University of Hawai'i John A. Burns School of Medicine Medical Students' Attitudes Towards Obese Patients

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Abstract

Studies have shown that healthcare professionals often demonstrate obesity biases, which in turn reduce the quality of care obese patients receive. The purpose of the current study was to describe third and fourth year University of Hawai'i, John A. Burns School of Medicine medical students' attitudes towards obese patients. Data were collected using previously validated questions from a pilot study assessing how healthcare providers react and recommend medical care to patients with varying characteristics. The responses of 114 medical students were analyzed. Overall, the majority of students' responses reflected the belief that obesity may be a behavioral issue. There were no statistically significant differences between the third and fourth year students' responses. Important areas of future research include assessing students' awareness of the social determinants of health and ability to self-identify possible biases in caring for obese patients.

Keywords

obesity, obese patients, bias, attitude, medical students

Background

Obesity is a chronic disease that affects more than one-third of the adults living in the United States.[1] In Hawai'i, 22.1% of adults are obese and 36.0% are overweight.[2] Despite obesity's high prevalence, many healthcare professionals struggle with treating obesity[3-5] and studies suggest providers often harbor negative attitudes towards obese patients.[5-7] Additionally, physicians have been shown to demonstrate strong implicit and explicit "anti-fat" biases independent of their own BMI, race/ethnicity, and gender.[7] A significant proportion of physicians believe obese patients are less likely to adhere to medications,[8] lack the discipline and motivation to lose weight,[9] and are difficult to treat.[10] Subsequently, physicians report experiencing negative reactions towards obese patients during visits as well as a lowered desire to help them.[5,10]

Negative attitudes towards obese patients can reduce the quality of medical care obese patients receive with respect to effective communication, time allocated, and relationship building.[11] One study reported that physicians are less likely to build emotional rapport with obese patients,[12] and another study demonstrated that physicians are more likely to avoid servicing them altogether.[13] Accordingly, obese patients receive fewer diagnostic screening services and less injury, stress, and tobacco education.[13] Physicians' overall obesity bias may result in obese patients feeling mistrust,[14] avoiding medical care, experiencing stress and decreased satisfaction, and struggling to adhere to medical guidance.[11,12]

A study evaluating medical education regarding obesity yields discouraging results. In general, medical schools provide minimal hours of nutrition education and obesity instruction.[4] Additionally, students in the medical disciplines are engaged in learning environments that do not actively discourage obesity bias.[6] Students have reported that their peers, healthcare providers, and instructors make negative comments about obese patients.[6] The pervasiveness of obesity stereotypes and the lack of adequate obesity care training for medical students results in physicians struggling to discuss weight loss with obese patients or avoiding the topic entirely.[3] Many physicians report feeling unprepared to initiate conversations about weight loss and provide treatment for obesity confidently.[3-5,10]

At the University of Hawai'i John A. Burns School of Medicine (JABSOM), topics including the physiology and treatment of obesity are interspersed through the pre-clinical years and taught through a combination of lectures and Problem-Based Learning sessions. During the clinical years, students observe preceptors and engage in weight management directly with patients. The purpose of this study was to assess JABSOM medical students' attitudes towards obese patients. We hypothesized that the majority of JABSOM medical students would demonstrate attitudes that are consistent with obesity bias.

Methods

Data for this study were generated from a study which sought to gain preliminary data on how patient race affected reproductive health recommendations. The majority of the questions in the survey addressed attitudes regarding race and gender. In an attempt to minimize social desirability bias, survey participants were also presented with a subset of five questions derived from a previously validated survey by Foster, et al.[5] Foster, et al, used these validated questions to better understand physicians' attitudes towards obese patients, obesity itself, and the treatment of obesity. We selected five questions from Foster's original 20 questions that were pertinent to medical education. We did not address areas that medical students would not have experience with (ie, questions about provider time or reimbursement). The data collected from the five questions relating to obese patients were analyzed for the present study ("I believe it's necessary to educate obese patients on the health risks of obesity.", "It is difficult for me to feel empathy for an obese patient.", "Most obese patients are well aware of the health risks of obesity.", "Most obese patients could reach a normal weight (for their height) if they were motivated to do so.", "I feel uncomfortable with examining an obese patient."). Participants answered questions using a 6-point Likert scale (very strongly disagree,

strongly disagree, disagree, agree, strongly agree, very strongly agree). Though the study by Foster, et al, used a 5-point scale (strongly disagree, disagree, neutral, agree, strongly disagree), we decided to use a 6-point.

