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Obesity Bias: Bachelor of Science Nursing Student Perceptions

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By
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Abstract

The National Institutes of Health identifies that one in three adults is obese. Obesity is defined as a body mass index (BMI) of 30 and above. Patients with obesity may deny themselves healthcare due to the mistreatment and mistrust they may develop within the healthcare system. If the prejudice against obese patients is addressed, it could prevent future issues for patients and healthcare providers. Not only can bias against obese patients lead to injury, but it can also lead to worsening conditions. When a patient perceives the stigma of a weight bias from a caregiver, it can cause them to withdraw their trust that may develop towards depression, or anxiety about their medical condition. There are three types of biases that are defined as implicit, overt, and covert. Identifying obesity biases is the subject of this study. Obesity bias is an increasing concern in the healthcare system. As professional health care providers it is the Registered Nurse's (RN) duty to ensure that all patients are treated with utmost respect and care. Ensuring that all patients including obese patients are cared for can provide for increased positive healthcare outcomes. Nursing students are not resistant to obesity-related biases. The objective of this study was to review the negative perceptions that nursing students may hold against obese patients. An obesity bias study was conducted utilizing an online survey to evaluate a South East Georgia School of Nursing (SEGSON) Bachelor level students. The results from 200 students conveyed only a slight increase in obesity biases.

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Obesity Bias: Bachelor of Science Nursing Student Perceptions

The World Health Organization (WHO) defines obesity as weight gain that is caused by a high intake of substances and a low energy level of physical activity. Obesity is considered to be a chronic condition that can lead to other underlying health issues. The National Institutes of Health identifies that one in three adults is obese (REF). Obesity is defined as a body mass index (BMI) of 30.0 and above. A patient who suffers from obesity is at a greater risk for developing hypertension, cardiovascular disease, osteoarthritis, depression, and diabetes. Obesity can harm more than just the physical health of your body, it can have a degrading sense to your psychological and psychosocial health. Depression is commonly associated with obesity, and may contribute to the difficulty to adhere to a plan of action to lose weight (Yilmaz et al., 2019).

Nurses can be an important asset when it comes to caring for someone who suffers from any illness. A patient who suffers from obesity will be cared for by the nurse who will supply them with education, patient rights, support, and decision making alongside the other healthcare providers (Yilmaz et al., 2019). When an obese person experiences such negative or neglectful care it tends to cause stress and anxiety when visiting the healthcare provider. This results in them not trusting the healthcare providers and denying themselves care and a lack of motivation to stick to a plan of recovery. Caring for a patient with obesity takes teamwork, skill, and persistency. While this caring to help an obese patient resume to an improved health state and decrease the risk of underlying comorbidities, nurses can experience a certain burnout. Burnout can lead to the development of specific bias towards patients with obesity (Phelan et al., 2015).

As a professional healthcare provider, it is the nurse's job to ensure that the patient is being properly cared for and cared for to the best of their ability. Nurses who hold an obesity bias can put the patient and themselves at risk for injury or decreased patient care outcomes. The

nurse may take shortcuts when giving care to the patient which can result in injury to the nurse or patient. If the nurse enjoys their job and takes care of all of the patients to their very best ability, the patient outcomes will be more positive. A patient may not want a nurse caring for them if they feel like a bother or are being neglected, this can affect the patient both mentally and physically. The obese patient may be more likely to not adhere to the plan of care when they leave the nurses care or deny themselves care from any healthcare provider. The nurse will spend time with the patient teaching them about the illness, risk factors, prevention, and a plan. To create an effective plan of care for the patient, the nurse needs to build a relationship with the patient for improved outcomes. The nurse should be able to construct an effective plan of care according to the patient's interests and needs (Geller et al., 2018).

Obesity bias is an increasing occurrence in the healthcare system. As professional health care providers, it is the health care provider's duty to ensure that all patients are treated with respect, safety, and the utmost care to the best of their ability. Ensuring that all patients are cared for can provide for increased positive patient outcomes (Yilmaz et al., 2019).

Review of Literature

Assessing the prevalence of obesity bias among nurses and future nurses is an important factor in ensuring the best quality of care for the patient. While obesity bias cannot be completely extinguished, it can be lessened with awareness of bias influencers. Obesity bias can lead to unsafe environments for the care provider and the patient. The patient is potentially put at risk for improper care which can be harmful. Health care professionals know that patient safety comes first, patient and care provider safety can be increased with proper recognition of bias. Obesity bias among care providers tends to be more common than one would think. The review of literature that follows will review current research studies focused on obesity bias (Creel et al., 2011, Garcia et al., 2016, Goad, 2017, Gormley et al., 2020, Halvorson et al., 2019, Oliver et al., 2021, Phelan et al., 2015, Puhl et al., 2014, Robstad et al., 2019, Robstad et al., 2018, Rodriguez-Gazquez et al., 2020, Tanneberger et al., 2018, Yildiz et al., 2019, Yilmaz et al., 2019).

Kadar et al., 2019

A cross sectional study was performed by Kadar et al. (2019) at Southern California University of Health Sciences and New England University. The 28 question survey pertaining to attitudes towards obesity was emailed to 46 workers and 450 students of the institution. The students contained those who were in the clinical setting and those who had not started clinicals and they were labeled the pre-clinical students. The response rate turned out to be 61% of students and 31% of workers replied to the email. Both groups demonstrated some sort of anti-obesity attitude towards patients. The faculty demonstrated slightly more biased attitudes towards the patients than the students. It was mentioned that perhaps a cultural shift and more education in the curriculum can reduce the amount of bias (Kadar et al., 2019).

Goad, 2017

Altered attitudes towards obese patients show that it has a negative impact on the patient's overall health. These negative perceptions have adverse effects on the patients mental, physical, and emotional health. It can also lead to poor care that is given to the patient. This study conducted by Goad (2017) focuses on the weight bias and how it is related to their self-esteem that is held by nurses and undergraduates who will become future nurses. A total of 218 nurses and future nurses participated in a study that examined weight bias, assessed burnout and measured self-esteem. While there was no correlation of weight bias associated with the nurse's self-esteem, the qualitative data discovered by the open-ended responses depicted more of an understanding of the nurse's attitudes towards patients with obesity. The study was a good milestone that displayed how to better the next study with better quantitative data to better understand why nurses obtain negative attitudes and hold a weight bias (Goad, 2017).

Robstad et al., 2019

This study will examine the care that critical care nurses given to patients and the attitudes that they hold against obese patients. It is shown that obese patients receive a decreased quality in care compared to patients with a normal BMI. An online survey was administered by Robstad et al. (2019) to 159 intensive care nurses. This survey included an anti-fat scale, bias scales, attitude tests, behavioral questions and demographic questions. The results showed that the intensive care nurses had a preference for patients with a lower BMI. These findings illustrate that this problem should be acknowledged by healthcare providers, policy makers, and educators to ensure the proper healthcare is given to all patients, including obese patients. Proper education can ensure the delivery of quality and safe patient care is implemented (Robstad et al., 2019).

Tanneberger et al., 2018

Tannerberger et al. (2018) implemented research at an acute care hospital which included a study for 73 nurses. The study consisted of a weight control and anti-fat scale. The purpose of this study was to recognize if any attitudes that nurses hold will affect the care that the patient receives. Nurses reported that patients who were more overweight were more likely to experience care that is not up to standard, and feel that obese patients receive a lesser quality of care. This study shows that there may be some changes made to these types of situations in the healthcare setting and can be adjusted by more education and policy enforcements (Tanneberger et al., 2018).

Geller et al., 2018

Multiple first year medical students were surveyed by Geller et al. (2018) with a focus on whether or not they exhibit a weight bias. The weight bias among these students was displayed in the results of the pre-education group can compare to the after results when the students have received education on the subject of obesity. This topic was embedded in an ethics teaching plan throughout the course. The specific test given is known as the Implicit Association Test (IAT), Students were able to discuss factors of obesity including personal struggle with weight loss, what causes weight gain, and the effects in which it has on them and the way they view patients. The course and education lasted for four months and the students were reevaluated after receiving the proper education for caring for an obese patient. Over seventy percent of the students preferred thin patients and forty- seven percent personally struggled with weight. Many students also fit into the categories where they thought that obesity was a disease, was caused by one's actions, thought that the patients were just lazy, and even ignorant. After the education in the course was taught throughout the four months, thirty percent stated having an improved

attitude, and forty percent thought that the IAT and discussing personal issues with weight gain was beneficial. This study depicts that any education is beneficial when it comes to specific topics such as this (Geller et al., 2018).

