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A STUDY OF FIRST-GENERATION COLLEGE STUDENTS
AT THE UNIVERSITY OF MISSISSIPPI

William Brady Suttles

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford, MS
April 2023

Approved By

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Reader: Dr. Allison Ford-Wade

Reader: Ashleen Williams

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DEDICATION

This thesis is dedicated to my mother Connie Suttles and my Aunt Frances Williams. Thank you for your unwavering support through the hardest time in my life. I could not have made it this far without you. I would like to also thank some of the professors who have played a large role in my success and have made me the academic I am today. Thank you, Dr. Stefan Schulenburg, Dr. Karla Lyles, Dr. Ryan Parsons, and Ms. Kaye-Butler Barefoot. Finally, I would like to thank the Ole Miss Public Health faculty for their support. Thank you, Dr. Hannah Allen, Dr. Allison Ford-Wade, Dr. Ashley Jones, and Dr. Victoria Zigmont.

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I would like to thank my thesis advisor Dr. Hannah Allen for her constant support and inspiration. She is the reason I found my passion for public health. She helped me through one of the darkest parts of my life and gave me a reason to continue my education. She gave me a reason to keep going. She has been extremely patient and encouraging through my thesis work and I could not have done this without her. Thank you, Dr. Allen.

ABSTRACT

WILLIAM BRADY SUTTLES: A Study of First-Generation College Students at the University of Mississippi
(Under the direction of Dr. Hannah Allen)

Background. First-generation college students (FGCS) are a distinct sub-population within higher education. In comparison to their peers, FGCS report increased levels of anxiety, depression, and stress along with lower levels of social support and academic attainment. Considering the unique context and history of the University of Mississippi (UM), it is crucial to understand the specific needs of FGCS enrolled at UM. The aims of this study were to: 1) assess the associations between FGCS status and mental health and academic achievement, and 2) determine whether sense of belonging moderates these associations.

Methods. $N=342$ undergraduate college students (79% female; 76% white) at the University of Mississippi completed an anonymous online survey in Fall 2022. Participants reported their overall grade point average (GPA) and completed the 7-item Generalized Anxiety Disorder Assessment (GAD-7) and the 9-item Patient Health Questionnaire (PHQ-9). Participants also indicated if they felt there was a pleasant atmosphere at UM (i.e., sense of belonging). Linear regression models were used to analyze all associations of interest.

Results. A quarter of the sample (25%) identified as a first-generation college student. When comparing descriptive statistics, FGCS had higher mean levels of anxiety and depression and lower GPA when compared to their peers. However, FGCS status was not significantly associated with any variables of interest. The association between FGCS status and depression approached significance both in the whole sample ($p=0.055$) and among students with no sense of belonging on campus ($p=0.050$).

Conclusion. First-generation college students had higher mean levels of depression symptoms than their peers, and this association was approaching statistical significance. The University of Mississippi should continue to support the unique needs of first-generation students, particularly in the areas of depression and mental health and wellness. The University Counseling Center and the William Magee Center should provide ongoing resources and programming tailored to first-generation college students, and continued research is needed.

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LIST OF ABBREVIATIONS

FGCS	First-Generation College Student
GAD-7	7-item Generalized Anxiety Disorder Scale
GPA	Grade Point Average
HOCO	Honors College
PHQ-9	9-item Patient Health Questionnaire
UCC	University Counseling Center
UM	University of Mississippi

CHAPTER I: LITERATURE REVIEW

First-Generation College Students

First-Generation College Students (FGCS) are a distinct subgroup within the undergraduate college student population in the U.S. FGCS are defined as the first in their immediate family to attend a four-year institution and complete a university degree. The federal definition of a FGCS as developed for the TRiO program acceptance is as follows: “(A) An individual both of whose parents did not complete a baccalaureate degree; or (B) in the case of any individual who regularly resided and received support from only one parent, an individual whose only such parent did not complete a baccalaureate degree” (Higher Education Act of 1965). Depending on the definition, within the United States as of academic year 2015-2016, 24% of undergraduate students had parents with no postsecondary education, and 56% of students had parents who did not have a bachelor’s degree (NASPA, 2019).

FGCS have a unique undergraduate experience compared to their peers. For many FGCS, added stressors and adverse life events shape their college experience. They encounter more obstacles during their college experience such as job responsibilities, familial responsibilities, poor mental health outcomes, perceived weak English and math skills, and acculturative stress (Stebbleton and Soria, 2013). FGCS are four times more likely to drop out after one year of college, compared to peers (Engle & Tinto, 2008). But the resilience of this group cannot be understated.

Research is inconsistent on the prevalence of depression in FGCS. Most studies conclude that FGCS have similar depression rates as the general population but experience more severe stressors daily (Jenkins et al., 2013; House et al., 2020). These stressors typically stem from acculturation, the academic transition into university, and financial burdens. Interestingly, Noel

et al. (2021) found that peer social support moderated distress and self-stigma stemming from a previous mental health diagnosis in FGCS.

A notable study by Jenkins et al. (2013) found only moderately more depression symptomology present in FGCS as compared to their peers, but found that they report less social support, less life satisfaction, and more PTSD symptoms. Further, social support from a significant other showed no significant influence on mental health outcomes. Additionally, Jenkins et al. (2013) found FGCS experience academic acculturative stress at higher rates than peers, hypothesizing that this stems from feelings of alienation, difference, lack of belonging, and demoralization. Strength of this study lies in the sample selected for study. The sample was diverse and reflected the same ethnic diversity as the university. However, multiple limitations exist for this study. First, researchers estimated socioeconomic status using parental college education level. Additionally, they were not able to differentiate between academic stress and other stress such as familial or financial. Further, they found women had a higher prevalence of distress than men but did not provide a reason for this gender disparity (Jenkins et al., 2013).

A separate study by House et al. (2020) found that while FGCS report more work hours, academic distress, and financial distress than their peers, their mental health outcomes showed no significant differences. Additionally, there was no significant difference in perceived social support or family support. Further, House et al. (2020) found similar academic outcomes in both groups. A limitation of this study is that the sample consisted of students already seeking services for mental health concerns, meaning this could account for the differences in outcomes.

Additionally, Noel et al. (2021) found that while FGCS are at an increased risk of somatic anxiety symptoms such as fear, restlessness, and annoyance, no significant relationship existed between FGCS status and depression. Because FGCS are at risk of experiencing chronic

stress, this can result in increased anxiety symptoms. Decreased social support was associated with higher levels of somatic anxiety symptoms. However, moderate to high levels of peer social support and emotional support moderated the additional stress associated with FGCS status.

College Student Mental Health

Typically, the onset of mental health disorders occurs by the age of 25, as 75% of the population who have a mental health disorder will experience their first symptoms by this age. population experiencing some mental health disorder by this age (Pedrelli et al., 2014). The most prevalent mental health disorders found in college students are anxiety disorders, with an estimated 11.9% of college students suffering from any anxiety disorder (Pedrelli et al., 2014). Many students begin experiencing anxiety symptoms during their college years, a time that is often tumultuous for many. Without the proper coping mechanisms, anxiety can lead to serious decreases in quality of life and also to suicidality (Sarreen et al., 2022).

The prevalence of depression symptoms in college students ranges from 9% to 40% (Noel et al., 2021; Pedrelli et al., 2022; Ramón-Arbués et al., 2020; Mistler et al., 2012). Importantly, depression serves as a major predictor of students dropping out of college, as an estimated 64% of students report dropping out due to a mental health disorder (National Association for Mental Illness). College students experience unique stressors compared to the general adult population. These can include stress from finances, romantic relationships, familial relationships, and occupational stress. However, certain college students are at an increased risk of chronic stress, which can lead to a higher prevalence of anxiety and depression. For example, studies have shown disparaging outcomes in mental health and educational attainment in certain subgroups of students such as first-generation college students (FGCS).

Academic Achievement

Academic achievement is broadly defined as the outcomes that indicate whether or not a student met their learning goals in completing their degree. This is typically measured through the student's GPA. Nearly a third of FGCS drop out by the third year of school (U.S. Department of Education, 2018). On top of this, less than half of FGCS graduate on time within four years. This adds additional financial stress, as with each additional semester of college, students are more likely to go further into debt to finance their education. Academic challenges are a common stressor for FGCS (House et al., 2020). FGCS report higher levels of academic stress compared to peers (House et al., 2020). Further, FGCS tend to be less academically successful than peers and are more likely to not achieve their academic goals (Eveland, 2019).

