The Impact of Early Mental Health Education Based on Interventions Among College Students

The Impact of Early Mental Health Education Based on Interventions Among College Students

By

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Approval Page

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Acknowledgments

This dissertation is the product of years of growth, development, and nurturing by individuals who believed in me when I did not believe in myself. I am eternally grateful to those who traveled with me on this journey.

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To my colleagues, mentors, and students with whom I have been fortunate to work all these years. Your passion, integrity, and excellence have taught me never to give up. Thank you for inspiring, pushing, and challenging me. I am forever grateful to my supervisor, who continuously encouraged me in my leadership career and this academic pursuit, providing me with the necessary space and support to accomplish this goal.

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To my parents, who taught me the importance of hard work, faith, and perseverance through sacrifices, their unfaltering love, and support, thank you for being the foundation that has cultivated my education. As a first-generation college graduate, I stand on your strengths and dreams. I also want to thank my amazing family for being at every milestone and making me feel I was never alone.

To my closest friends, you are my lifeline. Your calls, messages, random motivational speeches, and reminders to rest and refuel me when things got tough. You saw me at my worst and still showed up with love, laughter, and empathy.

Last but certainly not least, I want to thank God for his wisdom, guidance, and grace. Despite being plagued with self-doubt, fear, and uncertainty, I have been compelled by faith and an unwavering sense of purpose to finish strong.

Reflexivity Statement

My scholarship and practice as a Dr.PH candidate and a college health administrator have been well-being-centered. I have spent the past fifteen years directing institutions' equity prevention and access initiatives and public health programming development and implementation. What I have learned from working with diverse populations for fifteen years motivates me to develop mental health education programs for incoming first-year students so that we can reduce the need for crisis interventions. During my work, I have witnessed the significant issues students have in adjusting from high school to university and, thus, the necessity of preventive mental health education.

Research is of paramount significance in my professional practice and personal development. My university experience was marred by academic stress coupled with inadequate mental health services because I began college as a first-generation student. My experience allows me to better connect with existing student issues, motivating me to advocate for prevention. Acquiring mental health education at the early phases of learning enhances long-term academic achievement by enhancing student resilience, educational attainment, and well-being.

The findings of this research have shown me which areas of my professional practice and personal life influence how I react to different subject matter elements. Public health provides practitioners with complete knowledge of how policies are created, where funds are directed, and which mental health interventions are most effective. My firm conviction in early intervention guides all the stages of my research activity, from data collection to analysis and participant interpretation. I gained several views from diverse sources to minimize possible bias and undertook active critical reflection. Several mental health research specialists and college health practice peers examined my topic to reduce bias. Through collaborative team efforts, which

minimized the likelihood of my prejudices influencing my interpretations. My research adheres to an ethical code of conduct that uses best practices to guide data collection and analysis protocols. This study's system of reflexivity demonstrates a wide-ranging commitment to maintaining research authenticity through truthful reporting practices. Reflexivity enables me to show how my perceptions influence my research and leaves room for questioning my fundamental assumptions during the research.

I hope this research will lead to substantive development in understanding how early mental health education positively influences college students. I will provide evidence-based recommendations to guide institutional policies and programs that provide environments where individuals actively maintain their mental wellness. I plan to promote programming that develops student mental health skills while prioritizing their need for attentive consideration through early intervention initiatives.

Moreover, this study illustrates a personal and professional commitment to student well-being. My training, investigations, and professional and life experience as a student have shaped my approach. I am committed to maintaining the highest ethical and analytical standards in reporting my research findings. I hope to provide empathetic, inclusive, and preventive mental health interventions by presenting and participating in this study.

Author's Statement Page

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ABSTRACT

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Background: First-year college students have the potential to experience high stress, depression, and anxiety during their transition period from high school. The study examines whether exposure to an online mental health education program is associated with counseling service utilization.

Methods: A retrospective cohort design compared counseling center service utilization among first-year students at two southeast public universities. One university requires students to complete an online mental health education program, compared with another public university without this requirement. T-tests were conducted to examine the difference in mean counseling service utilization between the students at the intervention and comparison campuses. Chi-square analyses were carried out to examine counseling service utilization concerning age, race, and gender.

Results: The study sample included 1781 (total student records). Descriptive analysis revealed that students at the intervention campus (with the online Mental Health module) utilized counseling services at a higher level (≥3 visits), compared to the comparison campus (without the module). The mean number of sessions was higher at the intervention campus (mean = 3.99) than at the comparison campus (mean = 1.12), with a statistically significant difference (t (1380.18) = 20.71). Chi-square independence tests showed no significant associations between counseling utilization and race, age, and gender.

Conclusion: The study's findings reveal that online mental health modules may be associated with

increased counseling utilization. This research contributes to the growing body of literature on preventative mental health strategies in higher education and addresses gaps in knowledge about the early interventions and associated utilization of first-year students based on race, age, and gender.

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Chapter 1: Introduction

College is a pivotal stage in students' academic journey that does not merely shape their academic growth but can also be the beginning of a significant social and personal evolution. While college students have their first experience of living outside the home, it also exposes students to learning and practicing independence in managing greater responsibilities and confronting challenges. This adjustment process can lead to heightened psychological distress, increasing students' vulnerability to mental health challenges (Benton et al., 2003). The data suggests that mental health issues such as anxiety and depression in college students are common, and impact their academic experiences, daily functioning, and overall quality of life (Turner & Keller, 2020). National surveys indicate a surge in the prevalence rate of anxiety and depressive disorders among college students in the U.S. (ACHA, 2021). A nationwide survey conducted by the American College Health Association revealed poor productivity in 40% of students experiencing overwhelming depression, whereas 57% acknowledged that they have experienced intense anxiety within the past year (ACHA, 2021). Statistics underscore the need for developing and implementing a robust mental health support program in higher education institutions to help mitigate stress before it escalates into a crisis (Lipson et al., 2019).

The rising demand for crisis intervention services among college students highlights a gap in adequate access to primary prevention measures, including mental health literacy (Kutcher et al., 2016). If not bridged on time, this knowledge gap can worsen mental health challenges (Arria et al., 2009). Integrating a mental health education program with first-year students has positioned universities to minimize mental health risks and foster a positive culture of health and wellness on campus (Kilbourne et al., 2018). Over the past decade, universities nationwide have developed and adopted positive mental health initiatives, emphasizing the

development of students' ability to recognize early signs of distress and enabling them to seek timely support (Eisenberg et al., 2009). These initiatives focus on stress management, developing proactive help-seeking behaviors, and promoting coping strategies to prevent or mitigate mental health problems. The extent to which they are associated with campus-based mental health support resources is unknown.

Statement of the Problem

Despite many mental health initiatives taken by the universities, students still struggle in accessing mental health interventions. It is imperative to note that limited literature definitively establishes whether early mental health education and resource availability reduce the need for counseling interventions among college students or increase the demand. This lack of information hampers the university's capacity to apply holistic, primary intervention mental health frameworks that support students' adjustment to college and an adequate plan for dynamic shifts among first-year student cohorts. While online mental health educational programs have expanded in college settings over the past few years, minimal data is available to understand how such exposure may relate to students' help-seeking behaviors.

Research Questions

This dissertation seeks to explore the following research questions:

Research Question #1: Does counseling service utilization differ among first-year students who are required to complete an online mental health module before enrollment, compared to those who were not?

Research Question #2: Do counseling utilization rates differ for incoming first-year students based on demographic factors such as age, race, and gender?

Significance of Study

To the best of my knowledge, this study is the first of its kind to examine patterns of mental health counseling utilization in a college setting where an online mental health module is mandatory for incoming first-year students, with a comparison without such mandated training. The study findings may provide important insights to determine if first-year mental health modules for college students are related to mental health services access and utilization.

Geographical Scope

This study exclusively focused on two large public universities in the southeastern region of the US. This geographic setting was selected due to the increasing demand for mental health services and crisis intervention among college and university students in these states. The results of this study may be of interest to the state policymakers and educational administrators seeking to develop mental health frameworks tailored to the real-time needs of students.