Yilmaz et al., 2019

A study was conducted to measure the obesity bias among registered nurses and student nurses. Yilmaz et al. (2019) chose to use two different scales to measure the opinions of 190 student nurses and 189 registered nurses were administered. The Belief About Obese Persons Scale was administered along with the Fat Phobia Scale. The results displayed that both groups displayed some type of obesity bias towards patients. The registered nurses group displayed more obesity bias than the nursing students' group, but this factor can be related to the fact that they have had more experience in the work field and more experience with actual patient care. However, obesity bias in the healthcare professions should be approached with policy reinforcement and education to reduce the risks to both healthcare workers and patients (Yilmaz et al., 2019).

Robstad et al., 2018

The prevalence of obesity bias unfortunately exists in the healthcare system. A study was conducted by Robstad et al. (2018) to reveal if there was existing obesity bias occurring in the nursing staff of a critical care unit. The study used the Implicit Association Test (IAT), a scale to measure the attitudes of nurses known as the Anti-fat Attitude questionnaire, and a bias scale to measure further feelings of the nurses. The tools used in this study proved to be reliable and there was a report in these tools of existing obesity bias. Nurses preferred thin patients over any other weight type, they also stated that they found obese patients to be lazy. Overall, the nurses intended to help all patients immediately. However, this statement was contradicted with the

results of the tools used, the data collected depicted validity. This study displayed that there was a presence of negative attitudes towards the patients with larger BMIs. This study uncovers that there is a possibility of bias in any part of the healthcare profession. This study only included thirty Intensive Care Unit nurses and should be performed on a larger population for a more accurate picture of how frequent these attitudes are in this profession. This study added to the body of knowledge and is further painting a picture that education and policy reinforcement may be needed to reduce these attitudes (Robstad et al., 2018).

Yildiz et al., 2019

A study took place in Turkey to analyze the existence of obesity prejudice among students involved in health programs at the university. Yildaz et al. (2019) conducted a study that consisted of 729 students from the university. The students were scored with a scale known as the Obesity Prejudice Scale (OPS). The average student scored 75.54 with a range of 10.43. This displayed that students who scored high leaned and obtained a prejudice attitude among the obesity scale. This study is essential in displaying that there are matters such as obesity bias to be attended to and recognized, these attitudes that the students hold will be recognized when providing care to patients. The education should be available to these students to ensure the safety of the care providers and patients. Education will also ensure that the care that any patient is receiving is at the utmost quality (Yildiz et al., 2019).

Creel et al., 2011

The goal of Creel et al. (2011) study was to investigate the stigmatization that obese patients receive while receiving care. They executed a study that was based on Heidegger's viewpoint of Phenomenology. A qualitative study was implemented on eight patients all with a body mass index (BMI) greater than 30, and was extremely ill. Researchers analyzed the care

provided to these patients by nurses, presumptions, unintentional harm, and decreased quality of care were observed. Health care providers negative attitudes results in the patients feeling embarrassed, and increased anxiety, and less interest when searching for healthcare. These actions have caused patients to deny themselves care to decrease the level of uncomfortableness it causes them. When exposed to this marginalization by the health care providers cause the patients feel that their self-esteem and quality of care will be decreased when seeking medical attention. If the nurse's attitudes were more positively focused on the plan of care and outcome for the patient, these negative feelings that the patients develop will be decreased. Addressing this occurring issue will decrease the risk of degrading physical and mental health (Creel et al., 2011).

Puhl et al., 2014

The research conducted by Puhl et al. (2014) was aimed at the healthcare professionals who hold a weight bias. However, this study was specifically designed for those who specialize in treating patients who are diagnosed with eating disorders. There were a total of 329 healthcare professionals who participated in the online questionnaire. This questionnaire was designed to assess the attitudes, beliefs, and inner feelings of the professionals who work every day with patients who suffer from eating disorders. Negative weight stereotypes were present among some of the healthcare professionals, but a vast amount (289 participants) stated that they felt comfortable caring for an obese patient. While the group who felt comfortable providing care to the patients with higher BMIs, they did state that they have witnessed other professionals providing low quality care with negative remarks about the patient. A total of 115 stated that advanced practice nurses were not comfortable caring for an obese patient and 138 stated that advanced practice health care providers hold prejudice towards those with increased BMIs. a

total of 95 participants stated that they personally know or have a colleague who holds a negative attitude for obese patients. Those who hold a stronger weight bias belief can be exposed to providing a lower quality of care, a stronger negative attitude, and put themselves and the patient at a greater risk for injury (Puhl et al., 2014).

Phelan et al., 2015

This study had a purpose of identifying what causes obesity bias in healthcare workers and what are some strategies to decrease these beliefs held by the healthcare provider. Phelan et al. (2015) used peer reviewed papers from Medline and PsychInfo. The purpose of this was to gather and compare all findings related to the obesity bias and how the attitudes, beliefs, and stereotyping affects patient care. There is evidence among the peer reviewed articles found that obesity bias is common among healthcare professionals. It also shows that having such beliefs can cloud one's judgment in caring for the obese patient, holding the belief of obesity bias can lessen the quality of care that a patient receives. It can also change how one views the patient and the type of care that they may need. Patients pick up on the type of care that they receive, if someone with a higher BMI picks up that they are not receiving the quality care that they should be or if they notice they get treated differently they will automatically become self-conscious of their condition. Stigmatization degrades the patient's mental health and self-image, this may cause the patient to not stick to the plan of care, or not seek care at all. Anxiety increases among those patients who do not trust healthcare workers. Many interventions of care have been recognized and education is important when it comes to caring for a patient categorized as obese. Obesity education can ensure that they will receive proper care while seeking professional medical attention (Phelan et al., 2015).

Oliver et al., 2021

Oliver et al. (2021) put together a study that required nursing school students to begin journaling as they experienced clinical. This process is known as reflective journaling. Reflective journaling allows all students to reflect on their past experiences and personal opinions that they have experienced in clinical. The reflective journaling implemented by the nursing school students was used to look at weight bias held among the students going through their clinical rotations. This study specifically focused on the four-year Bachelor Science of Nursing (BSN) students who were in their third year of nursing school. All students participating were actively enrolled in a 15-week medical surgical practicum, and were required to submit five journal entries. A total of 98 students participated which led to the submission of 280 journal submissions. The journal topics focused on the self-awareness of obesity bias, acknowledging obesity as a disease and not a choice, lack of resources or training and how that can lead to obesity bias, and how to improve patient care. Self-reflecting in journals allowed students to understand the importance of how to limit attitudes and beliefs of obesity bias and how further training can lead to better care (Oliver et al., 2021).

Rodriguez-Gazquez et al., 2020

The research study implemented by Rodriguez- Gazquez et al. (2020) recognizes the fact that obesity has been increasing each year and becoming more common. The researchers also identify that this has caused the care for obese patients in the hospital to also increase. Nursing caring for patients with obesity has become a common event. A total of 578 nursing students who were actively enrolled in the Bachelor Science of Nursing (BSN) program obtaining a four-year degree participated. This study began in the first year of this program and continued to the fourth year. Each participant completed the Anti-Fat Attitudes Questionnaire. While the results

of this study displayed that nursing students did not have many prejudices against obesity, they did have some. The results to this questionnaire were displayed on a graph, this graph displayed that the prejudice decreased along with the amount of experience and further into the program that the students got. The questions were split into groups based on the information it contained. The males in the nursing program held higher bias in the willpower and dislike category while the females scored higher for prejudice in the fear of fat category. This study did not have as much prejudice as expected, but bias still exists in small numbers. With proper training and education, the numbers could decrease along with progressing through the program (Rodriguez-Gazquez et al., 2020).

