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# AN EVALUATION OF THE EATING BEHAVIORS OF HONORS COLLEGE UNDERGRADUATE STUDENTS AT THE UNIVERSITY OF MISSISSIPPI

By
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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 May 2020

Approved by
Advisor: Dr. Melinda Valliant
Reader: Dr. Kathy Knight
Reader: Dr. David Holben

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#### **ASTRACT**

ANNA CATHERINE BOUTHILLIER: An Evaluation of the Eating Behaviors of Undergraduate Students at the University of Mississippi (Under the direction of Melinda Valliant)

Eating disorders are defined as an illness that changes one's relationship with food, that ultimately affects one's emotions, thoughts, and physical well-being. Three types of eating disorders most commonly diagnosed are anorexia nervosa, bulimia nervosa, and disordered eating. It is important to note that disordered eating is a term used to describe abnormal eating behaviors and feelings related to food that may or may not fall into a certain diagnostic category (Anderson, 2018). Many college students today are diagnosed with an eating disorder or disordered eating as a result of the increasing anxiety and pressures experienced at this age.

The primary purpose of this study was to determine if undergraduate students at the University of Mississippi have an unhealthy relationship with food and body image. Eating disorders and disordered eating has yet to be addressed at the programmatic level at the University of Mississippi. The secondary purpose of this study examined knowledge of oncampus resources for students with disordered eating. Students' attitudes towards eating behaviors and their awareness of eating disorders were evaluated through a Qualtrics survey (Appendix B) and a questionnaire (Appendix A) completed by faculty. Statistical analyses examined the distribution of responses across age, gender, and the effect of weight on respondents who knew someone with an eating disorder. Results indicated, that there was no significance between age, however there was significant difference in responses based on gender

and the effect of weight on respondents who knew someone with an eating disorder. This demonstrates that weight affects self-image differently based on gender, and if a person knows someone with an eating disorder.

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#### Introduction

The incidence of eating disorders has rapidly increased since the 1960s, and continues to increase in younger age groups (Ice, n.d., as cited in Daw, 2001). According to data from the National Comorbidity Survey Replication (2007) one population affected most are college aged adults, as cited in the *National Institute of Mental Health*. During college, young adults are easily influenced by peers and current trends. One trend that young adults face is the increasing pressure to fit the ideal dimensions of body weight. The additional weight gain during college is a real fear for some students. This has become known as the "Freshman 15". With new eating habits such as eating late at night, eating while studying, and eating cheap foods, weight gain is not abnormal. Yet, the fear of additional weight gain can influence undergraduate students to adopt unhealthy eating behaviors (Delinsky, Terence Wilson, 2008).

Undergraduate students are also navigating through new routines, with an extensive list of unfamiliar responsibilities. In some students, these responsibilities, or stressors, can create psychological disorders. According to research conducted by Goel et al. (2018) psychological disorders and eating disorders have a high comorbidity. If untreated, eating disorders can ruin the future of any undergraduate student. The purpose of this research was to assess eating behaviors of undergraduate students and to gage faculty perceptions of disordered eating and eating disorder services and resources available at the University of Mississippi.

#### **Review of Literature**

# The types of eating disorders

It is important to distinguish that eating disorders come in a variety of forms. When we hear the words "eating disorder" people most commonly think of anorexia nervosa, bulimia nervosa, and binge eating disorder. However, what most do not know is that eating disorders go beyond the limits of these three diagnoses; though, the most common eating disorders seen on a college campus are anorexia and bulimia (Rae Jacobson, n.d.). Anorexia nervosa is defined by weight loss (National Eating Disorders Association, n.d.). People with anorexia achieve weight loss by limiting their calorie intake. There are two subtypes of anorexia nervosa; restrictive and non-restrictive (National Eating Disorders Collaboration, n.d.). According to the NEDC, those with restrictive anorexia nervosa limit the amount and variety of food they consume. Additionally, those with non-restrictive anorexia limit food consumption, while also engaging in binge eating and purging behaviors ((National Eating Disorders Collaboration, n.d.). A second eating disorder is bulimia nervosa. Bulimia is a cycle of "normal" eating and then binge eating and then purging in order to balance out or reduce calorie intake (National Eating Disorders Association, n.d.). Anorexia and bulimia, as well as other eating disorders, change a person's relationship with food. Food is simply viewed as sustenance for survival.

### The definition of disordered eating

Oftentimes eating disorders cannot fall into a certain diagnostic category. Disordered eating is a term used to describe abnormal eating behaviors and feelings related to food. The Academy of Nutrition and Dietetics labels disordered eating as a "descriptive phrase", not a "diagnosis"(Anderson, 2018). In other words, often restrictive behaviors cannot fall into a certain diagnosis. Eating disorders are most likely to arise between 18-21 years of age, or the time at which a young adult enters college (Hudson, 2007, as cited in National Eating Disorders Association, n.d.). This period of change is also a likely time for disordered eating behaviors to emerge (Levine et al., n.d.).

#### **Orthorexia**

Many popular health trends seen today such as clean eating, paleo, vegan, raw foods, and elimination diets, can escalate into an eating disorder (Bratman, 1997). This eating disorder is labeled as orthorexia nervosa. Orthorexia can be explained as an unhealthy fixation on clean eating (National Eating Disorders Association, n.d.). For those with Orthorexia, the goal is to eat only clean, pure foods (Bratman, 1997). This eating disorder is not widely recognized and difficult to diagnose. Though a person is concerned with the "nutritional quality" of food, they have an abnormal obsession with healthy eating. The obsession escalates so far as to cause guilt or shame for someone who indulges in food viewed as unhealthy (Bratman, 1997).

