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Effects of Nursing Students' Emotion-Related Motivations to Care for Geriatric Patients of Varying Weights

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Abstract

Obese patients are more likely to experience mistreatment from healthcare professionals compared to average-weight patients (Puhl & Brownell, 2001; Vartanian, Pinkus, & Smyth, 2014). The poor provision of care provided to obese patients may be explained by the negative, avoidance-oriented, emotions that healthcare providers experience in response to obesity (Hall, 2010; Phelan et al., 2014). The current study examined if nursing students' negative affective reactions to obese patients explains the intentions to provide quality care, especially among nursing students with heightened levels of weight-based prejudice. Nursing students from a private university in the Midwest completed a measure of anti-fat attitudes and then reviewed a patient profile depicting an older adult female as average-weight or obese. Subsequently, participants reported their emotional response toward, and intentions to care for, the patient. Results revealed no differences in participants' self-reported positive affect, negative affect, or intention to provide quality care for older adult patients described as average-weight or obese. Participants' affective reactions did not explain the relationship between their weight-based prejudice and intentions to provide quality care for obese patients. Although results were inconsistent with predictions, the non-significant findings may reveal a positive shift in nursing students' willingness to care for obese patients. Future research should continue to explore nursing students' affective reactions to obesity in actual healthcare settings to better understand intentions to provide quality care to obese patients.

Keywords: obesity, stigma, weight bias, geriatrics, patient care, healthcare

Effects of Nursing Students' Emotion-Related Motivations to Care for Geriatric Patients of Varying Weights

Weight discrimination, or the unfair treatment of individuals based on their weight, has been described as one of the last acceptable prejudices in America (Falkner et al., 1995; Puhl & Brownell, 2001), and perhaps nowhere is the presence of weight discrimination more concerning than in the healthcare setting (Forhan & Salas, 2013; Puhl, Andreyeva, & Brownell, 2008; Puhl & Heuer, 2009). Because obesity, or excess body fat, is now considered a global epidemic (World Health Organization, 2016), there has been a growing body of research examining healthcare professionals' feelings and attitudes toward patients who are obese. Such research demonstrates that healthcare providers hold negative attitudes towards individuals based on their weight (Puhl & Heuer, 2009) and often endorse "anti-obese" sentiments, which describe the belief that obese patients are lazy, ugly, and unintelligent (Puhl & Brownell, 2001).

The potential for mistreatment of patients who are obese is especially concerning for the older adult population, because over one-third of older adults are currently considered obese (Fakhouri, Ogden, Carroll, Kit, & Flegal, 2012). Specifically, approximately 92% of older adults have one, and 77% of older adults have two, chronic health conditions, including obesity, that require some type of medical assistance (National Council on Aging, 2015). The heightened need for medical assistance among obese older adults results in healthcare costs of approximately $1,500 more per year compared to their average-weight counterparts, and it is estimated that chronic health conditions related to obesity add $1.2 billion to healthcare expenditures annually (Musich et al., 2016). Given older adults', especially those who are obese, greater need for healthcare services, it is important that researchers examine the factors that affect the quality of care provided to these patients. The current study examines if nursing

students' reactions to older adult patients based on weight may explain the (relatively poor) quality of care provided to obese compared to average-weight patients.

Weight Prejudice and Discrimination

Weight prejudice, or strong negative attitudes about obesity, is pervasive and widely documented (Berg, Lin, Hollar, Walker, & Erickson, 2016). As with other forms of prejudice (e.g., age, racial, gender), obese individuals are frequently the targets of stigmatization (Jackson, Beeken, & Wardle, 2014; Schafer & Ferraro, 2011; Sutin & Terraciano, 2013) and discrimination (Ashmore, Friedman, Reichmann, & Mustante, 2008; Latner, O'Brien, Durso, Brinkman, & MacDonald, 2008). In a relatively recent, nationally representative, survey of community-based adults aged 25-74 years, Puhl et al. (2008) demonstrated that weight discrimination was ranked as the fourth most prevalent form of discrimination after gender, age, and race discrimination – and individuals classified as obese in the study were six times more likely to report weight discrimination than average-weight individuals.

One theory for explaining the widespread nature of weight stigmatization is social categorization theory (Hornsey, 2008; Tajfel, 1979), which posits that people categorize themselves and others as belonging to different social groups and they use these categorizations as a means to (de)value themselves and others (Tajfel & Turner, 1979). Easily identified and more easily judged social categories include those that reflect salient or observable characteristics, such as gender, age, and weight (see Brewer, 1988). Although social categorizations are not always problematic, they become a problem when individuals' membership in a social group, such as being obese, increases their likelihood of experiencing stigmatization. Recent work examining the content of stereotypes about social groups, such as being obese (see stereotype content model; Fiske, Cuddy, Glick, & Xu, 2002) suggests

stereotypes fall along two dimensions: warmth and competence. The point at which stereotypes about individuals who are obese fall along the dimensions of warmth and competence is predictive of the degree of stigmatization or prejudice experienced. Given that stereotypes about obesity are uniformly negative (e.g., lazy, lacking motivation and self-discipline, incompetence), the stereotypes about individuals who are obese are likely to be *low* in both warmth and competence (Crandall, Nierman, & Hebl, 2009; Hebl, Ruggs, Singletary, & Beal, 2008), a combination that results in the worst amount of stigmatization (see Fiske et al., 2002).

The degree of stigmatization involving the social categorization of being obese is important because it helps explain the many negative outcomes experienced by obese people. For example, Jackson, Beeken, and Wardle (2014) revealed that older adults who are obese report lower quality of life, lower life satisfaction, and more depressive symptoms compared to their non-obese counterparts. Further, in a recent longitudinal study, Dearborn, Robbins, and Elias (2016) revealed that older adults (age 50–80 or older) with relatively high BMIs reported increases in depressive symptoms across a five-year period after controlling for baseline depressive symptoms, age, sex, education, marital status, social isolation, social activity, chronic illness, and physical functioning. Consequently, it is evident that weight stigmatization and discrimination can lead to a variety of negative outcomes for individuals who are obese. Although the negative effects of stigmatization and discrimination exist in all the major domains of obese people's lives (Carels et al., 2013), perhaps nowhere is the presence of weight bias more concerning (and important to examine) than in the treatment of patients in a healthcare setting.

Weight Bias in Healthcare

Weight bias is ubiquitous in the medical field (see Puhl et al., 2008; Shkolnikova, 2008), as obese patients are more likely to experience mistreatment from medical professionals

compared to average-weight patients (Puhl & Brownell, 2001; Vartanian et al., 2013). The negative beliefs healthcare professionals hold about obese patients are not limited to obesity as a health condition, but extend to beliefs about the patients themselves (Teachman & Brownell, 2001). For example, healthcare professionals, including professionals who specialize in treating obese patients, have been found to hold strong implicit (Teachman & Brownell, 2001) and strong explicit (Schwartz et al., 2003) anti-fat attitudes, including beliefs that obese individuals are more "stupid" and "worthless" (p. 1035) compared to thin individuals.

With the pervasiveness of negative beliefs about obese patients among healthcare providers, these beliefs are likely being transmitted to students and trainees pursuing healthcare-related positions. For example, Puhl et al. (2014) revealed that almost half of students training in healthcare disciplines reported that obese patients are commonly the targets of derogatory humor, with 65% of healthcare providers, 63% of their peers, and 40% of their professors or instructors making negative jokes about obese patients.

In addition to being exposed to prejudicial attitudes toward obese patients, nursing and medical students report receiving limited training, both in the classroom and in clinical settings, in caring for and treating patients who are obese. Specifically, Petrich (2000) revealed that among 130 medical and nursing students, over one-quarter reported receiving no training (i.e., zero hours) and about half reported receiving somewhere between one and five hours of training. Students' exposure to the prejudiced beliefs of healthcare providers, as well as students' lack of preparedness to work with obese patients may contribute to their anti-fat attitudes and (lack of) desire to work with patients who are obese. For example, Miller et al. (2013) revealed that 72% of 354 medical students reported that they preferred thin patients to fat patients; whereas, only 1% of the 354 students reported any (even slight) preference for "fat" patients (Miller et al.,

2013; p. 4). Because nursing students are rising healthcare professionals that spend a disproportionately greater amount of time with patients compared to other healthcare professions, it is especially important to examine the impact of nursing students' weight-based attitudes on their treatment of obese patients.

In accordance with the Nurses' Association code of ethics (Winland-Brown, Lachman, & O'Connor-Swanson, 2015), nurses and nursing students are expected to provide equal and excellent care to patients regardless of the patient's physical characteristics or personal attributes. Therefore, weight-based prejudice and discrimination among nurses and nursing students is considered a violation of nurses' ethics code (Hand, Robinson, & Creel, 2013).

Nurses' and student nurses' attitudes toward obese patients are particularly important because of nurses' primary and central role in delivering healthcare services to patients (Brown, 2006; Sikorski et al., 2013). Unfortunately, similar to other healthcare providers, nurses tend to hold negative attitudes toward obese patients and describe them in terms of negative stereotypical features such as being unmotivated, indolent, gluttonous, uncooperative, weak-willed, repulsive, and messy (Poon & Tarrant, 2009; Waller et al., 2012). Further, nurses tend to view obese patients as requiring additional time and effort than non-obese patients (Petrich, 2000; Tanneberger & Ciupitu-Plath, 2017) and report a sense of dread, resentment, and discomfort when having to care for them (Peternelj-Taylor, 1989; Puhl & Brownell, 2001; Vartanian, 2010).

Given the literature described above, it is clear that weight prejudice exists among healthcare professionals, including nurses. Because prejudicial attitudes, such as weight bias, have the potential to fuel discriminatory behavior, it is possible that heightened prejudice may lead to poorer quality of care for obese patients compared to non-obese patients.

