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Healthcare Experiences and Pain Dismissal by Healthcare Professionals

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HEALTHCARE EXPERIENCES AND PAIN DISMISSAL BY HEALTHCARE PROFESSIONALS

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ABSTRACT

AMANDA WARREN: Healthcare Experiences and Pain Dismissal by Healthcare Professionals

(Under the direction of Dr. Hannah Allen)

Background. Pain dismissal by healthcare professionals has gained recent attention in popular culture as people have come forward to discuss their own experiences with this issue. Pain dismissal is prevalent within the healthcare system, and college-aged young adults may be particularly vulnerable to experiencing pain dismissal because of their age. College students may also be influenced by societal factors that may affect their attitudes towards seeking help and advocating for themselves during healthcare visits. There is limited research on college students' attitudes and behaviors on seeking help after experiencing pain dismissal by a healthcare provider. This study aims to 1) describe the prevalence of pain dismissal by healthcare professionals among undergraduate college students, 2) assess the associations between pain dismissal and help-seeking among undergraduate college students, and 3) explore differential associations between pain dismissal and help-seeking when comparing male and female students.

Methods. This was a cross-sectional study that used a self-administered online survey. Participants were undergraduate students at the University of Mississippi who were between the ages of 18 to 23. Demographic information was collected including age, sex, race/ethnicity, and class standing. To assess pain dismissal, participants were asked if they have ever experienced chronic pain, if they have had their pain dismissed in their lifetime and within the last 12 months, and if they felt they did not receive sufficient care. To assess participants' behaviors towards

visiting a healthcare professional after experiencing pain dismissal, they were asked how likely they were to seek help for pain in the future and if they were likely to seek help for a reason unrelated to pain in the future. To examine the attitudes of the participants towards visiting a healthcare professional after experiencing pain dismissal, they were asked questions based on their attitudes and anxiety on a scale from 1 to 7. Linear regression models were used to assess the associations between pain dismissal by a healthcare professional and the resulting attitudes and behaviors of the participants. To analyze if gender moderated these relationships, linear regressions were run again after stratifying the sample by sex.

Results. A final sample of n=142 college students was analyzed, with a mean age of 19.8 years old. The sample was mostly female (81.7%) and white (87.3%). Chronic pain had been experienced by 47% of participants and 35% had experienced pain dismissal in their lifetime. Over half (67%) stated they were moderately or very likely to seek help for pain in the future. Experiencing pain dismissal was associated with decreased anticipated benefit of seeking help for pain in the future and decreased confidence in pain being believed in the future. Experiencing pain dismissal was also associated with increased anxiety around seeking help for pain in the future. Key differences in associations of interest were noted when the sample was stratified by sex.

Conclusion. This study suggests that experiencing pain dismissal is linked to anxiety and decreased confidence around seeking help for pain in the future among college students. Future research should continue to examine the effects of pain dismissal by healthcare professionals among young adults and strategies that can help to decrease the prevalence and impact of pain dismissal experiences.

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CHAPTER I: INTRODUCTION

Chronic Pain

According to the National Institutes of Health (NIH), chronic pain can be defined as pain that persists after the normal healing time, usually pain that lasts for more than three to six months (Treede et al., 2015). Common types of chronic pain include but are not limited to arthritis, back or joint pain, headaches, muscle or bone injuries, and nerve damage. Chronic pain can be caused by numerous reasons and to various severities and can impact a person physically, socially, and psychologically.

Chronic pain is quite prevalent among young adults, who are individuals categorized between the boundaries of "childhood" and "adulthood". In a research study, it was found that the prevalence of chronic pain for young adults was 11.6%, indicating that one in nine young adults experience chronic pain (Murray et al., 2022). The results of this study highlight chronic pain as a health concern for young adults, while also considering the difficulties accessing healthcare for young adults (Murray et al., 2022). A survey-based study conducted by Grasdalsmoen et al. (2020) examined the association between frequency, intensity and duration of physical exercise and chronic pain in students aged 18-35. The results of this study showed that the majority of students (54%) reported experiencing chronic pain in at least one location. It also showed that the more frequent, higher difficulty, and increased duration of physical exercise actually lowered the risk of experiencing chronic pain (Grasdalsmoen et al., 2020), indicating the potential for intervention for this population.

Pain Dismissal by Healthcare Professionals

Pain dismissal has become an increasingly common topic of discussion over recent years. Conversations surrounding pain dismissal, particularly among young adults, have continued to grow, especially through the increased use of social media. For example, Serena Williams, one of the best-known and most talented female tennis players of all time, had to have an emergency C-section and afterward had shortness of breath and felt symptoms that aligned with the onset of a pulmonary embolism. She knew something was not right with her body, and after telling her physician her symptoms, her requests for a CT scan and intravenous blood thinners were dismissed. This caused her condition to worsen and she had to endure several surgeries and a long recovery (O'Dell, 2020).

Pain dismissal by healthcare professionals may occur for many reasons. One of these reasons, lack of training and patient validation, was examined in a study by Hildenbrand et al. (2021). Healthcare provider communication behaviors that resulted in the patient feeling that their pain was dismissed were examined in relation to differences in the physicians' and patients' gender, race/ethnicity, and age. It was found that younger, female, and non-white participants most frequently reported that they felt their pain was dismissed by their provider. It was also noted that patients felt they were being dismissed most often when the provider rushed the visit, were rude or did not take action, provided poor information to the patient, were uniformed, or the provider simply did not believe the patient. Providers can possibly obtain training in supportive communication behaviors to provide validation to patients or receive communication training to be more active in their medical encounters (Hildenbrand et al., 2021). There is limited research on experiences of pain dismissal within the healthcare system despite attention paid to this topic

in popular culture, and more information is needed to address the reasons contributing to this issue fully.