Gormley et al., 2020

Gormley et al. (2020) and a team of researchers worked to identify the prevalence of negative attitudes in the healthcare profession against people with obesity. They have identified that the lifestyles of nursing students can affect their views of how they perceive obese patients and the care that they give. The study consisted of 210 nursing students within the first three years of nursing school. Three questionnaires were given to assess the nursing student's knowledge of obesity risk, attitudes towards obese patients, and a health profile and lifestyle of the students. The gender and what year the students were currently enrolled in during the program were taken into consideration. The results of these three questionnaires administered displayed that nursing students do not meet the physical requirements of a healthy lifestyle and lacked the knowledge of the risks that come with obesity. If nursing students do not obtain a healthy lifestyle themselves, they will be more likely to hold negative beliefs about obesity and not provide adequate teachings for the plan of care. Nursing students need to make life changes themselves and receive education on obesity risks in order to diminish these negative attitudes. If

a nursing student obtains a healthy lifestyle, they will be more passionate about teaching and caring for obese patients who need proficient teaching and an effective plan of care (Gormley et al., 2020).

Halvorson et al., 2019

While weight bias are present among the health care providers, most studies are completed on adults. The study carried out by Halvorson et al. (2019) will review the attitudes and bias of the nurses who are caring for the pediatric population. This study consisted of interviews and tests given to pediatric residents that are the ages of 7-17 years old and the guardians. The entire study consisted of 12 pediatric patients, 12 guardians of the pediatric patients, and 28 pediatric healthcare providers. Coded interviews were reviewed and displayed that 71% of the healthcare providers obtained a weight bias towards the pediatric patients. The interviews correlated with specific themes of how the healthcare provider views the obese patient. It was clear that weight bias held by the professional healthcare provider impacted care. Some parents felt that there was a specific blame towards themselves for the weight of their child. Others feel that the plan to manage obesity could have been approached differently and that it should be addressed in the outpatient stage of care. Children have a different mindset compared to adults. Simple terms must be used and the tone of voice matters. Children tend to be more sensitive and impressionable, so they are more likely to be successful in managing their weight throughout life if they learn early. It would be best to teach children healthy habits early, so they can manage their health decisions independently as adults (Halvorson et al., 2019).

Garcia et al., 2016

Pediatric obesity is becoming more prevalent in today's society. Garcia et al. (2016) examined the nurse's attitudes towards patients who are diagnosed as obese. This survey

contained categories related to patient care and a factor that was specifically to examine the bias that may be held by nurses associated with the weight of their patients. If the survey score was above 50, it implicated that a bias was present. The registered nurses and clinical support staff obtained an average score of 61.9. This indicates that the average healthcare provider held an obesity bias, and also assumed that obesity is controllable. The clinical support staff felt negatively about caring for obese patients. This study confirmed that there is a current weight bias among some nurses towards the pediatric patients and should be taken into consideration when evaluating the care that is given to the patients, and quality of care given can be affected if the nurse holds negative attitudes towards a patient (Garcia et al., 2016).

The studies implemented by Garcia et al. (2016) and Halvorson et al. (2019) examined the pediatric population in the hospital setting. Patients and guardians interviewed and stated that there was negative attitudes displayed among nurses towards the patients and families. The parents experienced a bias against them and their child and that they felt as if the healthcare professional blamed them for their child's body mass index (BMI). These studies uncovered that there is a greater chance that the pediatric patient with a high BMI will receive a lesser quality of care than the pediatric patient with a BMI that is considered within limits. Quality of care that is lessened depending on the patient's BMI will put the patients and nurse at risk for injury (Garcia et al., 2016; Halvorson et al., 2019).

Three separate studies executed by Gormley et al. (2020), Oliver et al. (2021), and Rodriguez- Gazquez et al. (2020) observed nursing students throughout the nursing program. While monitoring these students throughout the program, students kept journals and continued with questionnaires based on their attitudes and feelings towards patients with obesity. A total of 788 nursing students between the two studies have the questionnaire results depicted on a graph.

The graph displayed a decrease in obesity bias as the nursing students progressed through the program. As the students proceeded through the program, they gained experience and education which overall developed their understanding for how to properly care for patients with obesity (Gormley et al., 2020; Oliver et al., 2021; Rodriguez- Gazquez et al., 2020).

Nursing students were examined in separate studies by Goad (2017) and Yildiz et al. (2019) and how their attitudes on obesity affected patient care. While the nursing students were given questionnaires, the results were concluded to view the overall obesity bias held among students. Viewing that these future nurses hold an obesity bias, action should be taken. These students should be assessed for the proper education in how to properly care for a patient with obesity. Holding negative attitudes while caring for a patient can put the patient and nurse at risk for injury, or decrease the positive outcome of the patient's progress throughout their healing process. For positive patient outcomes and experiences, the prevalence of obesity bias among future nurses should be decreased (Goad, 2017; Yildiz et al., 2019).

Kadar et al. (2019) and Yilmaz et al. (2019) implemented studies compared the nursing and nursing student population. Both research teams administered a survey to assess the attitudes of both populations. These two studies displayed that nurses held a higher obesity bias and negative attitudes towards patients than the nursing students did. It is taken into consideration that this may be because the nurses have more experience than the nursing students. However, this obesity bias being held must be addressed to ensure proper patient care and safety (Kadar et al., 2019; Yildiz et al., 2019).

Multiple studies reviewed the prevalence of obesity bias among nurses. Creel et al. (2011), Geller et al. (2018), Phelan et al. (2015), Puhl et al. (2014), Robstad et al. (2019), Robstad et al. (2018), and Tanneberger et al. (2018) implement their own individual studies

examining the prevalence of obesity bias among nurses and how holding such feeling and attitudes can affect patient care. Each study distributed a certain tool that examined the nurses attitudes, feelings, and beliefs. The results were gathered and displayed to show that these negative attitudes do affect the level of care that a patient receives. The decreased quality of care should be addressed with solutions in ways to prevent negative patient outcomes due to personal negative beliefs held by nurses. These results added to the body of knowledge to elaborate that negative attitudes and beliefs held by nurses do result in decreased quality of care and negative patient outcome (Creel et al., 2011; Geller et al., 2018; Phelan et al., 2015; Puhl et al., 2014; Robstad et al., 2019; Robstad et al., 2018; and Tanneberger et al., 2018).

Method

A method is defined as a specific technique that you use to accomplish a certain task. The method being used in this research study is the surveying method utilizing a tool. A tool is a written device used such as a survey to gather input from participants. An obesity bias survey (OBS) tool was used for this study and was developed by the principal investigator to examine the Junior and Senior level opinions of a South East Georgia School of Nursing (SEGSON) students (Appendix A). Factors to be evaluated for this research study are biases. Implicit bias is defined as an unconscious preference for one thing over another. The implicit bias defined in this research study survey would be if one automatically prefers thin patients over any other patients who exceed the weight limit in their opinion. Other factors that need to be taken into consideration are overt and covert bias. Overt bias is the openness and blatant opinions that are directly meant to harm ,while covert bias is concealed and more widespread in society. This research study will examine obesity bias in the Bachelor of Science Nursing (BSN) level nursing students (LoBiondo-Wood & Haber, 2021).

This OBS study obtained Human Rights approval from the Institutional Review Board (IRB) from the SEGSON University. The OBS was made available to the SEGSON utilizing the Qualtrics Survey Tool (QST), the QST allowed for anonymity of participants by disabling any personal identifier settings in the program. The research study survey was opened on January 31, 2021 and closed on February 25, 2021. After the survey was closed, the results were converted into a report and analyzed for the prevalence of obesity bias among the SEGSON (Provo, 2020).

The OBS tool was distributed utilizing the Qualtrics Survey Tool (QST) online program. This method of survey distribution was a good fit for this study in order to assure anonymity. As well, it allowed for the COVID- 19 safety protocols at SEGSON. The OBS consisted of 30

questions that were written simply and utilized a Likert scale for the answer choices. The Likert-scale choices were listed as strongly agree, agree, neutral, disagree, and strongly disagree. Informed consent was addressed in the QST program by displaying the consent form as the first question of the survey. The obesity bias survey was developed by reviewing obesity bias questionnaires that were utilized in previous studies. The OBS looks to previous studies citations for strength of the OBS tool. Once the OBS tool was opened, it remained unaltered once it was published. Once the survey closed, all data was analyzed and formed into subcategories of results (Provo, 2020).