Healthcare providers who hold relatively strong anti-fat attitudes often engage in subtle, and sometimes blatant, behaviors that disadvantage patients who are obese. Facial expressions, gestures, gaze duration, posture, and tone of voice are all subtle forms of communication that can either facilitate or detract healthcare providers' abilities to establish rapport with a patient and influence the quality of care provided. To examine if subtle forms of discriminatory behavior emerge among healthcare professionals when treating obese patients, Persky and Eccleston (2011) examined the effect of a patient's weight on medical students' interpersonal behaviors, (i.e., eye contact and clinical recommendations) during a simulated medical appointment. Results revealed that students rated obese patients as less healthy and less likely to adhere to medical advice compared to the non-obese patient. Further, students looked at the obese patient's face less often than they looked at the non-obese patient's face. Persky and Eccleston demonstrated that patients' weight alone meaningfully influenced healthcare providers' behaviors. Such findings are concerning because they demonstrate that healthcare providers' subtle physical reactions (e.g., less gaze frequency or duration) can influence the patient-provider relationship, with impaired patient-provider communication associated with negative outcomes including higher risk of patient non-adherence to medical recommendations, greater mistrust in healthcare providers, and poorer prognoses for patients (Jay, Gillespie, Schlair, Sherman, & Kalet, 2010; Stewart et al., 2000).

In addition to healthcare providers' subtle forms of discriminatory behavior toward obese patients, healthcare providers engage in blatant discrimination. Specifically, healthcare providers routinely spend less time with and offer less effective medical recommendations to obese than average-weight patients. For example, Hebl and Xu (2001) examined how physicians' treatment choices for and behaviors toward patients change when the weight of the

patient is manipulated. Results revealed that, on average, physicians anticipated spending nine minutes less with obese or obese patients compared to average-weight patients. Further, the physicians were more likely to recommend psychological treatment or anti-depressant medications to obese patients (than average-weight patients), suggesting the physicians relied on stereotypes that heavier people are unhappy and unstable to make their clinical recommendations. The choices by physicians in Hebl and Xu's study clearly demonstrate that some physicians engage in discriminatory behaviors against obese patients, which can result in differential, or more biased, treatment of these patients compared to average-weight patients.

Weight Bias Toward Geriatric Patients

Although the mistreatment of any patient in a healthcare setting is concerning, the mistreatment of older adult patients may be especially concerning. Only a few studies have examined the impact of weight-based stigmatization on the quality of care provided to older adults and the findings are consistent and highly troubling. For example, obese older adult patients are more likely to be placed in nursing homes that deliver poorer quality of care compared to average-weight older adults (Zhang et al., 2016). That is, nursing facilities with greater numbers of obese older adult residents have significantly more healthcare deficiencies (i.e., almost twice as many quality-of-care citations) than nursing homes with fewer obese residents. For example, obese older adults are significantly less likely to receive assistance with mobility-related activities of daily living (ADLs) such as walking, toileting, and getting in and out of bed, compared to average-weight counterparts (Ankuda et al., 2017). The results by Ankuda et al. and Zhang et al. (2016) demonstrate that older adult patients' size contributes to the quality of care they receive – specifically, that older adults can expect to experience decreased help and poorer quality of care if they are obese.

There are undoubtedly many factors contributing to the disparities in care provided to obese compared to average-weight patients in healthcare settings, and it is important to study the factors that may explain why healthcare providers treat obese patients differently than average-weight patients. One promising direction for research includes examining the distinct *affective* reactions that influence healthcare providers' motivation to approach or avoid obese patients.

Affect as a Source of Motivation to Approach or Avoid Stigmatized Others

Whereas research has primarily examined the influence of cognitions (i.e., stereotypes) about stigmatized individuals, there is growing literature implicating the role of emotions in motivating behavior (Bagozzi & Pieters, 1998; Baumgartner, Pieters, & Bagozzi, 2008). Motivational theorists propose that two distinct self-regulatory systems explain the link between individuals' emotions and their behaviors (Carver & White, 1994; Forgas, 2003; Harlé & Sanfey, 2010). The self-regulatory systems suggest that emotions are associated with individuals' general tendencies to engage in approach- or avoidance-related behaviors (Berkowitz, 2003; Harmon-Jones, 2004; Lang, Bradley, & Cuthbert, 1997; Spielberg, Stewart, Levin, Miller, & Heller, 2008). Specifically, individuals who experience positively valenced emotions are generally prone to approach-related behaviors, whereas individuals who experience negatively valenced emotions are generally prone to avoidance-related behaviors (Carver & White, 1994). According to Ugazio, Lamm, and Singer (2011) approach-related emotions tend to motivate engagement with or eagerness toward individuals, situations, or events, whereas avoidance-related emotions tend to produce greater tendencies to withdraw from individuals, situations, or events.

The research examining the motivational role of positive and negative emotions in predicting approach- and avoidance-related behaviors, respectively, has received considerable

support in the psychological literature (Jordan, Ashkanasy, Hartel, 2002; Ugazio et al., 2011). Specifically, positive emotions such as empathy (Oz, 2001; Puhl & Heuer, 2009), compassion (Barlow & Dietz, 1998; Hill & Wyatt, 2002), and sympathy (Harris & Huang, 1973; Kim, Bartolo, Niederdeppe, 2011; Levine & Schweitzer, 2015) tend to motivate approach-related behaviors, whereas negative emotions such as contempt (Vartanian et al., 2013), fear (Connors & Hely, 2007; Dijker & Koomen 2003), and anger (Vartanian et al., 2013; Vartanian, Trewartha, & Vanman, 2016; Weiner 1993) tend to motivate avoidance-related behaviors. Although the motivational nature of positive and negative emotions is generally well supported in the literature, the avoidance-related behaviors associated with experiencing negative emotions appear to be especially powerful when examining individuals' reactions to stigmatized groups.

Negative, avoidance-related emotions tend to be experienced in response to individuals with stigmatized identities, such as individuals who are obese. For example, Weiner, Perry, and Magnusson (1988) demonstrated that individuals report lower levels of liking and pity, and greater levels of anger, toward people deemed to have mental-behavioral stigmas, which includes obesity, compared to individuals with physically-based stigmas. The findings by Weiner et al. are consistent with research demonstrating that negative emotions – such as anxiety and irritation – explain individuals' tendencies to socially avoid and refuse to help stigmatized others (Dijker & Koomen, 2003).

In sum, affective reactions, particularly negative affective reactions, appear to be one explanation for individuals' motivation to approach or avoid situations and experiences involving obese others (Vartanian et al., 2016), which has implications for how healthcare professionals respond to patients who are obese.

Affective Reactions Toward Obesity

Affective reactions toward individuals who are obese are predominately negative, and have included feelings of contempt (Vartanian et al., 2013), anger (Vartanian et al., 2013; Vartanian et al., 2016; Weiner 1993), pity (Dijker & Koomen, 2003; Wiener, 1993; Wirtz, van der Pligt, & Doosje, 2016), fear (Crandall, 1995; O'Brien, Latner, Ebneter, & Hunter, 2013), and antipathy (Park, Schaller, & Crandall, 2007). Among the many negative emotional reactions studied in response to obesity, disgust has received the most empirical attention (Lieberman, Tybur, & Latner, 2012; O'Brien et al., 2013; Vartanian, 2010; Vartanian et al., 2013). The negative feelings that individuals experience in response to obesity serve to inhibit social contact with obese people (Park et al., 2007), with such effects having implications for the provision of healthcare services provided to obese patients. For example, studies demonstrate that nurses feel repulsed and disgusted by obese patients and experience a sense of dread, resentment, and discomfort when having to care for them (Brown, 2006; Vartanian, 2010).

Despite research demonstrating individuals' predominately negative affective response to obesity, there is a paucity of research systematically examining how healthcare providers', including nurses', affective reactions to obesity affect the care they provide to obese patients. Hall (2010) argued that healthcare providers who experience heightened levels of negative emotions in response to obesity may demonstrate a reluctance to work with patients who are obese. Because negative emotional reactions toward obese patients are relatively common among healthcare providers (Tanneberger & Ciupitu-Plath, 2017), such negative reactions may explain healthcare providers' unwillingness to provide quality care to patients who are obese (Bertakis & Azari, 2005; Hebl & Xu, 2001).

In response to the literature on healthcare providers' reactions to obesity, Phelan et al. (2015) proposed a model suggesting that poor provision of care to obese patients may emanate from the negative (avoidance-related) emotions healthcare providers experience in response to obesity. This model emerged because, in a review of the literature, much extant research suggests that affective responses toward patients who are obese is an important variable impacting the quality of care provided. However, to date, no research has empirically examined Phelan et al.'s model among healthcare professionals. Consequently, the purpose of the current study is to fill a gap in the literature by testing Phelan et al.'s model among healthcare providers who spend a great deal of time with patients and are on the frontline of patient-provider interactions: nursing students. Given the extant literature linking healthcare providers' negative emotions to poor provision of care provided to obese patients, the current study examined if nursing students' negative emotional reactions to obese patients may explain their intentions to provide quality care, especially among those with heightened levels of weight-based prejudice. This study bridges a gap in the research literature by examining if nursing students' affective reactions toward older adult patients based on their weight explains poor healthcare experiences among obese older adults compared to average-weight older adults. Three hypotheses were tested in the current study. First, nursing students were hypothesized to report more negative (and less positive) affective and behavioral responses (i.e., intentions to provide quality care) toward obese compared to average-weight older adult patients. Second, nursing students with relatively high weight-based prejudice were expected to endorse more negative emotions, and less positive emotions, toward older adult patients who are obese compared to average-weight. Third, nursing students' negative (but not positive) emotional responses were expected to

mediate the relationship between their weight-based prejudice and their anticipated behavioral responses.