## Eating disorders and disordered eating in college students

Eating disorders are one of the most common and deadliest mental illnesses. According to The Journal of Affective Disorders, symptoms of eating disorders were more prevalent in college students than depression (Zivin et al., 2009). Why are college students most commonly seen to exhibit eating disorders? A possible reason why young adults, specifically college students, are most at risk is because of the developmental changes and frequent stresses that come from living outside one's home. The transition from high school to college is exciting yet stressful. It is not uncommon for college students to experience psychological unrest during this stage in life. Anxiety is commonly associated with eating disorders, as research shows that anxiety controls the relationship between a negative body image and disordered eating (Juarascio et al., 2011). One study examined the similarities between college students with obsessive compulsive symptoms and disordered eating behavior through three variables (perfectionism, obsessive beliefs, and negative affect) (Humphreys et al., 2007). As a result, Humphreys et al. (2007) found all three variables were connected to obsessive compulsive symptoms and disordered eating behavior. The significant connection between the two conditions is perfectionism (Humphreys et al., 2007). For students with obsessive compulsive symptoms, their goal is marked by high standards and flawlessness. This is comparable to disordered eating because college students set a standard for their weight that is marked by unrealistic expectations.

A second reason for developing irregular eating behaviors can be tied to the stigma associated with gaining weight during freshman year otherwise known as the 'freshman fifteen'. Eating disorders and disorder eating behaviors are associated with figure dissatisfaction, ineffectiveness, and public self-consciousness (Cooley, Toray, 2010); and stress and body

consciousness affect a wide variety of populations on college campuses. The concerns surrounding eating and body image can escalate once in college. In some cases, these factors can give rise to eating disorders and disordered eating behaviors.

### Women and disordered eating

One group that appears to be affected the most is women. The Generation Z population, 4-24 year olds, feels an increasing pressure to fit a mold. A negative self-identity can influence some so far as to develop an eating disorder. Research has found that college women who felt more strongly about sociocultural attitudes toward appearance, were more likely to develop an eating disorder (Cogent Psychology, 2016). In efforts to attain the "ideal" body image some women have also developed an unhealthy relationship with exercise. A study by Wolf and Akamatsu (2007) found that women who exercised regularly displayed more eating disorder attitudes and greater desire for thinness compared to women who did not exercise regularly. Rather than improving health, these women are deteriorating their bodies for thinness. According to Malinauskas et al. (2006) 58% of women on the college campus experienced pressure to be a certain weight. Additionally, 83% of women dieted for weight loss and only half were of normal weight (Malinauskas et al., 2006), as cited in Campuses Collaborating for Eating Disorder Recovery (n.d.). In other words, half of the women dieting on college campuses, do so to an unhealthy level. Many women neglect to realize they engage in disordered eating behaviors. White college women were not the only population affected by eating disorders and disordered eating. Stein et al. (2019) found that Mexican American women viewed themselves as fat because they had a negative self-image. As a result this was a large predictor for purging and

fasting/restricting behaviors (Stein et al., 2019). Another example is from a study by Hoerr et al. (2013) which found that African-American college women were also at risk for eating disorders. Additionally, women living in a sorority were at the highest risk (Hoerr et al., 2013). This proves that the college female population as a whole experiences increasing pressure to look a certain way, ultimately leading many to adopt an eating disorder or disordered eating behaviors.

# Men and disordered eating

Eating disorders and disordered eating are not limited to the female population. Olivardia et al. (1995), as cited in the American Journal of Psychiatry, found that though eating disorders are more common in women, there are evident similarities between affected men and women. College males and females both experience the same social pressure to fit into a certain stereotype. The pressure that stems from fitting the social norm as "skinny" can escalate a diet to pathological dieting (Shisslak, Crago, 1995, as cited in National Eating Disorders Association, n.d.). The stereotype that eating disorders only affect women is why males with eating disorders are not as widely discussed. O'Dea and Abraham (2010) found that 20% of men were concerned about their body image and followed restrictive food rules. Similar to women, men also strive to fit the perceived norm for thinness. Unfortunately, women are more likely to be treated for an eating disorder than men (Sonneville, Lipson, 2018). There is very little research done on males and eating disorders. However, what has changed, is that there is a smaller difference between the number of eating disorder instances amongst males and females (Lipson, Sonneville, 2017). This proves that when there are warning signs for an eating disorder, it is important not to rule out males because of their gender.

# The warning signs for disordered eating

Eating disorders and disorderly eating is not easy to identify. Eating disorders can be misdiagnosed as other psychological disorders and can affect people of all ages, body types, and demographics. A few common indicators that help differ between an eating disorder and/or physical, mental disorder are notable weight changes, frequently cooks one's own meals, eating separate meals, extreme diet rules, obvious body dissatisfaction, secretive behaviors related to food, emotional guilt related to food, overly concerned with weight (Hudson, 2018). However, thinness is a misleading diagnostic indication of eating disorders. Lipson and Sonneville (2017) found that college students who are overweight or obese are the population most commonly found to have an eating disorder. Additionally, more symptoms were seen in overweight and obese college students, making weight the most constant predictor for risk of an eating disorder (Lipson, Sonneville, 2017). This misleading warning sign makes it difficult for early detection. Without early detection, the disorder becomes more critical.