The obesity bias survey was posted on the SEGSON webpage open forum and invited all nursing students to participate in the ten-minute online survey. The principal investigator also reached out to the instructors via email of the SEGSON program to encourage students to take the obesity bias survey. There was no reward or grade incentive given to nursing students who participated. This study was designed that in order to move forward with the questions on the actual survey, you must consent to the terms listed. The consent page was the only page that required an answer in order to move forward with the survey. The participant could choose to answer or skip any or all OBS questions (Creel et al., 2011, Garcia et al., 2016, Goad, 2017, Gormley et al., 2020, Halvorson et al., 2019, Oliver et al., 2021, Phelan et al., 2015, Puhl et al., 2014).

The participants were encouraged to answer each question truthfully if they decided to answer. While every question was optional, the majority of the participants answered every question. The survey was left open and available to all nursing students at the SEGSON university for over three weeks which resulted in a total of 200 participants responses. The participants responses were carefully analyzed to ensure an accurate reports of the prevalence of

obesity bias in the SEGSON (Creel et al., 2011, Garcia et al., 2016, Goad, 2017, Gormley et al., 2020, Halvorson et al., 2019, Oliver et al., 2021, Phelan et al., 2015, Puhl et al., 2014).

Results

The obesity bias survey was administered by using the Qualtrics Survey Tool (QST) to examine the prevalence of obesity bias among a group of South East Georgia School of Nursing (SEGSON) students. The survey was published on January 31, 2021 and expired on February 25, 2021. The survey recruited 200 junior and senior level SEGSON students. The obesity bias survey consisted of 30 questions including the consent form. The obesity bias survey remained anonymous and did not contain any personal identifiers. Each question was optional and the participants were not obligated to answer a question if they choose not to. The participants in the survey were required to accept the consent form in order to progress through the rest of the obesity bias survey. The survey did not identify any personal information, such as race or gender. Nursing students selected the choice of “Junior” or “Senior” that coordinated with their current position in the nursing program (Creel et al., 2011; Geller et al., 2018; Phelan et al., 2015; Provo, 2020; Puhl et al., 2014; Robstad et al., 2019; Robstad et al., 2018; and Tanneberger et al., 2018).

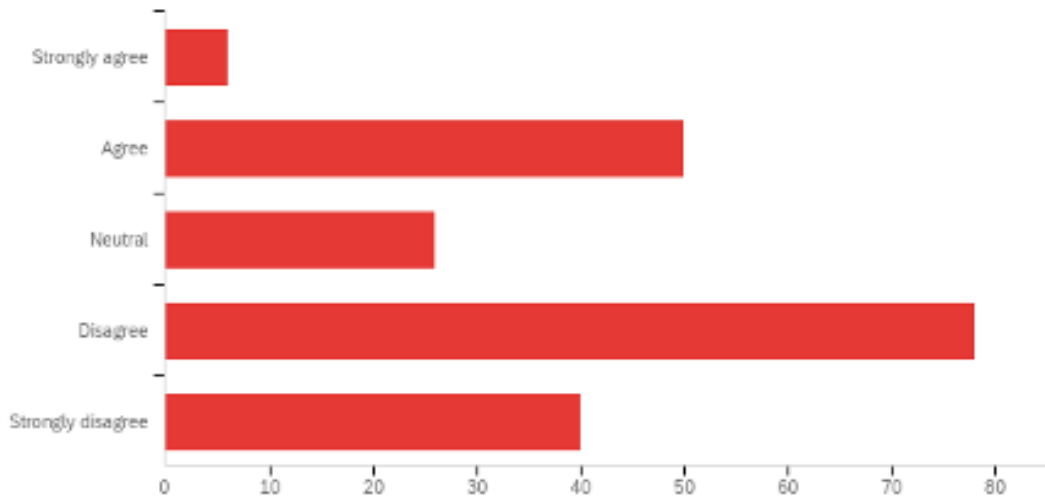
The obesity bias survey was broken down into 3 sections. These sections were labeled as “observation in the healthcare setting”, “personal point of view towards people/patients”, and “success of treatment in people/patients”. These sections contained questions each related to the topic of obesity bias. Each section was analyzed carefully for the prevalence of obesity bias among the SEGSON students. The obesity bias research study survey consisted of a total of 200 participants, which consisted of 131 Juniors and 68 Seniors. Results will be examined through the Qualtrics Survey Tool (QST) in the data and analysis section. The data will be thoroughly

reviewed to identify any evidence of negative attitudes held by nursing students towards patients with obesity. The data will be broken down into questions and how each participant answered.

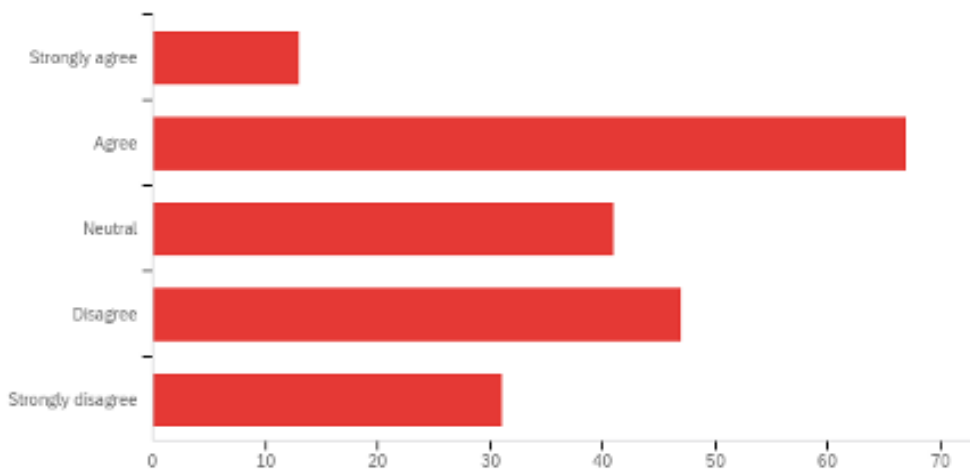
Observations in the healthcare setting

In section one “Observations in the Healthcare setting (Appendix C), the questions were formatted to discover what specific observations students have made in the healthcare setting. When asked if the participants peers stated negative attitudes towards obese people/patients (Graph A) 21.50 percent agreed or strongly agreed, 50.5 percent disagreed or strongly disagreed while the remainder of the participants remainder neutral. When asked if the students have personally observed other students making degrading remarks about obese patients the results that show that a total of 28 percent selected strongly agree or agree, 13 percent remained neutral, and 59 percent selected disagree or strongly disagree. As shown in Graph B, the students were then asked if they have observed employees in the healthcare setting making unprofessional remarks about obese people/patients and 40.2 percent selected strongly agree or agree, 20.6 percent remained neutral, and 39.2 percent selected strongly disagree or agree. When asked if obese people/patients tend to be a habitual target for derogatory remarks, 41.75 percent strongly agree or agree, 24.62 percent remain neutral, and 25.63 strongly disagree and disagree.