Method

Participants

One hundred and thirty-two nursing students (*M* age = 26.92, *SD* = 11.65 years) from a small, private Midwestern university participated in the study (see Table 1). All participants were recruited through the university's School of Nursing, and were pursuing or had obtained a Bachelor of Science in Nursing (BSN), Master of Science in Nursing, (MSN), or Doctorate in Nursing Practice (DNP) degree. The term "nurse" is legally restricted to individuals who have completed licensure requirements (American Nurse Association, 2019). Because participants in the current study were asked to report the nursing degree they were pursuing, rather than the degrees or licenses they may have already achieved, here forward all participants are referred to as nursing students. The majority of participants identified as female (87.9%) and White/European American (93.1%; see Table 2 for additional demographic information).

The initial power analyses required a minimum of 130 participants, 65 in each condition, to be recruited to participate in the study in order to detect a medium effect size, with a power of 80% and a .05 significance level. Although two hundred and twenty individuals accessed the survey link (see procedures below), 58 of these individuals failed to respond to a single question in the study. Additionally, 32 individuals submitting responses with more than 20% of the study's questions unanswered. Consequently, the final sample included 132 participants.

Measures

(Negative) attitudes toward obese people. The Attitudes Toward Obese People scale (ATOP; Allison, Basile, & Yuker, 1991) is a 20-item self-report measure (current study $\alpha = .88$)

assessing individuals' negative attitudes toward obese people (see Appendix A). The ATOP scale assesses individuals' negative attitudes towards obese individuals via assessment of stereotypical perceptions (Allison, 1995). The ATOP scale is modeled on and adapted from the Attitudes Toward Disabled Persons' Scale (Yuker & Block, 1986) and is based on work concerning individuals' attitudes toward persons with disabilities (Yuker, 1988). The items on the ATOP scale load onto three subscales (Allison et al, 1991): negative or difficult personality traits (e.g., "obese people are more emotional than non-obese people"), social difficulties (e.g. "obese people are usually sociable"), and self-esteem ("obese people are just as self-confident as other people"; negatively-keyed item). Participants indicate the extent to which they disagree or agree with each of the 20 statements by using a 6-point Likert scale ranging from -3 (*Strongly Disagree*) to 3 (*Strongly Agree*). The ATOP total score was calculated by first reverse-scoring the negatively keyed statements, and then averaging responses to the items across the subscales. Higher scores reflect more stereotyped beliefs about and less positive attitudes toward obese people.

The ATOP scale is considered psychometrically sound (Allison et al., 1991). Internal reliability of the ATOP scale has been demonstrated with 514 members of the National Association to Advance Fat Acceptance (NAAFA; $\alpha = .84$), 52 graduate students in psychology ($\alpha = .81$), and 72 undergraduate students ($\alpha = .80$). Other research has reported coefficient alphas ranging from .80 to .84 (Allison, 1995). Convergent validity of the ATOP scale has been demonstrated with other measures of anti-fat attitudes (Allison et al., 1991).

Patient profiles. Patient profiles, adapted from Hebl and Xu (2001), depict an obese (245lbs) or average-weight (145lbs) patient seeking medical treatment for a single episode of a migraine headache (see Appendix B). Information about the patient's weight and BMI was

presented as part of the basic demographic information and diagnoses. All other variables (e.g., patient's gender, age, allergies) were held constant between the profiles. To increase the power of the manipulation, photographs of female older adult patients were depicted on the profiles, because females are often judged more harshly for their weight compared to males (O'Brien et al., 2013; Puhl et al, 2008). Further, photographs are commonly included in weight discrimination research (Jasper & Klassen, 1990; O'Brien et al., 2013; Puhl & Brownell, 2001; Rothblum, Miller, & Garbutt, 1988) and are believed to be more ecologically valid than using written descriptions alone (Swami et al., 2010). The photograph of the average-weight patient was derived from the FACES database (Ebner, Riediger, & Lindennberger, 2010) and depicts an older adult woman in her mid-70s. The older adult woman photographed expresses a neutral facial expression to minimize the possible influence that a positive or negative expression may affect participants' emotional and behavioral reactions to the patient. The photograph of the average-weight patient was altered to appear obese using the phone application "FatBooth."

Modified positive and negative affect schedule. Participants' affective reactions to working with the patients depicted in the patient profiles was assessed using a modified version of Watson, Clark, and Telegan's (1988) Positive and Negative Affect Schedule (PANAS; see Appendix C). The PANAS included 20 emotions that are half positive and half negative. For the purposes of the current study, eight additional emotions, derived from research on people's affective reactions toward obese individuals (Dijker & Koomen, 2010; O'Brien et al., 2013; Vartanian et al., 2013; Weiner, 1993) were added to the PANAS. Of the eight additional emotion words, four were positive (i.e., empathy, pity, compassion, and sympathy) and four were negative (i.e., disgust, anger, contempt, and fear). Consistent with the original 20-item measure, the modified 28-item PANAS asked participants to rate the extent to which they would

experience each emotion on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores for the 14 positive emotions (current study $\alpha = .87$) and 14 negative emotions (current study $\alpha = .91$) were averaged, with higher scores reflecting more positive and negative affect, respectively.

The PANAS is a well-established, psychometrically sound, measure of individuals' affective responses. With regard to reliability, Watson et al. (1988) reported excellent internal consistency of the PANAS across six large-sample studies (*N*s ranging from 586 to 1,002), with coefficient alphas ranging from .84 to .87 for negative affect and .86 to .90 for positive affect. With regard to validity, the PANAS has been found to compare favorably with other brief measures of affect (Roesch, 1998), and demonstrate excellent convergent validity with other mood scales (Watson et al., 1988). For example, Depaoli and Sweeney (2000) demonstrated that the negative affect subscale of the PANAS, but not the positive affect subscale, was associated with people's perceptions of themselves as moody, irritated, critical, and annoyable.

It should be noted that several studies have used the PANAS to investigate nursing students' and other healthcare providers' emotional reactions to patients with different characteristics across a variety of health-related situations (Finset, Heyn, & Ruland, 2013; Varas-Diaz, Nielands, Rodriguez-Madera, & Padilla, 2016; Yiu, Mak, Ho, Chui, 2010).

Intentions to provide quality care. The Caring Behaviors Inventory–Short Form (CBI-24; Wu, Larrabee, & Putman, 2006) is a widely used and highly validated measure assessing nurses' and nursing students' intentions to provide quality care to patients. The CBI-24 is grounded in Watson's (1988) Transpersonal Caring Theory that conceptualizes caring as an interactive process between nursing students' and patients that involves unconditional acceptance, relationship building, and a holistic treatment approach. The items on the CBI-24

assessed nursing students' caring behaviors for patients across four dimensions: assurance (eight items), knowledge and skills (four items), respect (six items), and connectedness (six items; see Appendix D). Nursing students in the current study, rated how often they intended to engage in each of the caring behaviors using a six-point Likert scale ranging from 1 (*Never*) to 6 (*Always*). The total score on the CBI-24 was calculated by averaging the subscale scores, with higher scores reflecting stronger intentions to provide quality care to patients (current study $\alpha = .96$).

In the initial study of the CBI-24's psychometric properties, factor analysis revealed a single latent factor comprised of four subscales (Wu et al., 2006). Internal reliability analysis revealed the overall CBI-24 scale had a coefficient alpha of .96, with the internal consistency for the subscales ranging from .84 to .95. The CBI-24 has demonstrated convergent validity with the original 42-item CBI ($r = .62$; Wolf, Giardino, Osborne, & Ambrose, 1994), and predictive validity with patient's satisfaction ($r = .62$) with nursing care (Larrabee et al., 2004; Wolf et al., 1994). Evidence for test-retest reliability across a one-week period among nurses at a public hospital was .82. Overall, the CBI-24 is a psychometrically sound measure capturing nursing students' intentions to provide quality care to patients.

Social desirability. The Social Desirability Scale –Short Form C (SDS; Strahan & Gerbasi, 1972) is a shorter form of the original measure developed by Crowne and Marlow (1960) that measures individuals' tendencies to present themselves in a favorable manner instead of presenting their true views, opinions, or feelings (see Appendix E). The scale includes 13 statements (current study $\alpha = .71$), taken directly from the original 33-item measure, and is evaluated using a true or false format (Ballard, 1992). Negatively keyed statements were reverse-scored and then all items were added together to create a total score. Higher scores on this measure reflect participants' tendencies to provide more socially desirable responses. This

measure was included in the current study because nursing students may have been motivated to appear unprejudiced toward patients who are obese by providing socially desirable responses to statements rather than their true views, opinions, or feelings.

Reliability and validity evidence for Short Form C of the SDS has been established, and the shorter form is considered an adequate substitute for the full scale (Reynolds, 1982). Predictive validity of the SDS has been demonstrated with individuals' tendencies to seek the social approval of (Adams et al., 2005) and the desire to impress others (Ferrari, Bristow, & Cowman, 2005). In an examination of concurrent validity, Short Form C was considered the most highly correlated with the original 33-item SDS (Reynolds, 1982). Test-retest reliability (α = .74) across a six-week period was good (Zook & Sipps, 1985).

Procedure

Approval from the Xavier University Institutional Review Board (IRB) was obtained prior to data collection in the study (see Appendix F). Support and approval for conducting the study with the university's nursing students was provided by the Director of the School of Nursing (see Appendix G). All nursing students (approximately 700 including BSN, MSN, and DNP) were, at least initially, invited to participate in the study via an email distributed by the chair of the School of Nursing (see Appendix H). The email invitation described the purpose of the study as well as an incentive for participation. Students who completed the study were given the opportunity to enter their name and email address for a chance at winning a $20.00 gift card via a random drawing. The email invitation sent to students included a secure transfer protocol hyperlinked to externally direct participants to a Qualtrics survey. A reminder email (see Appendix I) was distributed by the School of Nursing administrative assistant to all nursing students approximately two weeks after the original invitation was distributed. In addition to the

email recruitment efforts, participants were recruited in person and provided a slip of paper containing the study's URL.