Academic support has been shown to be a protective factor in academic success (Purswell, 2008). Not only does academic support prove to be beneficial, but it is also the most powerful predictor of academic success, as Purswell (2008) found peer and family support had no significant effect on academic success. Additionally, the metric this study used to predict outcomes was different from previous studies. Purswell (2008) used intent to perform specific academic behaviors- such as doing well on a test- as a measure instead of intent to graduate. They found this measure to be the only predictor of academic behavior.

Social Support

A multitude of emerging research has shown a strong sense of resilience and self-efficacy among FGCS, driving them to succeed (Alvarado, Spatariu, Woodbury, 2017; Azmitia, Sumabat-Estrada, Cheong, & Covarrubias, 2018). The importance of social support for FGCS cannot be understated. Although studies show social support can serve as a moderator for anxiety and depression outcomes in FGCS (Noel et al., 2021), FGCS report less social support as

compared to peers (Jenkins et al., 2013). Additionally, a decrease in social support is associated with higher levels of anxiety (Noel et al., 2021).

Higher perceived social support is associated with an increase in coping tendencies. Rankin et al. (2018) found that when emotional needs exceed the social support received by students, depression symptoms increase. However, when social support needs are met, depression and anxiety symptoms tend to decrease. Numerous studies show that social support moderates the association between depression symptoms and first-generation status (Wang et al., 2014, Rankin et al., 2018, Noel et al., 2021, Mai et al., 2021).

Academic attainment is an important aspect of the college experience. Studies show that FGCS on average have lower GPAs than peers and tend to be less academically successful (Strayhorn, 2007 and Eveland, 2019). The importance of social support in academic achievement has been well established in literature. The relationship between social support and student success displays the importance of social support in the university setting. Specifically, for FGCS, social support has been shown to be a major predictor of academic success and mental health (Dzulkifli, 2011; Ives, 2020).

Current Study

Prior research on the mental health of FGCS has been mixed. Many FGCS experience higher rates of stress linked to a multitude of factors including financial, familial, academic, and acculturative (Jenkins et al., 2013; House et al., 2020). FGCS report higher levels of anxiety and PTSD, but do not report higher levels of depression (Noel et al., 2021). Additionally, FGCS report less social support than their peers, but report academic outcomes similar to those of non-FGCS (Jenkins et al., 2013). Where most studies agree that FGCS have a unique college experience compared to non-FGCS, results are mixed on mental health and academic outcomes.

Throughout the research literature, outcomes differ among FGCS from various backgrounds. Although most FGCS have similar experiences in their adjustment to university life, some do better than others. Although FGCS who identify as male seem to have similar, or even better, mental health outcomes compared to the general population, FGCS women repeatedly have a higher prevalence of depression and anxiety. Additionally, international students have better mental health outcomes compared to other FGCS and report greater feelings of school sense of community (SSOC) than their FGCS peers (Williams & Ferrari, 2015).

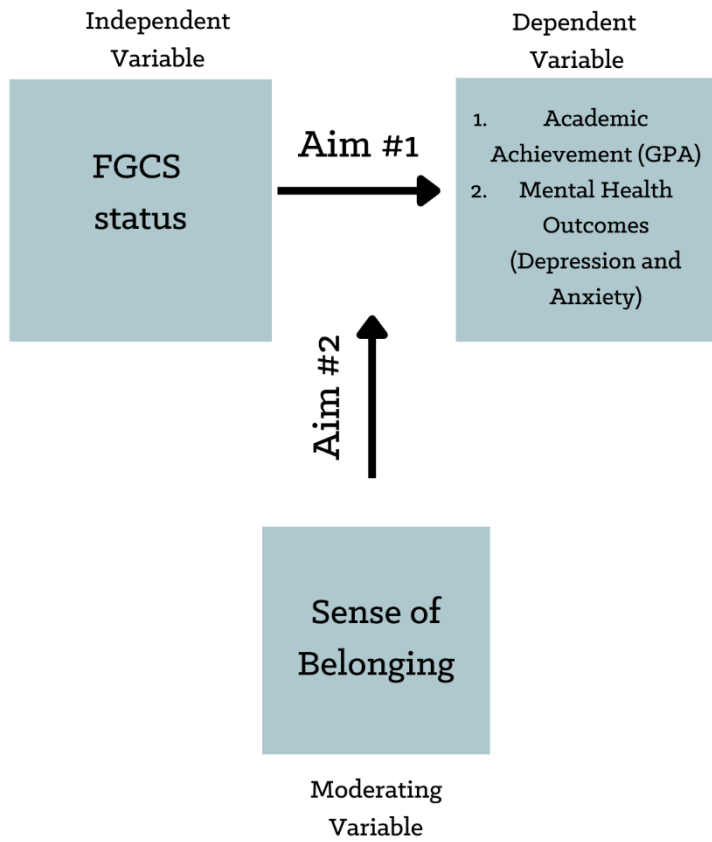
It is important to recognize the context this study is being conducted in. The University of Mississippi was founded in 1844 and opened its doors to its first students in 1848. The university has a longstanding history of discrimination on the basis of race, sex, class, and sexual orientation (Final Report Chancellor's Advisory Committee on History and Contextualization, 2017). In 1882, the school began to allow female students to attend. The school was not officially racially integrated until 1962 when James Merideth registered for classes after a night of rioting and protests on the part of white supremacists. This occurred after the U.S. Court of Appeals 5th Circuit issued a decision in June of 1962, allowing Merideth to attend. This case was heard after a lower court sided with the university to block Meredith from registering. To this day, the University remains a predominantly white institution with around 75% of the student body identifying as white (Office of Institutional Research, Effectiveness, and Planning University of Mississippi, 2022).

The University of Mississippi houses a network of first-generation students, faculty, and practitioners known as the First-Generation Student Network. The network strives to build an equitable and accessible space for first-generation students at the university (Williams and Ash, 2021). This network was established in the Sally McDonnell Barksdale Honors College in 2019

and became open to all first-generation students starting in 2021 (First-Generation Student Network| Sally McDonnell Barksdale Honors College Ole Miss, 2022). The network hosts bi-weekly meetings where students have the chance to engage with other first-generation peers. Additionally, the network provides career building workshops, teaches students how to apply for financial aid, and provides a space to connect with first-generation alumni. Each year the network hosts the First-Generation College Celebration during First-Generation College Week. The First-Generation Student Network works to provide both academic and social support to students who identify as first-generation. Around 130 students make up the network (Erabadie, 2022).

This study is examining the FGCS population at the University of Mississippi. Previous research on the topic points to the importance of both social transitions and engagement and academic transitions as FGCS enter the higher education space (Barnes, 2018). This study adds to the knowledge of the first-generation student experience at UM in regard to mental health and academic outcomes. The aims of this study are to: 1) assess the associations between FGCS status and mental health and academic achievement, and 2) determine whether sense of belonging moderates these associations. This study will be used to inform the ways academic institutions can better support the needs of their FGCS, specifically the University of Mississippi.

