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Weight Stigma in Healthcare: Utilizing an Educational Presentation to Reduce Potential Obesity Bias in Nursing Students

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Weight Stigma in Healthcare: Utilizing an Educational Presentation to Reduce Potential Obesity
Bias in Nursing Students

A Senior Honors Thesis

Submitted in Partial Fulfillment of the Requirements
for Graduation in the Honors College

By
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students a model example of an Honors senior thesis project.*

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Abstract

The purpose of this study was to determine (a) if personal characteristics of nursing students may be significant in potentiating stigma against obese persons (b) if an educational presentation discussing healthcare bias against people affected by obesity and the multi-causal nature of obesity could be useful in improving knowledge about potential barriers and better methods of treatment. A mixed method approach was used for data collection. After the intervention, participants filled out a survey that obtained demographic data, data about attitudes towards obese persons in the form of a Likert scale, and data about knowledge learned in the presentation in the form of open ended short answer questions. The results of the study found that the students regardless of demographic disagreed least with the idea that anyone can lose weight if they simply try harder. It was observed that nearly all participants were surprised with the information presented regarding barriers to weight loss or with prevalence of stigma in healthcare; although all had reported that they had witnessed weight discrimination in a healthcare setting. Recommendations for future research include developing studies involving more students from a larger range of nursing programs. Recommendations for practice include creating a more holistic education on obesity to improve knowledge and awareness on the multifactorial nature of obesity to improve patient care and global health.

Introduction

Obesity has drastically become one of the most common health conditions in America; in 1990 the state with the highest obesity rate, Mississippi, had 15% of its adult residents considered obese, and in 2014 the state with the lowest rate of obesity, Colorado, had 21.3% of its adult residents considered obese (Trust for America's Health and Robert Wood Johnson Foundation, 2015). The increasing incidence of obesity has been a source of great concern in the minds of healthcare workers, policy makers, and members of the at-risk nation in general. However, the interest in advocating for weight loss to improve the nation's health has in some ways morphed into associating obese people with negative characteristics, health related and otherwise. The failure of many weight loss programs and policies has been linked to the lack of knowledge about factors related to obesity other than the overly discussed behavioral factors (Ramos Salas, 2015). Reducing bias among nurses can potentially improve their patient care and reduce the incidence of burnout and personal stress.

Literature review

Obesity

The condition of obesity is frequently discussed in healthcare settings, educational environments and in the media. In order to understand the complex nature of it and the reasoning behind its controversies, the basic definition and the potential impact of it must be comprehended.

Obesity definition. Obesity has been defined by the World Health Organization, 2015, as the abnormal or excessive fat accumulation that may impair health. It is also defined as a Body Mass Index over 30. Body Mass Index, or BMI, is a person's weight in kilograms divided by the person's height in meters squared. The true and definite causes of obesity are poorly understood

but thought result from an interaction between genetic predisposition and an impaired energy balance of physical activity and calorie consumption (Committee on Diet and Health, 1989). The issue with obesity in in of itself is that being affected by it can potentially increase a person's risk for certain diseases and disabilities.

Impact of obesity on physical health. The condition of obesity has been linked to chronic health issues such as hypertension, heart disease and type 2 diabetes. Hypertension, or high blood pressure, can develop in a person affected by obesity because there is more tissue that the body needs to pump blood to. The bodily mechanism of increasing blood pressure can in turn result in compensatory hypertrophy of the left ventricle and eventual heart failure (Drazner 2011). Type II Diabetes Mellitus is related to obesity due to the fact that in many cases of obesity the adipose, or fat, cells expand causing impaired ability to use insulin efficiently. Since insulin is the hormone that facilitates glucose movement into the cells and it isn't working as it should, high levels of glucose continue to circulate in the bloodstream instead of providing energy to cells (Khan & Flier 2000; Obesity.org, 2015).

Who is Affected by Obesity?

While discussing obesity it is important to note that the intersection of race, economic class, and location can cause significant differences in weight status and health. Certain groups of people have a much greater prevalence and incidence of obesity for a multitude of reasons.

Race and ethnicity. According to the Center for Disease Control, 2015, 47.8% of non-Hispanic Black adults and 42.5% of Hispanic adults in the United States are obese. The prevalence in those populations is greater than the incidence in non-Hispanic White (32.6%) and non-Hispanic Asian (10.8%) populations. The ethnic/racial disparities in obesity have been linked to lack of healthy food options in communities that are composed of a higher percentage

of minority groups, as well as cultural differences and social norms (Wong, Chou, & Ahmed, 2014; Kirby, Liang, Chen, & Wang, 2012).

Urban vs. rural. The community in which one lives is a vital component in their risk for obesity. Studies have shown that people whom reside in a rural area have higher rates of obesity than those that live in a city setting (Lutfiyya et al, 2007; Trivedi 2015). This difference can be associated with the lack of healthcare access, lower reported income, and fewer health improvement resources such as fitness centers or grocery stores (Hessler & Siegrist, 2012).

Socioeconomic status. There is conflicting evidence on whether people living with a low household income are at a higher risk for obesity. The National Center for Health Statistics found that lower income women of all races have higher rates of obesity, but they also found that among men this correlation was only true among non-Hispanic whites. It also found that most of the people studied that were affected by obesity were not low income but moderate and high income. (Ogden et al. 2010). However, there is also evidence that income and BMI are inversely related on large and nationally representative scales (Kim & Leigh, 2010; Truong & Sturm 2005) The varying evidence may be related to the varying levels of poverty and food scarcity. Some people living under the poverty line may not be able to afford enough to get to a high weight, but others may make enough but can only afford energy dense and nutrient poor foods (Dolnick, 2010).

Weight Stigmatization in Society

The presence of weight stigma and the evidence of its consequences are seen in nearly every aspect of our society. People affected by obesity have been shown to receive unequal treatment in employment, educational, and healthcare settings (Puhl, 2009; Phelan 2014; Fikkan & Rothblum 2005) Weight stigma is the presence of negative attitudes towards people of a

certain weight that can be communicated verbally, physically, or through other indirect actions. It can be done subtly or explicitly and all stigmatizing episodes can have negative outcomes (obesity.org) People affected by obesity have been stereotyped to be lazy, unintelligent, unattractive, and less competent (Teachman, Gapinski & Brownell, 2001).