Upon entering the secure transfer protocol, the Qualtrics survey opened to an informed consent document (see Appendix J). After agreeing to participate in the study, participants learned, as part of the study's cover story, that the researcher was interested in examining healthcare professionals' experiences with patients who have medical characteristics or histories that they or someone else considered a problem. Participants learned that they would be randomly assigned to review one patient (of many patient profiles being examined in the study). In actuality, participants were randomly assigned to review one of only two patient profiles depicting an obese (245lbs, BMI = 40.8) or average-weight (145lbs, BMI = 24.8) patient seeking medical treatment for a single episode of a migraine headache (see Appendix B). Independent samples *t*-tests revealed that random assignment was effective, as participants assigned to view the obese and average-weight patient profiles did not differ by age, $t(128) = .19$, $p = .85$, years of experience working with older adults, $t(108) = .35$, $p = .73$, years of experience working with obese patients, $t(99) = .26$, $p = .80$, or level of education, $t(123) = .91$, $p = .36$.

After reviewing one of the patient profiles, participants completed the modified PANAS (see Appendix C) and CBI-24 (see Appendix D), which were presented in a counter-balanced order across the study. Subsequently, participants completed a measure of their "perceptions of patients with various characteristics" – a measure that served as the guise for administering the ATOP. Specifically, to help conceal the study's purpose of examining individuals' attitudes toward obese patients (and, therefore, reduce demand characteristics in the study), the items on the ATOP were imbedded into a larger measure that included items assessing participants' perceptions of patients who are addicted to drugs, homeless, or who have contracted an STD (see

Appendix K). After completing these tasks, participants responded to statements on the SDS Short Form C (see Appendix E) and items on the demographic questionnaire (see Appendix L). Finally, participants responded to the single manipulation check question (see Appendix M), assessing their recollection of the weight status of the patient depicted in the patient profile. It should be noted that several quality assurance items were added to the current study to assess participants' attention to detail. The quality assurance items added to the current study can be seen on the CBI-24, "perceptions of patients with various characteristics" questionnaire, and the SDS – Short Form C (see Appendices D, E, & M for the quality assurance items).

When participants completed all of the study's tasks, they were thanked and debriefed (see Appendix N). As part of the debriefing, participants were provided with a second, separate, secure transfer protocol hyperlinked to a SurveyMonkey survey where they could enter their name and email address for inclusion into a raffle for one of 20 $15.00 gift cards (see Appendix O). The personally identifiable information that participants provided for the raffle was not linked to their survey responses.

Results

Preliminary Analyses

Data screening. Prior to conducting the primary analyses, the procedures described by Tabachnik and Fidell (2013) were followed to check the data for violations of the assumptions of the general linear model, including outliers, normality, and homogeneity of variance. Outliers were visually inspected using box plots (i.e., values exceeding the inner fence; ± 1.5 times the interquartile range) and statistically examined using *z* scores (i.e., scores exceeding ± 2.5 as recommended by Hair et al., 2010). Five outliers were detected across the measures in the present study; both the box plots and *z* scores revealed one outlier on the ATOP, two outliers on the modified PANAS, and two outliers on the CBI-24. To determine if the shape of the

distribution of scores for each continuous variable in the current study was normal, results from Shapiro-Wilks test were examined. Shapiro-Wilks tests the null hypothesis that the distribution of scores on a variable is normal. Results revealed that the ATOP (.80, $p < .001$) and positive affect items on the modified PANAS (.94, $p < .001$) departed from normality. Finally, visual inspection of bivariate scatterplots among the study's continuous variables revealed relatively minor concerns with violations of the assumption of homogeneity of variance, particularly when Intentions to Provide Quality Care was examined. Specifically, variability in scores on the Intention to Provide Quality Care measure was more restricted than other measures in the current study.

Although preliminary analyses revealed relatively minor concerns regarding violations of the assumptions of outliers, normality, and homogeneity of variance, because the General Linear Model is robust to violations of its assumptions, no transformations of the data were made. However, it should be noted that because outliers can meaningfully impact the outcome of any statistical analysis, all primary analyses reported below were conducted with and without outliers and yielded a consistent pattern of results.

Manipulation check. Participants responded to a single manipulation check question that assessed their recollection of the weight status of the patient depicted in the patient profile. A total of 96 participants passed, 35 participants failed (26.7%), and one participant did not respond to the manipulation check. For the obese patient condition, 66 of 70 participants (94.2%) correctly identified the patient as "overweight or obese," whereas four participants selected "unknown." For the average-weight patient condition, 30 of 62 participants (49.2%) correctly identified the patient as "average-weight," whereas 11 selected "unknown," two selected "underweight," 18 selected "overweight or obese," and one participant did not provide a

response. Because 27.3% (36 of 132) of the sample failed the manipulation check question, the primary analyses described below were conducted with and without data for the failed manipulation check. Results revealed a consistent pattern and, therefore, data from participants who failed the manipulation check were retained. Results reported below reflect data from the full sample (N = 132).

Quality assurance items. Participants responded to five quality assurance items to assess their attention to detail during the study. Random, or careless responding, is common in online research and it can pose a threat to the integrity of the data (Osborne & Blanchard, 2011). Less than 10% of the participants responded incorrectly to any particular quality assurance item. For the first quality assurance item, 121 of 132 (91.7%) participants answered correctly. For the second, third, fourth, and fifth quality assurance items, 123 (93.2%), 120 (90.9%), 129 (97.7%), and 119 (90.2%) of 132 participants answered the items correctly, respectively. Because 21% (28 of 132) of the sample answered at least one of the quality assurance items incorrectly, the primary analyses described below were conducted with and without data for any failed quality assurance item. Results, again, revealed a consistent pattern and, therefore, data from participants who failed quality assurance items were retained.

Potential covariates. Correlations were computed to determine the presence of, and need to control for, potential covariates (i.e., Social Desirability and Level of Nursing Education) in the current study (see Table 3). Participants' level of education was significantly negatively correlated with their self-reported negative affect toward the patients. Thus, for any analysis involving participants' negative affect described below, their level of education (i.e., BS, MSN, DNP) was included as a covariate.

Primary Analyses

To test the prediction that nursing students would report more negative (and less positive) affective and behavioral responses (i.e., intentions to provide quality care) toward obese than average-weight older adult patients, two between-groups ANOVAs were conducted with participants' positive affect and intentions to provide quality care as the dependent variables; and one between-groups ANCOVA, with participants' level of education as a covariate, was conducted with participants' negative affect as the dependent variable. Results revealed no differences in nursing students' self-reported positive affect, $F(1, 130) = 0.03$, $p = .87$, $\eta^2 = .00$, negative affect, $F(1, 122) = .67$, $p = .41$, $\eta^2 = .01$, or intentions to provide quality care, $F(1, 130) = 0.81$, $p = .37$, $\eta^2 = .01$ toward older adult patients described as average-weight or obese (see Table 4).

To examine whether nursing students with relatively high weight-based prejudice endorse more negative (avoidance-oriented) and fewer positive (approach-oriented) emotions toward older adult patients who are obese (relative to average-weight), continuous x categorical hierarchical regression analyses were conducted. Separate regression analyses were conducted for negative and positive affect as the criterion variables. After controlling for participants' level of education, results revealed that neither participants' weight-based prejudice scores nor the older adult patients' weight affected the nursing students' negative affect, $F(3, 121) = 3.58$, $p = .02$, $\Delta R^2 = .01$, $p = .64$. The interaction between participants' weight-based prejudice and patients' weight on the nursing students' negative affect was not significant, $F(4, 120) = 2.77$, $p = .03$, $\Delta R^2 = .01$, $p = .53$ (see Table 5). When examining participants' positive affect, results revealed that nursing students' weight-based prejudice, but not the older adult patients' weight was associated with the students' positive affect, $F(2, 129) = 7.69$, $p = .001$, $\Delta R^2 = .11$, $p = .001$.

Specifically, nursing students with heightened weight-based prejudice reported lower positive affective reactions toward the patients. The interaction between participants' weight-based prejudice and patients' weight was not significant, $F(1, 128) = 5.90$, $p = .001$, $\Delta R^2 = .02$, $p = .14$ (see Table 6).

Lastly, to test the prediction that nursing students' emotional reactions (i.e., heightened negative affect and reduced positive affect) may explain *why* obese older adult patients receive reduced quality of care among students relatively high in weight-based prejudice, mediational analyses were conducted using a bootstrapping approach (Preacher & Hayes, 2008). Separate analyses were conducted for nursing students' positive and negative affect. As seen in Figure 1, reduced positive affect did not explain the relationship between participants' weight-based prejudice and intention to provide quality care for obese patients. Specifically, based on 5,000 bootstrap samples the indirect effect of positive affect (c') was not significant, because the 95% confident interval (-.1054 to .0107) for the indirect effect included 0 (Little et al., 2007). Further, as seen in Figure 2, heightened negative affect could not mediate the relationship between participants' weight-based prejudice and their intentions to provide quality care for obese patients, because one of the necessary initial relationships needed to conduct mediational analyses was not significant (i.e., ATOP scores were not associated with participants' negative affect scores).

Discussion

Given the substantial amount of literature documenting weight bias in healthcare settings, the current study examined whether nursing students' affective reactions toward obesity helps to explain the poor provision of care to obese, compared to average-weight, older adult patients (especially among nursing students high in weight-based prejudice). Results revealed no

differences in nursing students' self-reported positive affect, negative affect, or intentions to provide quality care toward older adult patients described as average-weight or obese. That is, participants reported similar affective reactions and intentions to care for patients, regardless of the patient's weight status. Further, participants with relatively high weight-based prejudice scores reported less positive (but not more negative) affective reactions toward patients generally. Finally, participants' (positive and negative) affective reactions did not explain the relationship between their weight-based prejudice and intentions to provide quality care for obese patients. Although the results failed to support the study's hypotheses, the findings have important implications for understanding nursing students' willingness to care for older adult patients of different weight statuses. Such implications provide meaningful directions for future research on the topic.