Figure 1. Study Aims

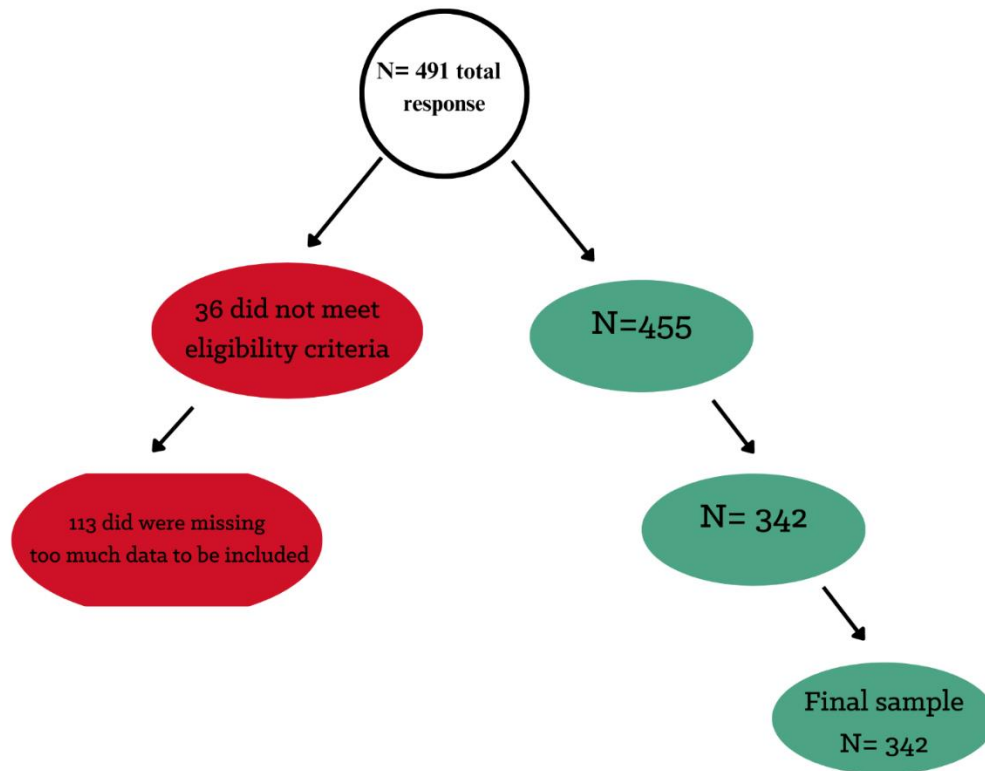


CHAPTER II: METHODS

Data Collection and Procedures

This study was conducted at the University of Mississippi in Fall 2022. Students were eligible for participation in the study if they were 18 years or older and a current undergraduate student. A panel of undergraduate students were invited to participate in the study via campus email, and the study was also advertised in the daily campus newsletter. A total of $n=419$ participants responded to the survey. The final analytic sample included $n=342$ undergraduate students after exclusion for ineligibility ($n=36$) and missing data ($n=113$). Participants provided informed consent and had the option to enter a raffle to win an Amazon gift card. This research was approved by the University of Mississippi Institutional Review Board.

Figure 2. Selection Criteria



Measures

Demographic characteristics. Standard questions were used to assess age, sex, race/ethnicity, sexual orientation, parent education, international student status, and class standing.

First-generation student status. To assess first-generation status, students were asked: “Are you a first-generation college student (i.e., your parents did not complete a four-year college or university Bachelor’s degree)?”

Mental health. The GAD-7 and PHQ-9 were administered (Kroenke et al., 2001; Spitzer et al., 2006). The GAD-7 consists of 7 items rated on a Likert-type scale ranging from not at all

(0) to nearly every day (3). Items included “Over the last two weeks, how often have you been bothered by feeling nervous, anxious, or on edge?” and “Over the last two weeks how often have you been bothered by feeling afraid, as if something awful might happen?” Possible sum scores for the GAD-7 range from 0-21, with higher scores representing higher levels of anxiety.

The PHQ-9 consists of 9 items rated on a Likert-type scale from not at all (0) to nearly every day (3). Items included “Over the last two weeks, how often have you been bothered by little interest or pleasure in doing things?” and “Over the last two weeks, how often have you been bothered by feeling bad about yourself- or that you are a failure or have let yourself or your family down?”. Possible sum scores for the PHQ-9 range from 0-27, with higher scores representing higher levels of depression.

Academic achievement. To assess academic achievement, students reported their current cumulative grade point average (GPA).

Sense of belonging. To assess sense of belonging, one item from the Social Support at University Scale was used (Hughes, 2007). On a Likert-type scale ranging from strongly disagree (1) to strongly agree (4), students indicated whether they felt there was a pleasant atmosphere at the University of Mississippi. A dichotomous variable was created for agree or disagree.

Statistical Analysis

Descriptive statistics (i.e., frequency, mean, standard deviation) were calculated for all study variables. Linear regression models were used to test associations between First-Generation student status and 1) GPA, 2) anxiety, and 3) depression. All analyses controlled for age, sex, race/ethnicity, sexual orientation, parent education, international student status, and class standing. Linear regression models were run again after stratifying the sample by whether

students felt a sense of belonging on campus. All data was analyzed using SPSS Statistics, and the alpha level was set at 0.05.

CHAPTER III: RESULTS

Table 1. Sample characteristics ($n=342$)

	Mean \pm SD
Age	20.3 \pm 3.8
	<i>n</i> (%)
Birth sex	
Male	73 (21.3)
Female	269 (78.7)
Race/Ethnicity	
African American/Black	32 (9.40)
American Indian/Alaskan Native	5 (1.5)
Asian American/Asian	17 (5.0)
Hispanic/ Latin(x)	22 (6.4)
Native Hawaiian/Pacific Islander	1 (0.3)
Middle Eastern/Arab/Arab American	5 (1.5)
White	278 (81.3)
Other	2 (0.3)
Sexual Orientation	
Heterosexual/straight	272 (79.5)
Lesbian	3 (0.9)
Gay	8 (2.3)
Bisexual	37 (10.8)
Queer	4 (1.2)
Questioning	6 (1.8)
Self-Identify/Other	10 (2.9)
Parent's Highest Level of Education	
Less than high school degree	8 (2.3)
High school degree	21 (6.1)
Some college	41 (12.0)
Associate's degree	24 (7.0)
Bachelor's degree	123 (36.0)
Graduate degree	121 (35.4)
Don't know	4 (1.2)
International Student Status	
Yes	14 (4.1)
No	328 (95.9)
First-generation College Student	
Yes	86 (25.1)
No	256 (74.9)
Class	
Freshman	87 (25.4)
Sophomore	66 (19.3)
Junior	90 (26.3)
Senior	99 (28.9)

Note. SD=standard deviation

Table 2. Mental health and academic achievement among college students, by first-generation student status

	Whole Sample <i>n</i> =342	Non-First-Generation Students <i>n</i> =256	First-Generation Students <i>n</i> =86
	Mean (SD)	Mean (SD)	Mean (SD)
GPA	3.51 (0.58)	3.53 (0.60)	3.46 (0.50)
GAD-7	9.75 (5.84)	9.68 (5.90)	9.96 (5.69)
PHQ-9	9.02 (6.31)	8.65 (6.13)	10.16 (6.74)
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Sense of Belonging			
Yes	294 (86.0)	228 (89.1)	66 (76.7)
No	48 (14.0)	28 (10.9)	20 (23.3)

Note. SD=standard deviation; GPA=grade point average; GAD-7=7-item Generalized Anxiety Disorder assessment; PHQ-9=9-item Patient Health Questionnaire

Table 3. Results of linear regression models assessing the relationships between first-generation student status, mental health, and academic achievement

	GPA			GAD-7			PHQ-9		
	Whole Sample <i>n</i> =342	Sense of Belonging <i>n</i> =294	No Sense of Belonging <i>n</i> =48	Whole Sample <i>n</i> =342	Sense of Belonging <i>n</i> =294	No Sense of Belonging <i>n</i> =48	Whole Sample <i>n</i> =342	Sense of Belonging <i>n</i> =294	No Sense of Belonging <i>n</i> =48
	<i>B</i> (<i>p</i> -value)								
First-Generation Student Status	0.036 (0.818)	-0.107 (0.539)	0.596 (0.137)	0.000 (1.00)	1.022 (0.525)	-4.821 (0.310)	-3.142 (0.055)*	-1.518 (0.377)	-10.228 (0.050)*

**p*<0.10

Note. GPA=grade point average; GAD-7=7-item Generalized Anxiety Disorder Assessment; PHQ-9=9-item Patient Health Questionnaire. All analyses controlled for age, sex, race/ethnicity, sexual orientation, parent education, international student status, and class.

As seen in Table 1, the sample was majority female, white, and heterosexual/straight. Around 25% of the sample were first-generation college students, and around 4% of the sample were international students.

The average GPA of the sample was 3.51 (see table 2). The average GPA of the non-FGCS population was 3.53, and the average GPA of the FGCS population was 3.46. GAD-7 scores range from 0-21, with higher scores representing more anxiety symptoms. Mean GAD-7 scores were 9.75, 9.68, and 9.96 in the whole sample, non-FGCS sample, and FGCS sample, respectively. PHQ-9 scores range from 0-27, with higher scores representing more depression symptoms. Mean PHQ-9 scores were 9.03, 8.65, and 10.16 in the whole sample, non-FGCS sample, and FGCS sample, respectively. Eighty-six percent of the whole sample felt a sense of belonging at UM in comparison to 89% of non-FGCS and 77% of FGCS.

No significant associations were found between first-generation student status and GPA and GAD-7 score (see Table 3). These results were the same when the sample was stratified by sense of belonging. In the whole sample, first-generation status was approaching a significant association with depression ($p=0.055$), such that FGCS had higher levels of depression than non-FGCS. When the sample was stratified by sense of belonging, the association between FGCS status and depression was not significant among those with a sense of belonging on campus. However, the association between FGCS status and depression was approaching significance ($p=0.050$) among those who did not have a sense of belonging on campus.