Effects of weight stigmatization in the media. The stigmatization of overweight and obese persons permeates into popular culture and media sources. People who watch diet and weight loss shows such as ‘The Biggest Loser’ have been determined to possess greater anti-fat attitudes than people who watched nature based reality shows (Domohoff et al., 2012). There is also evidence of many sources of weight based depreciatory humor in the media, which is thought to reinforce people’s implicit biases and is linked to anti-fat attitudes as well (Burmeister & Carels, 2015). When showed comparative photos of obese persons eating junk food and obese persons in professional attire participants reported that they mainly saw the image of a junk-food eating person on TV. The participants also were three times more likely to state the picture of the person eating junk food made them dislike obese people than the picture of the person in professional attire (Puhl, 2013). In another study, participants all read the same article on doctors denying an obese woman fertility treatment. The participants whose article included a picture of the couple eating junk on the couch were more likely to agree with the doctor’s decision than were the participants whose article included a picture of the couple holding hands on the beach (Brochu, Pearl, Puhl, & Brownell, 2014). The results of these studies provide strong evidence that seeing stereotypically negative and biased images resulted in significantly greater criticism of obese people than did seeing them in a more typical setting.

Weight Bias in Healthcare

Nurses. There is evidence from many different studies depicting that nurses are not immune from holding the pervasive negative perceptions of people affected by weight stigma. Although there has been far fewer studies done on nurses' perspectives on obesity in comparison to doctors and other medical professionals, the impact of their biased perspectives is still significant. The stigma that nurses may hold, whether implicit or explicit, can be a major factor in the quality of care provided to obese patients. A study on practice nurses found that when they were assigned to work with obese patients they felt as though a burden was being unloaded onto them, and felt unenthusiastic about caring for the patient (Mercer & Tessier 2001). Being uncomfortable around patients can result in less time spent with them, and therefore fewer opportunities to assess their needs and impaired ability to tell if they are having a change in status. The bias held against people affected by obesity doesn't only include thinking negatively about their health status, as the research shows that nurses tend to associate obesity with non-weight related negative characteristics. There is evidence of nurses feeling as though obese patients lack motivation and are lazy (Brown, 2006; Jallinoja et al., 2007, Mercer & Tessier 2001). There is also evidence that nurses believe patients affected by obesity, specifically males, are less attractive than normal weight patients (Peternelj-Taylor 1989). However there is evidence to the contrary which finds nurses hold less biased perspectives than other practitioners and tend to be more empathetic (Sikorski et al. 2013). Another study of nurses from acute and long term settings found that they had generally positive attitudes towards obese patients and stated they need to be treated kindly and like any other patient (Zuzelo & Seminara, 2006).

Factors involved in degrees of bias in nurses. A lack of knowledge regarding different factors outside of personal responsibility can lead to impaired contact and lack of resources for

patients. Nurse practitioners in a community based setting have been shown to agree strongly with the idea that lack of will power accounts for obesity, while the majority disagreed with the fact that environmental factors are pertinent in the incidence of obesity. The study found that nurses who were older attributed obesity less frequently than their younger counterparts and had more negative views of obese persons (Brown et al. 2007a). A similar result was found in another study where nurse age was significantly associated to negative perceptions but strangely enough, more experience was associated with more positive attitudes (Sikorski et al. 2013).

There is also some evidence of a statistically significant inverse relationship between nurse BMI and negative perceptions of obesity (Brown et al. 2007a). A study on over 500 practicing nurses found that the nurses that had a higher BMI were less likely to agree that obesity is preventable (Hoppé & Ogden, 1997). It is a logical finding that those who have a higher BMI are more likely to have more positive attitudes, as overweight nurses have cited empathy as an important factor in being able to care for their overweight patients (Aranda & McGreevy, 2014).

There is very limited evidence on nurse genders effect on weight bias, likely because most of the research assessing nurses' perceptions was done solely on female nurses. However a few studies have examined the differences between males and females, each with different results. A study on mental health nurses and other mental health professionals found that female healthcare workers judged obese female patients much more harshly, even on factors unrelated to weight (Young & Powell 1985). Research done by Garner & Nicol on 23 male and 45 female nurses found that there was no significant difference in negative attitudes between the groups (1998).

Nursing Students. As previously mentioned, past research has shown that the older a person is, the greater their critical views on patients affected by obesity. Nursing students have also been shown to have lower levels of fat-phobia than practicing registered nurses (Poon

2009). When the students already hold biases against a certain population prior to even beginning to care for the group, they may unconsciously assign unflattering and possibly harmful characteristics towards their patients in that population. There is limited research into nursing students' perceptions on obese patients, but some evidence shows that nursing students have had negative perceptions in the past. In a study by Culbertson & Smolen of 73 nursing students 70% agreed with the statement that obese people have poor food selection, 38.3% felt uncomfortable with obese patients, and 28.8% agreed they would prefer not to care for obese adults (1999). In another study done, nursing students regarded obese persons in a more negative light, especially concerning social attractiveness (Peternelj-Taylor, 1989). However, when looking at more contemporary research, nursing students tend to have more positive perspectives on obese persons than do dietetics, doctoral, and nutrition students (Swift et al. 2013). Although there is some evidence of biased perspectives in the students involved in all research studies, no studies were found attempting to change the beliefs of the students.

Weight bias in other health professionals/students. There are ample sources indicating medical professionals' unfavorable perceptions towards overweight and obese patients. The notion that unwillingness to change and non-compliance being the biggest barriers to weight loss is prevalent among physicians (Jallinoja 2007; Puhl, Luedicke & Grilo, 2014; Phelan et al. 2014). When 2,671 obese and overweight adults were surveyed on the most common sources of weight stigma in their life, 69% of the participants stated they have experienced stigma from their primary care doctors (Puhl & Brownell 2006) Studies have even shown that physicians that specialize in obesity possess implicit biases that are not significantly different from the normal population (Teachman, Gapinski & Brownell 2001).

Consequences of Weight Stigma

The detrimental effects of being stigmatized on one's physical and emotional health has been examined and subsequently corroborated from multiple sources. The impact of stigma can result in impaired physical health, a decline in mental health, detrimental methods of coping, and forgoing necessary visits to their healthcare provider.