Contrary to expectations, describing older adult patients as average-weight or obese did not affect nursing students' self-reported positive affect, negative affect, or intentions to provide quality nursing care. Rather, participants' responses suggest that they anticipated feeling and treating obese and average-weight older adult patients rather *similarly*. Despite extensive research documenting heightened negative emotions (e.g., disgust, anger, and blame) toward patients who are obese (Crandal, 1994; Puhl & Brownell, 2003; Vartanian, 2010), results from the current study suggest that such negative reactions may not robustly apply to older adult patients.

Specifically, obese individuals are often perceived as low in warmth and competence (Cuddy & Fiske, 2002), whereas older adults are frequently perceived as relatively high in warmth yet low in competence (Fiske et al., 2002; Heckhausen, Dixon, & Baltes, 1989). Because older adults are perceived as relatively warm (Fiske et al., 2002), it is possible that such

positive perceptions of their warmth may have mitigated any negative reactions to the older adult patients' weight. Additionally, the stereotype (i.e., high warmth/low competence) of being an "older adult" can elicit pity, an emotion that often promotes approach-related behaviors such as helping (Cuddy et al., 2005; Weiner, 1980). If nursing students perceive older adults with "positive" stereotypes, such positive stereotypes may be the best predictor of their reactions toward older adult patients, regardless of the patients' weight. Future research should examine the power of "competing" (positive and negative) stereotypes to predict nursing students' reactions toward stigmatized patients. Such research may reveal that the positive stereotypes associated with one stigmatized characteristic (e.g., older adults) can offset the negative stereotypes associated with another characteristic (e.g., obesity).

The current study revealed that nursing students' weight-based prejudice did not predict their negative (avoidance-oriented) or positive (approach-oriented) emotional reactions toward older adult patients described as obese or average-weight. Rather, in the current study, participants with relatively high weight-based prejudice reported less positive (but not more negative) affective reactions toward the older adult patients *generally*. Although it is unclear why nursing students with heightened weight-based prejudice did not report more negative and less positive (i.e., avoidance-oriented) emotional reactions toward older adult patients described as obese compared to average-weight, it is possible that the perceived controllability of the patients' weight contributed to the non-significant findings. There is considerable literature linking perceived controllability of a characteristic to negative reactions toward individuals with the characteristic, including obesity (Crandall & Reser, 2005; Crandall et al., 2001; Weiner, 1993; Weiner et al., 1988). For example, Pearl and Lebowitz (2014) demonstrated that attributing an individual's obesity to his/her personal responsibility, compared to his/her biology,

was associated with more prejudice and blame. Further, research revealed that when individuals are perceived as personally responsible for their weight status, others' emotional reactions tend to be more negative and avoidance-oriented (Hilbert, Rief, & Braehler, 2008; Puhl & Heuer, 2012). Consequently, nursing students in the current study may have perceived that the older adult patient's obesity was out of her personal control and, therefore, the students' level of weight-based prejudice may have been a weak (or poor) predictor of their attitudes. Such an idea is supported by research findings demonstrating that nurses who report stronger beliefs that weight is under personal control tend to report more discriminatory behaviors toward obese patients in their clinical practice (Tanneberger & Ciupitu-Plath, 2017).

Alternatively, the possibility that nursing students' weight-based prejudice is not predictive of their heightened negative (and less positive) reactions to obese compared to average-weight older adult patients is promising and may reflect a shifting culture within the healthcare setting. In accordance with the Nurses' Association code of ethics (Winland-Brown et al., 2015), nurses and nursing students alike should respond equally to patients regardless of patients' physical characteristics or personal attributes. It is possible that nursing students in the current study may be knowledgeable about how (implicit and explicit) prejudice may impact their work and, therefore, their personal feelings about a patient (i.e., weight-based prejudice toward the obese older adult) did not affect their self-reported attitudes (Miller et al., 2013). That is, despite potentially holding anti-fat attitudes/weight-based prejudice, nursing students in the current study may have understood the impact their prejudice has on their reactions to patients and, thus, reported attitudes toward obese patients that were similar to their attitudes toward average-weight patients. Future research may benefit from examining nursing students' knowledge of how implicit and explicit weight-bias affects their anticipated emotional

and behavioral responses to obese older adult patients. It is possible that students with more knowledge are purposeful in their treatment of patients, trying to recognize and reduce the impact implicit weight-bias may have on their treatment of patients.

One of the primary purposes of the current study was to examine if nursing students' negative (but not necessarily positive) emotional responses would mediate the relationship between their weight-based prejudice and their anticipated behavioral response to obese patients. Contrary to prediction, neither heightened negative nor reduced positive affect explained the relationship between participants' weight-based prejudice and their intentions to provide quality care for obese patients. These findings are surprising given that previous research suggests that the poor provision of care provided to obese patients may be explained by the negative, avoidance-oriented, emotions that healthcare providers experience in response to obesity (Park et al., 2007; Phelan et al., 2014). Specifically, negative emotions such as contempt, anger, and fear (Vartanian et al., 2016) tend to motivate avoidance-related behaviors and inhibit social contact with obese people (Park et al., 2007).

Although it is unclear why heightened negative affect failed to predict *why* nursing students relatively high in weight-based prejudice intend to provide poorer quality of care to obese (as compared to average-weight) patients, it is possible that heightened negative affect is not a *direct* enough measure of nursing students' avoidance-related motivations. Such an explanation suggests that measuring nursing students' avoidance-oriented (or lack of approach-oriented) behaviors more directly may explain why heightened levels of prejudice toward obese patients is associated with poor provision of care. For example, previous research examining the specific behavior of eye contact duration (Persky & Eccleston, 2011) revealed that healthcare providers spent less time making eye contact with obese versus average-weight patients.

Consequently, future research should examine if a more direct measure of nursing students' avoidance-related motivations, such as eye contact duration, may explain why nursing students relatively high in weight-based prejudice may intend to provide poorer quality of care to obese (as compared to average-weight) patients. Measuring avoidance-oriented behaviors more directly is important because previous research has demonstrated that healthcare providers' behaviors during clinical interactions have the potential to adversely impact practitioner-client relationships, the likelihood that patients following medical recommendations, trust in healthcare providers, and attendance at future medical appointments (Gudzune, Bennett, Cooper, & Bleich 2014; Jay et al., 2010; Zolnierek & Dimatteo, 2009). Learning what specific behaviors affect quality of care for obese patients can help inform future clinical training programs to include education of subtle and overt behaviors that may be perceived as discriminatory by patients.

Limitations and Future Direction

Even though results of the current study failed to support the hypotheses, the findings contribute to the understanding of nursing students' emotional and behavioral motivations to care for older adult patients of varying weights. Limitations of the study and ideas for future research are discussed below.

One limitation of the present study is the limited generalizability of the findings, due to lack of diversity within the participant sample. Specifically, participants in this study were predominantly female and Caucasian from a private Jesuit university in the Midwest, where students are trained to serve the underserved. Therefore, the results may not apply to nursing students from other geographic regions or educational institutions. Because cultural differences exist regarding perceptions of older adults, particularly between individualistic and collectivistic cultures (Giles et al., 2000; Giles et al., 2003; Lockenhoff et al., 2009), future research should

examine if there are cultural differences in nursing students' emotional reactions to caring for geriatric patients of different weight statuses.

An additional limitation of the current study is the reliance on self-report measures, which may not reflect nursing students' actual attitudes or behavior. Future research should examine more covert, or less overt, assessments of nursing students' actual care for patients. Further, and despite being limited by its use of self-report measures, the current study used hypothetical patient profiles to assess nursing students' responses to patients, which may not accurately reflect real-world provider-patient interactions. Future research should improve upon the current study by examining nursing students' actual behavior in real-world clinical settings.

Conclusion

The present study adds to literature examining nursing students' emotion-related motivations to care for older adult patients of varying weights. Although nursing students did not report significant differences in their intentions to care for obese or average-weight older adult patients, the non-significant finding may be reflective of a shift toward client-centered approaches to care, whereby awareness of biases and prejudices improve the care provided to stigmatized individuals. Additionally, the current study highlights the need for additional research examining the intersection of stigmatized characteristics, such as obesity and aging, and nursing students' motivations to care for such patients. To prevent weight-bias from compromising patient care, future studies should continue examining the patient characteristics that tend to elicit avoidance-oriented responses from healthcare providers. The goal of such research would be to educate healthcare providers about how their biases to patient characteristics may rupture the patient-provider alliance. Finally, research related to care for geriatric patients of varying weights is important for development of best-care practices, as

healthcare provider prepare for the surging number of aging baby-boomers who will present with complex and comorbid conditions within the healthcare setting.