CHAPTER IV: Discussion

This study found no significant associations between first-generation student status and GPA, anxiety, and depression. The relationship between first-generation student status and depression was approaching significance in the whole sample and among students who reported no sense of belonging on UM's campus. Despite a lack of statistical significance, these findings are notable and future research should continue to explore mental health among FGCS, particularly depression.

The PHQ-9 has well-established cutoff scores. Scores of 0-4 represent none or minimal depression, 5-9 represent mild depression, 10-14 represent moderate depression, 15-19 represent moderately severe depression, and scores of 20+ indicate severe depression (Kroenke et al., 2001). FGCS on average report depression rates in the moderate category of PHQ-9 scoring. Their non-FGCS peers report depression rates in the mild category. With a mean PHQ-9 score of 10.16, FGCS in this sample tended to fall in the moderate depression category while non-FGCS had a mean score of 8.65 (indicating mild depression). The average PHQ-9 score for the entire sample was 9.02, meaning the average college student at the University of Mississippi reports experiencing mild depression. This data differs from previous findings that suggest FGCS do not experience more depression symptoms on average as compared to peers (Noel et al., 2021; House et al., 2020).

The GAD-7 has well-established cutoff scores. Scores of 0-4 represent minimal anxiety, 5-9 represent mild anxiety, 10-14 represent moderate anxiety, and 15+ indicate severe anxiety (Spitzer et al., 2006). Both FGCS and non-FGCS on average report anxiety rates in the mild-moderate category. With a mean GAD-7 score of 9.96, FGCS in this sample tended to fall in the mild-moderate category while non-FGCS had a mean score of 9.68 (indicating mild-moderate

anxiety). The average GAD-7 score for the entire sample was 9.75, meaning the average college student at the University of Mississippi reports experiencing mild-moderate anxiety. This data differs from previous findings suggesting that FGCS experience more average anxiety symptoms than peers (Noel et al., 2021).

Using GPA to gauge academic achievement, non-FGCS had higher GPAs than their FGCS peers. Non-FGCS reported an average GPA of 3.53, while FGCS reported GPAs averaging 3.46. This difference was not significant when controlling for age, sex, race/ethnicity, sexual orientation, parent education, international student status, and class. Previous literature suggests that FGCS have lower GPAs on average than peers (Strayhorn, 2007 and Eveland, 2019). Because this survey was sent out directly to Honor's students, the average GPA of our sample could be higher than the average college student GPA.

The majority of students felt a sense of belonging at UM, but there were descriptive differences by FGCS status. Almost 90% of non-FGCS felt a sense of belonging at UM in comparison to only 77% of FGCS. Because sense of belonging was a stratifying variable in this study, we did not test the significance of the association between first-generation status and sense of belonging. Using sense of belonging as a metric for social support, study findings indicated most students feel they belong at the university and have a sense of campus community. Social support is a major predictor of student mental health and academic outcomes, which may explain why major differences in outcomes between FGCS and non-FGCS were not found in this study (Dzulkifli, 2011; Ives, 2020). Further, the university houses a strong student-led organization for FGCS that offers social support and academic support. Those who identify as FGCS may feel a stronger sense of support at this university than others.

Study Limitations

This study's limitations include the setting where the study was conducted. The University of Mississippi is an overwhelmingly white and straight college campus, which may have influenced variables of interest and study findings. A lack of diversity in the sample is reflected by university demographics. Out of a final sample of $n=342$ students, around 86 students (25.1%) identified as FGCS. Most colleges estimate a FGCS population around 33%, or a third of the student body (NASPA, 2019). Another limitation of the study is in the surveying methods used to collect data. The survey was sent out to student groups such as the First-Generation Student Network and the Honors College. This could have impacted the data found on GPA, as the average GPA of the sample was a 3.51. The average college student GPA across the country is around a 3.1 (Grade Inflation, 2019). FGCS from the First-Generation Student Network may already feel a greater sense of belonging at UM because they are already part of a group (as opposed to a FGCS not a part of this network). These students may feel a greater sense of belonging being in a group centered on uplifting first-generation students and their backgrounds.

Another limitation of this study is in the way we assessed sense of belonging. We used one item from the Social Support at University scale. The Social Support at University scale has limited literature on scoring and efficacy of the instrument, and not all scale items were used. Possible future research should look for better ways to measure social support and sense of belonging, specifically in the higher education setting and among FGCS.

Study Strengths

This study adds to the knowledge of the first-generation experience at UM. This study used well-established measures such as the GAD-7 and PHQ-9 to assess mental health. This

study adds to the growing literature on the FGCS experience in higher education and better informs institutions on ways to support their FGCS population's mental health and academic needs.

Recommendations

The University of Mississippi should continue its support of FGCS. Possible areas of improvement include mental health programming geared specifically toward the FGCS population. Additionally, future research should look at the role intersectionality plays in the FGCS experience. FGCS are on average more racially and ethnically diverse than peers and are more likely to come from low-income backgrounds (Havlik et al., 2020; U.S. Department of Education, 2004). These intersecting identities play a part in the college experience for FGCS and non-FGCS alike. Understanding the role of intersecting identities is important to offer programs and services geared toward this population.

Some FGCS may not know their first-generation status entering college. In the study survey, the question “think of your parent who completed the highest level of education. What level of education did they complete?” was asked. About 27% of students reported their parents' highest level of education being an associate's degree, some college, a high school degree, or less than a high school degree. With only 25.1% of the sample identifying as a FGCS, these results indicate some FGCS may not know their first-generation student status.

Early mental health programming targeted to this population could be beneficial for long-term mental health outcomes during college. Identifying these students before they set foot on the college campus could be beneficial. In this way, students would be connected with mentors and peers who come from similar first-generation backgrounds. Building a sense of community from the start could aid these students in their higher education journeys. University departments

such as the University Counseling Center (UCC) and the William Magee Center could provide specific programs and interventions targeted at first-generation students. By offering more diverse programming, these departments could reach a wider audience.

Future research should evaluate the significance of sense of belonging by comparing first-generation populations to their peers. Further, research should look for a better way to assess sense of belonging and social support amongst FGCS. Additionally, examining the types of social support that are beneficial to FGCS is important to understanding the role social support plays. Whether this be familial support, peer support, or support from mentors and role models, it is important to understand the type of support needed for FGCS to thrive.

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APPENDICES

APPENDIX A: IRB Application



The University of Mississippi
Office of Research and Sponsored Programs
Division of Research Integrity and Compliance – Institutional Review Board
100 Barr Hall – University, MS 38677
irb@olemiss.edu 662-915-7482

APPLICATION FOR EXEMPTION

Purpose: Many studies qualify for an abbreviated review, according to the federal regulations and university policy.

- Part I of this form screens for a brief review.
- Part II of this form completes the abbreviated IRB application.
- Part III of this form gives instructions for obtaining the required assurances.
- The IRB makes the final determination on whether you must fill out a full application.

Always download the most recent version of this form: <http://www.research.olemiss.edu/irb/protocol/forms>.

Prepare and send application form as a Word document. E-mail the completed form and attachments (and forwarded email assurance if PI is a student) to irb@olemiss.edu.

Note: Some class project studies may qualify for a classroom waiver of IRB Application. Instructors: see form [here](#).

PART I— Screening

1. Do any of the following apply to your study?

Research Methods:

- | | | |
|-----------------------------------------------------------------------|------------------------------|----------------------------------------|
| Clinical Treatment study | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exercise | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| X-rays | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Collection of blood, urine, other bodily fluids, or tissues | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Use of blood, urine, other bodily fluids, or tissues with identifiers | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Use of drugs, biological products, or medical devices | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Use of drugs, biological products, or medical devices | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Use of data collected in the European Economic Area (EEA)* | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

Targeted Subjects:

- | | | |
|-----------|------------------------------|----------------------------------------|
| Prisoners | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
|-----------|------------------------------|----------------------------------------|

Elements of Deception:

- | | | |
|------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| The study uses surreptitious videotaping | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| The study gives subjects deceptive feedback, whether positive or negative | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| The study uses a research confederate (i.e., an actor playing the part of subject) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If you checked Yes to any of the above, STOP HERE and fill out the [FULL IRB APPLICATION FORM](#).