Psychosocial consequences. Being affected by obesity in a society that places a lot of value on thinness and outer appearance of health can be difficult, and feelings of being stigmatized may lead to depression, eating disorders, or feelings of inadequacy (Haines & Neumark-Sztainer, 2006; Lewis 2011). When people internalize this bias it has been shown that it is significantly related to a decline in mental health related quality of life (Latner et al. 2014). It is a vicious cycle for the people affected by obesity, as research has shown that a lower health related quality of life predicts higher levels of teasing for obese youth (Jensen & Steele 2012). The psychosocial impact of feeling biased against specifically by medical providers has been indirectly related to depressive symptoms. It is seen that in cases where people do not feel like they receive support from their health care provider they go searching online desperately for weight loss options; and often times these searches lead to fad diet websites that cause greater self-judgment and feelings of inadequacy (Lewis 2011).

Physical consequences. There are experts in health that possess the belief that shaming people based on their weight will lead to improved health outcomes and weight loss (Callahan 2013). However, when looking at the intersection between BMI and physical health, one study done on Belgian subjects determined that the two factors didn't have a significant inverse relation unless the participant also felt a high level of stigma and perceived discrimination (Hunger, 2015). When looking at the long term effects of multiple types of discrimination on weight status, people who felt stigmatized against based on weight were the only ones that

showed a statistically significant increase in weight or the greatest likelihood to stay obese after one year (Sutin 2013). It can be thought that the reason obesity is stigmatized is due to the belief that it's potentially unhealthy or that it may reduce the length of one's life. However, in a study on body image 39% of female and 28% of male participants would give up 3 years or more of their life in order to achieve their weight goals. In the same study 50% of women and 30% of men reported smoking cigarettes in order to control their weight (Garner, 1997). Another study found that patients who felt judged based on weight were reportedly more likely to attempt weight loss, but less likely to achieve clinically significant weight loss (Gudzune et al. 2014).

Coping Methods. Possessing low self-esteem and internalizing stigma against oneself is harmful for mental health as well as physical health. People who have been stigmatized against based on weight have reported coping by crying, feeling badly about oneself, eating more and refusing to diet (Myers 1999; Puhl & Brownell, 2006). People are also more likely to cope with stigma by detaching themselves from their weight loss goals due to the fact that their self-esteem was detrimentally affected when they didn't meet them (Steele 1997).

Avoidance of healthcare. A particularly unfortunate and assuredly unfavorable result of stigma in healthcare is that people affected by obesity are at a greater likelihood to abstain or delay seeing a primary care provider or getting essential preventative care. A 2002 study of 216 women from different churches found that 19.4% of the women as a whole had avoided/delayed healthcare due to weight gain, but 34.2% of the women affected by obesity had done so (Drury & Louis, 2002). This pattern of health care avoidance also affects rates of cancer screens as one study shows that, regardless of insurance or other variables, obese Caucasian and African-American women delayed pap-smears at higher rates than average weight women. The most

common reasons the women stated they delayed/avoided the care was due to negative attitudes of and disrespect from their providers (Amy et al. 2005).

Reduced quality of care. Not only is there evidence of health care avoidance but when people affected by obesity visit their doctor, the assistance they receive may be sub-optimal. In a study done on 398 primary care nurses 91.3% reported giving advice to obese patients, while only 25.6% reported providing patients with long term structured support programs; Nearly 1/5 of them reported being uncomfortable with the idea of discussing an obese patients' weight as well (Brown et al. 2007). This issue doesn't extend solely to primary care providers or adult patients. When interviewing school nurses on barriers to talking about weight and health with students, many reported that they lacked knowledge about obesity and they felt uncomfortable with the reaction of parents to the discussion especially if they were overweight or obese themselves (Steele et al. 2011). When nurses and providers think of obesity as an inherently bad thing it may lead them to feeling as though they shouldn't discuss it if they want to develop a rapport with the patient. 66.4% of patients with a BMI greater than 30 reported being told by a physician they're overweight. Participants were more likely to attempt weight loss if their weight was discussed with them (Post et al. 2011). Nurses and other providers' lack of awareness on how to treat or simply communicate with obese patients is a barrier in patient weight loss and must be considered when discussing ways to assist patients in achieving greater health.

Potential Methods of Stigma Reduction

Although weight bias is still evident in our society, there have been some efforts made in attempting to reduce the negative stigma attached to being affected by obesity. Participants shown information on how the food environment affects the prevalence of obesity increased their support for policies on food related obesity prevention while also having a greater sense of self-

efficacy than participants provided information on biological and personal attributions to obesity (Pearl & Lebowitz, 2014). People that reported non-judgmental discussions about weight loss with their provider were more likely to lose weight than patients that reported judgmental discussions, judgmental care without discussion, and non-judgmental care without discussion (Gudzune et al. 2014). Again, this highlights the importance of discussing weight, and there have been approaches to discuss weight in a neutral way that has a greater center on health gain rather than weight loss. A Health at Every Size (HAES) approach has been looked into, and while still looking at weight as a measure of health, many other factors should be considered important markers of health. It also puts a focus on exploring feelings as well to determine if the health plan put forth is sustainable or proper for that particular patient (Miller, 2005). There have been mixed results in the literature regarding statistically significant improvements in perceptions of students that will enter the healthcare field. Kinesiology students in one study showed no difference of anti-fat attitudes after working with children in a physical activity training program, and many made statements that depicted obese children being lazy, unmotivated, and uncaring; the statements made were very much rooted in the beliefs of personal responsibility being the most significant factor (Rukavina, Li,& Rowell, 2008). However the results of an interventional experiment on medical students differed. The participants involved listened to a program discussing genetics of obesity and similarity of caloric intake of obese vs non-obese persons, and completed a role-playing exercise. The participants involved in the experimental group were less likely to assign blame to the people and propagate negative stereotypes even after a one year follow up (Wiese et al. 1992).

Study Purpose

After analyzing the breadth of the literature on obesity and stigma and how it relates to nursing it was determined that weight biases are present among nurses and nursing students, and there is a lack of knowledge on how to effectively and compassionately treat patients affected by obesity. Most of the literature on nurses' perceptions had solely quantitative results, and there is an absence of exploration into attempting to understand the reasoning behind behavior or in-depth investigation at what the participants actually learned. There is also a gap in the knowledge of whether gender, year of study, or perception of own health status affects attitudes. The following study will attempt to fill these gaps in knowledge and determine if an educational presentation on healthcare stigmatization of obesity, and on the impact of genetic, social, and environmental factors on obesity will be useful in assisting students gain more comprehensive awareness of the multifactorial nature of obesity.