Graph A



Graph B

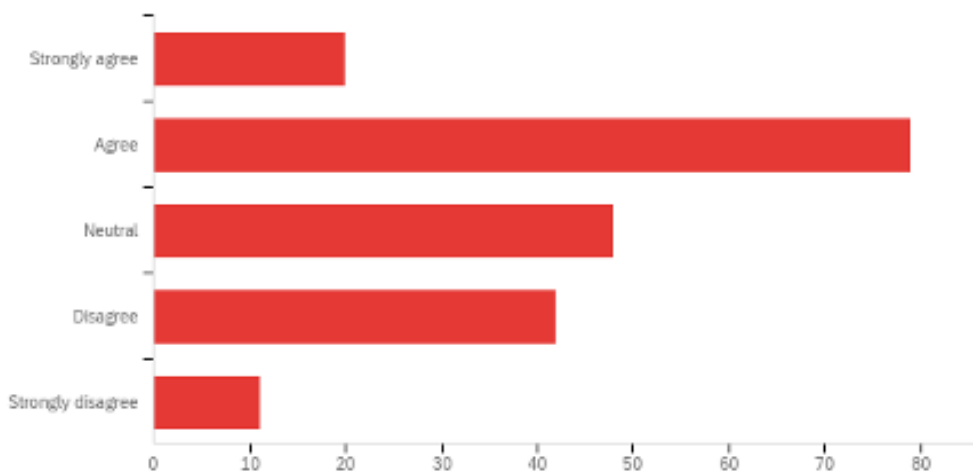


Personal points of view towards people/patients

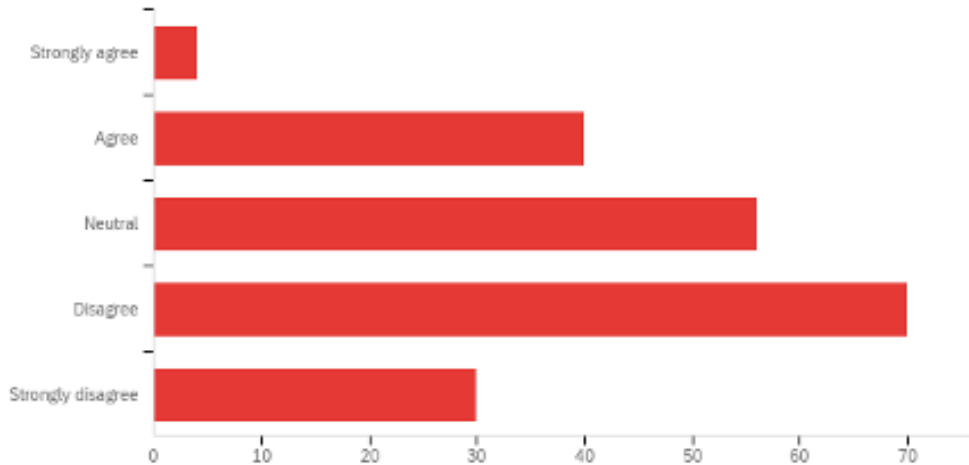
The next section of the survey “Personal points of view towards obese people/patients” (Appendix C) examined the personal point of view that students had on patients with obesity. All participants, except for one who remained neutral, agreed or strongly agreed that they enjoy taking care of obese people/patients. As displayed in Graph C, a total of 49.5 percent strongly agree or agree with the statement that they find it difficult to care for people/patients with obesity, 24 percent remain neutral, and 26.5 percent strongly disagree or disagree. While only

8.54% strongly agreed and agreed that they become frustrated when taking care of obese people/patients, 68.34 percent strongly disagreed and disagreed and the remaining 46 participants who answered the question stated a neutral opinion. When taking care of an obese people/patient, 47.74 percent found it rewarding, 4.02 percent did not find it rewarding, and 48.24 percent remained neutral. When asked if ones sees a difference between people/patients with an abnormal or normal body mass index (BMI), 52.5 percent state that they do not see a difference, 28.5 percent do see a difference, and 19 percent remain neutral. A total of 81.5 percent agree or strongly agree that they feel comfortable and prepared to give care to an obese patient, 5.50 percent disagree, and 13 percent remain neutral. When examining non-compliance of patients, 28 percent believe that obese people/patients are non-compliant when it comes to treatment, 44.5 percent disagree or strongly disagree, and 27.5 percent state a neutral position to the statement. When analyzing how students viewed the success of treatment and outcome for obese patients, Graph D displays that 22 percent strongly agree or agree with the statement obese people/patients have lazy habits.

Graph C



Graph D

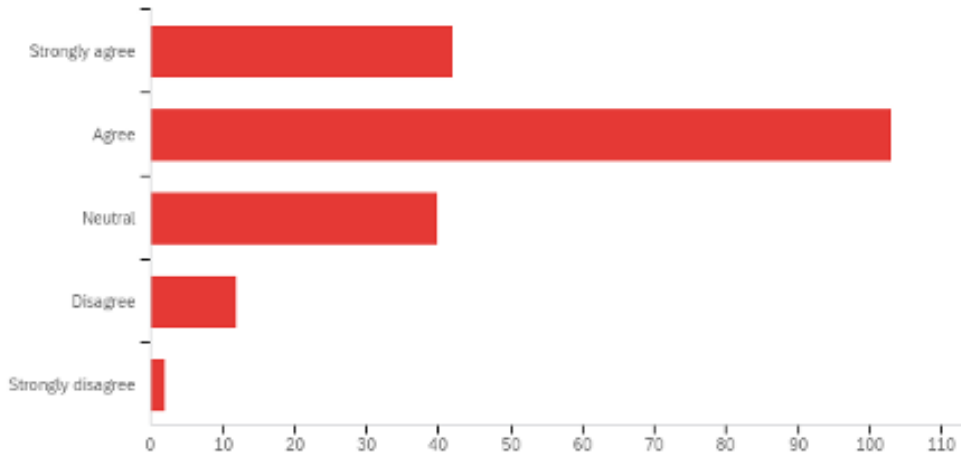


Success of treatment in obese people/patients

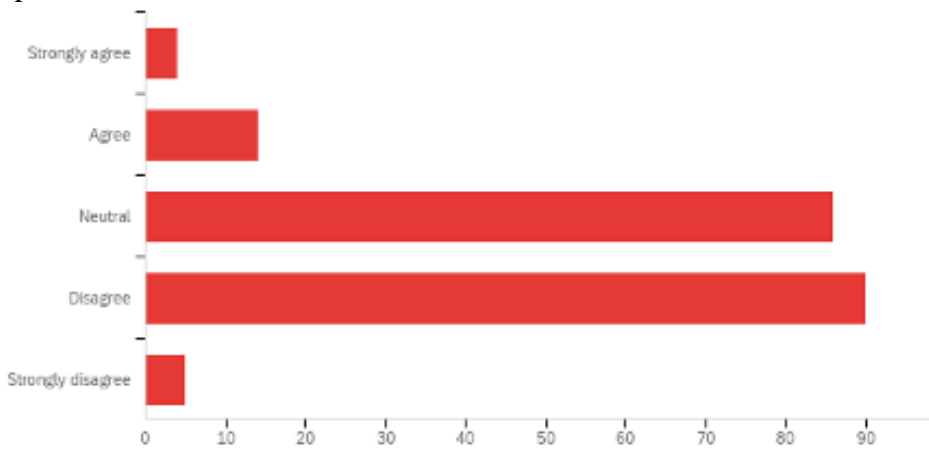
The last section of the survey “Success of treatment in obese people/patients” (Appendix C) will analyze the nursing students perception on the success of treatment in obese people/patients. While 33 percent believe that obese people/patients are open to recommendations for weight loss, 12 percent disagree, and 55 percent have a neutral opinion. A total of 47.74 percent of participants think that treatment compliance is an issue when treating obese people/patients, 9.05 percent believe it to not be an issue and 43.22 percent remained neutral (Graph E). When asked if one thinks that there is a high success rate for obese people/patients who change their diet, 52 percent agree or strongly agree, and 17.5 percent disagree or strongly disagree, 30.5 chose the neutral option. A total of 77.5 percent think that once weight is lost an obese people/patient can maintain that weight loss, three percent disagree. Participants are asked the success rate for those who are willing to lose weight and 12 percent do not think that that person will be successful in maintaining a healthy weight loss, 61.5 percent believe that is it possible for the obese people/patient to maintain a healthy life style. A total of 63.82 percent enjoy caring for obese an people/patient, 4.53 participants disagreed with this

statement. When ask if one thought that obese people/patients struggle with self-motivation to make lifestyle changes 72.87 percent agreed or strongly agreed, 20.1 percent chose to stand neutral, 7.04 percent disagreed or strongly disagreed (Graph F).

Graph E



Graph F



Discussion

The purpose of this study was to uncover any hidden prevalence of obesity bias using the obesity bias survey (OBS) in nursing students from a the South East Georgia School of Nursing (SEGSON). While it was thought that there would be a greater percentage of obesity bias held within this study population, the results indicated only small amounts of measurable bias. Having 200 participants for this study is a substantial number of respondents, however this is only half of the potential subjects from the SEGSON. Based on these numbers it would be reasonable to declare this study a pilot research study and the results would allow for future research to look at statistical significance of the prevalence of obesity bias. Utilizing the study results to evaluate reliability and validity of the OBS tool would strengthen future obesity bias research studies (Creel et al., 2011, Garcia et al., 2016, Goad, 2017, Gormley et al., 2020, Halvorson et al., 2019, Oliver et al., 2021, Phelan et al., 2015, Puhl et al., 2014, Robstad et al., 2019, Robstad et al., 2018, Rodriguez-Gazquez et al., 2020, Tanneberger et al., 2018, Yildiz et al., 2019, Yilmaz et al., 2019).