Gender Differences in Healthcare Experiences

Gender may play an important role in the discussion around pain dismissal. Women may be more susceptible to experiencing pain, and research has found that women are more likely to have recurrent or chronic pain when compared to men (Chenot et al., 2008). This difference may also lead to increased utilization of healthcare services and interaction with healthcare professionals. Gender bias in disease diagnosis has been well-documented. For example, in a study by Chapman et al. (2001), researchers found that primary care physicians tend to under diagnose COPD among women when compared to men. Another study by Banco et al. (2022) found that women and people of color with chest pain waited longer in the emergency room to see a doctor, and women were less likely to be admitted to the hospital. Research has also documented the negative experiences of women within the healthcare system. In a mixed-methods study by Reed et al. (2017), women felt that their healthcare professionals prioritized their own agendas rather than their patients' needs during the childbirth process, highlighting that provider actions can influence women's experiences of trauma during birth. One in six women report experiencing one or more types of mistreatment while seeking help for pregnancy and childbirth (Vedam et al., 2019).

There may also be important gender differences when it comes to pain dismissal experiences. In a study of young adults (Igler et al., 2017), females were significantly more likely to report pain dismissal than males. Women in the study were also more likely than men to report a desire to plead with the healthcare provider for understanding, highlighting that young

women may experience differential treatment for pain than young men. Women's complaints of pain are not always accepted by doctors and therefore do not get resolved when the issue is brought to a healthcare professional (Manderson et al., 2008). In another study, miscommunication in early endometriosis consultation led to 89% of pain among female patients as being perceived as disbelieved (Bullo, 2018).

Attitudes and Behaviors on Visiting Healthcare Professionals

More research is needed on the effects of experiencing pain dismissal by a healthcare professional and potential impact on a person's future behaviors and attitudes towards visiting a healthcare professional. In a qualitative patient focus study, most patients reported suboptimal interactions with their providers when seeking help for chronic pain. These patients acknowledged feeling disrespected and distrusted when having their symptoms dismissed by their healthcare professional. Symptoms were often viewed as trivial and not warranting proper medical care and support from their physician (Upshur, 2010). A recent analysis by Sebring (2021) highlighted that medical gaslighting, which can be defined as manipulating someone through the use of psychological methods causing the questioning of the person's own sanity and reasoning, has become more common over time. They found that the prevalence of medical gaslighting has made patient experiences with a healthcare professional worse (Sebring, 2021).

In a study of female patients with endometriosis, it was found that when women used descriptions, rather than symptoms, their pain was better understood. By using descriptions of the quality, location, and the pain's impact on their daily life, the communication to their physician was much more effective compared to listing symptoms (Bullo, 2021). This study's findings made an important contribution to our understanding of ways that women may be able

to advocate for themselves when interacting with healthcare professionals. In a study by Lang et al. (2017), young adult participants read one of four vignettes that included common types of pain dismissal (denial/disbelief, minimizing, faking for secondary gain, and psychogenic). All four types of physician pain dismissal were perceived negatively, suggesting that experiencing pain dismissal by a healthcare professional was likely not due to patient hypersensitivity, but rather because of physician behavior.

Current Study

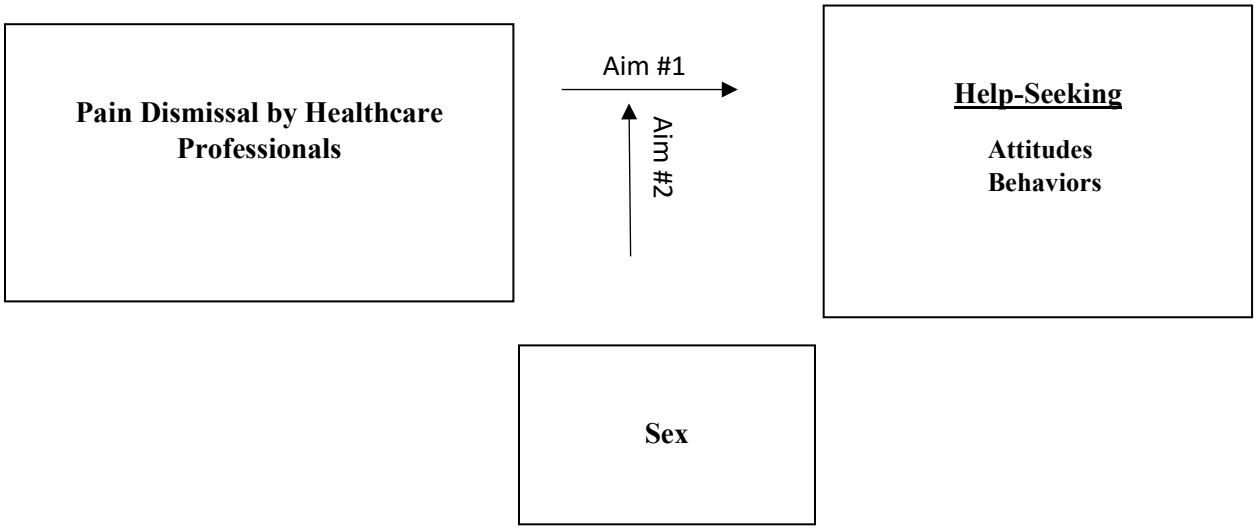
While discussion of pain dismissal by healthcare professionals has become increasingly more common in popular culture and through social media over recent years, additional scientific research in this area is needed. Most of the research related to pain dismissal has not been done in samples specifically of college students, indicating a gap in our knowledge. It has also been found that female patients reporting pain to their healthcare professional are more likely to have their pain dismissed compared to male patients, but this finding has not been explored among college students. College students may have different experiences with healthcare professionals than adults because they are often still young, and this may affect how they are treated by a physician.

