influential predictor among the three variables in the context of suicidality.

Implications

The findings of this study have important implications for suicide prevention efforts in Georgia schools. Specifically, the study suggests that interventions aimed at promoting school connectedness and social support among students may be effective in preventing suicide among Georgia public high school students. This could include interventions such as peer mentoring programs, after-school clubs, and counseling services that promote positive relationships between students and adults in the school community. Additionally, the study highlights the importance of addressing social isolation and promoting positive social relationships among adolescents as a key strategy for preventing suicide.

In the context of suicide prevention for Georgia public high school students, school counselors play a crucial role that can be enhanced through various strategies. Firstly, they should prioritize early identification of at-risk individuals by improving their training in recognizing warning signs and risk factors. Building trusting relationships with students is key, creating a safe space for them to discuss mental health concerns. Promoting school connectedness during adolescence has proven to have lasting protective effects on mental health, violence, sexual behavior, and substance use (Steiner et al., 2019). To achieve this, school counselors may collaborate with teachers to integrate mental health education into the curriculum, equipping students with coping strategies. School counselors can take the lead in preventing suicide by conducting gatekeeper trainings for staff and implementing prevention programs. These trainings educate staff, faculty, or students on what to do if they suspect a student may be at risk for suicidal thoughts or behavior. Establishing criteria for assessing the severity of a student's risk can aid in preventing future suicide attempts and ensuring that students receive the necessary mental health support (Gallo, 2017). At the institutional level,

schools should establish clear protocols for responding to mental health crises and ensure students have easy access to resources. Teachers, as frontline observers, can undergo training to recognize signs of distress, while community counselors within schools should coordinate closely with school counselors to offer targeted interventions and ensure a continuum of care.

A comprehensive approach to supporting students involves several key components that contribute to a conducive learning environment. The first step is to establish a supportive school culture, which includes mental health education as an integral part of the curriculum. Collaboration among various stakeholders is crucial for the success of this approach. Importantly, involving families is a critical aspect. When school-based providers collaborate with families, it opens up opportunities to facilitate a cooperative partnership between students and their families. This collaborative effort includes outlining recommended actions, assisting families in connecting to necessary care, and addressing issues related to behavior, discipline, or academics (O'Neill et al., 2021). Recognize that these collaborative meetings may serve as the initial introduction of parents and students within the school setting. During these interactions, school-based providers should emphasize the importance of collaboration, offer support, encourage seeking help, and address concerns while dispelling any misconceptions that the student is in trouble or has done something wrong.

Limitations

The present study has several limitations that threaten both internal and external validity. The study relied on self-reported data from the GSHS which may be subject to response bias and social desirability bias. Participants may have underreported or over reported their experiences with suicidal thoughts and behaviors or their levels of school connectedness, peer support, and adult support. This could potentially impact the study by leading to inaccurate or incomplete data, which could affect the validity of the results. To limit this threat, the study could have used multiple sources of data, such as interviews or observations, to triangulate the findings.

Another limitation to this study, is that the study was limited to Georgia public high school students and may not be generalizable to other populations or settings. The findings may not be applicable to students in private schools, students in other states or countries, or students in different age groups. This could limit the external validity of the study and make it difficult to generalize the findings to other populations. To address this limitation, future research could replicate the study in other settings and with other populations to determine whether the findings are consistent across different contexts.

Additionally, the study was cross-sectional in nature and therefore cannot establish causality between the variables of interest. Longitudinal studies would be needed to determine whether changes in school connectedness, peer support, and adult support over time are associated with changes in suicidality. This could limit the internal validity of the study by making it difficult to determine whether the predictors are causing the outcome or whether other factors are involved. To address this limitation, future research could use experimental or quasiexperimental designs to establish causality.

Recommendations for Future Research

Nevertheless, this study is subject to various limitations that pose risks to both internal and external validity. One limitation is that this study relied on self-reported data from the Georgia Student Health Survey (GSHS), which may be subject to response bias and social desirability bias. This could potentially impact the study by leading to inaccurate or incomplete data, which could affect the validity of the results. In order to mitigate this concern, a future study could utilize various data sources like interviews or observations to validate the findings. Additionally, focusing solely on Georgia public high school students restricts the study's generalizability to other populations or settings, including private schools, different states or countries, or varying age groups. This could limit the external validity of the study and make it difficult to generalize the findings to other populations. To address this limitation, future research could replicate the study in other settings and with other populations to determine whether the findings are consistent across different contexts. Finally, the study did not control for potential confounding variables, such as socioeconomic status, race/ethnicity, and gender. These variables may be associated with both the predictors and the outcome of interest and could therefore influence the results of the study. This could limit the internal validity of the study by making it difficult to determine whether the predictors are truly associated with the outcome or whether other factors are involved. To address this limitation, future research could use statistical techniques such as regression analysis to control for potential confounding variables.

Summary

This study provides important insights into the relationship between school connectedness, peer support, adult support, and suicidality among Georgia public high school students. The results indicate a potential correlation, emphasizing the importance of fostering school connectedness and social support as viable strategies for suicide prevention within this demographic. Nevertheless, it is imperative to conduct additional research to delve deeper into the effectiveness of specific interventions and to establish a causal relationship between the identified variables. Further exploration in these areas will enhance our understanding and inform targeted interventions for the well-being of high school students.