***Anonymous or Confidential?** Anonymous means (1) the recorded data cannot associate a subject with his/her data, and (2) the data cannot identify a subject. *Examples:* surveys with no names but with demographic data that can identify a subject (e.g., the only African-American in a class) are not anonymous.

***Sensitive Information?** Sensitive information includes but is not limited to (1) information that risks damage to a subject's reputation; (2) information that involves criminal or civil liability; (3) information that can affect a subject's employability; and (4) information involving a person's financial standing. *Examples:* Surveys that ask about porn use, illegal drug or alcohol use, religion, use of alcohol while driving, AIDS, cancer, etc. contain sensitive information.

***European Economic Area -** Collection of data in the European Economic Area (the 28 states of the European Union and Iceland, Liechtenstein, Norway, and Switzerland). Special considerations apply -if data are not 100% anonymous. See [GDRP Guidance](#) for more information

If using Qualtrics for anonymous surveys, [see guidance here](#).

2. The **ONLY** involvement of human subjects will be in the following categories (check all that apply)
PLEASE READ CAREFULLY: MUCH CHANGED WITH NEW REGULATIONS, JANUARY 2019

- 1) **Educational Research:** Research conducted in established or commonly accepted educational settings, involving normal educational practices. Research is not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- 2) **Surveys, Interviews, Educational Tests (cognitive, diagnostic, aptitude, achievement), Observation of Public Behavior (including video or auditory recording). AT LEAST ONE OF THE FOLLOWING MUST BE CHECKED**
- (i) Information recorded by the investigator cannot readily identify the subject (either directly or indirectly)
 - (ii) Disclosure of subjects' responses outside the research could **NOT** reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, educational advancement, employability, or reputation
 - (iii) Information recorded by the investigator includes identifiers and the investigator specifies strong security measures to protect the data (e.g., encryption for electronic data; multiple locks for paper data). Minors are **NOT** permitted under this sub-category
- 3) **Benign Behavioral Interventions (BBI):** Research involving interventions in conjunction with collection of information from an adult subject through verbal or written responses (including data entry) or audiovisual recording, if the subject prospectively agrees to the intervention and information collection.
- BBI is limited to communication or interpersonal contact; cognitive, intellectual, educational, or behavioral tasks; manipulation of the physical, sensory, social or emotional environment
 - Intervention Requirements:
 - brief duration (maximum intervention = 3 hours within one day; data collection may extend more hours & over days)
 - painless/harmless (transient performance task-related stress, anxiety, or boredom are acceptable)
 - not physically invasive (no activity tracker, blood pressure, pulse, etc.)
 - unlikely to have a significant adverse lasting impact on subjects
 - unlikely that subjects will find interventions offensive or embarrassing
 - no deception / omission of information, such as study purpose, unless subject prospectively agrees

AT LEAST ONE OF THE FOLLOWING MUST BE CHECKED

- (A) Recorded information cannot readily identify the subject (either directly or indirectly)
- (B) Any disclosure of subjects' responses outside the research could **NOT** reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation
- (C) Information is recorded with identifiers and the investigator specifies strong security measures to protect the data (e.g., encryption for electronic data; multiple locks for paper data)

- 4) **Biospecimen Secondary Research:** Secondary Research for which consent is not required: use of identifiable information or identifiable biospecimens that have been or will be collected for some other 'primary' or 'initial' activity, if **ONE** of the following is met: (i) biospecimens or information is publicly available; (ii) information recorded by the investigator cannot readily, directly or indirectly identify the subject, and the investigator does not contact the subject or re-identify the subject; (iii) collection and analysis involving investigator's use of identifiable health information when use is regulated by HIPAA; or (iv) research information collected by or on behalf of the federal government using government-generated or -collected information obtained for non-research activities.
- 5) **Research and Demonstration Projects on Federal Programs:** The study is conducted pursuant to specific federal statutory authority and examines certain federal programs that deliver a public benefit [call IRB for details if you think your study may fit].
- 6) **Food Tasting/Evaluation:** Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

PART II — Abbreviated Application

3. **Project Title:** Fall 2022 College Health Study

4. **Principal Investigator:** Dr. Ms. Mr. Alexz Carpenter

Department: Biology

Department Chair's email (for cc of approval):
bnoonan@olemiss.edu

Work Phone: 662-915-7203

Home or Mobile Phone: 601-651-1846

E-Mail Address: amcarpe2@go.olemiss.edu

If Principal Investigator is a student:

Graduate student:

- Dissertation Master's thesis
 Other graduate project

Undergraduate student:

- Senior thesis: SMBHC
 Croft Institute Other undergraduate project

Research Advisor: HANNAH ALLEN (required for student researchers)

Department: HEALTH, EXERCISE
SCIENCE, & RECREATION MANAGEMENT

Work Phone: 662-915-1630

E-Mail Address: HKALLEN1@OLEMISS.EDU

Home or Cell Phone: 484-753-1612

5. **Funding Source:**

Is this project funded? Yes No

If Yes, is the funding:

Internal: **Source:** Dr. Allen (Research Advisor) Research Start Up Funding (Account #250222598A)
External: Pending/Agency: [Click to enter](#)
 Awarded/Agency: [Click to enter](#)

PI(s) on external funding: [Click to enter](#)

6. List ALL personnel involved with this research who will have contact with human subjects or with their identifiable data. All personnel listed here must complete [CITI training OR the Alternative to CITI \(ATC\) training](#) before this application will be processed*.

NAME	POSITION/TITLE	ROLE ON PROJECT	Training completed: CITI or ATC	
PI Alexz Carpenter	Undergraduate Student	Principal Investigator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PI William Suttles	Undergraduate Student	Principal Investigator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Advisor HANNAH ALLEN	Faculty/Staff	Co-Investigator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Click to enter	Select	Click to enter	<input type="checkbox"/>	<input type="checkbox"/>

If space is needed to list additional project personnel, submit [Appendix A](#).

*See [Exempt Human Research Policy](#) for training exceptions

Research Methodology/Procedures

7. Check all procedures below that apply to your study:

<input type="checkbox"/> Pre-existing data or biological samples ⇒	<ul style="list-style-type: none"> - Source of data: Click to enter - Do data/samples have identifiers? <input type="checkbox"/> Yes* <input type="checkbox"/> No - Describe how data will be secured (e.g., encryption for electronic data; multiple locks for paper data). Click to enter <p>*Minors are NOT permitted under this sub-category</p>
<input type="checkbox"/> Observation <input type="checkbox"/> Oral history <input type="checkbox"/> Interview ⇒ ⇒ ⇒ <input type="checkbox"/> Focus group ⇒ ⇒ ⇒ <input checked="" type="checkbox"/> Questionnaire or survey ⇒ ⇒ ⇒	<p>Attach interview questions.</p> <p>Attach topic and questions.</p> <p>Attach questionnaire or survey.</p> <p>If online, describe platform (e.g., Qualtrics): Qualtrics</p>
<input type="checkbox"/> Audio recording or videotaping ⇒ ⇒ <input type="checkbox"/> The study has misleading or deceptive: ⇒ (1) study descriptions; (2) procedure explanations; and/or (3) survey instructions/rationales.	<p>Use and attach a release form if you plan to disseminate quoted comments or taped content. (This covers you and UM legally – Not for IRB purposes)</p> <p>In the abstract, provide complete details and a rationale for employing misleading/deception information. Include Appendix D in your attachments.</p>
8. Consent Procedures:	
<input type="checkbox"/> Oral ⇒ ⇒ ⇒ <input checked="" type="checkbox"/> Information Sheet/Cover Letter ⇒ ⇒ <input type="checkbox"/> Not applicable, Explain : Click to enter	<p>Attach script.</p> <p>Attach. (No subject signatures required, see example here: Go to Examples and Templates, then 'Sample Information Sheet')</p>

9. Project Summary

Briefly summarize your project using non-technical, jargon-free language that can be understood by non-scientists.

See <http://www.research.olemiss.edu/irb-forms> for abstract examples.

Give a brief statement of the research question supporting the reasons for, and importance of, the research: The purpose of this study is to examine the health and well-being of college students. There are two main sets of aims, as two students are using this data for their senior honors thesis projects. The first set of aims will be to analyze the associations between TikTok use and 1) body image and 2) mental health (i.e., anxiety and depression) among college students while also exploring whether gender and race/ethnicity moderate these associations. The second set of aims will analyze the associations between being a first-generation college student and 1) academic achievement and 2) mental health (i.e., anxiety and depression) while also testing the moderating effect of social support on these associations.