Limitations

While a reasonable amount of participants agreed to be a part of the OBS, there were many more factors that could have resulted in more participants. Many components could have been adjusted to result in greater participation. Allowing the Qualtrics Survey Tool (QST) to be opened for a longer period of time to adjust for student schedules. If the OBS would have been delivered during class time for each level of nursing students, the majority of students would have seen the OBS and decided whether or not to participate. This might have motivated students to take the survey since they would already be present in class. Another factor that could have

resulted in more participants was if the survey offered an incentive. The OBS offered no reward or grade incentive for participating (Barrow et al., 2020 & Provo, 2020).

Response Bias While the students of the SEGSON program were asked to answer each question truthfully if they wished to answer the questions, there could have been a certain degree of response bias. The nursing students could have altered the results of the OBS by not answering the questions sincerely even though the survey was made anonymous with no personal identifiers. Another form of response bias that could have altered the results of the OBS is if the respondents select answers without fully reading the questions and only chose midlevel answers which some may describe as “click happy”. Other response bias’ can be related to the level of patient encounters that the student participants have experienced within the SEGSON program. The majority of the OBS study participants were Junior level students who may have only visited a limited number of healthcare sites with minimal patient exposure (Brosnan et al., 2019).

Strengths Along with limitations to any research study there are strengths that can be identified. For this research study, the first strength was the development of the obesity bias survey (OBS) tool by way of referencing other obesity Likert scale surveys to accommodate the specific study population of nursing students. The OBS research study took place during the COVID- 19 Pandemic and required alterations to the original face-to-face research study survey design in order to meet the SEGSON safety protocols in place. The new study design was achieved by utilization of the QST program, which allowed for online participation. The QST program also allowed for complete anonymity and Human Rights Protections of all participants. The OBS research study was able to recruit 200 valid responses, which gave this research study strength and will ultimately add to the body of research knowledge (Provo, 2020)

Conclusion

The National Institutes of Health identifies that one in three adults is obese. Obesity is defined as a body mass index (BMI) of 30 and above. Patients with obesity may deny themselves healthcare due to the mistreatment and mistrust they may develop within the healthcare system. Multiple comorbidities have been identified to be associated with obesity, chronic conditions such as, hypertension, cardiovascular disease, osteoarthritis, diabetes mellitus, and depression. If prejudice against obese patients is addressed, it could prevent future issues for patients and healthcare providers. Not only can bias against obese patients lead to injury, but it can also lead to worsening health conditions from chronic to acute life threatening situations. Identifying obesity bias was the subject of this study. Obesity bias is an increasing concern in the healthcare system. As professional health care providers, it is the Registered Nurse's (RN) duty to ensure that all patients are treated with utmost respect and care. Ensuring that all patients, including obese patients are cared for can provide for increased positive patient healthcare outcomes (Geller et al.,2015, Phelan et al., 2018, Yilmaz et al., 2019).

Nursing students on their journey to obtaining their RN licensure are not resistant to obesity-related biases. The objective of this study was to review perceptions of obesity that nursing students may or may not hold. The OBS tool was developed for this study and results were compiled from 200 nursing student responses. The OBS was conducted utilizing an online survey program (QST) to evaluate a South East Georgia School of Nursing (SEGSON) Bachelor level nursing students (Provo, 2020).

While the obesity bias survey (OBS) research study did not uncover a statistical amount of obesity bias that was initially thought to be present in nursing students, a small percentage of obesity bias is still represented. While some nursing student's obesity bias may decrease the

further they progress into their nursing program, others may still hold onto baseline obesity bias causing risks in the safety for obese patients and themselves. Nursing education programs could also benefit on educating their student population on best practices for obese patients and the types of care that they may need to employ to result in positive patient outcomes (Creel et al., 2011, Garcia et al., 2016, Goad, 2017, Gormley et al., 2020, Halvorson et al., 2019, Oliver et al., 2021, Phelan et al., 2015, Puhl et al., 2014, Robstad et al., 2019, Robstad et al., 2018, Rodriguez-Gazquez et al., 2020, Tanneberger et al., 2018, Yildiz et al., 2019, Yilmaz et al., 2019).

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Appendix A



RESEARCH INTEGRITY

Institutional Review Board (IRB)

Veazey Hall 3000
PO Box 8005 • STATESBORO, GA 30460
Phone: 912-478-5465
Fax: 912-478-0719
IRB@GeorgiaSouthern.edu

To: Beasley, Ashlyn
From: Eleanor Haynes, Director, Research Integrity
Approval Date: December 22, 2020
Subject: Institutional Review Board Exemption Determination - Limited Review

Your proposed research project numbered **H21136**, and titled **"Obesity Bias: Bachelor of Science Nursing Students Perceptions,"** involves activities that do not require full approval by the Institutional Review Board (IRB) according to federal guidelines.

According to the Code of Federal Regulations Title 45 Part 46, your research protocol is determined to be exempt from full review under the following exemption category(s):

Exemption 2 Research involving only the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, if: Information obtained is recorded in such a manner that human participants cannot be identified, directly or through identifiers linked to them. Please visit our FAQ's for more information on anonymous survey platforms; Any disclosure of the human participant's responses outside the research could not reasonably place the participant at risk of criminal or civil liability or be damaging to the participant's financial standing, employ-ability or reputation; Survey or interview research does not involve children; The research project does not include any form of intervention.

Any alteration in the terms or conditions of your involvement may alter this approval. *Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that your research, as submitted, is exempt from IRB Review. No further action or IRB oversight is required, as long as the project remains the same. If you alter the project, it is your responsibility to notify the IRB and acquire a new determination of exemption. Because this project was determined to be exempt from further IRB oversight, this project does not require an expiration date.*

Appendix B

My name is Ashlyn Beasley and I am a Senior level nursing student at Georgia Southern (GS) University School of Nursing (SON), College of Health Professions (COHP). As a part of the GS Honors Program requirements I am conducting a research study survey about Bachelor of Science Nursing students perceptions of caring for obese people/patients.

You are being invited to participate in an online research study about obesity bias utilizing the Qualtrics Survey Tool (QST). Your participation in this online research study is voluntary. By completing and submitting this online research study survey you are agreeing to your participation. You may withdraw your consent and or participation at any point during the online research study survey. This research study survey is asking your opinions about obesity. You may decline to answer any particular question(s). You may or may not feel some personal emotions related to the questions about obesity, but the risks to you should be no greater than what would be encountered in day-to-day life.

The Georgia Southern University Institutional Review Board (IRB) has approved this online research study survey. If you have any concerns about your rights or protections related to participating in this online research study survey, contact irb@georgiasouthern.edu or (912) 478-5465.

This online research study survey is completely anonymous and will not use any personal identifiers. No one including the principle investigator will be able to identify you or your answers. Should any of the results from the *Obesity Bias: Bachelor of Science Nursing Students Perceptions* be published, no personal information will be available or be used for publication.

There are no costs to you for participating in this online research study survey. The information you provide will explore BSN students opinions of obesity. This online questionnaire will take about 10 minutes to complete. The information collected may not benefit you directly, but the information learned in this research study survey will add to the body of knowledge.

By completing this online research study survey, you are consenting to your participation.

If you have any questions about the study, please contact the student below.

Ashlyn Beasley

Phone: (912) 547-1601

Student email: ab25060@georgiasouthern.edu

Mentor/Faculty email: amberderksen@georgiasouthern.edu

- Accept

Indicate your status in the School of Nursing.