Chapter 2 presents relevant scientific literature that highlights insights into the college mental health landscape and identifies gaps in the availability of relevant information, which has led to the development of the research questions central to this study. The design and procedural steps of the study are detailed in Chapter 3, followed by the presentation of results in Chapter 4. In the final chapter 5, results are interpreted within the context of college students' mental health literature, along with a critical discussion on the study's implications, limitations, and future research directions.

Chapter 2: Literature Review

Background of Study

The development of mental health issues among young adults entering college is well known and requires dedicated resources and attention to be effectively addressed. Increasing levels of societal awareness about mental health issues and the growing body of empirical research on this topic have highlighted the need for developing comprehensive approaches to ensure better mental health care in institutions of higher education. Over the past two decades, the prevalence of self-reported mental illness has significantly increased among college students (ACHA, 2021). The American College Health Association (ACHA) reported historically high levels of psychological distress among college students (2021). This surge in prevalence of mental health disorders in college students may be attributed to many factors such as academic pressure, financial struggles, societal isolation, and increasing influence of social media (Beiter et al., 2015).

Over the years, this increase in mental health-related challenges has placed immense pressure on campus mental health services, many of which are already operating at full capacity and are experiencing administrative issues, including a shortage of staff and operational funds (Turner & Keller, 2020). These issues, in turn, have strained counseling centers' capacity to provide timely support and may create a crisis that could otherwise be prevented through timely assessment and appropriate intervention.

Literature shows that mental health challenges negatively impact college students' academic success, class attendance, and student participation (Eisenberg et al., 2013). These issues lead to low motivation levels, hindering academic performance and affecting educational outcomes. While the majority of first-year college students begin their classes in good health, the

immediate and ongoing challenges of academic, social, and personal adjustment to new settings can impact their mental health and well-being (Beiter et al., 2015). Failure to receive adequate support at this stage may hinder students from meeting minimum attendance requirements, managing their course load, and maintaining concentration, all of which are instrumental in ensuring successful and impactful completion of a particular academic level (Tinto, 1993). Students who are struggling with their mental health are at a higher risk of dropping out, and some may leave college at the outset of their first-year classes (American College Health Association, 2021).

A student and alumni survey conducted by the American College Health Association (2021) reported that the absence of an appropriate mental health care program for students struggling with mental health issues may continue to impart these challenges beyond their first year. Students with chronic mental health conditions are more likely to take leave of absence, drop out, or reduce their course load. Such patterns contribute to poor graduation rates and extend the time required for degree completion (Jacobs et al., 2014). For example, Lipson et al. (2019) found in their study that students with mental health challenges were more likely to be dismissed from their classes due to these issues, which severely affect their performance, raise stress levels, and reduce social participation.

The Role of Mental Health Education and Resources

With the rising prevalence of mental health issues in college students, some universities have proactively adopted and implemented strategies focused on early intervention. Conceptually, mental health education has emerged as one of the most effective interventions for improving students' mental health literacy. Jacobs et al. (2014) defined mental health literacy as the general public's knowledge of mental disorders, their signs and symptoms, available

treatments, and ways to support peers facing similar issues. Developing mental health literacy has been shown to increase students' ability to identify early warning signs and adopt preventive measures. Results from research conducted by Turner and Keller (2020) demonstrated that early mental health education was positively associated with improved student well-being.

Research shows that when students receive mental health education, they develop greater awareness of the symptoms of mental health disorders and are more likely to seek treatment before reaching a crisis point (Lipson et al., 2019). Moreover, initial exposure to mental health education programs or resources reduces stigma, encouraging students to seek assistance in alleviating their mental health complications (Eisenberg et al., 2009). Despite the increasing number of educational programs in university settings, the associations of early exposure and counseling service utilization, based on age, gender, and ethnicity of students, remain unclear.

Mental Health Services and Sociodemographic Characteristics

Greater student body data and knowledge of mental health needs stemming from complex social identities and potential exclusion must guide strategic mental health planning decisions. As Liu et al. (2019) noted, understanding the causes of mental health disorders and taking preventive measures are crucial for effective management. Early identification of risk factors further allows universities to develop screening activities which may help identify students who may be at high-risk for mental health support resources.

Research has consistently shown that ethnic and cultural backgrounds significantly influence mental health help-seeking behaviors among college students. Students from racially and ethnically minoritized backgrounds, including Black, Hispanic/Latino, Asian American, and Native American populations, are less likely to seek formal mental health services compared to their White counterparts (Lipson et al., 2018; Liu et al., 2020). This disparity is often attributed

to a combination of factors, including stigma, cultural mistrust, lack of culturally competent care, and limited access to resources (Gonzalez et al., 2021). For example, Black students frequently report higher levels of stigma related to mental health issues, which can discourage them from utilizing counseling services available on campus (Hoggard et al., 2022). Similarly, Asian American students may experience pressures that emphasize emotional self-control, which further reduces the likelihood of seeking help (Kim & Lee, 2021).

Cultural values and perceptions of mental illness also shape how students view the usefulness of mental health services. In many Latino cultures, for example, there is a strong reliance on family and faith-based support, which may substitute formal treatment options (Chavez-Korell et al., 2020). Additionally, the lack of representation in campus counseling centers, such as the underrepresentation of diverse counselors, can lead to a perception that services are not tailored to their specific cultural needs (Liu et al., 2020). The intersection of cultural identity and systemic barriers contributes to persistent disparities, making it essential for colleges to adopt culturally sensitive approaches to mental health education.

Gender plays a significant role in shaping mental health experiences and help-seeking behaviors among college students (Mahalik et al., 2022). Research consistently shows that female students are more likely to recognize emotional distress, express concern about mental health, and seek counseling services compared to their male counterparts (Eisenberg et al., 2020; Lipson et al., 2022). One explanation lies in gendered social norms; women are generally socialized to be more emotionally expressive and open to support, whereas men are often taught to suppress emotions and value self-reliance (Mahalik et al., 2022).

The traditional masculinity ideology can discourage male students from acknowledging psychological distress and reduce their likelihood of seeking professional help (Mahalik et al.,

2022). Male college students face heightened stigma related to mental health and are less likely to perceive a need for treatment, even when experiencing symptoms of anxiety or depression (Gonzalez et al., 2021). This underutilization is concerning, given that men often present with externalizing symptoms, such as substance use or aggressive behavior, which may mask underlying mental health issues (Rice et al., 2021). Furthermore, gender nonconforming and transgender students face unique mental health challenges due to stigma, discrimination, and a lack of affirming support on campus. These students are more likely to experience depression, anxiety, and suicidal ideation, but often encounter barriers when accessing services that are not culturally competent or inclusive (Seelman et al., 2017).

Gender-informed interventions have been identified as effective strategies for improving mental health access. For example, peer support groups, male-focused psychoeducation, and inclusive mental health campaigns that challenge gender stereotypes have been shown to increase help-seeking behaviors among men (Kulesza et al., 2020). Recognizing and addressing gender differences in mental health experiences is critical to designing equitable support systems that meet the diverse needs of all students.

Age is another critical factor influencing mental health help-seeking behaviors among college students, particularly when considering the transition from adolescence to emerging adulthood. First-year students face a unique set of developmental challenges that can increase vulnerability to mental health issues such as anxiety, depression, and stress (Kessler et al., 2007; Twenge et al., 2019). This period marks a critical developmental transition characterized by increasing independence, identity exploration, and academic pressures, all of which can affect emotional well-being and coping mechanisms (Arnett, 2014). Younger students may lack previous exposure to mental health education, resulting in lower levels of mental health literacy

and reduced likelihood of recognizing when professional help is needed (Gorczynski et al., 2020).

Research indicates that older college students, such as those in their mid-to-late twenties or non-traditional students, may have a higher propensity to seek help due to greater life experience, increased self-awareness, and more developed coping strategies (McDermott et al., 2021). However, first-year students often face additional barriers such as stigma, fear of confidentiality breaches, and uncertainty about how to access campus resources (Eisenberg et al., 2012). Early intervention programs that target incoming students, such as orientation-based mental health workshops, have been shown to improve awareness and increase help-seeking behaviors during this critical first year (Drum et al., 2017).