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Table 1

Descriptive Statistics of Sample Based on Participants' Age and Years of Experience Working with Older Adult and Obese Patients

	Minimum	Maximum	*M*	*SD*
Participants' Age	18	63	26.92	11.65
Years of Experience Working with Older Adults	0	33	4.87	7.78
Years of Experience Working with Obese Patients	0	40	4.96	8.32

Table 2

Frequency and Percent of Sample by Participants' Race/Ethnicity, Gender, and College Degree

	Frequency	Percent
Race		
Asian	2	1.5
Black/African American	3	2.3
Hispanic American or Latino/a	1	0.8
Native Hawaiian or Pacific Islander	1	0.8
White/European American	121	93.1
Prefer not to respond	2	1.5
No response/Missing	2	1.5
Gender		
Male	12	9.1
Female	116	87.9
Non-binary	1	0.8
Prefer not to respond	1	0.8
No response/Missing	2	1.5
Degree		
Bachelor of Science in Nursing (BSN)	82	62.1
Master of Science in Nursing (MSN)	38	28.8
Doctorate in Nursing Practice (DNP)	5	3.8
No Response/Missing	2	1.5

Table 3

Bivariate Correlations between Social Desirability Scores and Level of Nursing Education with the Study's Dependent Variables

Variable	1	2	3	4	5
1. Social Desirability	--				
2. Nursing Education	.166	--			
3. Positive Affect	.123	.061	--		
4. Negative Affect	-.143	-.273**	-.272**	--	
5. Nursing Care	.128	.103	.360**	-.244**	--

**$p < .01$

Table 4

Means (and Standard Deviations) for Participants' Positive and Negative Affect and Intentions to Provide Quality Care Toward Obese and Average-Weight Older Adult Patients

	Obese	Average-weight
Positive Affect	4.98 (.85)	5.00 (.77)
Negative Affect	2.20 (.90)	2.36 (.88)
Intentions to Provide Quality Care	5.50 (.49)	5.41 (.66)

Table 5

Summary of Hierarchical Regression Analyses for Variables Predicting Participants' Negative Affect Toward Average-Weight and Obese Patients

Regression Step	β	t	p	ΔR^2
Step 1				.08
A) Degree	-.27	-3.15	< .01	
Step 2				.01
B) WBP	.04	.48	.63	
C) Condition	.07	.84	.40	
Step 3				.01
D) WBP x Condition	-.07	-.64	.53	

Note: WBP = Weight-Based Prejudice

Table 6

Summary of Hierarchical Regression Analyses for Variables Predicting Participants' Positive Affect Toward Average-Weight and Obese Patients

Regression Step	β	t	p	ΔR^2
Step 1				.11
A) WBP	-.33	-3.92	< .001	
B) Condition	.01	.17	.86	
Step 2				.02
C) WBP x Condition	.16	1.48	.14	

Note: WBP = Weight-Based Prejudice

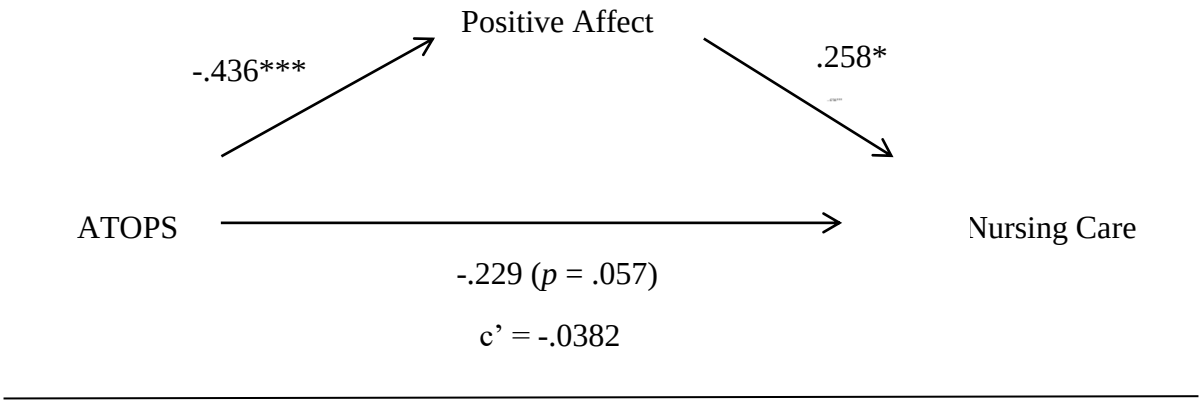


Figure 1. Positive Affect as a Mediator Between Participants' Weight-Based Prejudice and Intentions to Provide Quality Care for Obese Patients

***** $p < .05$, ******* $p < .001$

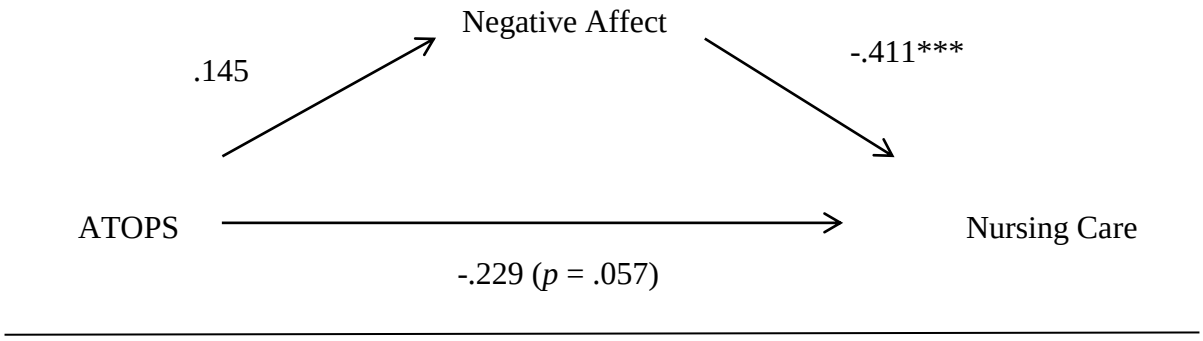


Figure 2. Negative Affect as a Mediator for Weight-Based Prejudice and Intentions to Provide Quality Care for Obese Patients

******* $p < .001$

Appendix A

Attitudes Toward Obese Persons Scale (ATOP; Allison et al., 1991)

INSTRUCTIONS: Below is a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Using the scale, please indicate the extent to which you disagree or agree with each statement. Remember, there are no right or wrong answers; we are only interested in your opinion.

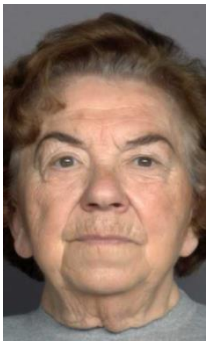
STRONGLY DISAGREE	DISAGREE	SOMEWHAT DISAGREE	NEUTRAL	SOMEWHAT AGREE	AGREE	STRONGLY AGREE
1	**2**	**3**	**4**	**5**	**6**	**7**

1. Obese people are as happy as non-obese people.
2. Most obese people think that they are not as good as other people.
3. Most obese people are more self-conscious than other people.
4. Obese workers cannot be as successful as other workers.
5. Most non-obese people would not want to marry anyone who is obese.
6. Severely obese people are usually untidy.
7. Obese people are usually sociable.
8. Most obese people are not dissatisfied with themselves.
9. Obese people are just as self-confident as other people.
10. Most people think it is uncomfortable when they associate with obese people.
11. Obese people are often less aggressive than non-obese people.
12. Most obese people have different personalities than non-obese people.
13. Very few obese people are ashamed of their weight.
14. Most obese people resent normal weight people.
15. Obese people are more emotional than non-obese people.
16. Obese people should not expect to lead normal lives.

17. Obese people are just as healthy as non-obese people.
18. Obese people are just as sexually attractive as non-obese people.
19. Obese people tend to have family problems.
20. One of the worst things that could happen to a person would be for her/him to become obese.

Appendix B

Patient Profiles

DOB: 08/06/1943 **Age:** 74	**Weight:** 145 lbs **Height:** 5'5"		
Race: Caucasian	**Gender:** Female	**Marital Status:** Married	
Temp: 98.7	**BP:** 152/97	**Pulse:** 93	
Allergies: House dust, Penicillin		**Medication:** Tylenol 3, Lasix	

Reason for Visit/CC:
74 y.o. female experienced recent (single) episode of severe migraine headache preceded by two short periods of vomiting. Currently w/o pain.

Medical History:
Migraine headaches (May 2015), hypertension, hyperlipidemia, osteoporosis, arthritis.
Surgical history: cataract surgery.

Family: No family history of migraines. Family history of cardiovascular disease, hypertension, stroke, diabetes.

Social: Social drinker. Non-smoker.

Physician's Notes:

Diagnoses: Migraine headache	**Physician's Signature:**

Stat: **Today:** **Before Next Clinic Visit:**	**Return to Clinic:** **___Days____Weeks** **____Months** **To see** **Dr._____** **Refer to:** **_____**

DOB: 08/06/1943 **Age:** 74	**Weight:** 245 lbs **Height:** 5'5"		
Race: Caucasian	**Gender:** Female	**Marital Status:** Married	
Temp: 98.7	**BP:** 152/97	**Pulse:** 93	
Allergies: House dust, Penicillin		**Medication:** Tylenol 3, Lasix	

Reason for Visit/CC:
74 y.o. female experienced recent (single) episode of severe migraine headache preceded by two short periods of vomiting. Currently w/o pain.

Medical History:
Migraine headaches (May 2015), hypertension, hyperlipidemia, osteoporosis, arthritis.
Surgical history: cataract surgery.

Family: No family history of migraines. Family history of cardiovascular disease, hypertension, stroke, diabetes.

Social: Social drinker. Non-smoker.

Physician's Notes:

Diagnoses: Obesity Migraine headache	**Physician's Signature:**
Stat: **Today:** **Before Next Clinic Visit:**	**Return to Clinic:** **___Days ___Weeks** **___Months** **To see** **Dr._____** **Refer to:** **_____**

Appendix C

Modified Positive and Negative Affect Schedule
(Watson et al., 1988)

INSTRUCTIONS: Below is a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Using the scale, please indicate the extent to which you would feel each emotion if you were the nurse providing care to the patient described in the profile. Remember, there are no right or wrong answers; we are only interested in your opinion.

STRONGLY DISAGREE	DISAGREE	SOMEWHAT DISAGREE	NEUTRAL	SOMEWHAT AGREE	AGREE	STRONGLY AGREE
1	**2**	**3**	**4**	**5**	**6**	**7**

_____1. Interested

_____2. Distressed

_____**3. Disgusted**

_____4. Excited

_____5. Upset

_____**6. Compassion**

_____7. Strong

_____8. Guilty

_____**9. Anger**

_____10. Scared

_____11. Hostile

_____**12. Pity**

_____13. Enthusiastic

_____14. Proud

_____**15. Contempt**

_____16. Irritable

_____17. Alert

_____**18. Empathy**

_____19. Ashamed

_____20. Inspired

_____**21. Fear**

_____22. Nervous

_____23. Determined

_____**24. Sympathy**

_____25. Attentive	_____27. Active
_____26. Jittery	_____28. Afraid

Note. Bolded emotions reflect those added to the PANAS based on research examining people's affective reactions toward overweight and obese individuals (Connors & Hely, 2007; Dijker & Koomen, 2003; O'Brien et al., 2013; Vartanian et al., 2013; Weiner, 1993).