Methodology

Design

This study is a mixed methods prospective design. The purpose of the quantitative phase of the research was to determine whether certain participant characteristics may suggest more or less negative attitudes towards obese persons. The purpose of the qualitative phase was to determine what each person learned during the presentation and whether they believe it changed their perspectives on people affected by obesity. It was a cross-sectional post-test only study of students currently in or intending to enter the nursing program at the College at Brockport in Brockport, New York. The participants involved in the study all received the intervention.

Ethical Review and Participant Protection

This study was approved by The College at Brockport's Institutional Review Board on February 12th, 2016. The study was exempt from a full review. The participants all received an

informed consent sheet to read prior to filling out the survey, consent was implied if they completed and turned in the post-test survey. The surveys were kept in a locked drawer in the primary researcher's home. There was minimal risk involved participating in this study, but to minimize risk further the researcher reminded the participants that they were free to leave at any time during the presentation or while filling out the survey. The IRB approval can be found at Appendix (A).

Participant population

The participants were recruited through their institutional email by the Chairperson of the Nursing Department at Brockport. Two emails were sent out, one fifteen days before the presentation, and the other was sent the day prior. The emails were sent to ask the students to attend the presentation, and an informational flier was sent out with the emails. The same fliers sent by email were hung in the nursing lounge and on various cork boards throughout the nursing building on campus (Appendix B). The inclusion criteria for this study was being a currently enrolled student at the College at Brockport, being a student in the traditional nursing program, the second degree program, or students intending on applying to the nursing program. The participants must also have been over the age of 18. In total 634 students were recruited to attend the interventional presentation. Seven students (1.1%) attended the presentation and completed the survey. The demographics of the participants are reported in Table 1.

Sex	number of participants
Male	3
Female	4
Time in clinical setting	
none	1
less than 6 months	1
6 months-1 year	1
1-3 years	4
more than 3 years	
Year in school	
freshman	1
sophomore	
junior	1
senior	4
second degree student	1
RN-BSN student	
Self reported weight	
normal weight	6
overweight	1
Self reported health	
somewhat unhealthy	1
somewhat healthy	5
very healthy	1

Health Education Presentation Intervention

The researcher completed an exhaustive examination of multiple different sources regarding obesity statistics, weight stigma in healthcare and potential methods to reduce it, weight stigma in the media, socioeconomic factors related to obesity, and physical environment factors related to obesity. With the information found the researcher compiled a 36 slide PowerPoint presentation that included information on all of the above topics. An emphasis in the beginning was placed on the prevalence of weight stigmatization by nurses, as well as written examples found that depicted damaging stigmatizing experiences. The latter portion placed emphasis on information regarding why the typical advice to eat healthy and exercise more is difficult in our modern society, due in part to gradual increases in portion size and to the decreased caloric output at work in comparison to the past. The presentation also discussed how weight loss may be more difficult especially for people who are disadvantaged economically or

live in a community disproportionately affected by poverty, such as the Rochester region. The presentation also involved, at one point, active engagement with the participants when the researcher asked how many calories they believed to be in three different foods. This method was utilized to show how difficult it may be to determine caloric content in foods, even for people who are college educated and health conscious. The final slides included information on how to bring all of the information into their practice to reduce assumptions and work to prevent and reduce the prevalence of obesity while assuring that people affected by it don't become the target of hostility. The PowerPoint visuals were combined with a verbal lesson by the researcher/presenter discussing the information on each slide in greater depth. The participants were seated in a lecture hall and all were present for the entirety of the intervention. The presentation lasted 46 minutes. After the presentation each of the participants were handed out a survey with informed consent, and the information divulged by each participant on their questionnaire was the data analyzed for this research study.

Survey Instruments

A questionnaire was handed out after completion of the intervention to the participants. The survey consisted of five questions about personal demographics, six likert type questions, and five short answer questions. The demographic data is, again, placed in Table 1. The 5 point likert questions were used to briefly determine the participants' attitudes towards obesity or beliefs about obese persons after they witnessed the presentation. The questions developed by the researcher for the scale were loosely based off of Bagley et al.'s Attitudes towards Obese Adults Scale (1989). The scale involved questions about the participants' attitudes towards obese persons motivations, how empathetic they feel towards obese patients, if they're uncomfortable around obese patients, or if they would prefer not to give care to obese

patients. It also involved questions regarding the participants' beliefs about obesity, and whether they believe anyone could lose weight if they just try harder.

The open-ended questions on the survey asked questions on what the participants learned during the presentation, if they believe it will affect their future care of obese patients, and how they felt towards the presentation in general. There was also a question on whether they had personally witnessed nurses or other health care providers talk about/to obese patients in a negative and unfavorable manner in regards to their weight. The survey in its entirety can be found in Appendix (C).

Data Analysis Methods

Qualitative phase. The qualitative data was compiled and the answers to each question asked were analyzed by the researcher to determine if significant patterns emerged among the data or if a certain topic was brought up multiple times. The participants' responses were not compared against each other's based on demographics or otherwise. The qualitative responses were analyzed word for word and any similar language was searched for. Similar phrases or concepts were further analyzed and patterns that were consistent with the majority of respondents were extracted. No outside analysis source was utilized to examine the data.

Quantitative phase. The demographic data of the participants were used to separate the data and compare the members of one population against the other in regards to attitudes and beliefs on obesity. The comparisons were made based on gender, year in school (senior vs. non-senior), and amount of experience (greater than one year vs. less than one year). Due to the low participation rate, self-reported weight and health were not included in the comparison of differences of beliefs. The fifth statement on the Likert scale, *I am considering on working in a community health or primary care setting* was deemed to lack relevance to the goal of the study

after the survey, and the responses will not be included in the results. The results from the likert scale was treated as ordinal data. Both demographic data and data from the likert scale was analyzed using basic descriptive statistics including frequencies and percentages to describe the participants and categorize their responses. The numbers (1-5) reported by the participants were averaged together in each noted demographic group and the standard deviation was calculated.

Results

Of the seven people that participated in the intervention, all seven agreed to fill out the survey (100%). Each participant answered every question on the survey form. Table 2 shows the overall results of the

Quantitative.