The first year of college is particularly crucial for mental health intervention, as research suggests that early mental health support can lead to better academic performance, improved retention rates, and overall well-being (Conley et al., 2016). This is consistent with Twenge et al. (2019), who documented rising levels of mood disorders among younger cohorts in college settings, driven by societal pressures and increased academic expectations. While some studies report no strong linear relationship between age and mental health symptoms within the narrow age ranges typical of undergraduate populations (Ibrahim et al., 2013), the general trend points toward higher distress in younger students, which gradually declines as students' progress in age and academic standing.

Online Educational Intervention Strategies for College Mental Health

Online mental health education programs have emerged as effective and scalable intervention strategies to promote mental health awareness, reduce stigma, and encourage help-seeking behaviors among college students. These programs leverage technology to deliver

psychoeducation, coping strategies, and resource navigation in an accessible and often anonymous format, especially appealing to students hesitant to seek in-person support (Lattie et al., 2019). Studies also highlight the importance of asynchronous delivery in online education, allowing students to engage with content at their own pace, which fits well with diverse schedules and learning styles (Davies et al., 2021).

Furthermore, meta-analysis confirms that online interventions, when paired with minimal guidance or reminders, can achieve outcomes comparable to face-to-face interventions (Baumeister et al., 2014). Importantly, these digital tools also contribute to early intervention by providing preventative education before crisis emerges, particularly for first-year students adjusting to campus life. Despite their potential, challenges such as digital literacy, engagement drop-off, and the need for culturally tailored content remain critical areas for improvement in online interventions (Ebert et al., 2021). Nonetheless, the scalability of online mental health education makes it a promising strategy for higher education institutions aiming to reach large and diverse student bodies.

Universal Strategies and Contemporary Modalities

Universities must establish mechanisms for long-term mental health initiatives, including pre-matriculation programs and beyond, for students to progress successfully through their academic years (Hammoudi et al., 2023). Oswalt et al. (2020) in their study suggest that universities should extend mental health services while ensuring they are accessible and affordable to the target student population. The most crucial factor that encompasses psychological learning is utilized to identify students at risks and recommend their referral include faculty and staff training (Alexander et al., 2021).

The existing institutional support must move beyond the often-limited counseling framework and find proactive advancement directions. Successful interventions entail the use of many layered strategies which largely focus on technology applications, support programs, and cultural changes at the institution (Pandy & Lodha, 2022). One aspect of this approach may include digital interventions, which research indicates can significantly improve access to psychological resources (Liu et al., 2023).

Impact of Early Exposure to Mental Health Education

Studies on evaluating the early education programs with student mental health literacy have found that early education significantly affected help-seeking behavior and the psychological health of college students (Ma et al., 2022). Based on a systematic review of 21 studies of school-based mental health interventions aimed at mental health literacy and stigma, the researchers found that students who completed programs before the official start of their first college term demonstrated increased mental health awareness and reduced perceived stigma (Ma et al., 2022). The research team suggested that high school interventions improve mental health literacy and increase students' likelihood of utilizing campus counseling services once they attend college. Early intervention services include delivering basic mental health knowledge and eliminating hurdles that may prevent learners from seeking help. These interventions, which were carried out among 4–18 years students, displayed significant changes in students' feelings and perceptions regarding mental health (Shim et al., 2022).

Another study led by Shim and colleagues examined perceived stigma and mental health knowledge among students who completed a college-level Abnormal Psychology course. Analysis revealed that among 147 participants, students perceived mental health conditions as treatable and felt less embarrassed to seek help after course completion (Shim et al., 2022).

These outcomes highlight potential impacts that structured educational activities can have particularly for the students at the stage of transition to college (Shim et al., 2022). Reframing such attitudes towards mental health as controllable and de-stigmatizing help-seeking can strengthen both the individual and community coping mechanisms in stress-inducing campus environments. Early exposure to mental health educational programming has been demonstrated to be effective in building stress management and positive mental health coping skills. Educational programs that address mental health awareness prepare students with knowledge of the early signs of most mental illnesses, how to handle stress, and where to go when they require professional help.

Pre-Matriculation Education

The value of pre-matriculation mental health education cannot be overemphasized in preparing students for the demands of college life. One promising intervention aimed at supporting the mental health of first-year college students is the Vector Solutions Mental Health and Well-Being Module, an evidence-based, online educational program designed specifically for higher education institutions (Conley et al., 2016). This module is grounded in behavioral science and incorporates best practices from mental health research to deliver engaging, interactive content that educates students on recognizing mental health challenges, reducing stigma, and accessing campus resources. The program has been developed with input from mental health professionals and aligns with recommendations from leading organizations such as the Jed Foundation and NASPA (National Association of Student Personnel Administrators) for first-year student mental health interventions.

The Vector Solutions module is tailored to the unique transitional challenges that first-year students face, including increased academic pressure, social adjustment, and identity

development (Conley et al., 2016). It focuses on early mental health literacy, teaching students to identify common symptoms of anxiety, depression, and stress, and providing strategies for self-care and resilience. Through scenario-based learning, the module helps students practice peer support and encourages help-seeking behaviors, which is crucial given that younger students often underutilize counseling services (Eisenberg et al., 2007).

Evidence suggests that early exposure to mental health education can significantly improve outcomes for first-year students. Programs like Vector Solutions have been shown to increase students' awareness of mental health issues, enhance their confidence in seeking help, and reduce stigma associated with mental health care (Lattie et al., 2019). The module's asynchronous format is particularly beneficial for first-year students, allowing them to complete the training at their own pace while still providing data-driven insights for campus administrators to monitor participation and assess impact. Research indicates that technology-based mental health interventions, such as Vector Solutions, are effective complements to in-person services, especially in reaching large, diverse student populations (Harrer et al., 2018).

By focusing on prevention and early intervention, Vector Solutions' Mental Health Module plays a critical role in fostering a culture of well-being and support for first-year college students, addressing one of the most vulnerable periods in a student's academic journey.

Vector Solutions is a private agency that often partners with colleges to educate students about mental health issues, how to manage them, and where to find help before college enrollment. Part of these online modules address concerns such as stress, substance use, and crisis. It helps provide students with core competencies in coping with college life (Gibson, 2023). The educational platform is scalable to variables of interest, which makes it suitable for

institutions that want to introduce standardization in educating students about mental well-being, yet adapt content to be reflective of unique campus attributes.

Theoretical Foundation: Conceptualizing Mental Health Interventions

The Health Belief Model (HBM) and the Social Cognitive Theory (SCT) are key models that can explain the design and evaluate the impact of interventions to address mental health issues among college students. HBM was created by Rosenstock in 1974 to show that beliefs about the threat, perceived outcome, and self-efficacy are important determinants of health behaviors (Rosenstock, 1974). Thus, the HBM suggests that college students' perceptions about the "threat" (e.g., stressor) and possible benefits of seeking care determine their willingness to seek mental health support. In the same way, Albert Bandura defined Social Cognitive Theory (SCT) as a concept that describes the change process by acknowledging social learning processes and observational learning (Bandura, 1986).

The SCT reports that students learn behaviors from observing individuals, impacting their mental health and ability to make decisions (Bandura, 1986). This model notes that the readiness of students to use available support is influenced by self-efficacy, which is students' self-assurance in their ability to find assistance and benefit from it. These theories imply that the student's perceptions must be considered to ensure the interventions are practical.

One primary concept of SCT is reciprocal determinism. Reciprocal determinism is a concept within SCT. It illustrates the interaction between behavioral, individual, and environmental factors. In the context of mental intervention for students, the model indicates how a student's decision to seek mental assistance is influenced by various environmental factors (Pajares & Usher, 2008). It signifies that behavior (e.g., seeking counseling), personal issues

(e.g., self-efficacy), and external influences (e.g., campus regulations and advertisements for mental services) interact with each other and influence actions (Bandura, 1986).