Describe the ages and characteristics of your proposed subjects and how you will recruit them (attach recruitment script or materials to the application): We are requesting a participant panel of 5,000 students from the University of Mississippi's Office of Institutional Research, Effectiveness, and Planning. Participants must be 18 years old or older and currently enrolled as an undergraduate student at the University of Mississippi Oxford campus. A recruitment email (included with the attached application materials) will be distributed to all participants in the panel using Qualtrics. In addition to recruiting through the participant panel, we will also recruit by sending an anonymous link to the survey to faculty instructors across campus to send to students enrolled in their courses as well as to student groups across campus. We will also submit an announcement to UM Today, which will include an anonymous link to the survey and a brief description of the project.

For studies using only adult subjects, state how you will ensure they are 18+:

- First question on survey/interview
- Other: [Click to enter](#)
- Not applicable

Briefly describe the research design AND carefully explain how your study will meet each of the requirements of the category criteria you checked on Page 2: We are conducting an online survey using Qualtrics of undergraduate students at the University of Mississippi. The Office of Institutional Research, Effectiveness, and Planning will provide a participant panel of email addresses for 5,000 students, which will be uploaded as a Qualtrics panel. An initial recruitment email and two reminder emails will be sent through the Qualtrics system, and the survey will be open for about two weeks for data collection, ideally beginning in August 2022. Additional recruitment strategies include providing an anonymous survey link through a UM Today announcement and to faculty instructors to share with their students. Information regarding consent will be provided online prior to the beginning of the survey. Participants will have the opportunity to review the informed consent information and then indicate that they voluntarily consent to participate. They will be informed that they may print the consent form or contact the Principal Investigator for a copy. For all participants, email addresses will be used for recruitment purposes only, will never be linked to their individual survey responses, and will be permanently deleted from all study records, thereby making the survey data effectively anonymous. All data will be stored using password-protected files and computers. No one but the research team will have access to collected data, and once all survey responses have been downloaded to a computer, all online responses will be deleted. Contact information for incentive purposes will be permanently deleted after incentives are distributed.

Give a detailed description of the procedure(s) subjects will undergo (from their perspective): As a participant in this study, you will be asked to complete a brief, anonymous online survey on the following domains of interest: demographic and student information, mental health, social media use, body image, and social support. The survey should take about 10-15 minutes to complete. You will receive information about the study and a link to participate via an email sent to your university email account through Qualtrics, campus faculty, or a UM Today announcement. Contact information for the primary researchers will be provided, and the first page of the survey will be an informed consent form. All survey responses will be anonymous. At the end of the survey, you will have the option to take an additional survey where you will enter your full name and email address to enter into a raffle to win one of 10 \$15 Amazon gift cards.

10. Appendix Checklist:

- A. Additional Personnel not listed on first page of application?
 No Yes – complete [Appendix A](#)
- B. Will the research be conducted in schools or child care facilities?
 No Yes – complete [Appendix B](#)
- C. Does your research involve deception or omission of elements of consent?
 No Yes – complete [Appendix D](#)
- D. Will your research be conducted outside of the United States?
 No Yes – complete [Appendix E](#)
- E. Will your research involve [protected health information \(PHI\)](#)?
 No Yes – complete [Appendix F](#) if applicable

11. Attachments Checklist:

Did you submit:

- a. survey or questionnaires?
 Yes Not Applicable
- b. interview questions?
 Yes Not Applicable
- c. focus group topics?
 Yes Not Applicable
- d. recruitment email, announcement, or script?
 Yes Not Applicable: No subject contact
- e. informed consent information letter or script?
 Yes Not Applicable: No subject contact
- f. permissions for locations outside the University?*
- Yes Not Applicable

*if giving a survey, whether on or off campus, please ensure the person giving permission (e.g., the teacher of a class) has an explicit opportunity to see the survey before they give their permission for its distribution

12. If using class points as incentives, are there alternative assignments available for earning points that involve comparable time and effort?

Yes Not Applicable

13. If using an anonymous survey through Qualtrics and giving incentives in a separate survey, have you read and conducted the testing of the surveys according to the [procedures here?](#)

Yes Not Applicable

PART III: ASSURANCES

Conflict Of Interest And Fiscal Responsibility

Do you or any person responsible for the design, conduct, or reporting of this study have an economic interest in, or act as an officer or a director of any outside entity whose financial interests may reasonably appear to be affected by this research?

YES ⇒ ⇒ If Yes, please describe any potential conflict of interest. [Click to enter](#)
 NO

Do you or any person responsible for this study have existing financial holdings or relationships with the sponsor of this study?

YES ⇒ ⇒ If Yes, please describe any potential conflict of interest. [Click to enter](#)
 NO
 N/A

Principal Investigator Assurance

PRINCIPAL INVESTIGATOR'S ASSURANCE

I certify that the information provided in the application is complete and correct. As Principal Investigator, I have the ultimate responsibility for the protection of the rights and welfare of the human participants, conduct of the research, and the ethical performance of the project. I will comply with all UM policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of participants in human research, including, but not limited to the following:

- Informed consent will be obtained from the participants, if applicable and appropriate;
- Any proposed modifications to the research protocol that may affect its designation as an exempt (brief) protocol application will be reported to the IRB for approval prior to being implemented.
- Adverse events and/or unanticipated problems will be reported to the IRB as required.

I certify that I, and all key personnel, have completed the required initial and/or refresher CITI or CITI Alternative courses in the ethical principles and regulatory requirements for the protection of human research participants.

Alexz Carpenter

Typed signature/name of Principal Investigator

Date: 7/13/2022

RESEARCH ADVISOR'S* ASSURANCE (REQUIRED FOR STUDENT PROJECTS)

Email your Advisor with the following:

1. Email subject line: "IRB Advisor Approval Request from (your name)"
2. Your IRB submission materials as attachments
3. Copy and paste the statements below into the body of the email
4. Forward the reply email from your Advisor to irb@olemiss.edu along with your IRB submission materials attached.

***The research advisor must be a UM faculty member. The faculty member is considered the responsible party for the ethical performance and regulatory compliance of the research project.**

Please review my attached protocol submission. Your reply email to me will constitute your acknowledgement of the assurances below.

**Thank you,
[type your name here]**

As the Research Advisor, I certify that the student investigator is knowledgeable about the regulations and policies governing research with human participants and has sufficient training and experience to conduct this particular research in accordance with the approved protocol.

I agree to meet with the investigator on a regular basis to monitor research progress.

Should problems arise during the course of research, I agree to be available, personally, to supervise the investigator in solving them.

I will ensure that the investigator will promptly report incidents (including adverse events and unanticipated problems) to the IRB.

If I will be unavailable, for example, on sabbatical leave or vacation, I will arrange for an alternate faculty member to assume responsibility during my absence, and I will advise the IRB by email of such arrangements.

I have completed the required CITI course(s) in the ethical principles and regulatory requirements for the protection of human research participants.

APPENDIX B: IRB Approval

7/25/22, 11:55 AM

Mail - Hannah Allen - Outlook

IRB Exempt Determination of 23x-009 -NEW LANGUAGE!

irb@olemiss.edu <irb@olemiss.edu>

Mon 7/25/2022 11:13 AM

To: amcarpe2@go.olemiss.edu <amcarpe2@go.olemiss.edu>

Cc: Hannah Allen <hkallen1@olemiss.edu>

PI:

This is to inform you that your application to conduct research with human participants, "Fall 2022 College Health Study" (Protocol #23x-009), has been determined as Exempt under 45 CFR 46.101(b)(#2). You may proceed with your research.

Please remember that all of The University of Mississippi's human participant research activities, regardless of whether the research is subject to federal regulations, must be guided by the ethical principles in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research.

It is especially important for you to keep these points in mind:

- You must protect the rights and welfare of human research participants.
- Certain changes to your approved protocol must be reviewed and approved before initiating those changes. These changes include the addition of a vulnerable subject group (children, persons with disabilities, and prisoners), as well as the addition of research materials, such as the addition of surveys or interview questions and test articles, the addition of the use of deception, or any changes to subject confidentiality. Personnel amendments for exempt protocols are no longer required. Instead, PIs are responsible for keeping an up to date record of all active personnel and for ensuring that personnel have completed the necessary training to be on their protocol.
- You must report promptly to the IRB any injuries or other unanticipated problems involving risks to participants or others.
- If research is to be conducted during class, the PI must email the instructor and ask if they wish to see the protocol materials (surveys, interview questions, etc) prior to research beginning.