References

- Abrutyn, S., & Mueller, A. S. (2018). Toward a cultural-structural theory of suicide: Examining excessive regulation and its discontents. *Sociological Theory*, 36(1), 48-66. https://doi.org/10.1177/0735275118759150
- Ahadi, B., Lotfi, M., & Moradi, F. (2018). Relationship between positive and negative affect and depression: The mediating role of rumination. *Practice in Clinical Psychology*, 6(3), 191-196. <u>http://jpcp.uswr.ac.ir/article-1-557-en.html</u>
- Akbari, A., & Tizdast, T. (2017). The relationship between integrative self-knowledge, mindfulness, defense mechanism with the possibility of suicide among students. *Journal of Applied Psychology & Behavioral Science*, 2(4), 196-202.
 http://japbs.com/fulltext/paper-06012019101608.pdf
- Alexander, B. A., & Harris, H. (2020). Public school preparedness for school shootings: A phenomenological overview of school staff perspectives. *School Mental Health: A Multidisciplinary Research and Practice Journal*, 12(3), 595–609.

https://doi.org/10.1007/s12310-020-09369-8

- American Psychological Association [APA]. (2019). *How to cope with traumatic stress*. <u>http://www.apa.org/topics/trauma/stress</u>.
- Andriessen, K., Krysinska, K., Rickwood, D., & Pirkis, J. (2020). "It changes your orbit": The impact of suicide and traumatic death on adolescents as experienced by adolescents and parents. *International Journal of Environmental Research and Public Health*, 17(24), Article 9356. <u>https://doi.org/10.3390/ijerph17249356</u>
- Areba, E. M., Taliaferro, L. A., Forster, M., McMorris, B. J., Mathiason, M. A., & Eisenberg, M.E. (2021). Adverse childhood experiences and suicidality: School connectedness as a

protective factor for ethnic minority adolescents. *Children and Youth Services Review*, *120*, Article 105637. <u>https://doi.org/10.1016/j.childyouth.2020.105637</u>

Ati, N. A., Paraswati, M. D., & Windarwati, H. D. (2021). What are the risk factors and protective factors of suicidal behavior in adolescents? A systematic review. *Journal of Child and Adolescent Psychiatric Nursing*, 34(1), 7-18.

https://doi.org/10.1111/jcap.12295

- Bach, S. D. L., Molina, M. A. L., Jansen, K., da Silva, R. A., & Souza, L. D. D. M. (2018).
 Suicide risk and childhood trauma in individuals diagnosed with posttraumatic stress disorder. *Trends in Psychiatry and Psychotherapy*, 40, 253-257.
 https://doi.org/10.1590/2237-6089-2017-0101
- Bahk, Y. C., Jang, S. K., Choi, K. H., & Lee, S. H. (2017). The Relationship between Childhood Trauma and Suicidal Ideation: Role of Maltreatment and Potential Mediators. *Psychiatry investigation*, 14(1), 37–43. <u>https://doi.org/10.4306/pi.2017.14.1.37</u>
- Becnel, A. T., Range, L., & Remley Jr, T. P. (2021). School counselors' exposure to student suicide, suicide assessment self-efficacy, and workplace anxiety: Implications for training, practice, and research. *The Professional Counselor*, *11*(3), 327-339. https://doi.org/10.15241/atb.11.3.327
- Bilsen J. (2018). Suicide and youth: Risk factors. *Frontiers in Psychiatry*, 9, 540. <u>https://doi.org/10.3389/fpsyt.2018.00540</u>
- Blum, R. W. (2005). A case for school connectedness. *Educational Leadership*, 62(7), 16-20. <u>https://docest.com/a-case-for-school-connectedness</u>
- Borowsky, I. W., Ireland, M., & Resnick, M. D. (2001). Adolescent suicide attempts: Risks and protectors. *Pediatrics*, *107*(3), 485-493. <u>https://doi.org/10.1542/peds.107.3.485</u>

- Brann, K. L., Baker, D., Smith-Millman, M. K., Watt, S. J., & DiOrio, C. (2021). A metaanalysis of suicide prevention programs for school-aged youth. *Children and Youth Services Review*, 121, Article 105826. <u>https://doi.org/10.1016/j.childyouth.2020.105826</u>
- Breet, E., Matooane, M., Tomlinson, M., & Bantjes, J. (2021). Systematic review and narrative synthesis of suicide prevention in high-schools and universities: a research agenda for evidence-based practice. *BMC Public Health*, 21(1), 1–21.

https://doi.org/10.1186/s12889-021-11124-w

- Breux, P., & Boccio, D. E. (2019). Improving schools' readiness for involvement in suicide prevention: An evaluation of the creating suicide safety in schools (CSSS) workshop. *International Journal of Environmental Research and Public Health*, *16*(12), Article 2165. <u>https://doi.org/10.3390/ijerph16122165</u>
- Briere, J. & Scott, C. (2015). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment* (2nd ed.). Sage Publications.
- Brister, T. (2018). Navigating a Mental Health Crisis: A NAMI resource guide for those experiencing a mental health emergency. *National Alliance on Mental Illness*, 1-25. <u>https://www.nami.org/Support-Education/Publications-Reports/Guides/Navigating-a-Mental-Health-Crisis/Navigating-A-Mental-Health-Crisis</u>
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W.
 Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 993–1028). John Wiley & Sons Inc.
- Bruce, N., Pope, D., & Stanistreet, D. (2018). *Quantitative methods for health research: A practical interactive guide to epidemiology and statistics* (Second ed.). Wiley.