The HBM's focus on individuals' perceptions of threats is similar to SCT's component of learning through observation. HBM and SCT would enable primary and secondary interventions to prevent illness. Sohail (2020) in his study critically discusses observational learning, where an action such as seeking mental health support is performed when students observe peers or other influential figures doing the same, which reduces stigma and increases the likelihood of seeking mental health support. This could be considered as an important factor in early college life since students' value and listen to their peers and greatly influence one another. Also important in the SCT is the notion of self-efficacy, which forms the basis of students' confidence in seeking mental health support (Bandura, 1986). This theory, then, would argue that interventions to increase mental health-seeking behavior should prioritize enhancing students' self-efficacy regarding self-management of mental health and encourage behavioral and emotional coping (Bandura, 1986).

According to Matthews (2020), interventions based on HBM may be most beneficial when focusing on perceived barriers and the advantages of seeking assistance. When implemented together, universities can develop tailored methods to meet students' psychological needs and the factors beyond their control. These theories highlight the need to shift to intervention, considering students' individual perceptions and social contexts to create more effective support systems for diverse student populations.

Although the HBM can provide a framework in which students perceived risks and benefits towards health behaviors can be considered, the SCT still offers a better approach by integrating external influences and reciprocal determinism (Bandura, 1986). These frameworks

offer functional theoretical foundations when it comes to creating interventions which are research-based and student-centered. To foster increased use of services to support mental health among students, the factors identified in these theories that would deter students from seeking services should be addressed, especially knowledge of stigma (Matthews, 2020). Mental health issues are rising in higher education, highlighting the need for developing effective models to inform policies and proactive programs. Integrating these frameworks into university policies enables well-informed, effective interventions, shaping research and the development of students' mental health initiatives that support public health efforts in educational settings.

This literature review summarizes research dedicated to college student mental health trends and key sociodemographic characteristics that may be associated with help-seeking behaviors. Numerous studies validate these factors as crucial in identifying mental health issues and shaping effective interventions. The findings of this study reveal a gap in understanding how mean utilization of campus counseling resources may differ among first-year students depending on exposure to mental health educational programming requirements and informed the research design and key variables included in this study, which are presented fully in Chapter 3.

Chapter 3: Methodology

Introduction

This study assesses whether the completion of a mental health (MH) educational module is associated with first-year college students' utilization of counseling services. The module presents information about counseling services available on campus, coping strategies, and recognizing mental health concerns. The main outcome of interest is the frequency of visits to the counseling service and the reasons for visits. It is hypothesized that students who completed the module used counseling services less frequently than their counterparts who did not have access to the online module.

Research Design

For this research, a retrospective comparative cohort study was used to explore data on the utilization of counseling services among college students who had access to an online mental health module versus those who did not. The study design employed is particularly suitable for examining the relationship between the use of proactive preventive methods and counseling service utilization, as it allows for a direct comparison of diverse student groups within a university as well as across different universities.

A retrospective cohort study was chosen because it seeks to analyze previous trends in how college students utilized counseling services, using institutional reports. The analysis of counseling service utilization among first-time, full-time college students relies on historical data, applying a retrospective cohort design and analysis. Through this assessment method, the association between early mental health education and service utilization can be examined in the context of individual demographic characteristics and institutional differences. This approach

provides a methodologically sound and efficient analysis of existing records from counseling centers and admission data, eliminating the need for prospective data collection.

Study Setting

The research focused on first-year college students who enrolled at two public universities in an urban city in the southeast of the U.S. The student body at each site is very different. One university has a high percentage of Black students from low-income families, while the other has a low percentage of Black students and a significant population of international students.

Study Sample

The present study included students between 18 and 25 years' old who were enrolled between Fall 2023 and Fall 2024. The study included first-time, full-time students between 18 and 25 who were admitted for Fall 2023, Spring 2024, and Fall 2024. Transfer students and those who did not complete the first semester were excluded from the analysis.

Data Collection

The research team engaged in discussions with all appropriate departments, including the Office of Admissions and the Office of Counseling Center Directors, to brief them on the purpose of the study and ensure that appropriate ethical considerations are addressed before data collection to protect participants. The goal was to establish a process in which stakeholders understood the study's procedures and had an opportunity to raise any concerns before data was requested.

Data collection involved the extraction of de-identified records from Admissions offices and campus counseling centers. Demographic information such as age, race, gender, and state

information was abstracted from the Admissions office data. Student demographic data was also abstracted from the counseling center intake forms.

Instrumentation and Key Study Variables

The data included institutional records from the Office of Admissions and counseling center intake forms and thus represent the primary instruments of data collection for this study. Data from the counseling center included the frequency and reasons for visits. Demographic data from the Office of Admissions also provided information regarding a student's gender, ethnicity, age of enrollment, and zip code.

Operational definitions and measurement methods of the key study variables are summarized in Table 1.

Table 1

Key Study Variables and Measurement Methods

Variable Type	Variable Name	Operational Definition (How it is measured)	Measurement Method (Data Source, Response Options, Level of Measurement)
Dependent Variable	Counseling Utilization	Frequency of counseling visits, and reason for visit	Counseling center intake forms (Number of visits, coded reasons for visit, diagnostic codes)
Independent Variable	Educational Module Exposure	Whether a student completed/viewed the online mental health educational module	Institutional records of participation (Binary: Yes = 1, No = 0)
Covariates	Gender	Self-reported gender identity	Admissions data (Male, Female, Non-binary, Other)
	Age at Enrollment	Student's age at the time of first college enrollment	Admissions data (Continuous variable)
	Ethnicity	Self-reported racial/ethnic background	Admissions data (Categorical: White, Black, Hispanic, Asian, Other)
	City, State	Geographic location of student's permanent residence	Admissions data (Nominal variable)
	Semester of Enrollment	The term in which the student first enrolled	Institutional records (Fall 2023, Spring 2024, Fall 2024)

Data Cleaning Process

The data preparation steps were carefully designed to ensure clarity and fairness in comparing the two counseling centers. First, students who were not in their first year of college were removed from the dataset. This kept the focus on the study's goal of understanding first-year students' experiences, avoiding mixed results from including older students.

To improve clarity, Center B's dataset was restructured. Initially, each student's record included multiple columns listing their concerns (e.g., one column for anxiety, another for depression). This format was adjusted so that each row represented a single concern per student, with a binary label (1 or 0) indicating whether the student reported that specific issue. For instance, a student experiencing both anxiety and depression would now occupy two distinct rows—one marking anxiety as "1" and another marking depression as "1"—enabling precise analysis of individual concerns. This restructuring streamlined comparisons and reduced ambiguity when evaluating patterns in student-reported issues.

For Center A, age was not directly recorded, so it was calculated using students' birth dates and enrollment dates. This ensured both centers used the same method to report age, allowing fair comparisons. Incomplete records, such as missing age, race, or concerns, were removed to prevent skewed results. However, this step might have unintentionally excluded some groups if their data was more likely to be incomplete.

Finally, students were grouped by how often they used counseling services. Those with 3 or more visits were labeled as "high use," based on the assumption that students might attend once per semester over three semesters (Fall 2023, Spring 2023, Fall 2024). This helped highlight differences in engagement between the centers.

Statistical Analysis

SPSS software was utilized for quantitative data analysis. Descriptive statistics were used to summarize the demographic profile of the study sample and the utilization rate of counseling services. Chi-square tests were used to test for associations of utilization by demographic variables. T-tests were run to examine mean differences in utilization between students at the intervention site and the comparison site. In addition, a linear regression was utilized to model counseling center utilization as a continuous outcome variable. This approach enabled the assessment of how independent variables, such as early exposure to mental health education, age, race, and gender, were associated with variations in the frequency of service use.

Dissertation Timeline

This study was abstracted in Fall 2024, and the proposal was approved in early 2025. The IRB expedited/exempt protocol was submitted in the Fall 2024 and approved in January 2025. Secondary data was obtained from the respective sites soon thereafter. Data analysis and interpretation were completed in February and March, with results presented in April 2025. Study data were abstracted from the university databases for incoming students using counseling center services at both the intervention and comparison campuses, spanning one year starting from 2023 to 2024.