## Treatment for college students with disordered eating

The National Eating Disorders Association determined that between 10-20% of women and 4-10% of men in college suffer from an eating disorder (Jacobson, n.d.). Unfortunately, the Association also estimates that these rates are increasing. White et al. (2011) conducted a study over a thirteen year period and found that behaviors considered to be in the category of EDNOS

(eating disorders not otherwise specified) increased over time in both genders in relation with the use of unhealthy weight control methods. In order to determine the prevalence and need for resources on college campuses NEDA (National Eating Disorders Association) funded the Collegiate Survey Project. In response to the survey, it was determined that for early detection and prevention, access to education, eating disorder screenings, and mental health resources are crucial (National Eating Disorder Association, n.d.).

There are several treatment options for eating disorders. Some of these include psychotherapy, medical care and monitoring, nutritional counseling, medications, or any combination of these (National Institute of Mental Health, 2016). Eating disorder treatment is a multifaceted approach. It can be difficult for students to receive adequate treatment because of the lack of various resources while in college. However, if untreated, disordered eating behaviors can escalate to a more serious issue. Eating disorders, like any psychological disorder, have a high comorbidity and have been found to have the highest mortality rate (Arcelus, 2011). Goel et al. (2018) suggests that when testing for eating disorders, college students should also be evaluated for suicidal ideations. This indicates that suicide is a serious risk for college students with eating disorders. In the efforts of preventing the escalation of eating disorders, several universities have taken the initiative to implement programs, as well as awareness activities in order to encourage treatment.

## Eating disorder services at the University of Mississippi

Currently, the University of Mississippi lacks an explicit eating disorder support program. The counseling center on campus offers individual as well as group counseling and

therapy. The University's counseling center also offers crisis intervention options (The University of Mississippi Counseling Center, n.d.). A second resource for students is the Collegiate Recovery Community. Currently, the CRC only oversees students with substance abuse issues (The University of Mississippi Campus Recreation, n.d.). Though the University of Mississippi has support resources, we lack a definite community for students who are struggling with or recovering from an eating disorder.

## Eating disorder services at the University of Colorado Boulder

One university that has support resources dedicated to eating disorders is the University of Colorado Boulder. Two services ranked the most important for treatment are: on-staff nutritionists with an eating disorders specialty and therapy groups for affected students (National Eating Disorders Association, n.d.). The University of Colorado Boulder's treatment team includes an on-campus dietitian, nutritionist, and therapist. This on campus medical staff targets all sides of an eating disorder with staff that can provide help for psychological, medical, and nutritional needs (The National Association of Anorexia Nervosa and Associated Disorders (ANAD), n.d.). In addition to having a strong treatment approach, the University of Colorado Boulder also has outreach programs for students recovering from an eating disorder. The program known as the Recovery Mind Workshop provides support for students in post treatment. This workshop gives students a safe community to learn about coping skills (The National Association of Anorexia Nervosa and Associated Disorders (ANAD), n.d.). This is only one example of a university that is taking steps to assess, treat, and support students with eating disorders.

## **Eating disorder services at The Ohio State University**

The University of Colorado Boulder is not the only college campus with a treatment team for students with eating disorders. The Ohio State University also has a group of professionals whose goal is to prevent and treat eating disorders and disordered eating. This team includes Student Health Services, Student Wellness Center, and Counseling and Consultation Service (Eating Disorder Hope, n.d.). These facilities co-operate to provide students with the help they need. Similar to the University of Colorado Boulder, the team at Ohio State is made up of registered dietitians, counselors, and medical and mental health professionals (Ohio State University, n.d.). In addition to this resource, students also have access to free nutritional coaching. Not only does The Ohio State provide outpatient care, they also have an organization to raise awareness. Project HEAL is a group that raises money to offer scholarships for eating disorder treatment (Eating Disorder Hope, n.d.). These multidisciplinary groups work together to provide support for students with eating disorders.

### Eating disorder services at The University of Chicago

Some institutions have not only adopted eating disorder programs for treatment but also for research. The University of Chicago is recognized for their complex treatment plan and research dedicated to furthering the knowledge of eating disorders (The University of Chicago Department of Psychiatry and Behavioral Neuroscience, n.d.). This notion is reinforced by the extensive services offered to those with an eating disorder. Eating disorders are not limited to anorexia or bulimia. The program at The University of Chicago recognizes this and sees patients

with any abnormal behaviors related to eating. This includes people with the following disorders: "Anorexia nervosa, bulimia nervosa, binge eating disorder, avoidant restrictive food intake disorder (ARFID), purging disorder, atypical eating disorders, and bariatric surgery candidates" (Eating Disorders Program). Similar to the University of Colorado Boulder, the University of Chicago's eating disorder team is a collaborative effort including therapists, psychiatrists, and medical staff. This team works to provide care at every level. Working with Student Health and Counseling Services at the University of Chicago, the team provides assessments, consultation, outpatient psychotherapy, and medication management (Eating Disorders Program). The University of Chicago's Eating Disorder team understands the importance of an integrated treatment plan.

Though outreach and advocacy programs provide support, treatment teams are the most critical component for recovery. College campuses such as the University of Colorado Boulder, The Ohio State University, and the University of Chicago have recognized the increasing need for eating disorder support. These universities have introduced treatment teams to provide early detection, intervention, and treatment for students struggling with an eating disorder.

#### Methods

## **Participants**

The sample population of this study was undergraduate students from the Sally McDonnell Barksdale Honors College (SMBHC) and faculty at the University of Mississippi. The convenience sample of SMBHC students was chosen because they consist of entirely undergraduate students. This population is also a group of students who tend to be very involved in campus activities and knowledgeable about the environment at the University of Mississippi. Additionally, I also requested three faculty members to complete a questionnaire in order to gain their perspective. This group consisted of three independent professors who all teach unrelated undergraduate courses. I chose faculty members who specialized in distinct departments in order to gain a variety of insights. For instance, one faculty member from the Departments of Art, Biology, and Political Science respectively, was included. This was important because each professor interacts with a particular group of students. Subjects of both studies had a minimum age of 18.