This study focuses on college students' experiences with pain dismissal, and how that is associated with their attitudes, experiences, actions, and emotions when going to visit a healthcare professional in the future. This study has three main aims:

1. Describe the prevalence of pain dismissal by healthcare professionals among undergraduate college students.

2. Assess the associations between pain dismissal and help-seeking among undergraduate college students.
    a. H2a: College students who have experienced pain dismissal have worse help-seeking attitudes compared to those who have not experienced pain dismissal.
    b. H2b: College students who have experienced pain dismissal display less help-seeking behavior than those who have not experienced pain dismissal.
3. Examine whether the association between pain dismissal and help-seeking among undergraduate college students differs by sex.
    a. H3: The association between pain dismissal and help-seeking will be stronger among female college students compared to male college students.

Conceptual Model



CHAPTER II: METHODS

Data Collection and Procedures

In fall of 2023, an online survey was sent to students enrolled at the University of Mississippi. Students were contacted to participate using several different recruitment methods, including direct contact via email and UM Today announcements. Recruitment emails and announcements included study details and a link to the web-based survey. Data collection was open for approximately one month, beginning on 10/19/2023 and ending on 11/07/2023.

Prior to beginning the study, participants were provided informed consent information and indicated that they agreed to participate. This consisted of a description, the goals of this study, the time it would approximately take to complete the survey, and risks involved (e.g., may cause some discomfort when answering questions about healthcare experience), the confidentiality of the survey, and the right to withdraw from this study.

A total of n= 148 students responded to the survey. N=5 students did not meet the eligibility criteria, which included consenting to participate, being between the ages of 18 and 23, and being a current undergraduate student at the University of Mississippi Oxford campus. An additional n=1 participant was excluded for excessive missing data on study variables. The final analytic sample included n=142 students.

Measures

Demographic information. Participants indicated their age, sex, race/ethnicity, current class standing, parent/guardian education level, and health insurance status.

Health and healthcare experiences. Participants were asked to rate their current overall health from poor to excellent and whether they had visited a healthcare professional for any reason in the last 12 months. After being given the definition of chronic pain, participants indicated whether they had experienced chronic pain in their lifetime, whether they had visited a healthcare professional for pain in the last 12 months, and reasons why they had not visited a healthcare professional for pain in the past 12 months (e.g., no need, not enough time, financial reasons).

Pain dismissal. Participants were asked if they had ever had a healthcare professional ignore, not believe, or dismiss their reports of pain in their lifetime. If the answer to that question was yes, they received the follow-up question asking if that pain dismissal occurred in the past 12 months. Participants indicated if they had ever gone to see a healthcare professional for a pain-related reason in their lifetime and not received sufficient care.

Help-seeking attitudes and behaviors. Participants indicated the likelihood that they would seek medical attention for reasons related and unrelated to pain in the future on a scale from not at all likely to very likely. Participants indicated on a 1-7 scale from unpleasant to pleasant and unbeneficial to my health to beneficial to my health how visiting a healthcare professional for a pain-related reason would be. Two items were scored on a 1-7 scale from disagree to agree: “If I visit a healthcare professional for a pain-related reason, my pain will be accepted and believed,” and “The idea of visiting a healthcare professional for a pain-related reason makes me feel nervous and/or anxious.”

Data Analysis

Descriptive statistics (i.e., frequency, mean, standard deviation) were calculated for all study variables. Linear regression models were used to examine the associations between lifetime pain dismissal by a healthcare professional and five help-seeking variables (i.e., likelihood of seeking help for pain in the future, pleasantness of seeking help for pain, benefit of seeking help for pain, likelihood of pain being believed, and anxiety around seeking help for pain). All analyses controlled for age, sex, race/ethnicity, class standing, parent's education, overall health status, health insurance, and past 12-month healthcare visit. Linear regression models were run again in subsamples of male and female participants to examine differential associations by sex. SPSS was used for all analyses, and the alpha level was set at 0.05.

CHAPTER III: RESULTS

The sample had a mean age of 19.8 years old (see Table 1) and was 82% female and 87% non-Hispanic white. This sample had a diverse range of class standings, with 28% freshman, 19% sophomores, 29% juniors, and 25% seniors. Most participants (92%) had health insurance and had seen a healthcare professional in the past 12 months (97%).

Table 1. Participant characteristics (*n*=142)

	***n* (%) or Mean (SD)**
Age (18-23)	19.8 (1.3)
Race/ethnicity	
Non-Hispanic white	124 (87.3)
Other race/ethnicity	18 (12.7)
Sex	
Male	26 (18.3)
Female	116 (81.7)
Class standing	
Freshman	39 (27.5)
Sophomore	27 (19.0)
Junior	41 (28.9)
Senior	35 (24.6)
Parent's education	
High school diploma	15 (10.6)
Some college	10 (7.0)
Associate degree or trade/technical training	15 (10.6)
Bachelor's degree	41 (28.9)
Master's degree	41 (28.9)
Doctoral or professional degree	19 (13.4)
Don't know	1 (0.7)
Overall health	
Excellent	25 (17.6)

Very good	54 (38.0)
Good	53 (37.3)
Fair	9 (6.3)
Poor	1 (0.7)
Current health insurance	
No	5 (3.5)
Yes	131 (92.3)
Don't know	6 (4.2)
Past 12-month healthcare visit	
Yes	137 (96.5)
No	5 (3.5)

Note. SD = standard deviation.