Ethical Considerations

Confidentiality and Data Security

Students' confidentiality was maintained through the de-identification of all personal information. Digital data was stored in a password-protected database accessible only to the research team. Data compliance was adhered to all data security regulations pertaining to human subject’s research protocols and regulations, pursuant to the executed IRB agreement.

IRB Approval

IRB approval for the study has been received. The IRB process consists of a process through which the study's objectives, methodologies, and any potential risks are thoroughly reviewed by the IRB. Thus, ethical principles, like respect for individuals, beneficence (the duty to do good), and justice, are incorporated at every research stage. The principal investigator and student investigator have completed the required training for secondary collection. The study has been approved by the department chair and letters of support have been received from both counseling center directors. The study will be conducted anonymously so that no data about subjects will be gathered. Secondary data is collected, therefore, no direct participation from students will be required and no incentives are offered. This procedure guarantees that my research adheres to the regulations as applied by the IRB to both institutions and the federal.

This chapter discussed the research methodology for this study, which involves a quantitative research design utilizing structured surveys and historical data analysis to gather information from a sample of college students. The chosen methods provide a framework for addressing the research questions and assessing the relationship between mental health education and its impact on student well-being. While there are potential limitations, such as self-reported biases and sample representativeness, these have been carefully considered and will be mitigated through data validation techniques. The methodological choices made in this phase ensure that the analysis of the collected data in the following chapter will be conducted on a solid foundation.

Chapter 4: Results

Research Question 1

How does counseling service utilization compare between those required to complete an online mental health module prior to enrollment, compared to those who were not, during the Fall 2023 to Spring 2024?

Research Question 2

Do counseling utilization rates differ for incoming first-year students based on demographic factors such as age, race, and gender?

Utilization by Intervention or Comparison Campus (t-test results)

The first chi-square test of independence was conducted to examine the relationship between school and racial demographics. The results revealed a significant association between school attendance and racial distribution, χ^2 (3, N = 14569) = 2607.39, $p < .001$. The effect size, as measured by Cramer's V, was .423 ($p < .001$), indicating a strong association between school and racial demographics.

As shown in Table 2, School A had a higher proportion of Black students (46.9%) compared to School B (8.8%), while School B had higher proportions of Asian (41.7% vs. 25.8%) and White students (43.8% vs. 21.4%). The proportion of students from other or multiracial backgrounds was the same in both schools (5.8%).

Table 2

Cross-tabulation of School and Racial Identity

		Racial Identity				
School		Black	Asian	White	Others/	Total
School A	Count	3774	2077	1720	470	8041
	% within School	46.90%	25.80%	21.40%	5.80%	100.00%
	Adj. Residual	50.1	-20.2	-28.9	0	
School B	Count	572	2719	2856	381	6528
	% within School	8.80%	41.70%	43.80%	5.80%	100.00%
	Adj. Residual	-50.1	20.2	28.9	0	
Total	Count	4346	4796	4576	851	14569
	% within School	29.80%	32.90%	31.40%	5.80%	100.00%

The second chi-square test of independence was conducted to examine the relationship between sex and school. The results revealed a significant association between sex and school, χ^2 (1, N = 15106) = 286.07, $p < .001$. In addition, the effect size was measured using Phi, which indicated a small but significant association, $Phi = .14$, $p < .001$.

As shown in Table 3, the adjusted residuals revealed substantial difference in sex composition between the two schools. In School A, female students comprised 57.3% of the population, compared to 42.7% male students, indicating a higher-than-expected proportion of females. Conversely, in School B, male students comprised 56.6%, while female students accounted for only 43.4%, highlighting the presence of a larger proportion of male students than expected.

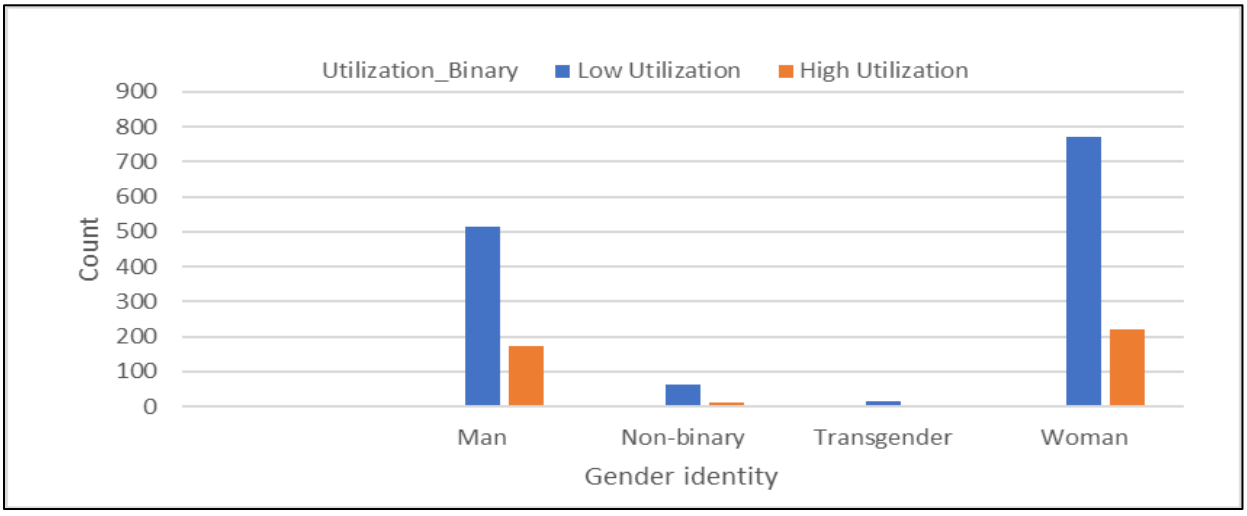
Table 3

Cross-tabulation of School and Sex

School		Sex		Total
		Male	Female	
School A	Count	3625	4864	8489
	% within School	42.70%	57.30%	100.00%
	Adjusted Residual	-16.9	16.9	
School B	Count	3743	2874	6617
	% within School	56.60%	43.40%	100.00%
	Adjusted Residual	16.9	-16.9	
Total	Count	7368	7738	15106
	% within School	48.80%	51.20%	100.00%

Figure 1

Gender and Center Utilization



The analysis compared counseling utilization rates (low vs. high) across gender identities using chi-square tests. Among 1781 students, no statistically significant association was found

between gender and utilization (Pearson χ^2 (4) = 6.18, p = .186). Descriptive trends, however, suggested variability: women had the highest proportion of high utilization (25.21%, followed by Men (22.21%) Transgender and Non-binary had the lowest level of high utilization.

Table 2

Cross-tabulation of Gender Identity by Counseling Center

Gender Identity	**Low Utilization**	**High Utilization**	**Total**
Man	516	219	735
Non-binary	64	12	76
Transgender	16	4	20
Woman	771	174	945
Unspecified/Other	5	0	5
Total	**1372**	**409**	**1781**

Age and Center Utilization

Age-group distribution varied between centers. Center 1 served more younger students: 69.5% aged 18–20 vs. 61% in Center 2. No linear age trend emerged (χ^2 (1) = 0.13, p = .720).

Table 3

Cross-tabulation of Age Group by Counseling Center

Age Group	**School A (n = 423)**	**School B (n = 1334)**	**Total (n = 1757)**
18-20	294 (69.5%)	813 (61.0%)	1107 (63.0%)
21-23	50 (11.8%)	256 (19.2%)	306 (17.4%)
24-26	16 (3.8%)	170 (12.7%)	186 (10.6%)
27+	63 (14.9%)	95 (7.1%)	158 (9.0%)
Total	423 (100%)	1334 (100%)	1757 (100%)

Note. Counseling School A = Center 1, School B = Center 2.