If you have any questions, please feel free to contact the IRB at irb@olemiss.edu.

Miranda L. Core

Senior Research Compliance Specialist, Research Integrity and Compliance

Office of Research and Sponsored Programs

The University of Mississippi

212 Barr Hall

University, MS 38677-1848

irb@olemiss.edu | www.olemiss.edu

Please Note:

-

- Please be aware that new materials (protocols, amendments, progress reports) need to be submitted via our new online portal : [Submit an IRB Protocol | Research, Scholarship, Innovation, and Creativity \(olemiss.edu\)](#).

This message is the property of The University of Mississippi and is intended only for the use of Addressee(s) and may contain information that is PRIVILEGED, CONFIDENTIAL and/or EXEMPT FROM DISCLOSURE under University policy or applicable law. If you are not the intended recipient, you

<https://outlook.office.com/mail/inbox/id/AAQkAGRjMGUyYmU1LTQyM2EtNGM1Zi05OGMzLTJiMjZiOWYwMjUzOAAQABme4QWGDkHGgLV7%2BJE%2F...> 1/2

7/25/22, 11:55 AM

Mail - Hannah Allen - Outlook

are hereby notified that any disclosure, copying, distribution, or use of the information contained herein is STRICTLY PROHIBITED. If you receive this communication in error, please destroy all copies of the message, whether in electronic or hardcopy format, as well as attachments and immediately contact the sender by replying to this e-mail.

REMINDER: YOU CANNOT HAVE CONTACT WITH RESEARCH SUBJECTS UNTIL YOU RECEIVE THE FORMAL IRB PROTOCOL APPROVAL LETTER OR EMAIL

IRB Administrative Office
Research Integrity and Compliance
Office of Research and Sponsored Programs
The University of Mississippi
100 Barr Hall
University, MS 38677-1848
irb@olemiss.edu | www.olemiss.edu

Please Note:

-

- Please be aware that new materials (protocols, amendments, progress reports) need to be submitted via our new online portal : [Submit an IRB Protocol | Research, Scholarship, Innovation, and Creativity \(olemiss.edu\)](#).

This message is the property of The University of Mississippi and is intended only for the use of Addressee(s) and may contain information that is PRIVILEGED, CONFIDENTIAL and/or EXEMPT FROM DISCLOSURE under University policy or applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein is STRICTLY PROHIBITED. If you receive this communication in error, please destroy all copies of the message, whether in electronic or hardcopy format, as well as attachments and immediately contact the sender by replying to this e-mail.

REMINDER: YOU CANNOT HAVE CONTACT WITH RESEARCH SUBJECTS UNTIL YOU RECEIVE THE FORMAL IRB PROTOCOL APPROVAL LETTER OR EMAIL

APPENDIX C: Study Survey

Fall 2022 College Health Study

Survey

Thank you for taking the time to participate in this study on health and well-being among college students at the University of Mississippi. Please take a moment to review the informed consent information below. If you would like to keep a copy of this information, please print the informed consent form directly from this webpage or request a copy from the Principal Investigator.

[INSERT INFORMED CONSENT INFORMATION]

Your consent indicates that you are at least 18 years of age, you have read this consent form or have had it read to you, your questions have been answered to your satisfaction, and you voluntarily agree to participate in this research study. If you agree to participate, please indicate so by answering the question below.

1. I have reviewed the informed consent information and consent to participate in this study.
 - Yes, I agree/consent to participate
 - No, I do NOT agree/consent to participate (if selected, end survey)

Eligibility Screener

2. What is your current age (in years)? _____ (if less than 18, end survey)
3. Are you currently enrolled as an **undergraduate student** (i.e., seeking a Bachelor's degree) at the Oxford campus of the University of Mississippi?
 - Yes
 - No (if selected, end survey)

Demographic Information

The following section will ask you to provide basic information about yourself. Remember that your responses are anonymous.

4. What is your race/ethnicity? Select all that apply.
 - African American/Black
 - American Indian or Alaskan Native
 - Asian American/Asian
 - Hispanic/Latin(x)
 - Native Hawaiian or Pacific Islander

- Middle Eastern, Arab, or Arab American
 - White
 - Self-identify (please specify): _____
5. What sex were you assigned at birth, such as on an original birth certificate?
- Male
 - Female
6. What is your gender identity?
- Male
 - Female
 - Trans male/Trans man
 - Trans female/Trans woman
 - Gender non-binary/Gender non-conforming
 - Self-identify (please specify): _____
7. How would you describe your sexual orientation?
- Heterosexual
 - Lesbian
 - Gay
 - Bisexual
 - Queer
 - Questioning
 - Self-identify (please specify): _____
8. Think of your parent who completed the highest level of education. What level of education did they complete?
- Less than a high school degree
 - High school degree
 - Some college
 - Associate's degree
 - Bachelor's degree
 - Graduate degree
 - Don't know

Student Information

The following section will ask you to provide information about your status as a student.

9. Are you an international student?
- Yes
 - No

10. Are you a first-generation college student (i.e., your parents did not complete a four-year college or university Bachelor's degree)?

- Yes
- No

11. What is your current class standing?

- Freshman
- Sophomore
- Junior
- Senior

12. This semester, are you currently enrolled as a full- or part-time student?

- Full-time (currently taking at least 12 credit hours)
- Part-time (currently taking less than 12 credit hours)

13. What is your major or area of study? Please type your response. _____

14. What is your current cumulative (or overall) GPA? _____

15. I intend to graduate college with a Bachelor's degree.

- Yes
- No
- Maybe

16. I intend to attend graduate school in the future.

- Yes
- No
- Maybe

Mental Health

The following section will ask questions about your mental health. Remember that your responses are anonymous.

17. Over the last two weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious, or on edge				
Not being able to stop or control worrying				
Worrying too much about different things				

Trouble relaxing				
Being so restless that it is hard to sit still				
Becoming easily annoyed or irritable				
Feeling afraid as if something awful might happen				

18. If you checked off *any* problems above, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

19. Over the last two weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things				
Feeling down, depressed, or hopeless				
Trouble falling asleep or staying asleep, or sleeping too much				
Feeling tired or having little energy				
Poor appetite or overeating				
Feeling bad about yourself- or that you are a failure or have let yourself or your family down				
Trouble concentrating on things, such as reading the newspaper or watching TV				
Moving or speaking so slowly that other people could have noticed, or the opposite- being so fidgety or restless that you have been moving around a lot more than usual				
Thoughts that you would be better off dead or of hurting yourself in some way				

20. If you checked off *any* problems above, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all
- Somewhat difficult
- Very difficult

- Extremely difficult

TikTok Use

The following questions ask about your experiences with the social media platform TikTok. Remember that your responses are anonymous.

21. TikTok is a social media platform where short videos are created and shared. Are you an active TikTok user (i.e., have you used TikTok in the past 30 days)?

- Yes (if selected, go to #22)
- No (if selected, skip to “Body Image” section)

22. In the past 30 days, on how many days in a typical week did you use TikTok? _____

23. In the past 30 days, how much time did you spend on TikTok on a typical day?

- I did not use TikTok on a typical day in the past 30 days
- Less than one hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- 5+ hours

24. About how many people are you currently following on TikTok? _____

25. About how many current followers do you have on TikTok? _____

26. Please indicate how much you agree or disagree with the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I feel disconnected from friends when I have not logged into TikTok.						
I would like it if everyone used TikTok to communicate.						
I would be disappointed if I could not use TikTok at all.						

I get upset when I can't log on to TikTok.						
I prefer to communicate with others mainly through TikTok.						
TikTok plays an important role in my social relationships.						
I enjoy checking my TikTok account.						
I don't like to use TikTok.						
Using TikTok is part of my everyday routine.						
I respond to content that others share using TikTok.						

27. Please indicate how often you feel the following in regards to TikTok.

	Never	Rarely	Sometimes	Often	Always
I feel anxious about the fact that others might find my actions awkward.					
I am concerned about being ridiculed by others for the content I have shared.					
I am concerned about the fact that the content I share will not be liked by others.					
I am afraid that my close friends will not approve of my behavior.					
I would feel uncomfortable when my friends publicly express their dislike about content I have shared.					
I am concerned about disapproval of my behaviors by others.					
I am concerned about being judged about my shared content by my friends in the presence of others.					