## **Procedure**

This study was approved by the Institutional Review Board at the University of Mississippi using two different research procedures: a survey administered through Qualtrics and a questionnaire. At any point during the survey, participants were given the option to discontinue

if they so wished. I used two different procedures because of the variance in population sizes. A survey administered through Qualtrics allowed me to gather data from a larger sample size such as Honors college students. A questionnaire allowed for more in depth discussion due to the smaller sample size.

# **Eating Behaviors at the University of Mississippi Survey**

The purpose of this survey (Appendix B) was to gauge students' feelings about their bodies in relation to food. Honors College students were contacted via email and asked to voluntarily participate by taking a survey on eating behaviors at the University of Mississippi. The survey, conducted on Qualtrics, consisted of 8 questions. On the survey, questions began general and brief then dove deeper into questions that required more self-reflection. The survey used in this study was updated and simplified from a survey published in Cognitive Behavior Therapy and Eating Disorders (Fairburn, Beglin, 2008). Some questions were simplified to alleviate any feelings of discomfort. For example, longer questions such as "Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?" and "Have you had a definite desire to have a totally flat stomach?" (Fairburn, Beglin, 2008) were simplified to "does your weight affect how you feel about yourself?". The goal of this survey was not only to gain an understanding of students' relationship with food but also to discover if they had previous knowledge about eating disorders and where to seek help if needed. This was identified through questions 7 and 8 when I asked participants "Do you know anyone who has suffered from an eating disorder?" and "Would you know where to seek help if needed?". These

questions were used to give a rough estimate about the commonness of eating disorders and students' knowledge about where to seek help (see Appendix B).

## Statistical analysis

The data collected from the eight questions on the Eating Behaviors at the University of Mississippi survey was exported into a Microsoft Excel sheet. Data were analyzed using Statistical Package for the Social Sciences version 26 (Armonk, NY). Because the data were not normally distributed, the responses from questions two, three, seven, and eight were analyzed using the Mann-Whitney U test, to compare two groups. The responses on question four and five were measured on a Likert scale from 1= Always, 2=Most of the time, 3= About half of the time, 4= Sometimes, 5= Never. Question six, the responses were measured on a Likert scale from 1= Never, 2= Rarely, 3= Most of the time, 4= Always. A Kruskal Wallis test was then used to determine if there were statistical differences between these groups. This test was used to determine if subjects responded differently based on gender, age, or knowing someone with an eating disorder. Statistical significance set at P= less than 0.05.

# Eating Behaviors at the University of Mississippi Questionnaire

Professors engage the closest with students on a college campus; therefore, their experiences with disordered eating was assessed through a questionnaire (Appendix A) because I hypothesized that they would be able to provide insight into the presence of disordered eating at the University of Mississippi. The questionnaire evaluated the prevalence of eating disorders and if faculty had knowledge of eating disorder services. To conduct this part of my research I

interviewed staff from three different departments. The purpose of this was to ensure that the survey reflected the diverse population on our campus. Professors were asked to respond to six short answer questions. This format enabled professors to respond candidly about their knowledge of disordered eating. Lastly, I wanted to compare professors' responses with the students. The questionnaire was slightly different from the survey due to the fact I was measuring different populations. However, the final questions on both tests asked if the subject encountered or knew of anyone with an eating disorder. Also, if the subjects knew where to go on campus to seek help. This was important to my research because when an eating disorder is diagnosed and treated early, the severity of ones symptoms lessen, resulting in a quicker recovery, and reducing the chance of future relapse (Jones, Brown, 2016).

# Results

The response rate was 12%. Of the 201 respondents, most of the individuals were 21 years or older Figure 1. As expected, most respondents were female representing 77.39%. compared to 21.61% male. Two individuals preferred not to answer (1.01%).

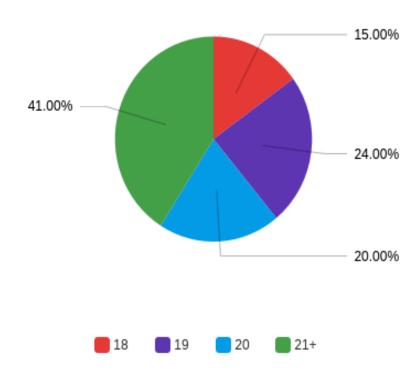


Figure 1. Age of Respondents

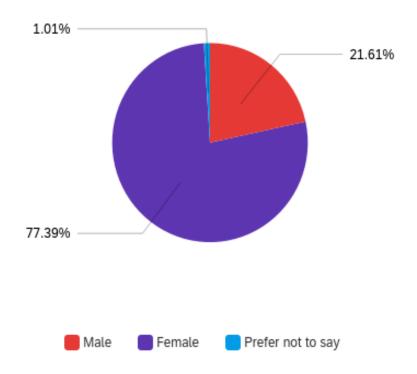


Figure 2. Gender of Respondents

In response to the survey question "Are you satisfied with your eating patterns?", 115 out of the 198 students answered "No" (58.08%), they were not satisfied. While the remainder of respondents said "Yes" (41.92%).

In response to question four the majority of respondents answered "Sometimes" (38.66%). The remainder answered "Most of the time" (23.71%), "About half the time" (14.95%), "Never" (14.43%), or "Always" (8.25%). A total of 192 subjects responded to question four, 152 of which were female and 40 were male. No significance difference ( $\alpha$ = 0.05) P = 0.194 was found between males and females. This data can be seen in figure 3.