Bujang, M. A., Omar, E. D., & Baharum, N. A. (2018). A Review on Sample Size Determination

for Cronbach's Alpha Test: A Simple Guide for Researchers. *The Malaysian Journal of Medical Sciences*, 25(6), 85–99. <u>https://doi.org/10.21315/mjms2018.25.6.9</u>

Carballo, J. J., Llorente, C., Kehrmann, L., Flamarique, I., Zuddas, A., Purper-Ouakil, D., Hoekstra, P., Coghill, D., Schulze, U., Dittmann, R., Buitlaar, J., Castro-Fornieles, J., Lievesley, K, Santosh, P., & Arango, C. (2020). Psychosocial risk factors for suicidality in children and adolescents. *European Child & Adolescent Psychiatry*, 29, 759-776. https://doi.org/10.1007/s00787-018-01270-9

Castellví, P., Miranda-Mendizábal, A., Alayo, I., Parés-Badell, O., Almenara, J., Alonso, I.,
Blasco, M. J., Cebrià, A., Gabilondo, A., Gili, M., Lagares, C., Piqueras, J. A., Roca, M.,
Rodríguez-Marín, J., Rodríguez-Jimenez, T., Soto-Sanz, V., & Alonso, J. (2020).
Assessing the relationship between school failure and suicidal behavior in adolescents
and young adults: A systematic review and meta-analysis of longitudinal studies. *School Mental Health*, *12*(3), 429-441. <u>https://doi.org/10.1007/s12310-020-09363-0</u>

Centers for Disease Control and Prevention. (2021). Adolescent Health.

https://www.cdc.gov/nchs/fastats/adolescent-health.htm.

Centers for Disease Control and Prevention. (2023a). *Disparities in suicide*.

https://www.cdc.gov/suicide/facts/disparities-in-suicide.html

Centers for Disease Control and Prevention. (2023b). Preventing Suicide.

https://www.cdc.gov/suicide/pdf/NCIPC-Suicide-FactSheet-508_FINAL.pdf

Cha, C. B., Franz, P. J., M Guzmán, E., Glenn, C. R., Kleiman, E. M., & Nock, M. K. (2018). Annual Research Review: Suicide among youth - epidemiology, (potential) etiology, and treatment. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 59*(4), 460–482. <u>https://doi.org/10.1111/jcpp.12831</u>

- Chu, J. A. (2011). *Rebuilding shattered lives: Treating complex PTSD and dissociative disorders*. John Wiley & Sons.
- Chung, S., Hovmand, P., McBride, A. M., & Joiner, T. (2022). Suicide attempts during adolescence: Testing the system dynamics of the interpersonal theory of suicide. *Journal* of Adolescence, 94(4), 628-641. <u>https://doi.org/10.1002/jad.12051</u>
- Clements, P., Cooper, G., & Holt K. (2011). A review and application of suicide prevention programs in high school settings. *Issues in Mental Health Nursing*, 32(11), 696-702. <u>https://doi.org/10.3109/01612840.2011.597911</u>
- Cohen, J. A., & Mannarino, A. P. (2011). Supporting children with traumatic grief: What educators need to know. *School Psychology International*, 32(2), 117–131. <u>https://doi.org/10.1177/0143034311400827</u>
- Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180-213. <u>https://doi.org/10.1177/016146810911100108</u>
- Creswell, J. (2002). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.
- Decker, M. R., Wilcox, H. C., Holliday, C. N., & Webster, D. W. (2018). An integrated public health approach to interpersonal violence and suicide prevention and response. *Public Health Reports*, 133(1S), 65S-79S. <u>https://doi.org/10.1177/0033354918800019</u>
- Di Blas, L., Borella, M., & Ferrante, D. (2021). Short-term effects of fluctuations in self-esteem, perceived stress and loneliness on depressive states. *Psihologijske Teme*, 30(1), 99-114. <u>https://doi.org/10.31820/pt.30.1.5</u>

Durkheim, E. (2005). Suicide: A study in sociology. Routledge.