Table 2 shows the overall results of the survey.

Table 2: Quantitative results on Beliefs and Attitudes Towards Obese Persons: Overall	
Likert Scale: 1(disagree strongly)- 5 (agree strongly)	
I prefer not to provide physical care for obese patients	M=1.57, SD=.79
Most obese people are lazy and unwilling to change	M=1.57, SD=.53
Obese patients are harder for me to empathize with than normal weight patients	M=1.86, SD=.90
Being around obese people makes me uncomfortable	M=1.29, SD=.49
Anyone can lose weight if they just try harder	M=2.57, SD=.98
M: Mean of Likert scores	
SD: Standard Deviation of scores	

Gender. The complete analysis of gender differences is found in the above chart (Table 3). When analyzing the mean scores for males vs females the female participants overall reported less of a desire to provide physical care for obese patients than males, i.e. bed baths, turning, or lifting. This finding was the most significant difference of all the questions when comparing the male and female population. Female students also tended towards feeling slightly less ease with empathy towards obese patients than male students. All male students reported to disagree

strongly with being uncomfortable around obese patients, while female students reported faintly more discomfort; Female students were more likely to believe that anyone can lose weight if they just try harder, and the comparatively small standard deviation with the females suggest that there wasn't an outlier skewing the data for this response.

	Males (n=3)	Females (n=4)
I prefer not to provide physical care for obese patients	M= 1.33, SD=.58	M= 1.75, SD=.96
Most obese people are lazy and unwilling to change	M= 1.67, SD=.58	M= 1.5, SD=.65
Obese patients are harder for me to empathize with than normal weight patients	M= 1.67, SD=1.2	M= 2, SD=.82
Being around obese people makes me uncomfortable	M= 1	M= 1.5, SD=.65
Anyone can lose weight if they just try harder	M= 2.33, SD=1.5)	M= 2.75, SD=.5
M: Mean of Likert scores for that population		
SD: Standard Deviation of scores		

Year in School. Due to the small sample size, non-senior students regardless of status in the program (freshmen, sophomore, junior, second degree students) were grouped into one demographic and compared against senior students (Table 4). Senior students reported less of a desire to provide physical care to obese patients than non-senior students. They also tended towards feeling less empathetic than non-senior students towards obese patients in comparison to non-obese patients. Non-senior students reported to disagree more with the statement that anyone can lose weight if they try harder than senior students, who held a more neutral perspective towards the matter. However, non-senior students reported slightly less disagreement towards the statement that obese persons are lazy and unwilling to change. They also reported being less comfortable around obese patients than senior students, who all disagreed strongly to the statement.

Table 4: Quantitative results on Beliefs and Attitudes Towards Obese Persons: Seniors vs. non Seniors		
	Senior (n=4)	non-senior (n=3)
I prefer not to provide physical care for obese patients	M= 1.75, SD=.96	M= 1.33, SD=.58
Most obese people are lazy and unwilling to change	M= 1.5, SD=.65	M= 1.67, SD=.58
Obese patients are harder for me to empathize with than normal weight patients	M= 2, SD=.82	M= 1.67, SD=1.2
Being around obese people makes me uncomfortable	M= 1	M= 1.67, SD=.58
Anyone can lose weight if they just try harder	M= 3, SD=.82	M= 2, SD=1
M: Mean of Likert scores for that population		
SD: Standard Deviation of scores		

Clinical Experience. The results for each of the questions in regards to years of clinical experience is not much different than the results for seniors vs. non-seniors, as evidenced when looking at Table 5 and Table 4. The only difference is that discomfort around obese patients. Participants that had less than one year of clinical experience are very narrowly less likely to disagree with the statement than participants that have had 1-3 years of experience in the clinical setting.

Table 5: Quantitative results on Beliefs and Attitudes Towards Obese Persons: Time in clinical setting		
	1-3 years	less than 1 year
	in clinical (n=4)	in clinical (n=3)
I prefer not to provide physical care for obese patients	M= 1.75, SD=.96	M= 1.33, SD=.58
Most obese people are lazy and unwilling to change	M= 1.5, SD=.65	M= 1.67, SD=.58
Obese patients are harder for me to empathize with than normal weight patients	M= 2, SD=.82	M= 1.67, SD=1.2
Being around obese people makes me uncomfortable	M= 1.25, SD=.5	M= 1.33, SD=.58
Anyone can lose weight if they just try harder	M= 3, SD=.82	M= 2, SD=1
M: Mean of Likert scores for that population		
SD: Standard Deviation of scores		

Qualitative

The results of the short answer questions are considered the qualitative data for this report. The qualitative data, or the short answers, were written out by hand. The participants'

identification data that would increase the ability to discern them from other participants is not included in the results analysis. This means the responses given by each participant for each question is separate from any other response they gave to prior or subsequent questions. There were 5 questions asked on the survey: (a) Did you learn anything new during this presentation? If so, what? (b) Do you believe you have ever personally witnessed a negative and/or non-therapeutic interaction between a healthcare worker and a person affected by obesity due to their weight? If so, could you briefly state an example? (c) Do you believe this presentation altered the way you think about obesity and people affected by it? (d) Do you believe this presentation will affect the care you provide in the future? If yes, how and if no why not? (e) If you had to choose 1 word to define how you feel overall about the information in the presentation, which word would it be and why? (Please circle the word)

Surprised

Angry

Indifferent

Unsatisfied

Confused

Question 1: Information learned. The participants each reported knowledge gained from a minimum of one aspect of the presentation. The information learned by each participant varied and themes emerged among the participant data, interestingly the two main topics discussed were very distinct in nature.