As seen in Table 2, almost half of the sample indicated chronic pain in their lifetime, and 47% had visited a healthcare professional in the past 12 months for pain. About one-third of the sample (35%) had experienced pain dismissal in their lifetime. About 67% of participants were moderately or very likely to seek help for pain in the future, and about 65% were moderately or very likely to seek help for a non-pain reason in the future.

Table 2. Healthcare experiences among college students (*n*=142)

	***n* (%) or Mean (SD)**
Chronic pain during lifetime	
No	76 (53.5)
Yes- diagnosed by a healthcare provider	36 (25.4)
Yes- not diagnosed by a healthcare provider	30 (21.1)
Past 12-month healthcare visit for pain	
No	75 (52.8)
Yes	67 (47.2)

Reasons for not seeing a healthcare provider for pain in the past 12 months*	
No need for services	51 (68.0)
Not enough time	17 (22.7)
Prefer to deal with pain on my own or with support from family/friends	12 (16.0)
Financial reasons	6 (8.0)
Not sure where to go	6 (8.0)
Difficulty finding an available appointment	6 (8.0)
Did not want to go because of negative past experiences with healthcare providers	3 (4.0)
Lifetime pain dismissal by healthcare provider	
No	93 (65.5)
Yes	49 (34.5)
Past 12-month pain dismissal by healthcare provider	
No	123 (86.6)
Yes	19 (13.4)
Did not receive sufficient care for pain in lifetime	
No	73 (51.4)
Maybe	22 (15.5)
Yes	47 (33.1)
Likelihood of seeking help for pain in the future	
Not at all likely	4 (2.8)
Slightly likely	10 (7.0)

Somewhat likely	33 (23.2)
Moderately likely	41 (28.9)
Very likely	54 (38.0)
Likelihood of seeking help for non-pain reasons in the future	
Not at all likely	5 (3.5)
Slightly likely	17 (12.0)
Somewhat likely	28 (19.7)
Moderately likely	38 (26.8)
Very likely	54 (38.0)
Visiting a healthcare professional for a pain-related reason would be:	
1 (unpleasant)-7 (pleasant)	4.8 (1.4)
1 (unbeneficial to my health)-7 (beneficial to my health)	5.6 (1.4)
If I visit a healthcare professional for a pain-related reason, my pain will be accepted and believed.	
1 (disagree)-7 (agree)	5.0 (1.4)
The idea of visiting a healthcare professional for a pain-related reason makes me feel nervous and/or anxious.	
1 (disagree)-7 (agree)	3.8 (2.0)

*Among *n*=75 people who did not see a healthcare provider for pain in the past 12 months
Note. SD = standard deviation

Table 3 outlines the results of the linear regression models examining the associations between pain dismissal and help-seeking attitudes and behaviors related to pain. There was no significant relationship found between experiencing pain dismissal in a participant's lifetime and

their likelihood of seeking help for pain in the future or for the pleasantness of seeking help for pain. There was a significant, negative relationship between experiencing pain dismissal in one's lifetime and the benefit of seeking help for pain and the likelihood of pain being believed. However, there was a significant, positive association between experiencing pain dismissal by a healthcare professional and one's anxiety around seeking help for pain.

Table 3. Results of linear regression models examining the association between pain dismissal and help-seeking attitudes and behaviors related to pain

	Likelihood of seeking help for pain in the future		**Pleasantness of seeking help for pain**		**Benefit of seeking help for pain**		**Likelihood of pain being believed**		**Anxiety around seeking help for pain**	
	B	*p-value*	*B*	*p-value*	*B*	*p-value*	*B*	*p-value*	*B*	*p-value*
Lifetime pain dismissal by healthcare provider	-0.176	0.417	-0.200	0.482	-0.580	0.022*	-1.205	<0.001*	1.048	0.013*

**p<0.05*

Note. All regression models control for age, sex, race/ethnicity, class standing, parent's education, overall health status, health insurance, and past 12-month healthcare visits.

Table 4 outlines the results of the linear regression models examining the associations between pain dismissal and help-seeking attitudes and behaviors related to pain in subsamples of male and female participants. When stratified by sex, the negative association between experiencing pain dismissal in one's lifetime and the benefit of seeking help for pain was only significant among male students. However, the negative association between experiencing pain dismissal and the likelihood of pain being believed was significant only among female students. Similarly, the positive association between experiencing pain dismissal by a healthcare professional and the anxiety around seeking help for pain was only significant among female students.