Race/Ethnicity and Center Utilization

Racial composition differed significantly (χ^2 (5) = 437.04, p < .001). Counseling Center in School B disproportionately served Asian Americans (39.1% vs. 8.0% in Center 2) and White students (38.4% vs. 15.6%), whereas Counseling Center in School A had higher African

American representation (56.3% vs. 8.3%). Hispanic/Latino/a and multi-racial students were evenly distributed (7.0–7.1% across centers).

Table 4

Cross-tabulation of Race/Ethnicity by Counseling Center

Race/Ethnicity (Numeric Code)	**Center 1 (n = 1328)**	**Center 2 (n = 288)**	**Total (n = 1616)**
African American / Black	110 (8.3%)	162 (56.3%)	272 (16.8%)
Asian American / Asian	520 (39.2%)	23 (8.0%)	543 (33.6%)
Hispanic / Latino	93 (7.0%)	32 (11.1%)	125 (7.7%)
Multi-racial	65 (4.9%)	22 (7.6%)	87 (5.4%)
Others (incl. American Indian/Alaskan Native)	30 (2.3%)	4 (1.4%)	34 (2.1%)
White	510 (38.4%)	45 (15.6%)	555 (34.4%)
Total	**1328 (100%)**	**288 (100%)**	**1616 (100%)**

Note. Counseling center: 1 = Center 1, 2 = Center 2.

Table 8

Linear Regression Predicting Counseling Utilization (Number of Visits) by Center Affiliation, Controlling for Demographics

Predictor	**B (SE)**	**β**	**t**	**p**	**95% CI**
Constant	3.91 (0.72)	–	5.41	< .001	[2.49, 5.32]
Center 2 vs. 1 (ref)	-2.76 (0.44)	-0.25	-6.23	< .001	[-3.63, -1.89]
Age	0.01 (0.03)	0.01	0.29	0.775	[-0.04, 0.06]
Asian vs. Black (ref)	0.26 (0.42)	0.03	0.61	0.54	[-0.57, 1.08]
Hispanic vs. Black (ref)	-0.37 (0.53)	-0.03	-0.71	0.48	[-1.40, 0.66]
Woman vs. Man (ref)	-0.10 (0.32)	-0.01	-0.29	0.769	[-0.73, 0.54]
Non-binary vs. Man (ref)	-1.16 (0.83)	-0.05	-1.41	0.16	[-2.78, 0.46]

This study used linear regression to explore what influences how often students use counseling services, measured by the number of visits, while accounting for demographic factors like age, race/ethnicity, and gender. The results showed that students at Center 2 had significantly fewer visits compared to Center 1 (B = -2.76, $p < .001$). This suggests that Center 1's mental health education program before enrollment may have encouraged more visits. Age, race/ethnicity (Asian or Hispanic compared to Black), and gender (women or non-binary compared to men) did not significantly affect the number of visits ($p > .05$). The model explained only 7% of the differences in visit frequency ($R^2 = .07$), meaning other factors, such as mental health severity, stigma, or awareness of services, likely have a larger impact. Although demographic factors did not skew the results, the clear difference between centers highlights the need to examine barriers specific to each site, such as resource availability or program access.

Summary of Key Findings

Counseling utilization varied significantly between the two centers. Overall, 77% of participants (n = 1,372) showed low utilization (1–2 visits), while 23% (n = 409) exhibited high utilization (≥3 visits). A chi-square test confirmed a strong link between module completion and utilization (χ^2 (1) = 171.06, p < .001). Students who were required to complete the module (Center B) comprised all high utilization cases (30.4%, n = 409), while those without access to the online module (Center A) reported (0%), with low utilization prevailing (100% vs. 69.6% at Center B).

Students who were exposed to the online module averaged 3.99 sessions (SD = 5.05), surpassing those without it (M = 1.12, SD = 0.33; t (1380.18) = 20.71, p < .001). At Center B, 30.4% (n = 409) attended ≥3 sessions, some up to 37, while Center A peaked at two. Negative

correlations (Pearson's $r = -.27$, Spearman's $\rho = -.37$, $p < .001$) underscored underutilization without the module.

The analysis revealed differences between School A (Center 1) and School B (Center 2) in demographics and counseling utilization. School A predominantly served Black students (46.9%) and had a higher female population (57.3%), while School B enrolled more Asian (41.7%) and White (43.8%) students, with a majority male population (56.6%).

Counseling utilization differed significantly: School B, which required first-year students to complete an online mental health (MH) educational module, reported higher utilization, with students averaging 3.99 visits compared to 1.12 in School A. All high-utilization cases (≥3 visits) occurred in School B (30.4%), whereas School A's usage was exclusively low (1–2 visits).

Chapter 5: Discussion

Introduction

This study aimed to determine the counseling service attendance pattern of first-year college students and the factors associated with the availability of such services. The two research questions that guided the study were:

Research Question 1

How does counseling service utilization compare between those required to complete an online mental health module prior to enrollment, compared to those who were not, during the Fall 2023 to Spring 2024?

Research Question 2

Do counseling utilization rates differ for incoming first-year students based on demographic factors such as age, race, and gender?

The recommendations of this study will be highlighted in this chapter in detail. First, it will explain and relate the results to the recommendations. The results will be compared to the existing literature regarding the similarity or dissimilarity of the research findings to prior research studies. The study's findings will be further elaborated for practice, policy, and theory concerning recommendations about how institutions can enhance first-year students' mental health support services. Last, the chapter will outline the study's implications, note the research limitations, suggest areas for future research, and provide recommendations for practice and policy.

The study's implications are theoretical and practical for college student mental health theories and practice. Examining the influence of online mental health education and the demographic factors of the usage of counseling services will enable colleges to address the

diversity in students' needs. The study stresses the need for increasing mental health literacy and recognizes that this is insufficient without properly addressing the access to mental health services.

Interpretation of Findings

Research Question 1

How does counseling service utilization differ among first-year students who were required to complete an online mental health module prior to enrollment, compared to those who were not, during the Fall 2023 to Spring 2024?

The first research question aimed to compare patterns of counseling between first-year students who were required to complete the online mental health module in advance to students who did not have access to the online module. Contrary to the hypothesis, students who were required to finish the mandatory online mental health training accessed counseling services to a greater extent compared to those without this requirement. This data could be interpreted in many ways, one of which could suggest that the online mental health module increased knowledge about mental health services, thus prompting them to access counseling help. Through the educational intervention, students gained important concepts about mental health that could have contributed to lower levels of stigma while promoting understanding of mental healthcare, thus leading to increased interest in counseling support.

Comparison with Prior Studies

Research findings differ from the hypothesis that mental health education exposure would reduce counseling service use. A few studies propose that mental health education produces self-competency among individuals, which creates the ability to solve problems without seeking professional support, resulting in the reduced need for professional help

(Psifidou et al., 2021). Findings from the present study challenge previous predictions because mental health education exposure resulted in increased counseling service usage instead of negative results. Research by Gu et al. (2021) supports the finding that mental health education reduces stigma while making students more willing to seek counseling services. The online mental health module could have potentially served as an educational resource that led students toward seeking help while acting as a proactive trigger, despite doubts that its usage would reduce their need for counseling support.

Implications for First-Year Students

This study shows that an online mental health module could potentially increase student awareness about resources, but it does not guarantee that students will access help during difficult times. Students in their first year who participated in the mental health module may have developed knowledge and confidence in seeking support, which could have led to higher utilization rates of counseling services. However, the study reveals the necessity of establishing a combined strategy where counseling services engage actively with education about mental health to achieve better results. The lack of continued support makes students retain their initial reluctance to reach professionals, even though they gained an understanding of mental health resources through education. Therefore, the educational module needs to be integrated with additional continuous guidance to build ongoing help-seeking traits within students because it functions independently as an educational approach.