Durkheim, E., & Simpson, G. (1951). *Suicide, a study in sociology*. Free Press. https://doi.org/10.4324/9780203994320

- Eisenberg, M. E., Ackard, D. M., & Resnick, M. D. (2007). Protective factors and suicide risk in adolescents with a history of sexual abuse. *The Journal of Pediatrics*, 151(5), 482-487. <u>https://doi.org/10.1016/j.jpeds.2007.04.033</u>
- El Zaatari, W., & Maalouf, I. (2022). How the Bronfenbrenner Bio-ecological System Theory
 Explains the Development of Students' Sense of Belonging to School?. SAGE Open,
 12(4), Article 21582440221134089. <u>https://doi.org/10.1177/21582440221134089</u>
- Emmert-Streib, F., & Dehmer, M. (2019). Understanding statistical hypothesis testing: The logic of statistical inference. *Machine Learning and Knowledge Extraction*, 1(3), 945-961. <u>https://www.mdpi.com/2504-4990/1/3/54</u>
- Erbacher, T. A., Singer, J. B., & Poland, S. (2015). Suicide in schools: A practitioner's guide to multi-level prevention, assessment, intervention, and postvention. Routledge, Taylor & Francis Group. <u>https://doi.org/10.4324/9780203702970</u>
- Espelage, D. L., Boyd, R. C., Renshaw, T. L., & Jimerson, S. R. (2022). Addressing youth suicide through school-based prevention and postvention: Contemporary scholarship advancing science, practice, and policy. *School Psychology Review*, 51(3), 257-265. <u>https://doi.org/10.1080/2372966X.2022.2069958</u>
- Flores, J. P., Swartz, K. L., Stuart, E. A., & Wilcox, H. C. (2020). Co-occurring risk factors among US high school students at risk for suicidal thoughts and behaviors. *Journal of Affective Disorders*, 266, 743-752. <u>https://doi.org/10.1016/j.jad.2020.01.177</u>
- Fonseca-Pedrero, E., Al-Halabí, S., Pérez-Albéniz, A., & Debbané, M. (2022). Risk and protective factors in adolescent suicidal behaviour: A network analysis. *International*

Journal of Environmental Research and Public Health, 19(3), Article 1784.

https://doi.org/10.3390/ijerph19031784

- Forster, M., Grigsby, T. J., Gower, A. L., Mehus, C. J., & McMorris, B. J. (2020). The role of social support in the association between childhood adversity and adolescent self-injury and suicide: Findings from a statewide sample of high school students. *Journal of Youth* and Adolescence, 49, 1195-1208. <u>https://doi.org/10.1007/s10964-020-01235-9</u>
- Freud, S., Strachey, J., Freud, A., & Rothgeb, C. L. (1953). The standard edition of the complete psychological works of Sigmund Freud. Hogarth Press and the Institute of Psycho-Analysis.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction*. Pearson Education.
- Gallo, L. L. (2017). Professional issues in school counseling and suicide prevention. *Journal Of School Counseling*, 15(11), n11. <u>https://files.eric.ed.gov/fulltext/EJ1151461.pdf</u>
- Gase, L. N., Gomez, L. M., Kuo, T., Glenn, B. A., Inkelas, M., & Ponce, N. A. (2017).
 Relationships among student, staff, and administrative measures of school climate and student health and academic outcomes. *The Journal of School Health*, 87(5), 319-328.
 https://doi.org/10.1111/josh.12501

ents/Redesigned%20CCRPI%20Overview%20011918.pdf

Georgia Department of Education. (2021). Georgia Student Health Survey (Grades 6-12).

https://www.gadoe.org/wholechild/Documents/GSHS%20questions_FY22.pdf?csf=1&e=

Georgia Department of Education. (2018). *Redesigned College and Career Ready Performance Index*. <u>https://www.gadoe.org/Curriculum-Instruction-and-</u> <u>Assessment/Accountability/Documents/Resdesigned%20CCRPI%20Support%20Docum</u>

<u>ghjAIm</u>

Georgia Department of Education. (2022a). *College and career ready performance index*. <u>https://www.gadoe.org/CCRPI/Pages/default.aspx</u>

Georgia Department of Education. (2022b). Georgia student health survey.

https://www.gadoe.org/wholechild/GSHS-II/Pages/Georgia-Student-Health-Survey-II.aspx

Georgia Department of Education. (2022c). *Georgia student health survey dashboard: Middle/high school.* <u>https://www.gadoe.org/wholechild/Pages/GSHS-Reports.aspx</u>

Georgia Department of Education. (2023). School climate star rating.

https://www.gadoe.org/wholechild/Pages/School-Climate-Star-Rating.aspx

- Granello, P. & Zyromski, B. (2018). Developing a comprehensive school suicide prevention program. *Professional School Counseling*. <u>https://doi.org/10.1177/2156759X18808128</u>
- Granziera, H., Liem, G. A. D., Chong, W. H., Martin, A. J., Collie, R. J., Bishop, M., & Tynan, L. (2022). The role of teachers' instrumental and emotional support in students' academic buoyancy, engagement, and academic skills: A study of high school and elementary school students in different national contexts. *Learning and Instruction*, 80, Article 101619. https://doi.org/10.1016/j.learninstruc.2022.101619
- Greer, J., Thapa, K., McNulty, J., & Thapa, J. R. (2021). Parental school involvement on physical activity and screen time among middle and high school students. *Journal of the Georgia Public Health Association*, 8(3), 3. <u>https://doi.org/10.1177/1179173X221101786</u>
- Hackett, P. (2019). *Quantitative research methods in consumer psychology: Contemporary and data driven approaches* (1st ed.). Routledge. https://doi.org/10.4324/9781315641577

Hall, M., Fullerton, L., FitzGerald, C., & Green, D. (2018). Suicide risk and resiliency factors

among Hispanic teens in New Mexico: Schools can make a difference. *Journal of School Health*, 88(3), 227-236. <u>https://doi.org/10.1111/josh.12599</u>

- Harmer, B., Lee, S., Duong, T. V. H., & Saadabadi, A. (2023). Suicidal Ideation. In *StatPearls*. StatPearls Publishing.
- Heppner, P. P., Wampold, B. E., Owen, J., & Wang, K. T. (2015). Research design in counseling. Cengage Learning.