Table 4. Results of linear regression models examining the association between pain dismissal and help-seeking attitudes and behaviors related to pain, by sex

	Likelihood of seeking help for pain in the future		**Pleasantness of seeking help for pain**		**Benefit of seeking help for pain**		**Likelihood of pain being believed**		**Anxiety around seeking help for pain**	
	Male	***Female***	***Male***	***Female***	***Male***	***Female***	***Male***	***Female***	***Male***	***Female***
	B		*B*		*B*		*B*		*B*	
Lifetime pain dismissal by healthcare provider	-2.242	-0.111	-1.608	-0.041	-3.392*	-0.454	0.342	-1.308*	-1.052	1.051*

**p<0.05*

Note. All regression models control for age, sex, race/ethnicity, class standing, parent's education, overall health status, health insurance, and past 12-month healthcare visit

CHAPTER IV: DISCUSSION

Summary of Findings

The objective of this study was to examine the relationships between pain dismissal by healthcare professionals and help-seeking attitudes and behaviors among undergraduate college students at the University of Mississippi. The sample included 142 undergraduate students who were majority female, white, and had health insurance. The sample was majority female, which aligns with past research by Reed et al. (2017) that focused on female experiences with pain dismissal in the healthcare system. This study sample is representative of the racial-ethnic demographic breakdown of students at the University of Mississippi, however the sample may not be representative of the undergraduate college student population across the United States.

The results showed that experiencing pain dismissal by a healthcare provider was significantly associated with a lower perceived benefit of seeking help for pain, decreased belief that pain will be believed in the future, and increased anxiety around seeking help for pain in the future. There were notable differences in these associations when the sample was stratified by sex.

Aim #1. Describe the prevalence of pain dismissal by healthcare professionals among undergraduate college students.

An aim of this study was to examine the prevalence of pain dismissal among college students, as not much research has been done with samples of college-aged students. Results showed that 13% of participants experienced pain dismissal by a healthcare professional in the

past 12 months, and 35% experienced pain dismissal in their lifetime. This showed that experiencing pain dismissal is prevalent among undergraduate college students. With about 17,000 undergraduate students at the University of Mississippi, we can estimate that about 2,000 have experienced pain dismissal in the past year. Almost half the participants (47%) had experienced chronic pain in their lifetime, many of whom had felt that their pain had been dismissed at some point in their life. These results align with a study by Upshur et al. (2010), where the majority of patients reported suboptimal interactions with their providers when seeking help for chronic pain. These patients reported having their symptoms dismissed as being trivial or not warranting medical care.

There did appear to be a high level of help-seeking among students in the current study, as almost all had visited a healthcare professional for any reason in the past 12 months and about half had visited a healthcare professional in the past 12 months for a pain-related reason. These results align with a study by Nixon et al. (1994), where results showed that 60% of college students would seek help after experiencing little to moderate pain. This shows that when a college student does experience pain, whether it is chronic pain or for any other reason, many are willing to go seek help from a healthcare professional to try to eliminate their pain.

We hypothesized that college students who had experienced pain dismissal would display less help-seeking behavior than those who had not experienced pain dismissal. In this study it was found that 33% of students felt they had not received sufficient care for pain at some point in their lifetime. However, despite this prevalence of pain dismissal, over half of participants (67%) said that they are very likely or moderately likely to seek help for a pain-related reason in the

future. Similarly, 65% of participants stated that they are very likely or moderately likely to seek help for a non-pain related reason in the future.

Aim #2. Assess the associations between pain dismissal and help-seeking among undergraduate college students.

We hypothesized that college students who had experienced pain dismissal would have more negative help-seeking attitudes compared to those who had not experienced pain dismissal. The results showed no significant associations between experiencing pain dismissal in one's lifetime and the likelihood of seeking help for pain in the future and the pleasantness of seeking help for pain in the future. However, there were significant, negative relationships found between experiencing pain dismissal in one's lifetime and perceived benefit of seeking help for pain and belief that pain will be believed in the future. These findings support the initial hypothesis that college students who have experienced pain dismissal feel less of a benefit for seeking help for their pain in the future and that they think there is a lower likelihood that their pain will be believed by a healthcare professional. These findings correlate with a study by Upshur et al. (2010), where the patients felt disrespected and distrusted when having their symptoms dismissed by their healthcare professional, negatively affecting their attitudes towards seeking help in the future. There was a significant, positive relationship found between experiencing pain dismissal in one's lifetime and anxiety around seeking help for pain in the future. This also supports our initial hypotheses because college students who have experienced pain dismissal may have greater anxiety about future interactions with healthcare professionals.

Aim #3. Examine whether the association between pain dismissal and help-seeking among undergraduate college students differs by sex.

We hypothesized that the association between pain dismissal and help-seeking will be stronger among female college students when compared to male college students, which was confirmed by some study findings. After differentiating by sex, the negative relationship between pain dismissal and perceived benefit of seeking help for pain was only significant among male students. These results go against the initial hypothesis. This could be due to many different factors, including not seeing the benefit of trying to get help from a doctor after previously being dismissed, societal pressures of how a man should behave, and not wanting to be perceived as "weak". Similarly, a study by Igler et al. (2017) found that the association between experiencing pain dismissal and receiving treatment or referrals for treatment by a healthcare professional were only significant among men, not women. Therefore, women would be less likely than men to seek help in the future.

The negative relationship between pain dismissal and belief that pain will be believed in the future was only significant among female students, and the positive association between pain dismissal and anxiety to seek help for pain in the future was also only significant among female students. These findings align with the initial hypotheses of the study regarding the potential impact of pain dismissal on women. Previous research has shown that even though women are more likely to report pain than males (Igler et al., 2017), physicians are often more likely to diagnose men with health problems than women (Chapman et al., 2001).