Participants were third and fourth year medical students who were at least 18 years old attending JABSOM. Students were recruited through email solicitations between June 2014 and July 2015 and were provided a link to an anonymous online questionnaire. No personally identifiable information was collected. The participants received a $5 gift card if they started the study. This study was granted exempt status by the University of Hawai'i Committee on Human Studies. Descriptive statistics were calculated using Statistical Package for the Social Sciences (version 24.0, New York, US). We compared the responses of third and fourth year students using Fisher's Exact tests.

Results

All third and fourth year students (n=180) received an email with a link to the online questionnaire. A total of 124 JABSOM medical students began the survey and 114 students completed all questions that pertained to obesity, resulting in a response rate of 63.3%. Table 1 summarizes the overall responses to the five obesity questions. Nearly all (98.3%) of the students were in favor of educating obese patients about the health risks of their condition. Only 1.8% (n=2) disagreed that it was important to educate patients about the health risks of obesity. Most students (79.9%) did not find it difficult to feel empathic towards obese patients though it was concerning that 10.5% of students strongly and very strongly agreed that it was difficult to feel empathy towards obese patients. Over half (57.0%) believed that obese patients are not necessarily aware of the health risks of their condition, and 69.4% of students thought that obese patients could reach a normal weight if they were properly motivated. Seven in ten students (71.1%) indicated that they were comfortable with examining obese patients. Of concern, nearly three in ten students expressed some discomfort with examining obese patients.

Over half of the respondents (61.4%) were third year medical students (n = 70), 30.7% were fourth year students (n = 35), and 7.9% did not disclose their level of training (n = 9). Figures 1 to 5 compare the third and fourth year student responses for each of the five questions. No statistically significant differences emerged between the third and fourth year medical students' responses. Responses to three of the questions ("I believe it's necessary to educate obese patients on the health risks of obesity.", "It is difficult for me to feel empathy for an obese patient.", "I feel uncomfortable with examining an obese patient.") indicated sensitivity towards and comfort with caring for obese patients. We found that 59.6% of respondents gave sensitive responses to all three questions and only one respondent (0.9%) indicated they were not comfortable in examining an obese patient, did not think it was necessary to educate obese patients on the health risks of obesity, and found it difficult to feel empathy towards an obese patient.

Table 1. Responses of Study Population (n = 114)

Question	Very Strongly Disagree n (%)	Strongly Disagree n (%)	Disagree n (%)	Agree n (%)	Strongly Agree n (%)	Very Strongly Agree n (%)
I believe it's necessary to educate obese patients on the health risks of obesity.	1 (1)	0 (0)	1 (1)	18 (16)	36 (32)	58 (51)
It is difficult for me to feel empathy for an obese patient.	15 (13)	39 (34)	37 (33)	11 (10)	9 (8)	3 (3)
Most obese patients are well aware of the health risks of obesity.	3 (3)	12 (11)	50 (44)	37 (33)	11 (10)	1 (1)
Most obese patients could reach a normal weight (for their height) if they were motivated to do so.	1 (1)	3 (3)	31 (27)	54 (47)	19 (17)	6 (5)
I feel uncomfortable with examining an obese patient.	9 (8)	19 (17)	53 (47)	26 (23)	3 (3)	4 (4)

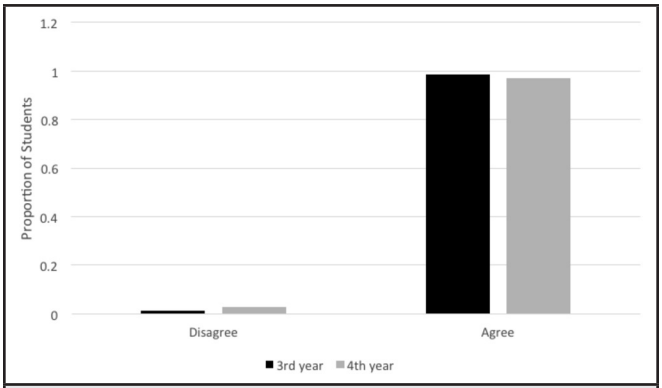

Figure 1. Third (n=70) versus fourth year (n=35) JABSOM medical students' responses to: *I believe it's necessary to educate obese patients on the health risks of obesity* (*P* = 1.00).