A theme that emerged when poring through the answers was prior unawareness to statistics of stigma in healthcare. In regards to the patient care aspect of stigma there were responses made regarding nurses as well as providers. One participant reported that a new piece of knowledge learned during the presentation was the "...way providers ask/advise clients of a higher weight." Another reported that he/she learned "the stats of nurses willing to care for obese patients." This statement was likely made in regard to the information disseminated about

a study in which 28.8% of nursing students agreed they would prefer not to care for obese adults (Culbertson & Smolen, 1999). There was also a subtheme of increased awareness to the pervasive nature of stigma in healthcare. One student stated "... I didn't realize how other people are made to feel stigmatized at the doctor's for their weight. This has happened to me before, but my doctor I've known forever & just assumed he was giving me an especially hard time." While another participant stated that "...there is even more that meets the eye when talking about this topic. I didn't know that people did not seek healthcare due to this issue"

A second theme that emerged was knowledge gained related to *caloric intake/output*. Exercise related information was mentioned by one participant whom stated that there was awareness gained on the "*difference in calories burned* in aerobic exercise vs. weight training." The caloric content of certain foods apparently struck other participants, one of which stated that "*the calories in the Panera muffin* and such were immense." The student is referring to the fact that a pumpkin muffin from Panera Bread is 590 calories (Panerabread.com, 2016) another stated "...also didn't know America's cheese had the *most saturated fat*."*

Question 2: Previous witnessing of non-therapeutic interactions. This question was placed on the survey to determine if any of the participants had previously observed verbal or physical acts of biased behavior against obese persons, and if so, what was said or done that they deemed negative. When analyzing the responses, every participant regardless of time in clinical setting reported witnessing or being the victim of healthcare workers making stigmatizing statements in regards to patient weight.

One theme that emerged when analyzing the responses can be categorized as *shame and blame*.

*This statement was made in regards to information given that cheese is the most common source of saturated fat in the American diet, not that cheese in America has more saturated fat than cheese in other countries (O'Neil et al. 2012)

Four responses fit into this category, each notes a unique experience but all of the statements allegedly made by healthcare workers have a similar underlying tone tending toward endorsement of the belief of patient personal responsibility for their current condition. One participant wrote “I’ve heard a nurse state that an overweight patient ‘*broke his own leg*’ by being fat.” While another participant reported that “...healthcare staff will sometimes say that ‘*it’s their fault*’ that they got themselves this sick...” These negative attitudes towards obese persons may come from the nurses limited knowledge of the multiple causes of obesity, or because it is more simple to think of it in that manner. The third response by a student was more stirring, and has a direct connection to beliefs translating into impaired quality of care. The student wrote “Nurses often discuss how they *don’t like to help patients that don’t help themselves*, or make derogatory remarks about pts ability to move on their own.” The fourth response is less related to the patients’ current condition but rather a presumptive blame with a possible lack of knowledge about patient history.

This person stated “In clinical I have yet to experience this, but have experienced it myself being told I need to drop 35 lbs. or I’d be *guaranteed to have DM, HTN, etc. meanwhile I work out 6 days/week.*”

Another theme that emerged was about inferior *hygiene* care given to patients affected by obesity. One student reported that they saw “A tech/nurse refusing to give a complete *bed bath* due to unwillingness.” While another stated that “...in an ICU people don’t provide the same *bathing care* to those who are obese.” These responses are related to the question asked about whether the students would provide physical care to patients affected by obesity, which most participants reported to strongly disagree with the idea that they would prefer not to do so.

Question 3: How presentation altered/changed beliefs on obesity and obese persons.

The participants that attended the presentation appeared to have a previous awareness of the necessity of giving therapeutic and nonjudgmental care. Phrases frequently used in responses by participants for this question were about the presentation *increasing their awareness*; which express that the participants already practiced kindness and were aware of harmful negative stigma directed at obese people. One full statement made was “*I will be more mindful of this bias.*” Another student reported that it changed their beliefs “...just in the way that *I will be more sensitive to the topic.*” And yet another reported “this presentation *made me more aware* how even non verbally I can give the impression of a negative connotation toward obese pts”

Another theme was *specific ways to bring the knowledge into practice*. One participant stated that “with taking histories/gathering information I need to *be more thorough to possible pt. barriers.*” A second response that fits the same topic states “It was a friendly reminder that as nurses we must be nonjudgmental and become helpful in the *advertisement of healthy living*. Offering support is so important.” These answers highlighted that something that may have been altered is the belief that obese patients are responsible for their condition solely. The participants’ responses suggest a realization that we may play a larger role in our patients’ long term health and weight in the assessment and the implementation stages of the Assessment, Diagnosis, Plan, Intervention, and Evaluate (ADPIE) nursing process (Shuey & Hoaks, 1989).

Question 4: Potential of the interventions effect on future patient care. The primary overall goal of the intervention was to improve the quality of care given to patients affected by obesity. The responses to this particular question provided insight into whether the participants supposed the presentation could possibly affect their care of patients affected by obesity in a positive way. The answers supported the idea that the presentation may have the potential to

affect care for future patients. The two main concepts that appeared when analyzing all of the responses involved (1) participants doing a self-analysis in regards to stigmatizing beliefs to improve interactions with patients, and the other involved (2) participants thinking more critically about a patient's history and what contributing factors may be related to their current condition.

There were three participants whose responses fell under the umbrella of *self-analysis* or constructive self-criticism. One participant reported “I will be more *wary of my actions* and how they could be misconstrued” Another reported that they will be “*Aware of it [weight biases]* in myself and watch for it in others.” The third participant reported that the presentation was more of a reminder and expanded on why it's important not to be judgmental when providing care to patients regardless of their characteristics; this participant reported “...It *will remind me* not to care for someone different due to their weight. It is our responsibility to care for others regardless of gender, age, weight, etc.”

The other four participants' focused their responses on more on gaining an *understanding of patient specific qualities*. One of the participants responses could be interpreted as reducing a specific stereotyped belief about people affected by obesity, they wrote “I will try harder to *think about why my patient is the way they are* as opposed to just being lazy.” Another focused on gaining more empathy for patients to understand their condition better. The student wrote “...it will give me a chance to be more understanding toward those who are having difficulties losing weight because of there health.” The final two responses were similar, and pertained to the need to ask patients more questions about their background in order to gain a more holistic understanding of the condition. One responder stated they will change their practice by “...

asking more health history questioning to sense contributing factors” and the other reported that he/she would “...be more therapeutic to my obese pt. and thorough with health histories.”

Question 5: Overall feelings on presentation. The participants were asked to choose one of the following words to describe how they felt about the information disseminated in the presentation, and then describe why: surprised, angry, indifferent, unsatisfied, or confused. Out of the seven participants, six reported that they were surprised (85.7%) by the information from the research, while one person (14.3%) stated reported that he/she felt indifferent. However, the participant that stated he/she felt indifferent stated that the presentation changed their perspective on obese persons, and made him/her see the patients in a more positive light. Statements made by the participants on what surprised them could be integrated into two distinct categories: (1) information given on factors related to obesity, and (2) evidence of stigma and its effects in healthcare.