Strengths and Limitations

This study provided updated information about the association between pain dismissal by healthcare professionals and help-seeking attitudes and behaviors among college students. The focus on college student experiences was unique and was a population that had not been widely

focused on in this research area. We were able to establish links between experiencing pain dismissal and attitudes on the benefit of seeking help, likelihood of pain being believed by the healthcare professional, and anxiety around seeking help for pain. Limitations for this study are a small sample size that included students from only one university, which may affect the generalizability of the study results. Another limitation to this study is social desirability bias, which can be defined as an individual's propensity to respond in a way that is viewed favorably by society (Teh et al., 2023). Since this is a cross-sectional study, recall bias is also a potential limitation.

Implications for Future Research

Future studies should expand on this research by using larger and more diverse samples of college students. The associations between pain dismissal and help-seeking should also be explored among subsamples of students by demographic factors other than sex, such as age or race/ethnicity. These analyses could highlight the unique experiences of racial/ethnic minority populations within the healthcare system. Research in this area should continue to inform healthcare professionals about chronic pain to decrease the prevalence of pain dismissal among patients. Healthcare providers should be encouraged to not assume the patient is not telling the truth or being dramatic based on how they present their symptoms. Future programming should help to prevent anxiety among people who may need to seek help for chronic pain in the future.

To help encourage college students to seek help when experiencing pain, colleges can work with their health center on campus to help provide a safe and comforting environment. Students should be able to seek help for pain or any reason and not have negative attitudes towards their campus health center, which is in place just to help college students. Colleges

should also promote health education programs for students that teach health literacy to provide students with resources on how they can seek help when they need it and how to advocate for themselves when they need to seek help. These programs can help college students to be able to seek help without anything, physically or mentally, hindering them from seeking help.

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APPENDICES

APPENDIX A. CITI CERTIFICATION

CITI PROGRAM

Completion Date 20-Sep-2023
Expiration Date 20-Sep-2026
Record ID 58531392

This is to certify that:

Amanda Warren

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Human Research
(Curriculum Group)
Group 4A SBR Undergraduate Students at the University of Mississippi.
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

University of Mississippi - Oxford

CITI
Collaborative Institutional Training Initiative

101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?wc633f4c7-43fd-4c7a-82b4-53e2ed9d6379-58531392

APPENDIX B: IRB APPLICATION FOR EXEMPTION

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. **Upload the completed form and attachments (and pdf of email assurance if PI is a student)** at https://research.olemiss.edu/irb/submit.

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	☐ Yes	☒ No
Exercise	☐ Yes	☒ No
X-rays	☐ Yes	☒ No
Collection of blood, urine, other bodily fluids, or tissues	☐ Yes	☒ No
Use of blood, urine, other bodily fluids, or tissues with identifiers	☐ Yes	☒ No
Use of drugs, biological products, or medical devices	☐ Yes	☒ No
Use of drugs, biological products, or medical devices	☐ Yes	☒ No
Use of data collected in the European Economic Area (EEA)*	☐ Yes	☒ No
Targeted Subjects:		
Prisoners	☐ Yes	☒ No
Elements of Deception:		
The study uses surreptitious videotaping	☐ Yes	☒ No
The study gives subjects deceptive feedback, whether positive or negative	☐ Yes	☒ No
The study uses a research confederate (i.e., an actor playing the part of subject)	☐ Yes	☒ No

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

2. Questionnaire or Survey? (include questionnaire or survey as an attachment) If Yes, answer 2a and 2b. If No, proceed to 3.	☒ Yes	☐ No
a. Anonymous?*	☒ Yes	☐ No
b. Sensitive Information?*	☐ Yes	☒ No

If you answered No to 2a AND Yes to 2b, 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

CATEGORIES FOR EXEMPT REVIEW

3. 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
- ☐ Public observation involving minors with no investigator interaction. Minors are **ONLY** permitted under these conditions.

☐ **3) <u>Benign Behavioral Interventions (BBI)</u>:** 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

<u>At least one of the following must be checked</u>

☐ **(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) <u>Biospecimen Secondary Research</u>**: 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	
4. Project Title: Healthcare Experiences Study	
5. Principal Investigator: ☐ **Dr.** ☒ **Ms.** ☐ **Mr.** Enter PI Name	
Department: Biology	**Dept Chair's email (for cc of approval): schen8@olemiss.edu**
Work Phone: 832-729-1163	**Home or Mobile Phone: 662-915-7203**
E-Mail Address: akwarren@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: Advisor Name **(required for student researchers)**	
Department: HEALTH, EXERCISE SCIENCE, & RECREATION MANAGEMENT	**Work Phone: 662-915-5521**
E-Mail Address: HKALLEN1@OLEMISS.EDU	**Home or Cell Phone: 484-753-1612**

6. Funding Source:

Is this project funded? ☐ Yes ☒ No

If Yes, is the funding:

☐ **Internal : Source:** Click to enter
☐ **External : Pending/Agency:** Click to enter
☐ **Awarded/Agency:** Click to enter

PI(s) on external funding: Click to enter

7. 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/ Abbreviated CITI (ACITI) training before this application will be processed*.

PERSONNEL NAME	PERSONNEL EMAIL (REQUIRED) *	FACULTY OR STAFF	GRADUATE STUDENT	UNDERGRAD STUDENT	ROLE ON PROJECT
PI Amanda Warren	akwarren@go.olemiss.edu	Click to select	☐	☒	Primary Investigator (PI)
Advisor Hannah Allen	Hkallen1@olemiss.edu	Faculty	☐	☐	Co-investigator
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text
Name	Email	Click to select	☐	☐	Click to enter text

If space is needed to list additional project personnel or non-UM personnel, submit Appendix A.
***See Exempt Human Research Policy for training exceptions**

Research Methodology/Procedures

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

☐ Pre-existing data or biological samples

- Source of data: Click to enter text.