Possible Reasons for the Results

Many potential reasons might explain why students who participated in the mental health module used counseling services more frequently. To begin with, a potential reason could be that the educational module enabled students to better understand mental health issues together with

available support services, so they gained empowered abilities and sought help as needed. In addition, perhaps the online program boosted awareness regarding counseling services while minimizing prejudices associated with these services and enhancing students' positive reception toward professional assistance. Another potential reason could be that students developed stronger self-efficacy abilities because of the module, which led to their increased willingness to obtain professional help whenever they needed it. The module could have led students to develop an understanding of why early intervention is vital, which led them to obtain counseling services before their challenges intensified. There could be many potential reasons, and we want to outline that the results are not conclusive and would need further longitudinal studies.

Research Question 2

Do counseling utilization rates differ for incoming first-year students based on demographic factors such as age, race, and gender?

The second research question established how clients' demographic characteristics, including age, race, and gender, influenced counseling utilization. The study established differences in counseling utilization due to these factors. For example, the university that required the online module, it was evident that women, students between the ages of 18-20, and Asian American, as well as White students, used counseling services more than students in other categories of the demographic variables. The demographics were different for the university that did not require online mental health training. Specifically, the study revealed that the African American students were mainly served by Center 2 accessed counseling services less frequently, even though this population experienced higher levels of mental health issues like anxiety, depression, and suicidal thoughts compared to their peers at the university who required the online mental health module.

Comparison with Prior Studies

The present results are in line with studies that showed that women and students aged 18-20 are more likely to seek mental health services. Research has proven that females are more likely to use the service than males due to cultural and social factors, whereas females are more likely to seek help with emotional issues (White et al., 2024). This research aligns with these trends because the gender distribution in counseling used in the current study was inclined more toward the female gender. In addition, the findings of the study are consistent with the existing knowledge about unequal representation of racial minorities in counseling services, with African American students seen as least likely to seek such services. Studies have pointed out that African American students use few mental health services, and for many reasons, some of which are stigma, a lack of trust in mental health workers, and the underrepresentation of African Americans in the field, according to Lu et al. (2021).

The fact that Center 2, which catered to African American students, recorded low high utilization even though their clients presented with severe psychological distress can be attributed to institutional factors such as underfunding, lack of resources, or limited session availability (Phillips & Tucker, 2023). This finding supports the notion of structural disparities in service provision highlighted by Shim and Starks (2021), which explains that students from marginalized backgrounds are provided with inadequate long-term care, which results in reduced service use overall.

Implications for First-Year Students

The study also shows that first-year students do not seek counseling services in equal measure, which calls for dismantling the barriers that lead to such disparities. Specifically, for example, African American students, will encounter challenges when accessing counseling

services. Research has proven that these issues are exacerbated by the lack of culturally appropriate care and the inadequacy of resources in centers (Phillips & Tucker, 2023). As a part of a support system for first-year students, especially those who experience academic and social transitions with stress and coping strategies, adequate mental health services should be marketed and adequately available. However, it's important to note that without adequate communication and messaging to destigmatize these resources that students may not always seek them due to barriers that may be perceived or real.

Possible Explanations for Findings

There could be several reasons for the observed racial differences in counseling service use. Several reasons may include the cultural beliefs of certain ethnic or racial groups where seeking therapy is considered taboo or a sign of weakness, especially among African Americans (Misra et al., 2021). Another factor that may serve as a barrier to the utilization of these services by African American students includes a long waiting list, restricted capacity of services, and inadequate availability of culturally sensitive mental health care practitioners. These students might experience perceived stigma and isolation because other counselors may not fully appreciate or empathize with their culture.

Another reason could be that the organization of services could be different at each counseling center. The study's findings imply that Center 2 was more of a crisis center. This operational model could be disadvantageous to students who require more intensive care, such as those with chronic mental disorders. In addition, another potential reason could be capacity, which could play a role in contributing to low high-utilization rates, despite having a larger percentage of students with significant mental health issues.

Implications for Practice

Expand Access and Capacity of Counseling Services

The findings show the variation in the frequency of service use and participation between the two counseling centers, where Center 1 was more frequent than Center 2. This indicates that some centers may be more convenient or have more resources allocated to meet students' needs. It would be of interest for both counseling centers to collaborate and find ways that they could learn from each other regarding best practices to expand access and capacity. There could be potential opportunities that could lead to an increase in the number of counseling staff, extending the hours of counseling, and increasing the accessibility of technology-based counseling will ensure that any student who needs counseling can access it. Apart from increasing the staff, services should be offered in a way that will address the needs of the students. The demographics are different for both universities, yet they are in close proximity, which could be of value to learn from trends and patterns of first-year students.

Integrating Mental Health Education with Counseling Services

The results showed that students who were exposed to an online mental health module before entry into the university used counseling services more than students who did not take the online mental health module, which indicates that mental health education could potentially increase the likelihood of seeking professional help. Although raising awareness is helpful and should always be part of the overall mental health program, it cannot be the only approach used (Singh et al., 2022). To support students, both universities should incorporate mental health awareness and campaigns to inform first-year students of the importance of mental health education and counseling services, making students aware of when it is time to seek professional help.

Both universities should consider providing follow-up support after the students have gone through the mental health module. This might involve efforts made by the health promotion/wellness teams at the university to discuss the importance of education and collaborate with counseling services to contact students in need. Mental Health Awareness should, therefore, be integrated with a collaborative approach with health educators and counselors to make the students understand the importance of prevention and seeking professional assistance as soon as possible, rather than after a crisis.

Holistic Approaches to Mental Health

Both universities should assess strategies for handling mental health issues since it is a crucial aspect of life that affects academics, associations, and productivity. The study also revealed that the academic stressors were high for students from both centers; however, 91% of the students who sought services at Center 1 had academic stressors, including perfectionism and test anxiety. Since the rigor of the university that requires online modules is higher than the university that does not, there should be strategies to ensure that counseling services are linked with academic support. For example, academic counselors could collaborate with counseling centers to come up with students who will require both services. Also, both counseling centers should consider collaborating with the health promotion/wellness centers on campus to partner on incorporating stress and coping skills to promote students' well-being in coping with college pressures. By integrating mental health within a range of student services like academic, peer, and career services, students could feel more comfortable seeking help and realize that their mental health is just as important as their pursuit of academic and career success.

Implications for Theory

Support for the Health Belief Model

According to the Health Belief Model used in this study, individuals make health-related decisions based on their recognition of health risks along with their understanding of how specified behavioral actions reduce these risks. The current study validates select components of the HBM theory, especially the relationship between resource barriers and anticipated advantages in deciding to use counseling resources. Students who finished the mental health educational module could have developed better mental health knowledge, which might have caused them to seek support. The model supports the lack of engagement with the university that does not require the online module, perhaps students' perception gauges themselves effectively for mental health management, which would probably delay seeking professional counseling.

Support for Social Cognitive Theory

The research findings present support for Social Cognitive Theory (SCT) since it highlights the significance of observation learning together with self-efficacy, and the impact of social norms on human conduct. Research shows that college students decide when to seek counseling based on their characteristics, such as mental health understanding and self-confidence, and the help they get from peers. Students who completed the online mental health module could have displayed improved self-efficacy for mental health management. According to SCT, students will seek help more frequently after seeing others seeking support. Both universities should create mental health campaigns where visible peer participation eliminates stigma, thereby encouraging all students to access available services.

Implications for Policy

Mandatory Mental Health Education

Although mental health education plays a vital role in the demystification of mental health problems and fighting prejudice, this research indicates that the mere provision of such education can also increase the use of counseling services. The findings suggest that the students who took the online mental health module sought counseling more often, yet it's important to acknowledge that there could be other potential factors that could have influenced the increase in utilization with students who need to be considered as well. Continuous engagement and access to resources, and outreach should be a component of an ongoing, large-scale mental health campaign. Therefore, according to Saberi (2025), mandatory mental health education should be a priority, along with actively promoting mental health help-seeking behavior.

Policy for Equitable Access

The study has shown that the availability of mental health services should be fair across the campuses, especially for the underrepresented groups. Funding and staffing should be examined to ensure counseling centers are able to meet all students' needs adequately, including those who might face hurdles in accessing counseling services due to cultural reasons or other factors, and are well addressed. This may include recommending service delivery options, such as remote, evening, or weekend counseling and culturally sensitive services to cater to the student's needs.