- Junior
- Senior

My peers normally display negative attitudes toward people/patients with obesity.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I have observed other students participating and making unprofessional remarks about people/patients diagnosed with obesity.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think making pessimistic remarks about obese people/patients is acceptable.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I have observed Professors/Instructors making unprofessional remarks about obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I have observed employees in the healthcare setting making unprofessional remarks about obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Obese people/patients tend to be a habitual target of the derogatory disposition made by healthcare professionals, residents, and students.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

When a person becomes obese, it is admissible to construct jokes/ negative remarks about their weight because it is their fault.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I enjoy caring for people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think that it can be difficult to care for people/patients with obesity.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I become frustrated when giving care to people/patients who are obese.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I find it rewarding when I care for obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think that respect and compassion are important factors when caring for obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I do not enjoy caring for obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I do not see a difference between people/patients with normal or abnormal BMI.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think that I provide healthcare to the best of my ability towards obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I feel comfortable and prepared that I can give effective care for obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I feel that it is common for obese people/patients to be non-compliant.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think that obese people/patients have lazy habits.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

People/patients with obesity are open to recommendations towards weight loss.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Treatment compliance is not an issue when caring for people/patients who are obese.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

People/patients with obesity who need to change their diet are personally motivated.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

There is a high success rate for people/patients with obesity who are willing to change their diet.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I believe that obese people/patients can maintain weight loss.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

There is a high success rate for people/patients who are willing to lose weight.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I enjoy caring for obese people/patients.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I think that obese people/patients struggle with personal motivation to make specific changes in their lifestyle habits.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

When I see obese people/patients that I have cared for getting healthier, it brings me joy.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Appendix C

Q1 - My name is Ashlyn Beasley and I am a Senior level nursing student at Georgia Southern (GS) University School of Nursing (SON), College of Health Professions (COHP). As a part of the GS Honors Program requirements I am conducting a research study survey about Bachelor of Science Nursing students perceptions of caring for obese people/patients. You are being invited to participate in an online research study about obesity bias utilizing the Qualtrics Survey Tool (QST). Your participation in this online research study is voluntary. By completing and submitting this online research study survey you are agreeing to your participation. You may withdraw your consent and or participation at any point during the online research study survey. This research study survey is asking your opinions about obesity. You may decline to answer any particular question(s). You may or may not feel some personal emotions related to the questions about obesity, but the risks to you should be no greater than what would be encountered in day-to-day life. The Georgia Southern University Institutional Review Board (IRB) has approved this online research study survey. If you have any concerns about your rights or protections related to participating in this online research study survey, contact irb@georgiasouthern.edu or (912) 478-5465. This online research study survey is completely anonymous and will not use any personal identifiers. No one including the principle investigator will be able to identify you or your answers. Should any of the results from the Obesity Bias: Bachelor of Science Nursing Students Perceptions be published, no personal information will be available or be used for publication. There are no costs to you for participating in this online research study survey. The information you provide will explore BSN students opinions of obesity. This online questionnaire will take about 10 minutes to complete. The information collected may not benefit you directly, but the information learned in this research study survey will add to the body of knowledge.

By completing this online research study survey, you are consenting to your participation. If you have any questions about the study, please contact the student below. Ashlyn Beasley Phone: (912) 547-1601 Student email: ab25060@georgiasouthern.edu Mentor/Faculty email: amberderksen@georgiasouthern.edu

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	<p>My name is Ashlyn Beasley and I am a Senior level nursing student at Georgia Southern (GS) University School of Nursing (SON), College of Health Professions (COHP). As a part of the GS Honors Program requirements I am conducting a research study survey about Bachelor of Science Nursing students perceptions of caring for obese people/patients. You are being invited to participate in an online research study about obesity bias utilizing the Qualtrics Survey Tool (QST). Your participation in this online research study is voluntary. By completing and submitting this online research study survey you are agreeing to your participation. You may withdraw your consent and or participation at any point during the online research study survey. This research study survey is asking your opinions about obesity. You may decline to answer any particular question(s). You may or may not feel some personal emotions related to the questions about obesity, but the risks to you should be no greater than what would be encountered in day-to-day life. The Georgia Southern University Institutional Review Board (IRB) has approved this online research study survey. If you have any concerns about your rights or protections related to participating in this online research study survey, contact irb@georgiasouthern.edu or (912) 478-5465. This online research study survey is completely anonymous and will not use any personal identifiers. No one including the principle investigator will be able to identify you or your answers. Should any of the results from the Obesity Bias: Bachelor of Science Nursing Students Perceptions be published, no personal information will be available or be used for publication. There are no</p>	1.00		1.00	1.00	0.00	200

costs to you for participating in this online research study survey. The information you provide will explore BSN students opinions of obesity. This online questionnaire will take about 10 minutes to complete. The information collected may not benefit you directly, but the information learned in this research study survey will add to the body of knowledge. By completing this online research study survey, you are consenting to your participation. If you have any questions about the study, please contact the student below. Ashlyn Beasley
 Phone: (912) 547-1601
 Student email: ab25060@georgiasouthern.edu
 Mentor/
 Faculty email: amberderksen@georgiasouthern.edu

#	Answer	%	Count
1	Accept	100.00%	200
	Total	100%	200

Q2 - Indicate your status in the School of Nursing.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Indicate your status in the School of Nursing.	1.00	2.00	1.34	0.47	0.22	199

#	Answer	%	Count
1	Junior	65.83%	131
2	Senior	34.17%	68
	Total	100%	199

Q3 - My peers normally display negative attitudes toward people/patients with obesity.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	My peers normally display negative attitudes toward people/patients with obesity.	6.00	12.00	9.73	1.83	3.35	200

#	Answer	%	Count
6	Strongly agree	2.50%	5
7	Agree	19.00%	38
9	Neutral	28.00%	56
11	Disagree	33.00%	66
12	Strongly disagree	17.50%	35
	Total	100%	200

Q4 - I have observed other students participating and making unprofessional remarks about people/patients diagnosed with obesity.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I have observed other students participating and making unprofessional remarks about people/patients diagnosed with obesity.	6.00	12.00	9.79	2.00	4.01	200

#	Answer	%	Count
6	Strongly agree	3.00%	6
7	Agree	25.00%	50
9	Neutral	13.00%	26
11	Disagree	39.00%	78
12	Strongly disagree	20.00%	40
	Total	100%	200

Q5 - I think making pessimistic remarks about obese people/patients is acceptable.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think making pessimistic remarks about obese people/patients is acceptable.	6.00	12.00	11.47	1.07	1.14	200

#	Answer	%	Count
6	Strongly agree	1.00%	2
7	Agree	2.50%	5
9	Neutral	1.50%	3
11	Disagree	29.50%	59
12	Strongly disagree	65.50%	131
	Total	100%	200

Q6 - I have observed Professors/Instructors making unprofessional remarks about obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I have observed Professors/Instructors making unprofessional remarks about obese people/patients.	6.00	12.00	10.69	1.65	2.74	200

#	Answer	%	Count
6	Strongly agree	1.50%	3
7	Agree	9.00%	18
9	Neutral	15.00%	30
11	Disagree	32.50%	65
12	Strongly disagree	42.00%	84
	Total	100%	200

Q7 - I have observed employees in the healthcare setting making unprofessional remarks about obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I have observed employees in the healthcare setting making unprofessional remarks about obese people/patients.	6.00	12.00	9.07	2.07	4.28	199

#	Answer	%	Count
6	Strongly agree	6.53%	13
7	Agree	33.67%	67
9	Neutral	20.60%	41
11	Disagree	23.62%	47
12	Strongly disagree	15.58%	31
	Total	100%	199

Q8 - Obese people/patients tend to be a habitual target of the derogatory disposition made by healthcare professionals, residents, and students.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Obese people/patients tend to be a habitual target of the derogatory disposition made by healthcare professionals, residents, and students.	6.00	12.00	8.53	1.91	3.65	199

#	Answer	%	Count
6	Strongly agree	8.04%	16
7	Agree	41.71%	83
9	Neutral	24.62%	49
11	Disagree	16.58%	33
12	Strongly disagree	9.05%	18
	Total	100%	199

Q9 - When a person becomes obese, it is admissible to construct jokes/ negative remarks about their weight because it is their fault.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When a person becomes obese, it is admissible to construct jokes/ negative remarks about their weight because it is their fault.	6.00	12.00	11.47	1.03	1.06	200

#	Answer	%	Count
6	Strongly agree	0.50%	1
7	Agree	1.50%	3
9	Neutral	6.00%	12
11	Disagree	24.50%	49
12	Strongly disagree	67.50%	135
	Total	100%	200