# Independent-Samples Mann-Whitney U Test Gender

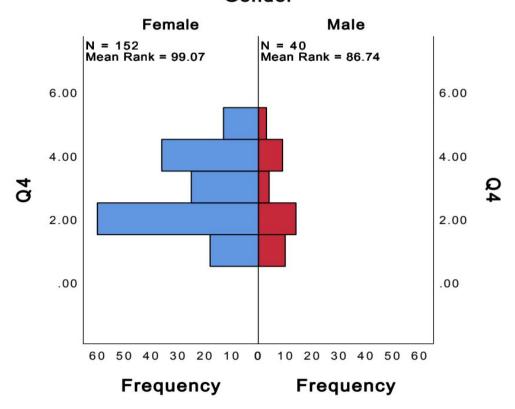


Figure 3. Distributions of frequency responses for males and females to the question "Do you try to exclude certain foods from your diet?".

In response to question five, "Do you try to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight?" most students answered "Never" (36.66%) or "Sometimes" (26.80%). The rest of respondents answered "Most of the time" (15.98%), "About half the time" (11.86%), or "Always" (6.7%). Of the 194

respondents 151 were females and 41 male. No significance difference ( $\alpha$ = 0.05), P = 0.190 was found between males and females. This data can be seen in figure 4.

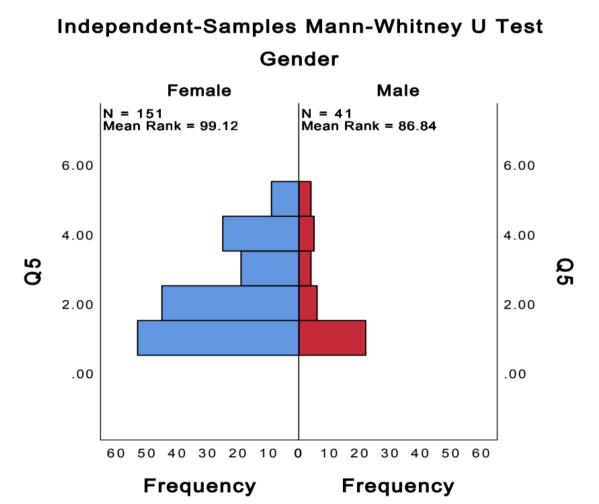


Figure 4. Distributions of frequency responses for males and females to the question "Do you try to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight?".

Significant differences were found between male and females to question six "Does your weight affect how you feel about yourself?", P= 0.0001. More female students answered "Most of the time" (37.17%) while male students more often chose "Rarely" (34.03%) (figure 5). Of the 191 respondents 150 were females while 39 were male.

# Independent-Samples Mann-Whitney U Test Gender

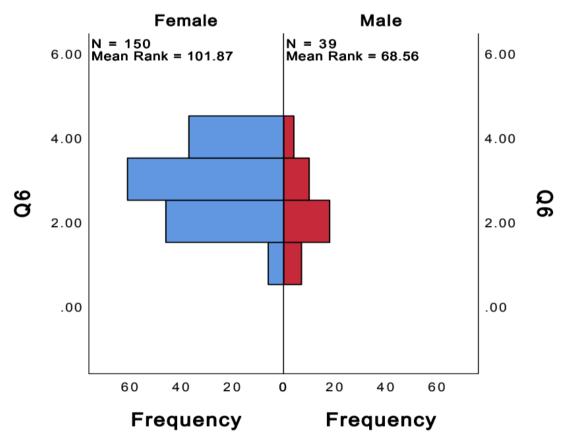


Figure 5. Distributions of frequency responses for males and females to the question "Does your weight affect how you feel about yourself?"

A Kruskal-Wallis test was used to test the null hypothesis that the distribution of answers was the same across age categories. No significant differences were found in responses to questions four through six Table 1.

Table 1. Results of Kruskal-Willis test.

Question	n	df	Test statistic	P-value	
Question 4	194	3	0.636	0.888	
Question 5	194	3	0.757	0.860	
Question 6	191	3	6.604	0.086	
-					

 $\alpha = 0.05$ 

The Mann-Whitney U statistics was used to determine if there were differences in the distribution of responses between students and faculty who knew or didn't know anyone who has suffered from an eating disorder. Most respondents answered "Yes" (82.20%). No significant differences were found for questions 4 and 5, ( $\alpha = 0.05$ , P = 0.079 and P = 0.069, respectively) however there was a significant difference between those who knew or didn't know a person with an eating disorder, ( $\alpha = 0.05$ , P = 0.043) figures 6, 7 and 8.

# Independent-Samples Mann-Whitney U Test Eating\_disorder

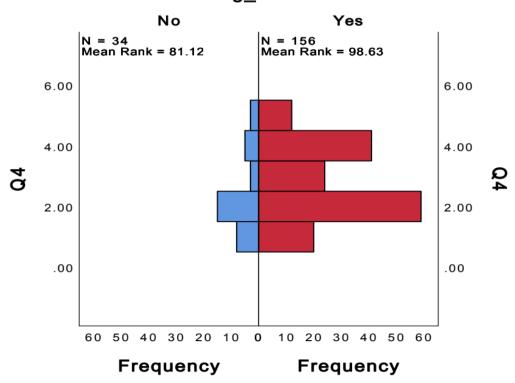


Figure 6. Distributions of frequency responses for respondents who knew and didn't know a person with an eating disorder to the question "Do you try to exclude certain foods from your diet?".