Two participants’ statements fell in the first group; one reported surprise at a broader spectrum of the information, he/she was “Surprised: By the statistics & other determinants associated with obesity.” The other linked what we are taught about obesity and how it may diverge from the truth; they stated “Surprised: The information we see in the media and some of what we learn in school does not match with real factor influences.”

The prevalence of stigma and how it has permeated into the field of healthcare are details that participants reported surprised them. One participant wrote being “Surprised: I did not realize the major impact that this stigma was having on people’s health outcomes. The stories about misdiagnoses r/t weight + women getting less cancer screening were most surprising.” The participant is referring to (a) stories gathered from fathealth.wordpress.com and (b) a statistic from a study that found that obese and overweight women delayed cancer screenings at a higher

rate than normal weight women, many of which stated they did so because their provider made them feel uncomfortable (Amy et al., 2006). Another referred to the disproportionate amount of time providers may spend giving advice while only asking a few questions about their patients. He/she said they were “Surprised: At how little doctors may ask to understand the pt better when trying to help them lose weight.” Another person reported being “Surprised: There was a lot of statistics that were new to me, and the effects of unhealthy living in the long term can be detrimental. It also made me surprised how many healthcare workers thought as ‘repulsive’ as an appropriate way to describe patients.”

Discussion

Study Findings and Comparisons to the Previous Literature

Overall the participants in this study had very low levels of externally reported bias towards patients affected by obesity. This could be due to the fact that the survey on attitudes was only taken after the educational intervention, which may have improved participants attitudes towards obese patients. The results found in this aspect could be attributed to the possibility that nursing students that hold strongly negative feelings or attitudes towards people affected by obesity did not want to attend the lecture, therefore they could not complete the survey.

Reporting agreement or strong agreement (4 or 5) with any of the first four statements on the scale could be directly correlated with negative perceptions of obese persons. However, each participant regardless of gender, year in school, or amount of clinical experience reported disagreeing or being neutral toward all of the first four statements. Therefore, it can be said that nursing students in this study have overall positive attitudes towards people affected by obesity. This is a drastically different outcome than multiple other studies that found nursing students

held unfavorable attitudes towards patients affected by obesity (Culbertson & Smolen, 1999; Waller et al. 2012; Swift et al. 2012; Peternej-Taylor, 1989). Due to the limited evidence in relation to gender differences found among nursing students in similar studies, there is little to compare the results of this study to. However, in regards to gender differences in the general population this study reports similar findings; females have slightly more anti-fat attitude (Puhl, Andreyeva, & Brownell 2008). This result could be due to the evidence that obese females are faced with more hostility than obese males, and therefore are socialized to place greater importance on outer appearance of thinness (Mason, 2012). The largest difference between mean scores of males and females was with the statement regarding physical care provision (female $M= 1.75$, male $M=1.33$). This finding could be due to female's predisposition to have less muscle mass in comparison males, ergo potentially having more difficulty in lifting or moving people that are obese.

The statement that *anyone can lose weight if they just try harder* was the statement that was least often disagreed with out of any of the statements. This finding is consistent with all other studies on nursing students, as well as on other healthcare workers that were previously discussed in the literature review. Lack of personal responsibility is an attribution that Americans often cling to as the greatest predictor of impaired health because individualism is an ideology that holds precedence over many others in our culture (Puhl & Brownell, 2003).

One finding that was not expected was that when asked what was learned, three participants reported they learned about something related to caloric balance. Future health workers are often expected to understand optimal health and how to get there. However, these statements show that this is may not be the case. Nursing students in the Brockport program are required to take a nutrition course, but evidentially this may not be adequate.

Every participant surveyed reported being surprised at the actual statistics of obesity stigma in healthcare, but each person reported that they have witnessed at least one example of externally expressed bias while in the clinical setting. This is somewhat shocking since one clinical rotation consists of only 48-72 hours of clinical experience, all of which is very patient oriented with comparatively consists of much less interaction with the healthcare team. There are also statements from nursing students in a previous study speaking about weight discrimination in England that this issue is not confined to the Rochester area, or even the United States (Keyworth et al. 2013). Although there is evidence from other studies that demonstrate nurses and other healthcare workers having bias against obese/overweight persons (Brown, 2006; Jallinoja et al., 2007, Mercer & Tessier 2001 Puhl, Luedicke & Grilo, 2014; Phelan et al. 2014); it is an intriguing and unsettling finding that every participant in this study had witnessed or been on the receiving end of it themselves in the health care setting. This is especially detrimental because creating a learning environment in which discrimination is the norm can lead to desensitization to weight bias and other forms of stigmatization and stereotyping.

Collectively, the findings show that nursing students did gain a more comprehensive awareness on the multifactorial nature of obesity as well as the prevalence and effect of weight discrimination in healthcare. The study also advanced knowledge on how gender may potentially be a factor in nurses' stigmatization of people affected by obesity. The findings of the study in regards to the effect of year of study or perception of own health were largely inconclusive due to the lack of diversity in these areas. However, an unexpected but significant finding that came about in the research is that every person had at least one source of anecdotal evidence of weight bias in the clinical setting, even those with less than 1 year experience.

Limitations

The post-test only design of the study pre-determined that it would not be of statistical significance, which is one limitation of the study. Another limitation to the study is that due to the fact that the presenter and researcher knew most of the participants there is a high potential for response bias. The potential for response bias is further increased since so few people participated and demographic data was collected, it would not be difficult to determine whose survey was whose. This could lead the participants to possibly only write what the researcher wants to hear rather than what their true feelings are about people affected by obesity.

Recommendations for Future Studies

The findings of this study are not statistically significant, due to the small sample size and the post-test only design. One recommendation for future studies is to recruit more participants so a larger and more statistically significant project can be done. Another recommendation is to have an outside source, who is unknown to the participants, disseminate the educational information in order to reduce response bias and increase internal validity. Future researchers could also have a follow up survey sent out to the original participants after a period of time to see if they still hold the same beliefs or have altered their practices in a way that is related to the information they learned in the interventional presentation.