The possibility of having my private information acquired by others makes me feel anxious.					
The possibility of having my private information shared publicly makes me anxious.					
I feel uneasy when my friends share my private information with people I do not know.					
I would be concerned if my personal space is accessed without my consent.					
I feel anxious about how social media companies/executives handle privacy policy regarding my private life.					
I feel anxious when talking with people I have just met.					
I feel nervous when I talk with people I do not know very well.					
I feel uneasy while making new friends.					
I feel tense when I meet someone for the first time.					
I am afraid of interacting with others.					
I feel nervous when I have to talk with others about myself.					
I feel anxious about making a negative impression on people.					
I am concerned about people thinking poorly of me.					
I feel anxious about not being able to meet people's expectations.					

Body Image

The following questions ask about your body image and self-esteem. Remember that your responses are anonymous.

28. Please indicate whether the following items are true about you never, seldom, sometimes, often, or always.

	Never	Seldom	Sometimes	Often	Always
I respect my body.					
I feel good about my body.					
I feel that my body has at least some good qualities.					
I take a positive attitude towards my body.					
I am attentive to my body's needs.					
I feel love for my body.					
I appreciate the different and unique characteristics of my body.					
My behavior reveals my positive attitude toward my body; for example, I walk holding my head high and smiling.					
I am comfortable in my body.					
I feel like I am beautiful even if I am different from media images of attractive people (e.g., models, actresses/actors).					

Social Support

The following questions ask about social support. Remember that your responses are anonymous.

29. Please indicate how you feel about each of the following statements.

	Strongly disagree	Disagree	Agree	Strongly agree
I am getting on well with my fellow students.				
There is a pleasant atmosphere at my university.				
There is group cohesion at my university.				

30. Please indicate how you feel about each of the following statements.

	Very strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Very strongly agree
There is a special person who is around when I am in need.							
There is a special person with whom I can share my joys and sorrows.							
My family really tries to help me.							
I get the emotional help and support I need from my family.							
I have a special person who is a real source of comfort to me.							
My friends really try to help me.							
I can count on my friends when things go wrong.							
I can talk about my problems with my family.							
I have friends with whom I can share my joys and sorrows.							
There is a special person in my life who cares about my feelings.							
My family is willing to help me make decisions.							
I can talk about my problems with my friends.							

Thank you for taking the time to participate in this survey! Please click the link below to enter yourself into a raffle to win one of 10 \$15 Amazon gift cards.

[LINK TO SECOND SURVEY]

Incentive Survey

- As a thank you for participation, 10 participants will be randomly selected to receive a \$15 Amazon gift card. Would you like to enter yourself into this raffle?
 - Yes (if yes, go to #2)
 - No

2. Please enter your full name and email address. This information will be kept confidential.

First Name: _____

Last Name: _____

Email Address: _____

APPENDIX D: Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Title: Fall 2022 College Health Study

Principal Investigator

Alexz Carpenter

Department of Biology
214 Shoemaker Hall
University of Mississippi
amcarpe@go.olemiss.edu

Principal Investigator

William Suttles

Department of Health, Exercise Science, &
Recreation Management
215 Turner Center
University of Mississippi
wsuttles@go.olemiss.edu

Co-Investigator

Hannah K. Allen, PhD

Department of Health, Exercise Science, &
Recreation Management
236 Turner Center
University of Mississippi
hkallen1@olemiss.edu

Description

We are inviting you to participate in this research project because you are currently enrolled as an undergraduate student at the University of Mississippi. The purpose of this research is to understand more about college student health and well-being. You will be asked to complete an anonymous online survey that asks about individual characteristics, student status, social media use, mental health, body image, and social support.

Cost and Payments

The survey should take about 10-15 minutes to complete. You may choose to provide your name and email address to be entered into a raffle to win a \$15 gift card for participating in this study. Ten students will be selected to receive an incentive. You will be responsible for any taxes assessed on this compensation.

Risks and Benefits

We do not anticipate any major risks or discomforts involved in participating in this research study, however there may be some discomfort when answering questions about your mental health and body image. It is important to know that all responses will not be linked to any identifying information, and you may choose to skip any question you are not comfortable answering. There are no direct benefits to participating in this study. However, we hope that this research will inform future programming and allocation of resources for college student health.

Confidentiality

Your responses will be anonymous. You will be assigned a unique ID number, and all data will be stored using password-protected files on a password-protected computer. No one but the research team will have access to collected data, and once all survey responses have been collected and downloaded to a computer, all online responses will be deleted. If we write reports or articles about the findings from this project, your identity will be protected to the maximum extent possible. Your contact information will be collected from you if you choose to enter a raffle to receive an incentive. This information will not be linked in any way to the responses you provide on the survey.

Right to Withdraw

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the principal investigators:

Alexz Carpenter

Department of Biology
214 Shoemaker Hall
University of Mississippi
amcarpe@go.olemiss.edu

William Suttles

Department of Health, Exercise Science, & Recreation Management
215 Turner Center
University of Mississippi
wsuttles@go.olemiss.edu

IRB Approval

This study has been reviewed by The University of Mississippi's Institutional Review Board (IRB). If you have any questions, concerns, or reports regarding your rights as a participant of research, please contact the IRB at (662) 915-7482 or irb@olemiss.edu.

Statement of Consent

Your consent indicates that you are at least 18 years of age, you have read this consent form or have had it read to you, your questions have been answered to your satisfaction, and you voluntarily agree to participate in this research study. You may print a copy of this consent information for your records.

If you agree to participate, please indicate so by answering the question below.

I have reviewed the informed consent information and consent to participate in this study.

- Yes, I agree/consent to participate

- No, I do NOT agree/consent to participate

APPENDIX E: Email Invitation

Fall 2022 College Health Study

Email Invitation

Subject Line: Participate in a Brief Survey on College Student Health

Dear UM Student,

As part of a research project on better understanding health and well-being among college students, you are invited to participate in a brief, one-time online survey that should take about 10-15 minutes to complete.

Participation is voluntary, and all of your responses will be kept completely anonymous. As a thank you for participating, you will have the chance to enter into a raffle to win **one of 10 \$15 Amazon gift cards**. Data collection will close on [INSERT DATE] so be sure to click this link now to start the survey!

[INSERT SURVEY LINK]

This research has been reviewed by the University of Mississippi Institutional Review Board. If you have any questions about participation in this study, please contact the principal investigators:

Alexz Carpenter

Department of Biology
214 Shoemaker Hall
University of Mississippi
amcarpe2@go.olemiss.edu

William Suttles

Department of Health, Exercise Science, & Recreation Management
215 Turner Center
University of Mississippi
wsuttles@go.olemiss.edu

Thank you for taking the time to participate!

Best,

Alexz Carpenter
William Suttles
Hannah Allen

APPENDIX F: Email Reminder

Fall 2022 College Health Study

Reminder Email

Subject Line: Reminder: Participate in a Brief Survey on College Student Health

Dear UM Student,

There's still time to participate in a brief, one-time online survey on health and well-being among college students. The survey should take about 10-15 minutes to complete.

Participation is voluntary, and all of your responses will be kept completely anonymous. As a thank you for participating, you will have the chance to enter into a raffle to win **one of 10 \$15 Amazon gift cards**. Data collection will close on [INSERT DATE] so be sure to click this link now to start the survey!

[INSERT SURVEY LINK]

This research has been reviewed by the University of Mississippi Institutional Review Board. If you have any questions about participation in this study, please contact the principal investigators:

Alexz Carpenter

Department of Biology
214 Shoemaker Hall
University of Mississippi
amcarpe2@go.olemiss.edu

William Suttles

Department of Health, Exercise Science, & Recreation Management
215 Turner Center
University of Mississippi
wsuttles@go.olemiss.edu

Thank you for taking the time to participate!

Best,

Alexz Carpenter
William Suttles
Hannah Allen

APPENDX G: UM Today Announcement

Fall 2022 College Health Study *UM Today Announcement Details*

Title: Survey on College Student Health

Summary: Undergraduate students are invited to take a brief survey on their health and well-being. Ten students will each win a \$15 gift card!

Full Details: As part of a research project on better understanding health and well-being among college students, you are invited to participate in a brief, one-time online survey that should take about 10-15 minutes to complete.

Participation is voluntary, and all of your responses will be kept completely anonymous. As a thank you for participating, you will have the chance to enter into a raffle to win **one of 10 \$15 Amazon gift cards**. Data collection will close on [INSERT DATE] so be sure to click this link now to start the survey!

This research has been reviewed by the University of Mississippi Institutional Review Board.

Survey Link: [INSERT SURVEY LINK]