# Independent-Samples Mann-Whitney U Test Eating\_disorder

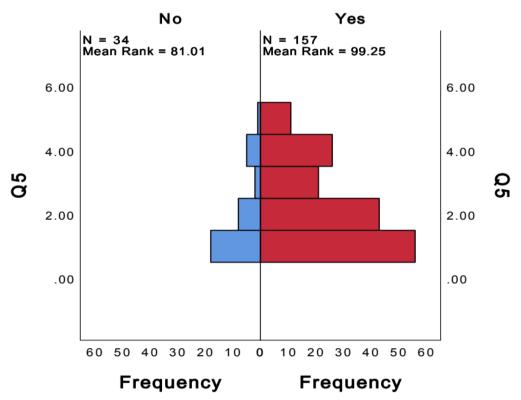


Figure 7. Distributions of frequency responses for respondents who knew and didn't know a person with an eating disorder to the question "Do you try to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight?".

# Independent-Samples Mann-Whitney U Test Eating\_disorder

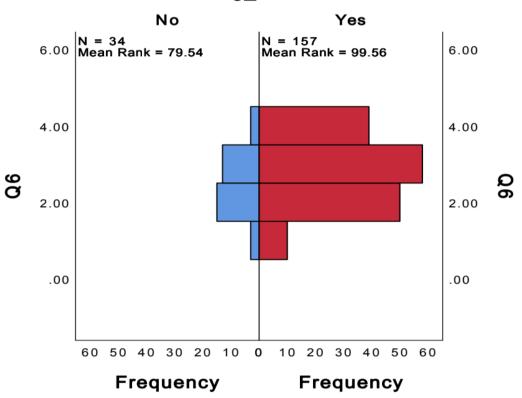


Figure 8. Distributions of frequency responses for respondents who knew and didn't know a person with an eating disorder to the question "Does your weight affect how you feel about yourself?"

# Eating Behaviors at the University of Mississippi Questionnaire

A brief questionnaire about eating disorders (Appendix A) was administered to three faculty members from different departments. The departments to which these professors belonged to were Biology, Political Science, and the Arts. These professors were also asked to

participate because they teach students of all ages from freshman to seniors. Two of the three professors interviewed were unaware of any disordered eating instances and did not know where students could receive help, if needed. Upon further discussion with one professor, it became clear that most are not aware of the difference between disordered eating and an eating disorder. This became more evident when one professor asked what qualified as disordered eating.

Another professor I spoke with had knowledge of many eating disorder instances from working in the dance department. This professor reported that they had witnessed a student pass out because they were not eating. This professor also knew of resources for students in need of help.

#### Discussion

This study evaluated eating behaviors of undergraduate students' at the University of Mississippi to determine if they had a healthy relationship with food and their bodies. One limitation to this study was the small sample size in comparison to the size of the entire undergraduate student body. This was due to the fact that only student members of the Sally McDonnell Barksdale Honors College had the opportunity to respond to the survey. Furthermore, it is impossible to generalize the results from this study to represent the entire undergraduate student population at the University of Mississippi. This sample population is only a subset of the university.

The Mann-Whitney U Test examined the distribution of responses across gender, and the effect of weight on respondents who knew someone with an eating disorder. The test resulted in two major conclusions. The first conclusion was that females and males responded differently to how weight affected self-image. Secondly, respondents who knew someone who had suffered from an eating disorder, responded that their weight affected their self-image most of the time.

The survey data provided information that weight affected self-image differently based on gender. The majority of females reported that their weight affected how they felt about themselves most of the time. The majority of males responded that their weight affected how they felt about themselves rarely or most of the time. This data aligned to the previous research finding that although eating disorders are less prevalent in men, there are similarities between men and women diagnosed with an eating disorder (Olivardia et al., 1995). This is not to say that men who answered "most of the time" to the survey Eating Behaviors at the University of

Mississippi, have an eating disorder. However, the data from this study regarding weight and body image in relation to gender, mirror the findings from the study conducted by Olivardia et al. (1995).

If respondents knew someone who had suffered from an eating disorder, they acknowledged that their own weight affected how they felt about themselves most of the time. If respondents did not know of someone who had suffered from an eating disorder then their weight rarely affected how they felt about themselves. Students who knew someone with an eating disorder were more sensitive to how weight affected their self-image. On the other hand, if a student did not know anyone with an eating disorder, then their weight did not hinder self-image. These findings align with previous research that disordered eating behaviors were associated with figure dissatisfaction and public self-consciousness (Cooley, Toray, 2010). Additionally, studies by Stein et al. (2010) and Hoerr et al. (2013) found that a negative self-image due to weight led college students to engage in disordered eating behaviors. This shows that a negative self-image has a positive correlation with eating disorders.

When compared to other Universities, the University of Mississippi lacks definite resources for students with eating disorders or disordered eating. The University of Colorado Boulder, The Ohio State University, and The University of Chicago have all implemented multifaceted teams to help students with eating disorders and disordered eating. While there is advertisement for support resources surrounding substance use disorder, there is not discussion about support resources for students with eating disorders. The reports from the questionnaire answered by faculty members revealed a lack of knowledge on where students can seek help for eating disorders or disordered eating behaviors. A possible reason why most professors do not know where students can seek help for eating disorders or disordered eating is because these

disorders are not thought of to be as prevalent as other issues. However, 82% of survey respondents knew of someone with an eating disordered and 48% did not know where to seek help. The University of Mississippi lacks awareness and resources for students with eating disorders, when compared to other universities.

#### **Conclusions**

The purpose of this study was to examine the eating behaviors of undergraduate students at the University of Mississippi and determine if there is a presence of disorder eating. Two methods were used to rear data; a survey sent to Honors College students, and a questionnaire answered by staff members. The results from this study showed that gender may correlate with eating behaviors and self-image. Additionally, this study showed that there is a relationship between body consciousness and eating disorders. Further research is needed to investigate the correlation between gender and body image, as well as the correlation between understanding of eating disorders and body image.