Appendix D

Intentions to Provide Quality Care

(Caring Behaviors Inventory–Short Form, CBI-24; Wu et al., 2006)

INSTRUCTIONS: Below is a scale ranging from 1 (*Never*) to 6 (*Always*). Using the scale, please indicate the extent to which you would engage in each of the behaviors if you were the nurse providing care to the patient described in the profile. Remember, there are no right or wrong answers; we are only interested in your opinion.

NEVER	ALMOST NEVER	OCCASIONALLY	USUALLY	ALMOST ALWAYS	ALWAYS
1	**2**	**3**	**4**	**5**	**6**

1. Attentively listening to the patient.
2. Giving instructions or teaching the patient.
3. Treating the patient as an individual.
4. Spending time with the patient.
5. Supporting the patient.
6. Being empathic or identifying with the patient.
7. Helping the patient grow.
8. Being patient or tireless with the patient.
9. Knowing how to give shots, IVs, etc.
10. Please select 4 for this statement.**
11. Being confident with the patient.
12. Demonstrating professional knowledge and skill to the patient.
13. Managing equipment skillfully.

14. Allowing the patient to express feelings about his or her disease and treatment.
15. Including the patient in planning his or her care.
16. Treating patient information confidentially.
17. Returning to the patient voluntarily.
18. Talking with the patient.
19. Encouraging the patient to call if there are problems.
20. Meeting the patient's stated and unstated needs.
21. Responding quickly to the patient's call.
22. Helping to reduce the patient's pain.
23. Showing concern for the patient.
24. Giving the patient's treatments and medications on time.
25. Relieving the patient's symptoms.

Note. **indicates a quality assurance item.

Appendix E

Social Desirability Scale – Short Form C (Strahan & Gerbasi, 1972)

INSTRUCTIONS: Listed below are a number of *interested* statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally. **Select either TRUE or FALSE for each item to indicate your answer.** *Remember, there are no right or wrong answers; we are only in your opinion*.

---

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don't get my own way.
3. On a few occasions, I have given up doing something because I thought too little of my ability.
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I am talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit when I make a mistake.
8. I sometimes try to get even rather to forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different than my own.
11. There have been times when I was quite jealous of the good fortune of others
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone's feelings.

Appendix F

IRB Approval

January 31, 2018

Carla Antenucci

[redacted]

Dear Ms. Antenucci:

The IRB has completed the review of your protocol *#17-084, Nursing Students' Emotion-related Motivations for Geriatric Patients of Varying Weights* using expedited review procedures. We appreciate your thorough treatment of the issues raised and your timely response. Your study is approved in the Expedited category under Federal Regulation 45CFR46.

Approval expires January 31, 2019. A progress report, available at http://www.xavier.edu/irb/forms.cfm, is due by that date. If the IRB has not received a progress report from you before MIDNIGHT on the study's expiration date, we will AUTOMATICALLY set your study's status to "Closed". **No further data collection is allowed at that point, and if you wish to re-commence data collection, you will be required to submit a new application, along with all relevant materials, to our office.**

Although we will endeavor to send you a reminder, it is **your responsibility** as the researcher to ensure that your progress report and any request for an extension of data collection is submitted to our office before your approval expires.

If you wish to modify your study, including any changes to the approved Informed Consent form, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

If you have any questions, please contact the IRB office at 745-2870. We wish you success with your research!

Sincerely,

[redacted]

Morrie Mullins, Ph.D.
Chair, Institutional Review Board
Xavier University

Informed Consent

INVESTIGATOR: Carla Antenucci, M.A.

You are being asked to participate in a research project by Carla Antenucci, a doctoral student in the School of Psychology at Xavier University. The purpose of the study is to examine nursing students' reactions toward patients with characteristics that they or someone else consider a problem. You will be asked to view a patient profile and complete several questionnaires about your responses to the patient. Your participation is expected to take approximately 20-30 minutes. This research is in compliance with the requirements of Xavier University's Institutional Review Board for the Protection of Human Subjects. Questions about your rights as a research subject should be directed to Xavier University's Institutional Review Board at irb@xavier.edu.

RISKS/BENEFITS: There are no known or anticipated risks related to your participation in this study. Your responses are anonymous. No personal or identifying information, including IP addresses, will be collected during the study. Although there are no direct benefits for participation, if you choose to complete the study, you will have the opportunity to **win a $15.00 Amazon gift card**. Chances of winning a gift card depend on the number of participants, but will not exceed 20%. To enter the drawing for the e-gift cards, you will provide your name and email address, but this information *cannot* be linked to your survey responses.

TERMS OF PARTICIPATION: You must be 18 years of age or older to participate. I understand that this project is research and that my participation is completely voluntary. Refusal to participate will have no effect on any future services you may be entitled to from the University. I also understand that if I decide to participate in this study, I may refuse to answer any question, complete any task, or withdraw from the study at any without explanation or penalty. I understand that I am under no obligation to participate. If you would like a copy of the informed consent to keep you may download it *here*.

If you have any questions during or after the study, you may contact the investigator, Carla Antenucci at antenuccio@xavier.edu or the faculty member supervising this research, Dr. Tammy Sonnentag at sonnentagt@xavier.edu

By clicking the "arrow" below, I consent to participate in the study and assert that I am, at least, 18 years of age.

THE DATE APPROVAL STAMP ON THIS CONSENT FORM INDICATES THAT THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY XAVIER UNIVERSITY'S INSTITUTIONAL REVIEW BOARD.

APPROVED
Xavier University
Institutional Review Board
Date: 1/31/19

Appendix G

School of Nursing Approval

January 25, 2017

Carla F. Antenucci, M.A.

[redacted]

Dear Ms. Antenucci:

I understand your research proposal and grant permission for you to work with the School of Nursing to recruit students for the purpose of your research, *Healthcare Professionals' Experiences with Patients who have Various Medical Characteristics or Histories.*

Approval from Xavier University's Institutional Review Board (IRB) must be obtained prior to data collection. After gaining the IRB's approval, I support your surveying of nursing using an anonymous Qualtrics survey. I will send the survey out to the students per email noting the letter of consent, the voluntary response, and the chance to win a $15.00 Amazon gift card. Chances of winning a gift card depend on the number of participants, and may be up to 20%.

Sincerely,

[redacted]

Susan M. Schmidt, Ph.D.
Director, School of Nursing

[redacted]

Appendix H

Invitation Email

Hello Nursing Students,

Please consider participating in an anonymous survey, being conducted by Carla Antenucci, a doctoral candidate in the clinical psychology doctoral program here at Xavier University. Carla requests your participation in her research to help fulfill the requirement of her doctoral dissertation.

The purpose of this study is to examine nursing students' perceptions of patients with characteristics that they or someone else consider a problem. The survey should take you between 20-30 minutes to complete and is in compliance with Xavier University's Institutional Review Board for the Protection of Human Subjects.

At the end of the survey, you will have an opportunity to enter a raffle to win a $15.00 Amazon.com gift card. Your chance of winning a gift card depends on the number of number of students that participate and may be as high as 20%. Submission of your name to the raffle cannot be connected to your survey responses.

If you are interested in participating in the anonymous study, please click on the following link: https://xavier.co1.qualtrics.com/jfe/form/SV_cRYcbPeXlAuBp9r

Thank you for considering this request,

Dr. Schmidt

Appendix I

Reminder Email

Hello Nursing Students,

If you haven't yet had a chance, please consider completing in an anonymous survey being conducted by Carla Antenucci, a doctoral candidate in the clinical psychology doctoral program here at Xavier University

There is still time to complete the survey. The purpose of this study is to examine nursing students' perceptions of patients with characteristics that they or someone else consider a problem. The survey should take you between 20-30 minutes to complete and is in compliance with Xavier University's Institutional Review Board for the Protection of Human Subjects.

At the end of the survey, you will have an opportunity to enter a raffle to win a $15.00 Amazon.com gift cards. Your chance of winning a gift card depends on the number of students that participant and may be as high as 20%. Submission of your name to the raffle cannot be connected to your survey responses.

Please click on the following link to complete the survey:
https://xavier.co1.qualtrics.com/jfe/form/SV_cRYcbPeXlAuBp9r

Dr. Schmidt

Appendix J

Informed Consent

INVESTIGATOR: Carla Antenucci, M.A.

You are being asked to participate in a research project by Carla Antenucci, a doctoral student in the School of Psychology at Xavier University. The purpose of the study is to examine nursing students' reactions toward patients with characteristics that they or someone else consider a problem. You will be asked to view a patient profile and complete several questionnaires about your responses to the patient. Your participation is expected to take approximately 20-30 minutes. This research is in compliance with the requirements of Xavier University's Institutional Review Board for the Protection of Human Subjects. Questions about your rights as a research subject should be directed to Xavier University's Institutional Review Board at irb@xavier.edu.

RISKS/BENEFITS: There are no known or anticipated risks related to your participation in this study. Your responses are anonymous. No personal or identifying information, including IP addresses, will be collected during the study. Although there are no direct benefits for participation, if you choose to complete the study, you will have the opportunity to **win a $15.00 Amazon gift card**. Chances of winning a gift card depend on the number of participants, but will not exceed 20%. To enter the raffle for the e-gift cards, you will provide your name and email address, but this information *cannot* be linked to your survey responses.

TERMS OF PARTICIPATION: You must be 18 years of age or older to participate. I understand that this project is research and that my participation is completely voluntary. Refusal to participate will have no effect on any future services you may be entitled to from the University. I also understand that if I decide to participate in this study, I may refuse to answer any question, complete any task, or withdraw from the study at any without explanation or penalty. I understand that I am under no obligation to participate. If you would like a copy of the informed consent to keep you may download it *here*.