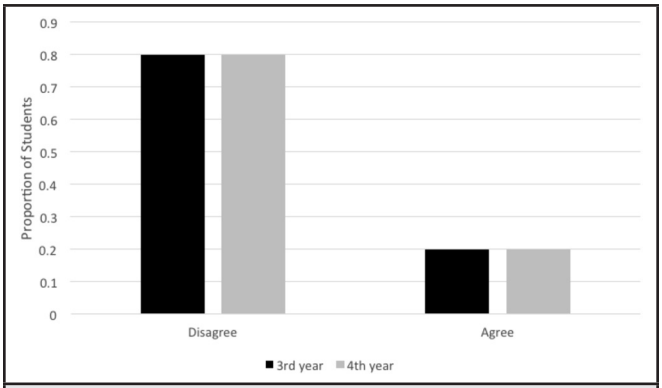

Figure 2. Third (n=70) veresus fourth year (n=35) JABSOM medical students' responses to: *It is difficult for me to feel empathy for an obese patient* (*P* = 1.00).

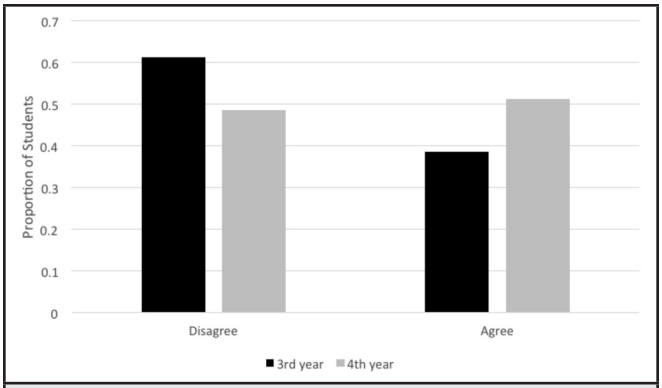

Figure 3. Third (n=70) versus fourth year (n=35) JABSOM medical students' responses to: *Most obese patients are well aware of the health risks of obesity* (*P* = 0.22).

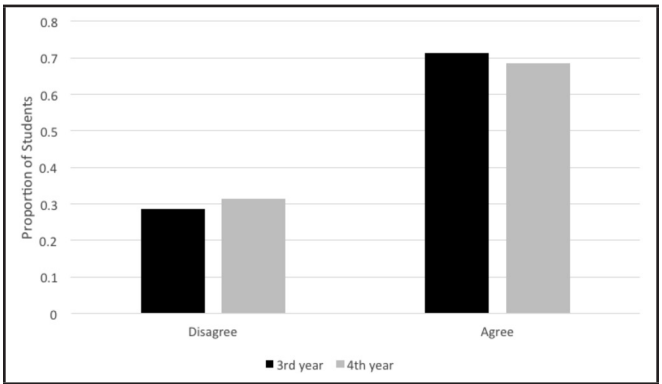

Figure 4. Third (n=70) versus fourth year (N=35) JABSOM medical students' responses to: *Most obese patients could reach a normal weight if they were motivated to do so* (*P* = 0.82).