Lastly, the reports from both research methods also revealed a lack of knowledge for services available to students, if help was needed. I believe one way to change this would be to implement an eating disorder awareness program. Similar to universities such as the University of Colorado Boulder, The Ohio State University, and The University of Chicago, an advocacy program at the University of Mississippi would raise awareness for eating disorders, educate students about disorder eating, and inform all university members of helpful resources. It would be advantageous for research on this topic to continue in order to draw supporting conclusions. This may include populations of a larger sample size or a subdivision of the undergraduate population.

#### REFERENCES

- (n.d.). Retrieved April 3, 2020, from https://www.nedc.com.au/eating-disorders/eating-disorders-explained/types/anorexia-nervosa/
- (n.d.). Retrieved March 7, 2020, from https://www.mirror-mirror.org/orthorexia-nervosa.htm
- Anderson, M. (n.d.). What Is Disordered Eating? Retrieved March 7, 2020, from https://www.eatright.org/health/diseases-and-conditions/eating-disorders/what-is-disordered-eating
- Anorexia Nervosa. (2018, February 28). Retrieved March 7, 2020, from https://www.nationaleatingdisorders.org/learn/by-eating-disorder/anorexia
- Bulimia Nervosa. (2018, February 22). Retrieved March 7, 2020, from https://www.nationaleatingdisorders.org/learn/by-eating-disorder/bulimia
- Collegiate Recovery Community. (n.d.). Retrieved from https://campusrec.olemiss.edu/recovery/
- Collegiate Survey Project. (2017, May 04). Retrieved May 4, 2019, from https://www.nationaleatingdisorders.org/CollegiateSurveyProject
- Cooley, C. E., & Western Oregon University. (n.d.). Disordered Eating in College Freshman

  Women: A Prospective Study. Retrieved March 17, 2020, from

  <a href="https://www.tandfonline.com/doi/abs/10.1080/07448480109596308">https://www.tandfonline.com/doi/abs/10.1080/07448480109596308</a>
- Daw, J. (2001, October). Eating disorders on the rise. Retrieved April 3, 2020, from <a href="https://www.apa.org/monitor/oct01/eating">https://www.apa.org/monitor/oct01/eating</a>
- Delinsky, S. S., & Wilson, G. T. (2007, June 20). Weight gain, dietary restraint, and disordered eating in the freshman year of college. Retrieved April 3, 2020, from https://www.sciencedirect.com/science/article/abs/pii/S1471015307000323

- Disordered Eating and the Use of Unhealthy Weight Control Methods in College Students: 1995, 2002, and 2008. (n.d.). Retrieved March 7, 2020, from https://www.tandfonline.com/doi/full/10.1080/10640266.2011.584805?src=recsys
- Eating Disorders. (n.d.). Retrieved April 4, 2020, from https://www.nimh.nih.gov/health/statistics/eating-disorders.shtml
- Eating Disorder Help for The Ohio State University. (n.d.). Retrieved May 4, 2019, from https://www.eatingdisorderhope.com/programs/colleges-and-universities/eating-disorder-help-for-the-ohio-state-university
- Eating Disorder Treatment Team (EDT). (n.d.). Retrieved May 4, 2019, from https://shs.osu.edu/services/nutrition-therapy/eating-disorder-treatment-team-edt/
- Eating Disorders on the College Campus. (n.d.). Retrieved May 4, 2019, from https://www.nationaleatingdisorders.org/sites/default/files/CollegeSurvey/CollegiateSurveyProje ct.pdf
- Eating Disorders: About More Than Food. (n.d.). Retrieved March 7, 2020, from https://www.nimh.nih.gov/health/publications/eating-disorders/index.shtml#pub3
- Eating Disorders. (2019, January 31). Retrieved May 4, 2019, from https://www.colorado.edu/counseling/services/specialty-services-and-testing/eating-disorders
- Exercise Involvement and Eating-Disordered Characteristics in College Students. (n.d.). Retrieved March 17, 2020, from https://www.tandfonline.com/doi/abs/10.1080/10640269408249129
- Goel, N. J., Sadeh-Sharvit, S., Flatt, R. E., Trockel, M., Balantekin, K. N., Fitzsimmons-Craft, E. E.,... Taylor, C. B. (2018, April 6). Correlates of suicidal ideation in college women with eatingdisorders. Retrieved March 17, 2020, from

https://onlinelibrary.wiley.com/doi/abs/10.1002/eat.22865

- Hoerr, S. L., Bokram, R., Lugo, B., Bivins, T., & Least, D. R. (2013, June 26). Risk for Disordered Eating Relates to both Gender and Ethnicity for College Students. Retrieved April 3, 2020, from https://www.tandfonline.com/doi/abs/10.1080/07315724.2002.10719228
- Hudson, L. (2018, August 1). Warning Signs of Eating Disorders and Proven Treatments to Help.