-Do data/samples have identifiers? ☐Yes* ☐No

* PHI will require a full form application and a HIPAA waiver authorization request.

***Minors are NOT permitted under this sub-category.**

***Describe how data will be secured** (e.g., encryption for electronic data; multiple locks for paper data).

Click to enter text.

Will physical copies of identifiable data be kept? ☐Yes* ☐No

If yes, please list the data storage location (office/room number): Click to enter text.

*For identifiable data that will be physically stored (locked drawer, file cabinet etc.) posted restricted access signage is required. See our Restricted Access signage template here.

☐ Observation

☐Oral history- Use and attach the required release form if you plan to disseminate **quoted** comments or taped content from histories, interviews, and/or groups. (This covers you and UM legally – Not for IRB purposes)

☐ Interview- Attach interview questions.

☐ Focus group- Attach topic and questions.

☒ Questionnaire or survey* - Attach questionnaire or survey

If online, list platform (e.g., Qualtrics): *If using Qualtrics for anonymous surveys, see guidance here.

Qualtrics

☐ The study has misleading or deceptive*
(1) study descriptions;
(2) procedure explanations; and/or
(3) survey instructions/rationales.

*In the abstract, provide complete details and a rationale for employing misleading/deception information. Include **Appendix D** in your attachments.

9. Consent Procedures:

☐ Oral -Attach script* ☒ Information Sheet/Cover Letter - Attach* **No subject signatures required,**

☐Not applicable, Explain Click to enter text.

*For both oral consent and the information sheet see our 'Sample Information Sheet' example here: under Templates. This template is for exempt protocols only and ensures that all elements of consent are addressed.

Project Summary

10. 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 healthcare experiences of undergraduate college students. There are three main aims. The first aim will be to describe the prevalence of pain dismissal by healthcare professionals among undergraduate college students. The second aim is to analyze the associations between experiencing pain dismissal and help-seeking attitudes and behaviors. The third aim is to examine whether the association between pain dismissal and help-seeking among undergraduate college students differs by sex.

Describe the ages and characteristics of your proposed subjects. 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 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. We will also submit an announcement to UM Today, which will include an anonymous ink to the survey and a brief description of the project.

For studies using only adult subjects, state how you will ensure they are 18+: ☐ Not applicable ☒ First question on survey/interview

☐ Other: Click to enter text.

RECRUITMENT PROCEDURES:

a. How will you recruit subjects? Check all that apply:

☐ Sona System

☐ Class announcements

☐ Letters to parents/guardians

[Recruitment materials **must** state "This study has been reviewed and determined to be Exempt by UM's Institutional Review Board (IRB).

☒ E-mail – specify groups: An email sent to UM undergraduate students from the IREP panel

☐ Radio/TV/newspaper ads

☒ UM bulletin boards, where: UM Today

☐ Other**:** Click to enter text.

[List all recruitment sites.]

***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 October 2023. Additional recruitment strategies include providing an anonymous survey link through a UM Today announcement. 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.

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, healthcare experiences, attitudes towards healthcare, and behaviors resulting from healthcare experiences. The survey should take about 5-10 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 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.

11. 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

12. Attachments Checklist:

Do you have:

a) Advisor assurance – required for student research protocols

☒ Yes ☐ Not Applicable

b) Survey or questionnaires?

☒ Yes ☐ Not Applicable

c) Interview questions?

☐ Yes ☒ Not Applicable

d) Focus group questions?

☐ Yes ☒ Not Applicable

e) Recruitment email, announcement, or script?

☒ Yes ☐ Not Applicable: No subject contact

f) Information sheet or oral script?

☒ Yes ☐ Not Applicable: No subject contact

g) Debrief statement and re-consent

☐ Yes ☒ Not Applicable

h) 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.**

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

☐ Yes ☒ Not Applicable

14. 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 ☒No	If Yes, please describe any potential conflict of interest. Click to enter text.

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

☐Yes ☒No ☐Not applicable	If Yes, please describe any potential conflict of interest. Click to enter text.

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.

Amanda Warren

10/2/2023

Typed signature/name of Principal Investigator **Date**

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

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

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. Save the reply email from your Advisor as a pdf and submit via the online portal along with your IRB submission materials**. Protocol review cannot begin without an advisor assurance for student PIs.**

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 C. CONSENT FORM

CONSENT TO PARTICIPATE IN RESEARCH

Title: Healthcare Experiences Survey

Principal Investigator **Amanda Warren** Department of Biology 214 Shoemaker Hall University of Mississippi akwarren@go.olemiss.edu **Co-Investigator** **Hannah K. Allen, PhD** Department of Health, Exercise Science, & Recreation Management 225 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 healthcare experiences. You will be asked to complete an anonymous online survey that asks about individual and student characteristics and healthcare attitudes, behaviors, and experiences.

Cost and Payments

The survey should take about 5-10 minutes to complete. No compensation will be provided for participation in this research study.

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 healthcare experiences. 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 healthcare.

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.

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 investigator:

Amanda Warren
Department of Biology
214 Shoemaker Hall
University of Mississippi
akwarren@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.