Hong, J. S., & Eamon, M. K. (2012). Students' Perceptions of Unsafe Schools: An Ecological Systems Analysis. *Journal of Child and Family Studies*, 21(3), 428-438. https://doi.org/10.1007/s10826-011-9494-8

Joiner, T. E. (2005). Why people die by suicide. Harvard University Press.

Joiner, T. E. (2009). Suicide prevention in schools as viewed through the interpersonalpsychological theory of suicidal behavior. *School Psychology Review*, *38*(2), 244-248. http://dx.doi.org/10.1080/02796015.2009.12087806

Juul, E. M. L., Hjemdal, O., & Aune, T. (2021). Prevalence of depressive symptoms among older children and young adolescents: a longitudinal population-based study. *Scandinavian Journal of Child and Adolescent Psychiatry and Psychology*, 9, 64–72. https://doi.org/10.21307/sjcapp-2021-008

Kalin, N. H. (2021). Anxiety, depression, and suicide in youth. *American Journal of Psychiatry*, 178(4), 275-279. <u>https://doi.org/10.1176/appi.ajp.2020.21020186</u>

Kaur, P., & Stoltzfus, J. (2017). Type I, II, and III statistical errors: A brief overview. *International Journal of Academic Medicine*, 3(2), 268-270. <u>https://www.ijam-</u>web.org/temp/IntJAcadMed32268-6129943_170139.pdf

Kodish, T., Kim, J. J., Le, K., Yu, S. H., Bear, L., & Lau, A. S. (2020). Multiple stakeholder

perspectives on school-based responses to student suicide risk in a diverse public school district. *School Mental Health*, *12*(2), 336-352.

https://psycnet.apa.org/doi/10.1007/s12310-019-09354-w

- Kohl, D., Recchia, S., & Steffgen, G. (2013). Measuring school climate: An overview of measurement scales. *Educational Research*, 55(4), 411-426. https://doi.org/10.1080/00131881.2013.844944
- Kreuze, E., Stecker, T., & Ruggiero, K. J. (2018). State requirements for school personnel suicide prevention training: Where do we go from here? *Adolescent Research Review*, 3(2), 235-253. <u>https://doi.org/10.1007/s40894-017-0057-0</u>
- La Guardia, A. C., Cramer, R. J., Brubaker, M., & Long, M. M. (2019). Community mental health provider responses to a competency-based training in suicide risk assessment and prevention. *Community Mental Health Journal*, 55(2), 257-266. https://doi.org/10.1007/s10597-018-0314-0
- La Salle, T. P., Wang, C., Parris, L., & Brown, J. A. (2017). Associations between school climate, suicidal thoughts, and behaviors and ethnicity among middle school students. *Psychology in the Schools*, 54(10), 1294-1301. https://doi.org/10.1002/pits.22078
- Lai, B., Osborne, M., Lee, N., Self-Brown, S., Esnard, A., & Kelley, M. (2018). Traumainformed schools: Child disaster exposure, community violence and somatic symptoms. *Journal of Affective Disorders*, 238, 586-592. <u>https://doi.org/10.1016/j.jad.2018.05.062</u>
- Lee, E. E., Depp, C., Palmer, B. W., Glorioso, D., Daly, R., Liu, J., Tu, X. M., Kim, H., Tarr, P., Yamada, Y., & Jeste, D. V. (2019). High prevalence and adverse health effects of loneliness in community-dwelling adults across the lifespan: Role of wisdom as a protective factor. *International Psychogeriatrics*, *31*(10), 1447-1462.

https://doi.org/10.1017/S1041610218002120

- Lester, L., & Cross, D. (2015). The relationship between school climate and mental and emotional wellbeing over the transition from primary to secondary school. *Psychology of Well-being*, 5, 1-15. <u>https://doi.org/10.1186/s13612-015-0037-8</u>
- Levers, L. (2012). *Trauma counseling: Theories and interventions*. New York: Springer Publishing Company.
- Libon, J., Alganion, J., & Hilario, C. (2023). Youth perspectives on barriers and opportunities for the development of a peer support model to promote mental health and prevent suicide.
 Western Journal of Nursing Research, 45(3), 208-214.