Clinical Implications and Recommendations

Nurses are on the front lines caring for patients in the hospital, the home, the primary care office and many other sites that focus on health improvement for all who they serve. To be a nurse, one must be intelligent and understand pathophysiology and what steps to take when patients are ill in order to improve their health. However in this pursuit of knowledge of nursing interventions and our desire to promote healthy behavior, they may become insensitive to those we believe don't 'help themselves' or may make our jobs more difficult. In a society that

attributes so much to personal behaviors and responsibility nurses must be able to understand all of the determinants of health in certain populations to be able to assist them to a greater health status and get them past possible barriers.

The findings of this study suggest that awareness to the prevalence of stigma as well as its detrimental effects is greatly lacking in the student population. It also suggests that providing education on the comprehensive nature of a condition that has been condemned can be beneficial in raising awareness and improving attitudes. Recommendations for nursing programs would be to include at minimum one class period that explores obesity and highlights the importance of fighting a disease while treating a person, not the other way around. Nursing students should learn in school that they must be able to separate the condition from the person. Attributing stereotypes and negative predispositions to a patient can be physically consequential for the patient and psychologically burdensome for the patient *and* the nurse.

The study also found that nurses across different clinical settings have some form of disregard for patients affected by obesity. Since more than a quarter of our population is obese, and the number is rising, nurses must be able to provide therapeutic care for these patients and guidance that is realistic and non-judgmental. Since the evidence shows that feeling discriminated against based on weight can lead to further health issues and healthcare avoidance, patients' lives may depend on it (Haines & Neumark-Sztainer, 2006; Lewis 2011; Amy et al. 2006; Drury & Louis, 2002; Hunger, 2015). Recommendations include developing a sensitivity training program, as past research has found that it may be helpful to improve beliefs that obesity is not the patients fault and may reduce negative perceptions (Marcum, 2010).

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Appendix A: IRB approval

The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK
Institutional Review Board

EXEMPT DETERMINATION

Date: 2/12/2016

To: Kathleen Mullaney

From: Julie Wilkens
IRB Compliance Officer
jwilkens@brockport.edu

Re: IRB Proposal # 2015-81

Project Title: Weight Stigma in Healthcare: Utilizing an Educational Presentation to Reduce Potential Obesity Bias in Nursing Students

Your proposal has been determined to be exempt as of 2/12/2016. IRB approval is good for one calendar year.

Before **2/12/2017**, submit a Continuation Request by e-mail to the IRB office. A reminder will also be sent to you in eleven months by the IRB office, but it is the researcher's responsibility to make sure the protocol approval does not expire.

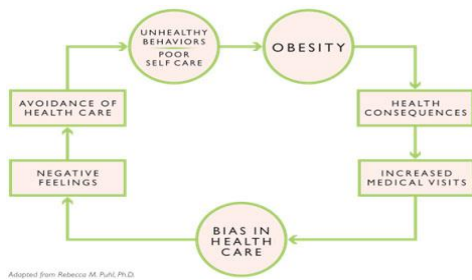
You may use only the documents and procedures that have been approved by the IRB in conducting your research. If you wish to make any changes to these documents or procedures, you must submit a new proposal and obtain approval from the IRB prior to implementing any changes. The exception to this is including adding research assistants or new investigators, which may be requested using Form K. You may use the original proposal as a template for the new proposal.

Any injury to a subject due to the procedures must be reported immediately.

When signed consent documents are required, the primary investigator must retain the signed consent documents for a minimum of three years past completion of the research activity.

If continuing review is not granted before the expiration date of 2/12/2017, approval of this protocol expires on that date.

Best wishes in conducting your research.

Appendix B: Flier Sent by Email and Hung in the Department of Nursing

PREVENTING WEIGHT STIGMA IN HEALTHCARE:

Understanding obesity and how to respectfully and effectively care for patients affected by it

As many of us are aware, obesity is a growing issue in the United States and many of the patients we care for are going to be affected by it as well as some of the health issues linked to it. However, negative stereotypes about people affected by obesity are prevalent in nursing and they can lead to a reduced quality of care.

If you are interested in learning more about the multifactorial nature of obesity and how to potentially assist future patients in improving their health and reducing complications related to it, than this is the presentation for you!

***An optional and anonymous survey will be distributed after the presentation to all attendees-----Please bring a writing utensil if you wish to participate in a short survey after the event to be used in a research study and Scholars Day presentation.**

Thank you!

PRESENTATION INFO

Place:
Edwards 104

Date: Thursday
February 25th

Time: 6 pm

Who's invited?:
Any and all
students currently
or potentially
pursuing a degree
in nursing!

For more Information
on the event:
Kathleen Mullaney

kmull3@u.brockport.edu

cell (can call or text)-
(845)249-8190

Appendix C: The Data Collection Instrument**Please circle the answer that describes you the best**

- a) Which most closely fits your gender identity? Male Female Other
- b) What year are you in college? Freshman Sophomore Junior
Senior Second degree student RN-BSN student
- c) How long have you worked or had clinical experience in a healthcare setting?
No experience Less than 6 months 6 months-1 year
1-3 years Greater than 3 years
- d) How would you classify yourself on the traditional categorization scale of body weight?
Underweight Normal Weight Overweight Obese
- e) Overall, how healthy do you consider your current diet and exercise habits to be?
very unhealthy somewhat unhealthy somewhat healthy
very healthy
- f) Please complete the following questions on a 1(strongly disagree)-5(strongly agree) scale.
- a. I prefer not to provide physical care for obese patients

- b. Most obese people are lazy and unwilling to change

- c. Obese patients are harder for me to empathize with than normal weight patients

- d. Being around obese people makes me uncomfortable

- e. I am considering on working in a community health or primary care setting

- f. Anyone can lose weight if they just try harder

Please answer the following 5 questions in 1-3 sentences

g) Did you learn anything new during this presentation? If so, what?

h) Do you believe you have ever personally witnessed a negative and/or non-therapeutic interaction between a healthcare worker and a person affected by obesity due to their weight? If so, could you briefly state an example?

i) Do you believe this presentation altered the way you think about obesity and people affected by it?

j) Do you believe this presentation will affect the care you provide in the future? If yes, how and if no why not?

k) If you had to choose 1 word to define how you feel overall about the information in the presentation, which word would it be and why? (Please circle the word)

Surprised Angry Indifferent Unsatisfied Confused