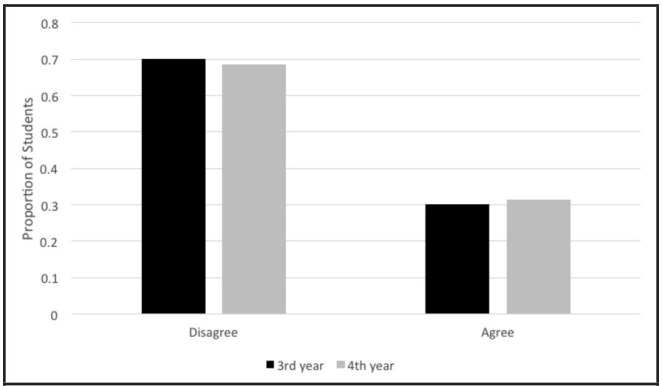

Figure 5. Third (n=70) versus fourth year (n=35) JABSOM medical students' response to: *I feel uncomfortable with examining an obese patient* (*P* = 1.00).

Discussion

Obesity is a complex health care issue for both patients and physicians. We found nearly all students were in favor of educating obese patients about the health risks of their condition. Most students did not find it difficult to feel empathic towards obese patients though it was concerning that 10.5% of students strongly and very strongly agreed that it was difficult to feel empathy towards obese patients. Most students reported that obese patients could reach a normal weight if they were motivated to do so, suggesting that medical students place importance on the behavioral aspects of weight management. We did not find any significant differences between the third and fourth year students' responses because medical education on obesity occurs heavily during their first two years of medical school.

Our results were similar to those noted in the study by Foster, et al.[5] In the Foster study, 95.0% of physicians agreed about the importance of educating obese patients about their condition, 80.2% did not feel difficulty in empathizing with obese patients, and 74.5% felt comfortable with examining obese patients.[5] In addition, Foster asked several other questions regarding obesity and concluded that physicians primarily view obesity as a behavioral issue, attribute negative stereotypes to obese patients, and lack confidence in treating obesity. Because we asked a limited number of questions, we cannot comment on these aspects of caring for obese patients. Our findings suggest that students at JABSOM have a strong appreciation for the importance of weight in overall health but could benefit from additional instruction on educating patients about the health risks and obesity and examining the obese patient.

Several other studies have identified medical student's biases against obese patients. One study reported one-third of medical students had significant implicit anti-fat bias though few were aware of that bias.[23] A study by Phelan, et al, found that medical students' implicit weight bias against obese individuals improved over the first two years of medical training.[24] Less positive contact with patients with obesity and more exposure to faculty role modelling of discriminatory behavior towards patients with obesity was associated with more obesity bias in another study.[25] Our study had several important limitations making it impossible for us to provide a complete assessment of obesity bias. As noted previously, data for this study were generated from a pilot study which sought to gain preliminary data on a different topic. Though the five validated questions we posed to participants were unlikely to precisely capture a medical student's comfort and aptitude in caring for obese patients, our results provide a preliminary, though important, glimpse into this complex area. We are unable to determine if our findings are reflective of medical education at JABSOM or if our findings simply represent the attitudes of typical medical students. We also lacked the flexibility to gather more data on participant demographics that may have been meaningful when interpreting our results, such as student gender, BMI and age. Additionally, our sample size may have been too small to find any statistically significant differences between third and fourth year medical students. Since this study was conducted on a

group of students from one medical school, we cannot generalize our results to all medical students. Future studies should take a qualitative approach to elicit student's in-depth thoughts on the adequacy of medical education addressing obesity. Counseling patients on sensitive topics like weight can be challenging for health care providers and providing educational opportunities through simulation and professional patients may also be of value in increasing the comfort of students in providing care for obese patients.

Conclusion

The data from this study suggest attitudes expressed by JABSOM medical students may be consistent with those of other healthcare professionals with regard to obese people. Educational interventions to help students understand and address the social determinants of health could better the treatment of obesity and improve the quality of physician-patient relationships. Although norms that reinforce obesity biases are prevalent, other interventions could increase students' awareness of their own attitudes so that they can improve patient care. Future studies are needed to formulate education programs that can potentially be integrated into the medical school curriculum. Additionally, studies and interventions should be designed with the knowledge that team-based, patient-centered care is increasing in prominence. Caring for patients is often the responsibility of an entire health care team rather than an individual physician. Assessment of the adequacy of education and the development of future interventions to improve the care obese patients receive should take this into account.

Conflicts of Interest

No conflicts of interest were identified for this study.

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