https://doi.org/10.1177/01939459221115695

- Madjar, N., Sarel-Mahlev, E., & Brunstein Klomek, A. (2021). Depression symptoms as mediator between adolescents' sense of loneliness at school and nonsuicidal self-injury behaviors. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 42(2), 144. <u>https://doi.org/10.1027/0227-5910/a000702</u>
- Madjar, N., Walsh, S. D., & Harel-Fisch, Y. (2018). Suicidal ideation and behaviors within the school context: Perceived teacher, peer and parental support. *Psychiatry Research*, 269, 185-190. <u>https://doi.org/10.1016/j.psychres.2018.08.045</u>
- Marraccini, M. E., & Brier, Z. M. F. (2017). School connectedness and suicidal thoughts and behaviors: A systematic meta-analysis. *School Psychology Quarterly*, 32(1), 5–21. <u>https://doi.org/10.1037/spq0000192</u>
- Marraccini, M. E., Griffin, D., O'Neill, J. C., Martinez Jr, R. R., Chin, A. J., Toole, E. N., Grapin, S. L., & Naser, S. C. (2022). School risk and protective factors of suicide: A cultural model of suicide risk and protective factors in schools. *School psychology*

review, 51(3), 266-289. https://doi.org/10.1080/2372966X.2020.1871305

McClelland, H., Evans, J. J., Nowland, R., Ferguson, E., & O'Connor, R. C. (2020). Loneliness as a predictor of suicidal ideation and behaviour: A systematic review and meta-analysis of prospective studies. *Journal of Affective Disorders*, 274, 880-896. https://doi.org/10.1016/j.jad.2020.05.004

- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *The Journal of School Health*, 72(4), 138–146. <u>https://doi.org/10.1111/j.1746-1561.2002.tb06533.x</u>
- McQuaid, R. J., Cox, S. M., Ogunlana, A., & Jaworska, N. (2021). The burden of loneliness:
 Implications of the social determinants of health during COVID-19. *Psychiatry Research*, 296, Article 113648. <u>https://doi.org/10.1016/j.psychres.2020.113648</u>
- Mishara, B. L., & Stijelja, S. (2020). Trends in US suicide deaths, 1999 to 2017, in the context of suicide prevention legislation. *JAMA Pediatrics*, 174(5), 499-500. <u>https://doi.org/10.1001/jamapediatrics.2019.6066</u>
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67–72. <u>https://doi.org/10.4103/aca.ACA_157_18</u>
- Mo, P. K., Ko, T. T., & Xin, M. Q. (2018). School-based gatekeeper training programmes in enhancing gatekeepers' cognitions and behaviours for adolescent suicide prevention: A systematic review. *Child and Adolescent Psychiatry and Mental Health*, *12*(1), 1-24. <u>https://doi.org/10.1186/s13034-018-0233-4</u>
- Moeller, R. W., & Seehuus, M. (2019). Loneliness as a mediator for college students' social skills and experiences of depression and anxiety. *Journal of Adolescence*, *73*, 1-13.

https://doi.org/10.1016/j.adolescence.2019.03.006

- Mucherah, W., Finch, H., White, T., & Thomas, K. (2018). The relationship of school climate, teacher defending and friends on students' perceptions of bullying in high school.
 Journal of Adolescence, 62, 128-139. <u>https://doi.org/10.1016/j.adolescence.2017.11.012</u>
- Mueller, A. S., & Abrutyn, S. (2016). Adolescents under pressure: A new Durkheimian framework for understanding adolescent suicide in a cohesive community. American Sociological Review, 81(5), 877–899. <u>https://doi.org/10.1177/0003122416663464</u>
- Mueller, A. S., Diefendorf, S., Abrutyn, S., Beardall, K. A., Gallagher, R., Liang, Y., Jackson, J., Liang, Y., Steinberg, H., Watkins, J., & Worton, H. (2021). Strategies to Prevent Suicide in Schools and Communities. <u>https://doi.org/10.31235/osf.io/znrgj</u>
- Nanayakkara, S., Misch, D., Chang, L., & Henry, D. (2013). Depression and exposure to suicide predict suicide attempt. *Depression & Anxiety 30*(10), 991-996. https://doi.org/10.1002/da.22143
- Nielsen, L., Shaw, T., Meilstrup, C., Koushede, V., Bendtsen, P., Rasmussen, M., Lester, L., Due, P., & Cross, D. (2017). School transition and mental health among adolescents: A comparative study of school systems in Denmark and Australia. *International Journal of Educational Research*, 83, 65–74. <u>http://dx.doi.org/10.1016/j.ijer.2017.01.011</u>
- O'Neill, J. C., Goldston, D. B., Kodish, T., Yu, S. H., Lau, A. S., & Asarnow, J. R. (2021). Implementing trauma informed suicide prevention care in schools: Responding to acute suicide risk. *Evidence-Based Practice in Child and Adolescent Mental Health*, 6(3), 379-392. https://doi.org/10.1080/23794925.2021.1917019
- Orozco, R., Benjet, C., Borges, G., Moneta Arce, M. F., Fregoso Ito, D., Fleiz, C., & Villatoro, J. A. (2018). Association between attempted suicide and academic performance indicators

among middle and high school students in Mexico: Results from a national survey. *Child* and Adolescent Psychiatry and Mental Health, 12(1), 1-10.