APPENDIX D. SURVEY

Thank you for taking the time to participate in this study on attitudes, behaviors, and experiences related to healthcare utilization 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. What is your current class standing?
    - Freshman
    - Sophomore
    - Junior
    - Senior

8. What is the highest level of education completed by either of your parents (or guardians)?
    - Did not finish high school
    - High school diploma
    - Attended college but did not complete degree
    - Associate's degree or trade/technical training
    - Bachelor's degree
    - Master's degree
    - Doctoral or professional degree
    - Don't know

Health and Healthcare Experiences

The following section will ask questions about your overall health and your healthcare experiences. Remember that your responses are anonymous.

9. How would you describe your overall health?
    - Excellent
    - Very good
    - Good
    - Fair
    - Poor

10. Do you currently have health insurance?
    - Yes
    - No
    - I don't know

11. **Within the past 12 months,** have you visited any healthcare professional (e.g., a nurse practitioner, physician assistant, primary care doctor, or other type of medical doctor) for a check-up or for any other medical reasons (in-person or via telehealth)?
    - Yes
    - No

12. Chronic pain is pain that lasts for over three months. Common types of chronic pain include but are not limited to arthritis, back or joint pain, headaches, muscle or bone injuries, and nerve damage. **In your lifetime,** have you ever experienced chronic pain?
    - Yes, and it has been diagnosed by a healthcare professional
    - Yes, but it has not been diagnosed by a healthcare professional
    - No, I have never experienced chronic pain

Help-Seeking Behaviors and Experiences

Pain can be categorized as acute (pain that presents for less than three months) or chronic (pain that persists for more than three months). The following questions ask about your experiences related to pain, which for this section includes both acute and chronic pain. Remember that your responses are anonymous.

13. **In the past 12 months,** have you visited any healthcare professional, such as a primary care doctor, for a pain-related reason?
    - Yes
    - No (if selected, go to #14)

14. **In the past 12 months,** which of the following reasons has prevented you from visiting a healthcare professional for a pain-related reason? Select all that apply.
    - No need for services
    - Financial reasons (e.g., too expensive, not covered by insurance)
    - Not enough time
    - Not sure where to go
    - Difficulty finding an available appointment
    - Did not want to go because of negative past experiences with healthcare providers
    - Prefer to deal with pain on my own or with support from family/friends

15. **In your lifetime,** have you ever had a healthcare professional ignore, not believe, or dismiss your reports of pain?
    - Yes (if selected, go to #16)
    - No

16. Did this pain dismissal happen **in the past 12 months?**

- Yes
- No

17. **<u>In your lifetime,</u>** have you ever gone to see a healthcare professional for a pain-related reason and felt that you did not receive sufficient care?
    - Yes
    - No
    - Maybe

18. If you were experiencing acute or chronic pain in the future, how likely is it that you would you seek medical attention?
    - Very likely
    - Moderately likely
    - Somewhat likely
    - Slightly likely
    - Not at all likely

19. If you were experiencing a health issue ***unrelated to pain*** in future, how likely is it that you would you seek medical attention?
    - Very likely
    - Moderately likely
    - Somewhat likely
    - Slightly likely
    - Not at all likely

<u>Help-Seeking Attitudes</u>

The following questions ask about your attitudes and feelings towards seeking medical attention for pain. Remember that your responses are anonymous.

20. Visiting a healthcare professional for a pain-related reason would be:						
1 (unpleasant)	2	3	4	5	6	7 (pleasant)
21. Visiting a healthcare professional for a pain-related reason would be:						
1 (unbeneficial to my health)	2	3	4	5	6	7 (beneficial to my health)
22. If I visit a healthcare professional for a pain-related reason, my pain will be accepted and believed.						
1 (disagree)	2	3	4	5	6	7 (agree)
23. The idea of visiting a healthcare professional for a pain-related reason makes me feel nervous and/or anxious.						
1 (disagree)	2	3	4	5	6	7 (agree)

APPENDIX E. RECRUITMENT EMAIL

Subject Line: Participate in a Brief Survey on College Student Healthcare Experiences

Dear UM Student,

As part of a research project on better understanding healthcare experiences among college students, you are invited to participate in a brief, one-time online survey that should take about 5-10 minutes to complete.

Participation is voluntary, and all of your responses will be kept completely anonymous. 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 investigator:

Amanda Warren
Department of Biology
214 Shoemaker Hall
University of Mississippi
akwarren@go.olemiss.edu

Thank you for taking the time to participate!

Best,

Amanda Warren
Hannah Allen

APPENDIX F. UM TODAY ANNOUNCEMENT

Title: Survey on College Student Healthcare Experiences

Summary: Undergraduate students are invited to take a brief survey on their healthcare experiences. Only 5-10 minutes to complete!

Full Details: As part of a research project on better understanding healthcare experiences among college students, you are invited to participate in a brief, one-time online survey that should take about 5-10 minutes to complete.

Participation is voluntary, and all of your responses will be kept completely anonymous. 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]

APPENDIX G. IRB APPROVAL EMAIL

IRB Exempt Determination of Protocol #24x-075

irb@olemiss.edu <irb@olemiss.edu>
Fri 10/13/2023 1:55 PM
To:akwarren@go.olemiss.edu <akwarren@go.olemiss.edu>
Cc:Hannah Allen <hkallen1@olemiss.edu>

PI:

This is to inform you that your application to conduct research with human participants, "Healthcare Experiences Study" (Protocol #24x-075), 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.

IRB Feedback survey

Tell Us How We Did!
-Unless you've given feedback this calendar year, please take this 30-second, 6 item anonymous survey

http://uofmississippi.qualtrics.com/jfe/form/SV_0vs6aG3OISdyBtH

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:

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- 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)