Implications for the Future

Strategies for Prevention

Education can be influential in raising awareness of mental health issues and helping students to seek professional help. They can help students to come forward before their mental

health issues worsen by promoting open discussions regarding mental health and stressing the necessity to seek assistance in case of necessity. Furthermore, health promotion/wellness centers should work closely with the counseling services to develop interventions that target the college students' academic and mental health needs so that they can be well supported in their endeavors, as also noted by Hanson et al. (2024). They should also ensure that mental health support services are included in the students' experience across the learning institution, from enrollment and orientation to counseling and advising. This results in the fact that mental health is not viewed as an extra or a luxury but as a necessity, forming an essential part of students' health and, therefore, their studies.

Limitations of the Study

Retrospective Design

It is inherently challenging to establish definitive causal relationships between past events and subsequent outcomes. However, while this design does not provide definitive solutions, it allows for an analysis of historical service utilization trends and the educational aspects that can be leveraged. Since retrospective studies rely on existing records, they may be susceptible to bias due to inconsistencies in data availability or quality (Voorhees & Howell Smith, 2020). Nevertheless, retrospective designs serve as a pragmatic method for evaluating an intervention after its implementation and identifying patterns that can inform subsequent research or policy decisions.

Variability in Interventions

However, the results of the studies vary, and there may be several ways in which they carry out the mental health education programs. Different universities may vary in content, duration, and delivery of counseling programs, which affects students’ involvement and

participation in counseling services as well (Martineau et al., 2020). Although these efforts can never be perfect in terms of natural differences in intake, forms, and program structures between universities, it will be imperative to standardize, not only data collection but also analysis. Future research should address this limitation by analyzing standardized interventions at multiple universities to strengthen comparisons and generalize across universities.

External Validity

Using data from university counseling centers limits the findings to only college students who use on-campus facilities by excluding students who receive counseling outside the university. For future studies, if this information is unavailable, it would require using survey data or coordinating with outside service providers to reflect the reality of mental health service use. Additionally, there are only two universities examined in this study, and both reside in the Southeast; the applicability of the findings is limited to other locations with possibly divergent institutional policies, student demographics, and mental health services. Replicating this study across multiple universities could scale up future research, improve external validity and also bolster the evidence base for large-scale policy to change higher education mental health initiatives.

For Future Research

Topics to Explore

Further research should focus on tracking the continued use of counseling services as students' progress through the various years of study. Such studies would be helpful in evaluating sustained mental health treatment, intervention, and early mental health education. Thus, incorporating educational models and daily intervention services may also be fruitful. In addition, gaps in factors that may hinder the use of counseling services among various

subcategories of students by student clients, such as first-generation college students or international students, should also be investigated. Research on peer support programs' effects on enhancing such services' utilization could also present valuable data.

Suggested Methodological Changes

Further study should accommodate quantitative and qualitative designs to provide more information about the students' mental health concerns and the barriers to counseling. This would involve combining quantitative research methods like questionnaires with qualitative methods like interviews or focus group discussions. Such a combination would enable the study to go deeper into students' lives and provide more meaningful data. It should also contain more extensive questionnaires focusing on various aspects of mental health, students' attitudes towards seeking help, and their experience with counseling. This would provide a better insight into the factors preventing the use of these services.

Populations to Target in Future Studies

Future research should further explore groups of students such as international students, students with LGBT+ orientation, and graduate students, as such students may experience certain barriers and mental health difficulties while trying to seek counseling services. Moreover, the system has language barriers and acculturation stress among the international students. This should be coupled with the fact that LGBTQ+ students might experience additional stigmatization and mental health challenges. Graduate students undergo various substantive, curricular, or developmental stressors that indicate their specific mental health needs. Focusing on these specified groups may help develop comprehensive and targeted mental health services for several communities of students.

Conclusion

This research aimed to explore the utilization of counseling services among first-year college students, the contribution of mental health online education, and demographics, including race, gender, and age. It was found that there was a significant gap in the usage of services. Namely, as found out by the study, African American students were less likely to seek services despite having a higher degree of mental health distress. On the same note, and rather an overall note, students who performed the online mental health module particularly had an increase in engagement with counseling services. Therefore, it exposes the necessity of making mental health education an ongoing and easily available process for first-year college students. Thus, it builds on the previous research by examining how our institutional environment and demographic characteristics can influence students' odds of asking for and receiving assistance. It also outlines how university systems need to explore student demographics and examine policies regarding mental health, stressing the urgency of increasing resources, increasing efforts to reach students, and implementing more equitable access. This work concludes by laying the groundwork for future research and intervention to offer the missing mental health resources and equality for all students in both academic and personal arenas.

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Appendix. Operational Definitions

First-Year Student

A first-year student refers to an individual enrolled in a college or university for the first time, typically within their first academic year of higher education. This term specifically applies to students in their initial year at a public university (Tinto, 1993).

Health Literacy

Health literacy is how patients and consumers acquire, understand, and apply information for basic health care and decision-making (US Department of Health and Human Services, 2000). This research defines health literacy as students' ability to assess and utilize health information effectively.

Matriculation

Matriculation is a critical phase for first-year students that involves transitioning from secondary to higher secondary education, often requiring adaptation to new academic expectations, social environments, and personal responsibilities (Tinto, 1993). Successful matriculation is closely linked to a student's persistence and retention in college, as those who adjust well in their first year are more likely to continue their studies and graduate (Pascarella & Terenzini, 2005; Kuh et al., 2008).

'Mental Health'

According to the World Health Organization (2001), mental health is achieving and maintaining an optimum level of emotional, social, educational, and occupational functioning in a supportive environment. In this research, mental health includes students' emotional, psychological, and social well-being.

Mental Illness

Mental illness refers to a range of mental health disorders that affect mood, thinking, and behavior, potentially impairing daily functioning and quality of life. Examples include anxiety disorders, depressive disorders, and mood disorders (American Psychiatric Association, 2013). This study considers any diagnosed mental health condition as a mental illness.

Mental Health Crises

Mental health crises refer to situations in which an individual experiences an acute psychological disturbance that poses an immediate risk to themselves or others. These crises may include severe episodes of depression, anxiety, panic, psychosis, or suicidal ideation that require urgent intervention (Jacobson et al., 2012). In this study, a psychological health crisis is operationalized as any situation in which students seek or are referred for immediate psychological health services.

Mental Health Services

Mental health services include professional support to address mental health needs, such as counseling, therapy, psychiatric care, crisis intervention, and wellness programs (US Department of Health and Human Services, 1999). For this study, mental health services specifically refer to those offered on or through university campuses, including counseling centers, crisis intervention units, and online mental health resources.

Mental Health Issues

Mental health issues are then described as those problems, disorders, or difficulties that can affect one's psychological or social functioning or well-being. These are some normal stress reactions that do not necessarily call for a diagnosis of a mental illness, but which affect

functionality, such as anxiety, depression, stress, and adjustment disorders (American College Health Association, 2021).

Mental Health Literacy

Mental health literacy means total understanding and awareness of mental health disorders and knowledge and belief concerning their prevention. Knowledge is defined as awareness of mental health conditions, understanding symptoms, knowing when and where to seek help, and decreasing stigma (Jorm et al., 1997). One of the important vectors studied in this research is the concept of mental health literacy, which defines the students' readiness to address mental health issues responsibly.

Mental Health Education

Mental health education, therefore, refers to organized efforts in imparting knowledge and developing skills regarding mental health. It can contain details on how to identify signs, cope with stress, and get help (Reavley & Jorm, 2012).

Mental Health Resources

Mental health resources refer to any tools, programs, or support systems available to help individuals manage and maintain their mental health. Examples include counseling services, peer support groups, wellness workshops, mobile mental health apps, and informational materials (Eisenberg et al., 2013; National Institute of Mental Health, 2017). In this study, mental health resources encompass in-person and online services accessible to first-year students at two public universities in the southeast.