https://doi.org/10.1186/s13034-018-0215-6

- Park, C., Majeed, A., Gill, H., Tamura, J., Ho, R. C., Mansur, R. B., Nasri, F., Lee, Y., Rosenblat, J. D., Wong, E., & McIntyre, R. S. (2020). The effect of loneliness on distinct health outcomes: A comprehensive review and meta-analysis. *Psychiatry Research, 294*, Article 113514. <u>https://doi.org/10.1016/j.psychres.2020.113514</u>
- Park, S., & Jang, H. (2018). Correlations between suicide rates and the prevalence of suicide risk factors among Korean adolescents. *Psychiatry Research*, 261, 143-147. https://doi.org/10.1016/j.psychres.2017.12.055
- Perie, M., Sherman, J., Phillips, G., and Riggan, M. (2000). *Elementary and secondary education: An international perspective*. US Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics. <u>https://nces.ed.gov/pubs2000/2000033a.pdf</u>
- Pfledderer, C. D., Burns, R. D., & Brusseau, T. A. (2019). School environment, physical activity, and sleep as predictors of suicidal ideation in adolescents: Evidence from a national survey. *Journal of Adolescence*, *74*, 83-90.

https://doi.org/10.1016/j.adolescence.2019.05.008

- Pickering, & Walford, G. (Eds.). (2000). *Durkheim's Suicide a century of research and debate*. Routledge. <u>https://doi.org/10.4324/9780203459270</u>
- Piqueras, J. A., Soto-Sanz, V., Rodríguez-Marín, J., & García-Oliva, C. (2019). What is the role of internalizing and externalizing symptoms in adolescent suicide behaviors?
 International Journal of Environmental Research and Public Health, 16(14), 2511.

https://doi.org/10.3390/ijerph16142511

Poland, S. (1989). Suicide intervention in the schools. Guilford Press.

Primack, B. A., Bisbey, M. A., Shensa, A., Bowman, N. D., Karim, S. A., Knight, J. M., & Sidani, J. E. (2018). The association between valence of social media experiences and depressive symptoms. *Depression and Anxiety*, 35(8), 784-794.

https://doi.org/10.1002/da.227

Rajbhandari-Thapa, J., Thapa, K., Li, Y., Ingels, J. B., Shi, L., Zhang, D., Shen, Y., & Chiang,
K. (2022). Electronic vapor product use and levels of physical activity among high school students in Georgia. *Tobacco Use Insights*, 15.

https://doi.org/10.1177/1179173X221101786

- Reinert, M., Fritze, D., & Nguyen, T. (2022). *The state of mental health in America 2023*. <u>https://mhanational.org/sites/default/files/2023-State-of-Mental-Health-in-America-Report.pdf</u>
- Salle, T. L., George, H. P., McCoach, D. B., Polk, T., & Evanovich, L. L. (2018). An examination of school climate, victimization, and mental health problems among middle school students self-identifying with emotional and behavioral disorders. *Behavioral disorders*, 43(3), 383-392. <u>https://doi.org/10.1177/0198742918768045</u>
- Saluja, G., Iachan, R., Scheidt, P. C., Overpeck, M. D., Sun, W., & Giedd, J. N. (2004).
 Prevalence of and risk factors for depressive symptoms among young adolescents.
 Archives of Pediatrics & Adolescent Medicine, 158(8), 760-765.

https://doi.org/10.1001/archpedi.158.8.760

Schwartz-Mette, R. A., Shankman, J., Dueweke, A. R., Borowski, S., & Rose, A. J. (2020). Relations of friendship experiences with depressive symptoms and loneliness in childhood and adolescence: A meta-analytic review. *Psychological Bulletin, 146*(8), 664–700. <u>https://doi.org/10.1037/bul0000239</u>

- Singer, J. (2019). School-based suicide prevention: A framework for evidence-based practice. *School Mental Health*, *11*(1), 54–71. https://doi.org/10.1007/s12310-018-9245-8
- Singer, J. B., Erbacher, T. A., & Rosen, P. (2019). School-based suicide prevention: A framework for evidence-based practice. *School Mental Health: A Multidisciplinary Research and Practice Journal*, 11(1), 54–71. <u>https://doi.org/10.1007/s12310-018-9245-8</u>
- Skaine, R. (2015). *Abuse: An encyclopedia of causes, consequences, and treatments*. ABC-CLIO.
- Smith-Millman, M.K., Flaspohler, P.D. (2019). School-based suicide prevention laws in action: A nationwide investigation of principals' knowledge of and adherence to state schoolbased suicide prevention laws. *School Mental Health*, 11, 321–334.

https://doi.org/10.1007/s12310-018-9287-y

- Sörberg Wallin, A., Zeebari, Z., Lager, A., Gunnell, D., Allebeck, P., & Falkstedt, D. (2018). Suicide attempt predicted by academic performance and childhood IQ: A cohort study of 26 000 children. *Acta Psychiatrica Scandinavica*, 137(4), 277-286. <u>https://doi.org/10.1111/acps.12817</u>.
- Steiner, R. J., Sheremenko, G., Lesesne, C., Dittus, P. J., Sieving, R. E., & Ethier, K. A. (2019). Adolescent connectedness and adult health outcomes. *Pediatrics*, 144(1).

https://doi.org/10.1542/peds.2018-3766

Substance Abuse and Mental Health Services Administration [SAMHSA]. (2020). "Now is the Time" Project AWARE-Community Grants. <u>https://www.samhsa.gov/grants/grant-announcements/sm-15-012</u>