  Retrieved March 7, 2020, from https://healthblog.uofmhealth.org/health-management/commonsigns-of-eating-disorders-and-proven-treatments-to-help
- Jacobson, R., & Child Mind Institute. (n.d.). Eating Disorders in College Students. Retrieved May 4, 2019, from https://childmind.org/article/eating-disorders-and-college/
- Kirkpatrick, J. J., Harter, S., & Ibert. (n.d.). Disordered Eating Behavior and Obsessive Compulsive Symptoms in College Students: Cognitive and Affective Similarities. Retrieved March 17, 2020, from https://www.tandfonline.com/doi/abs/10.1080/10640260701323508
- Lipson, S. K., & Sonneville, K. R. (2016, December 21). Eating disorder symptoms among undergraduate and graduate students at 12 U.S. colleges and universities. Retrieved March 17, 2020, from https://www.sciencedirect.com/science/article/pii/S1471015316302586?via=ihub
- Lipson, S. K., & Sonneville, K. R. (2017, January). Eating disorder symptoms among undergraduate and graduate students at 12 U.S. colleges and universities. Retrieved March 7, 2020, from https://www.ncbi.nlm.nih.gov/pubmed/28040637
- Moderators of the Relationship Between Body Image Dissatisfaction and Disordered Eating. (n.d.).

  Retrieved March 17, 2020, from

  https://www.tandfonline.com/doi/abs/10.1080/10640266.2011.584811
- O'Dea, A. J. A., Faculty of Education, & University of Sydney. (n.d.). Eating and Exercise Disorders in Young College Men. Retrieved March 7, 2020, from https://www.tandfonline.com/doi/abs/10.1080/07448480209603445

- Orthorexia. (2019, December 13). Retrieved March 7, 2020, from https://www.nationaleatingdisorders.org/learn/by-eating-disorder/other/orthorexia
- Services. (n.d.). Retrieved May 4, 2019, from https://counseling.olemiss.edu/services/
- Sonneville, K. R., & Lipson, S. K. (2018, March 2). Disparities in eating disorder diagnosis and treatment according to weight status, race/ethnicity, socioeconomic background, and sex among college students. Retrieved March 17, 2020, from https://onlinelibrary.wiley.com/doi/abs/10.1002/eat.22846
- Stein, K. F., Lee, C.-K., Corte, C., & Steffen, A. (2019, May 9). The influence of identity on the prevalence and persistence of disordered eating and weight control behaviors in Mexican American college women. Retrieved March 17, 2020, from https://www.sciencedirect.com/science/article/abs/pii/S019566631831105X?via=ihub
- University of Colorado Boulder National Association of Anorexia Nervosa and Associated Disorders. (2017, September 21). Retrieved May 4, 2019, from <a href="https://anad.org/affiliates/colleges/university-colorado-boulder/">https://anad.org/affiliates/colleges/university-colorado-boulder/</a>
- Why Early Intervention for Eating Disorders is Essential. (2019, September 3). Retrieved March 29, 2020, from https://www.nationaleatingdisorders.org/blog/why-early-intervention-eating-disorders-essential
- Zivin, K., Eisenberg, D., Gollust, S., & Golberstein, E. (n.d.). Retrieved March 7, 2020, from <a href="http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.467.2011&rep=rep1&type=pdf">http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.467.2011&rep=rep1&type=pdf</a>

# APPENDIX A

# Eating Behaviors at the University of Mississippi

1). Are you 18 or older?
2). What employees or students do you interact with most on campus?
3). Are you aware of any disordered eating instances?
4). If so, how have you experienced disordered eating instances?
5). Do you know where to go on campus to seek help for disordered eating or eating disorder concerns, if needed?
6). Do you have any suggestions on who else we should talk to?

# APPENDIX B

Survey: Eating Behaviors at the University of Mississippi

Q1. What is your current age?

2. No

1. 18 2. 19 3. 20 4. 21+	
Q2. What is your gender?  1. Male 2. Female 3. Prefer not to say	
Q3. Are you satisfied with your eating patterns?  1. Yes  2. No	
<ul> <li>Q4. Do you try to exclude certain foods from your diet?</li> <li>1. Always</li> <li>2. Most of the time</li> <li>3. About half of the time</li> <li>4. Sometimes</li> <li>5. Name</li> </ul>	
<ul> <li>5. Never</li> <li>Q5. Do you try to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight?</li> <li>1. Always</li> <li>2. Most of the time</li> <li>3. About half the time</li> <li>4. Sometimes</li> <li>5. Never</li> </ul>	1
<ul> <li>Q6. Does your weight affect how you feel about yourself?</li> <li>1. Never</li> <li>2. Rarely</li> <li>3. Most of the time</li> <li>4. Always</li> </ul>	
<ul><li>Q7. Do you know anyone who has suffered from an eating disorder?</li><li>1. Yes</li><li>2. No</li></ul>	
Q8. Would you know where to go to seek help for eating concerns, if needed?  1. Yes	

#### APPENDIX C

## Consent Script

Hi, I am Anna Cat Bouthillier. I am an undergraduate student at the University of Mississippi. I am conducting a research study on disordered eating at the University of Mississippi. The research will help me understand the eating behaviors on our campus.

Today you will be participating in a focus group. I will ask you a series of five questions about the eating behaviors on this campus. Your participation is voluntary. If you do not wish to participate, you may stop at any time. Taking part in this focus group is your agreement to participate. If you have any questions regarding the research, contact Anna Cat Bouthillier, (781) 561-5395, <a href="mailto:acbouthi@go.olemiss.edu">acbouthi@go.olemiss.edu</a> or Melinda Valliant, (662) 915-1437, <a href="mailto:valliant@olemiss.edu">valliant@olemiss.edu</a>.

Undergraduate students at the University of Mississippi are invited to complete an anonymous survey regarding eating behaviors. Students must be 18 years or older to participate. The survey should take no longer than 10 minutes to complete. Your participation is completely voluntary and greatly appreciated. This study has been reviewed by the University of Mississippi's Institutional Review Board (IRB). If you have any questions, please contact Anna Cat Bouthillier, <a href="mailto:acbouth@go.olemiss.edu">acbouth@go.olemiss.edu</a>.

Thank you,
Anna Cat Bouthillier