Q11 - I enjoy caring for people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I enjoy caring for people/patients.	1.00	3.00	1.24	0.44	0.19	200

#	Answer	%	Count
1	Strongly agree	77.00%	154
2	Agree	22.50%	45
3	Neutral	0.50%	1
4	Disagree	0.00%	0
5	Strongly disagree	0.00%	0
	Total	100%	200

Q12 - I think that it can be difficult to care for people/patients with obesity.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think that it can be difficult to care for people/patients with obesity.	1.00	5.00	2.73	1.07	1.15	200

#	Answer	%	Count
1	Strongly agree	10.00%	20
2	Agree	39.50%	79
3	Neutral	24.00%	48
4	Disagree	21.00%	42
5	Strongly disagree	5.50%	11
	Total	100%	200

Q13 - I become frustrated when giving care to people/patients who are obese.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I become frustrated when giving care to people/patients who are obese.	1.00	5.00	3.83	0.90	0.81	199

#	Answer	%	Count
1	Strongly agree	0.50%	1
2	Agree	8.04%	16
3	Neutral	23.12%	46
4	Disagree	44.22%	88
5	Strongly disagree	24.12%	48
	Total	100%	199

Q14 - I find it rewarding when I care for obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I find it rewarding when I care for obese people/patients.	1.00	4.00	2.46	0.73	0.54	199

#	Answer	%	Count
1	Strongly agree	10.55%	21
2	Agree	37.19%	74
3	Neutral	48.24%	96
4	Disagree	4.02%	8
5	Strongly disagree	0.00%	0
	Total	100%	199

Q15 - I think that respect and compassion are important factors when caring for obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think that respect and compassion are important factors when caring for obese people/patients.	1.00	4.00	1.33	0.53	0.28	200

#	Answer	%	Count
1	Strongly agree	69.00%	138
2	Agree	29.00%	58
3	Neutral	1.50%	3
4	Disagree	0.50%	1
5	Strongly disagree	0.00%	0
	Total	100%	200

Q16 - I do not enjoy caring for obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I do not enjoy caring for obese people/patients.	1.00	5.00	4.04	0.91	0.83	200

#	Answer	%	Count
1	Strongly agree	2.00%	4
2	Agree	2.50%	5
3	Neutral	20.50%	41
4	Disagree	40.00%	80
5	Strongly disagree	35.00%	70
	Total	100%	200

Q17 - I do not see a difference between people/patients with normal or abnormal BMI.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I do not see a difference between people/patients with normal or abnormal BMI.	1.00	5.00	2.56	1.16	1.36	200

#	Answer	%	Count
1	Strongly agree	22.00%	44
2	Agree	30.50%	61
3	Neutral	19.00%	38
4	Disagree	26.00%	52
5	Strongly disagree	2.50%	5
	Total	100%	200

Q18 - I think that I provide healthcare to the best of my ability towards obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think that I provide healthcare to the best of my ability towards obese people/patients.	1.00	4.00	1.49	0.60	0.36	199

#	Answer	%	Count
1	Strongly agree	55.78%	111
2	Agree	39.70%	79
3	Neutral	4.02%	8
4	Disagree	0.50%	1
5	Strongly disagree	0.00%	0
	Total	100%	199

Q19 - I feel comfortable and prepared that I can give effective care for obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I feel comfortable and prepared that I can give effective care for obese people/patients.	1.00	4.00	1.93	0.81	0.66	200

#	Answer	%	Count
1	Strongly agree	31.50%	63
2	Agree	50.00%	100
3	Neutral	13.00%	26
4	Disagree	5.50%	11
5	Strongly disagree	0.00%	0
	Total	100%	200

Q20 - I feel that it is common for obese people/patients to be non-compliant.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I feel that it is common for obese people/patients to be non-compliant.	1.00	5.00	3.25	1.05	1.10	200

#	Answer	%	Count
1	Strongly agree	3.00%	6
2	Agree	25.00%	50
3	Neutral	27.50%	55
4	Disagree	33.00%	66
5	Strongly disagree	11.50%	23
	Total	100%	200

Q21 - I think that obese people/patients have lazy habits.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think that obese people/patients have lazy habits.	1.00	5.00	3.41	1.03	1.06	200

#	Answer	%	Count
1	Strongly agree	2.00%	4
2	Agree	20.00%	40
3	Neutral	28.00%	56
4	Disagree	35.00%	70
5	Strongly disagree	15.00%	30
	Total	100%	200

Q22 - People/patients with obesity are open to recommendations towards weight loss.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	People/patients with obesity are open to recommendations towards weight loss.	1.00	5.00	2.77	0.71	0.50	200

#	Answer	%	Count
1	Strongly agree	2.50%	5
2	Agree	30.50%	61
3	Neutral	55.00%	110
4	Disagree	11.00%	22
5	Strongly disagree	1.00%	2
	Total	100%	200

Q23 - Treatment compliance is not an issue when caring for people/patients who are obese.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Treatment compliance is not an issue when caring for people/patients who are obese.	1.00	5.00	3.39	0.74	0.55	199

#	Answer	%	Count
1	Strongly agree	2.01%	4
2	Agree	7.04%	14
3	Neutral	43.22%	86
4	Disagree	45.23%	90
5	Strongly disagree	2.51%	5
	Total	100%	199

Q24 - People/patients with obesity who need to change their diet are personally motivated.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	People/patients with obesity who need to change their diet are personally motivated.	1.00	5.00	2.85	0.81	0.66	200

#	Answer	%	Count
1	Strongly agree	5.00%	10
2	Agree	25.50%	51
3	Neutral	49.50%	99
4	Disagree	19.00%	38
5	Strongly disagree	1.00%	2
	Total	100%	200

Q25 - There is a high success rate for people/patients with obesity who are willing to change their diet.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	There is a high success rate for people/patients with obesity who are willing to change their diet.	1.00	5.00	2.54	0.94	0.89	200

#	Answer	%	Count
1	Strongly agree	12.50%	25
2	Agree	39.50%	79
3	Neutral	30.50%	61
4	Disagree	16.50%	33
5	Strongly disagree	1.00%	2
	Total	100%	200

Q26 - I believe that obese people/patients can maintain weight loss.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I believe that obese people/patients can maintain weight loss.	1.00	4.00	2.08	0.70	0.49	200

#	Answer	%	Count
1	Strongly agree	18.00%	36
2	Agree	59.50%	119
3	Neutral	19.50%	39
4	Disagree	3.00%	6
5	Strongly disagree	0.00%	0
	Total	100%	200

Q27 - There is a high success rate for people/patients who are willing to lose weight.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	There is a high success rate for people/patients who are willing to lose weight.	1.00	5.00	2.39	0.89	0.80	200

#	Answer	%	Count
1	Strongly agree	13.00%	26
2	Agree	48.50%	97
3	Neutral	26.50%	53
4	Disagree	10.50%	21
5	Strongly disagree	1.50%	3
	Total	100%	200

Q28 - I enjoy caring for obese people/patients.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I enjoy caring for obese people/patients.	1.00	5.00	2.27	0.79	0.62	199

#	Answer	%	Count
1	Strongly agree	14.57%	29
2	Agree	49.25%	98
3	Neutral	31.66%	63
4	Disagree	3.52%	7
5	Strongly disagree	1.01%	2
	Total	100%	199

Q29 - I think that obese people/patients struggle with personal motivation to make specific changes in their lifestyle habits.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I think that obese people/patients struggle with personal motivation to make specific changes in their lifestyle habits.	1.00	5.00	2.14	0.85	0.72	199

#	Answer	%	Count
1	Strongly agree	21.11%	42
2	Agree	51.76%	103
3	Neutral	20.10%	40
4	Disagree	6.03%	12
5	Strongly disagree	1.01%	2
	Total	100%	199

Q30 - When I see obese people/patients that I have cared for getting healthier, it brings me joy.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When I see obese people/patients that I have cared for getting healthier, it brings me joy.	1.00	3.00	1.41	0.57	0.32	200

#	Answer	%	Count
1	Strongly agree	63.00%	126
2	Agree	33.00%	66
3	Neutral	4.00%	8
4	Disagree	0.00%	0
5	Strongly disagree	0.00%	0
	Total	100%	200