Sürücü, L., & Maslakci, A. (2020). Validity and reliability in quantitative research. Business & Management Studies: An International Journal, 8(3), 2694-2726. https://doi.org/10.15295/bmij.v8i3.1540

- Taliaferro, L. A., & Muehlenkamp, J. J. (2014). Risk and protective factors that distinguish adolescents who attempt suicide from those who only consider suicide in the past year. *Suicide and Life-Threatening Behavior*, 44(1), 6-22. https://doi.org/10.1111/sltb.12046
- Thapa, A., & Cohen, J. (2017). School climate community scale: Report on construct validity and internal consistency. *School Community Journal*, 7(2), 303-320. https://files.eric.ed.gov/fulltext/EJ1165646.pdf
- Thapa, A., Cohen, J., Higgins-D'Alessandro, A., & Guffey, S. (2012). School Climate Research Summary: August 2012. School Climate Brief, Number 3. National School Climate Center. <u>https://files.eric.ed.gov/fulltext/ED573683.pdf</u>
- Tunno, A. M., Inscoe, A. B., Goldston, D. B., & Asarnow, J. R. (2021). A trauma-informed approach to youth suicide prevention and intervention. *Evidence-Based Practice in Child* and Adolescent Mental Health, 6(3), 316-327.

https://doi.org/10.1080/23794925.2021.1923089

Van Horn, M. L. (2003). Assessing the unit of measurement for school climate through psychometric and outcome analyses of the school climate survey. *Educational and Psychological Measurement*, 63(6), 1002-1019.

https://psycnet.apa.org/doi/10.1177/0013164403251317

Verma, J. P., & Abdel-Salam, A. S. G. (2019). Testing statistical assumptions in research. John Wiley & Sons.

Warner, R. (2021a). Applied statistics I: Basic bivariate techniques (3rd ed.). Sage Publications.

Warner, R. (2021b). *Applied statistics II: Multivariable and multivariate techniques* (3rd ed).Sage Publications.

Wiley, C. (2012). Suicide prevention for counselors working with youth in secondary and postsecondary school. *Alabama Counseling Association Journal*, 38(2), 9-14. https://files.eric.ed.gov/fulltext/EJ1016290.pdf

- Wiley, J. L. (2019). A Quantitative Examination of Georgia High School CCRPI Scores and School-Level Student Demographics Using Multiple Regression Analysis (Doctoral dissertation, Valdosta State University).
- Wyman, P. A., Brown, C. H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J., & Pena, J. B. (2008). Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology*, *76*(1), 104-115. https://doi.org/10.1037/0022-006X.76.1.104

Youth.gov. (2019). Suicide Prevention. https://youth.gov/youth-topics/youth-suicide-prevention

- Zalsman, G., Hawton, K., Wasserman, D., van Heeringen, K., Arensman, E., Sarchiapone, M., Carli, V., Höschl, C., Barzilay, R., Balazs, J., Purebl, G., Kahn, J. P., Sáiz, P. A., Lipsicas, C. B., Bobes, J., Cozman, D., Hegerl, & Zohar, J. (2016). Suicide prevention strategies revisited: 10-year systematic review. *The Lancet Psychiatry*, *3*(7), 646-659. https://doi.org/10.1016/S2215-0366(16)30030-X
- Zullig, K. J., Koopman, T. M., Patton, J. M., & Ubbes, V. A. (2010). School climate: Historical review, instrument development, and school assessment. *Journal of Psychoeducational Assessment*, 28(2), 139-152.

https://journals.sagepub.com/doi/pdf/10.1177/0734282909344205

Appendix A

Georgia Student Health Survey Questions

School Connectedness

- 1. Most days I look forward to going to school.
- 2. I feel like I fit in at my school.
- 3. I feel successful at school.
- 4. I feel connected to others at school.

Peer Social Support

- 5. I get along with other students at school.
- 6. I know a student at my school that I can talk to if I need help (e.g. homework, class

assignments, projects).

7. Students in my school are welcoming to new students.

Adult Social Support

- 8. Teachers treat me with respect.
- 9. Adults in this school treat all students with respect.
- 10. Teachers treat all students fairly.

[Suicidality]*

49. During the past 12 months, on how many occasions have you seriously considered harming yourself on purpose?

51. During the past 12 months, on how many occasions have you harmed yourself on purpose?

53. During the past 12 months, on how many occasions have you seriously considered attempting suicide?

55. During the past 12 months, on how many occasions have you attempted suicide? (Georgia Department of Education, 2022b).

Appendix B

LIBERTY UNIVERSITY. INSTITUTIONAL REVIEW BOARD

August 29, 2023

Megan Thrasher Andrea Barbian-Shimberg

Re: IRB Application - IRB-FY23-24-331 Unlocking Hope: Exploring Suicide Protective Factors through the Georgia Student Health Survey

Dear Megan Thrasher and Andrea Barbian-Shimberg,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds that your study does not meet the definition of human subjects research. This means you may begin your project with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study is not considered human subjects research because it will not involve the collection of identifiable, private information from or about living individuals (45 CFR 46.102).

Please note that this decision only applies to your current application. Any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

For a PDF of your IRB letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page.

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at integenet.org.

Sincerely,

G. Michele Baker, PhD, CIP Administrative Chair Research Ethics Office