If you have any questions during or after the study, you may contact the investigator, Carla Antenucci at antenuccic@xavier.edu or the faculty member supervising this research, Dr. Tammy Sonnentag at sonnentagt@xavier.edu

By clicking the "arrow" below, I consent to participate in the study and assert that I am, at least, 18 years of age.

Appendix K

"Perceptions of Patients with Various Characteristics"

INSTRUCTIONS: Below is a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Using the scale, please indicate the extent to which you would disagree or agree with each statement. Remember, there are no right or wrong answers; we are only interested in your opinion.

STRONGLY DISAGREE	DISAGREE	SOMEWHAT DISAGREE	NEUTRAL	SOMEWHAT AGREE	AGREE	STRONGLY AGREE
1	**2**	**3**	**4**	**5**	**6**	**7**

1. Obese people are as happy as non-obese people.
2. One of the worst things that could happen to a person would be for her/him to become drug addicted.
3. Most people would *not* want to marry anyone with an STD.
4. Most obese people think that they are not as good as other people.
5. Homeless people are as sexually attractive as people who are not homeless.
6. People who are addicted to drugs are sociable.
7. Most obese people are more self-conscious than other people.
8. Please select 7 for this statement.**
9. Homeless people are as healthy as people who are not homeless.
10. Obese workers cannot be as successful as other workers.
11. Most people think it is uncomfortable when they associate with people who are addicted to drugs.
12. Homeless people should not expect to lead normal lives.
13. Most non-obese people would not want to marry anyone who is obese.
14. Most people with an STD think that they are not as good as other people.

15. Severely obese people are usually untidy.
16. Employees with an STD cannot be as successful as other workers.
17. Drug-addicted people are as healthy as non-drug-addicted people.
18. Obese people are usually sociable.
19. Very few homeless people are ashamed of being homeless.
20. Most people with an STD are just as self-confident as people without an STD.
21. Most people who are addicted to drugs are more self-conscious than other people.
22. Most obese people are not dissatisfied with themselves.
23. Most people think it is uncomfortable when they associate with homeless people.
24. Obese people are just as self-confident as other people.
25. Most people with an STD are not dissatisfied with themselves.
26. Very few people who are addicted to drugs are ashamed of their drug-use.
27. Most people think it is uncomfortable when they associate with obese people.
28. Most homeless people are not dissatisfied with themselves.
29. Obese people are often less aggressive than non-obese people.
30. Please select 1 for this statement.**
31. Most obese people have different personalities than non-obese people.
32. Homeless people are usually sociable.
33. Very few obese people are ashamed of their weight.
34. Please select 3 for this statement.**
35. Most obese people resent normal weight people.
36. People who are addicted to drugs are often less aggressive than non-drug-addicted people.

37. Obese people are more emotional than non-obese people.
38. Drug-addicted people are just as sexually attractive as non-drug-addicted people.
39. Obese people should not expect to lead normal lives.
40. Very few people with an STD are ashamed of having the STD.
41. Obese people are just as healthy as non-obese people.
42. Most people would not want to marry someone who is homeless.
43. People with an STD resent people that don't have an STD.
44. Obese people are just as sexually attractive as non-obese people.
45. Most homeless people are more self-conscious than other people.
46. Obese people tend to have family problems.
47. Please select 5 for this statement.**
48. Most people with an STD have different personalities than people who don't have an STD.
49. Severely drug-addicted people are usually untidy.
50. People with an STD should not expect to lead a normal life.
51. One of the worst things that could happen to a person would be for her/him to become obese.
52. Homeless people are as happy as people who are not homeless.
53. People with an STD are as happy without an STD.
54. Drug-addicted people tend to have family problems.

Note. **indicates a quality assurance item.

Appendix L

Demographic Questionnaire

Instructions: Please respond the following demographic questions.

1. **Age**: _____
2. **Gender**:
    a. Male
    b. Female
    c. Non-binary
    d. Write in:_____
    e. Prefer not to respond
3. **Race and Ethnicity**:
    a. American Indian
    b. Asian
    c. Black/African American
    d. Hispanic American or Latino/a
    e. Native Hawaiian or Pacific Islander
    f. White/European American
    g. Write in:_____
    h. Prefer not to respond
4. **Your Height** (feet and inches; e.g., 5'11"): _____ (Prefer not to respond)
5. **Your Weight** (in lbs):_____ (Prefer not to respond)
6. **Nursing degree you are currently pursuing?**
    a. Bachelor of Science in Nursing (BSN)
    b. Master of Science in Nursing, (MSN)
    c. Doctorate in Nursing Practice (DNP)
7. **Do you have nursing experience working with older adult (i.e., 65 or older) patients?**
    a. Yes
    b. No
8. **Please quantify** (e.g., 3.5 years) **the amount of experience you have working with older adults: _____**
9. **Do you have nursing experience working with obese (i.e., BMI of 30.0 or more) patients?**
    a. Yes
    b. No
10. **Please quantify** (e.g., 0.75 years) **the amount of experience you have working with obese patients:_____**

Appendix M

Manipulation Check

Instructions: Please respond to the following question.

1. **The patient described in the medical chart was _____.**
    a. Unknown
    b. Underweight
    c. Average-weight
    d. Overweight or obese

Appendix N

Debriefing Form

Thank you for participating in this study. The study you just completed examines nursing students' emotional and behavioral responses toward geriatric patients of different weight statuses (i.e., average, obese). You were randomly assigned to view one of two hypothetical patient profiles: an obese (245lbs, BMI = 40.8) or average-weight (145lbs, BMI = 24.8) patient. You then reported your anticipated attitudes and behaviors toward the hypothetical patient. Through your participation, we hope to better understand how nurses' attitudes toward older adult patients who are obese influence the care they provide.

Please keep the purpose of this study confidential and do not disclose any information about this study to other potential participants.

If you have any questions or concerns about this study, or if you wish to inquire about the results of this study, you may contact the researcher, Carla Antenucci, at antenuccic@xavier.edu, or the faculty member supervising this study, Dr. Tammy Sonnentag, at sonnentagt@xavier.edu.

If you have questions about your rights as a research participant, you may contact Xavier University's Institutional Review Board at (513) 745-2870 or irb@xavier.edu.

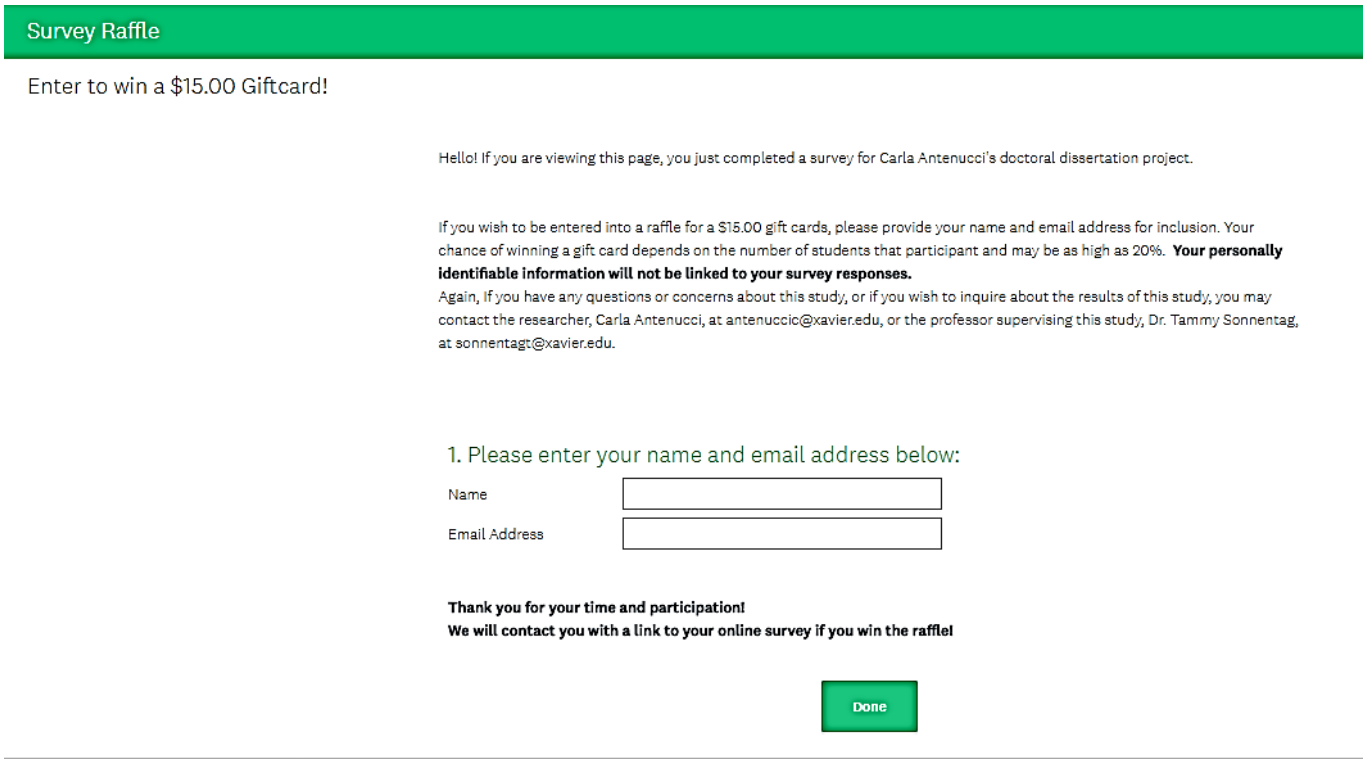
Thank you for your participation!

Please COPY AND PASTE the link below into your web browser to enter a raffle a $15.00 Amazon e-gift card. Your chance of winning a gift card depends on the number of students that participant and may be as high as 20%. Information you enter into the link provided below cannot be linked to your survey responses.

https://www.surveymonkey.com/r/5KVM8Z5

Appendix O

Raffle Link



Survey Raffle

Enter to win a $15.00 Giftcard!

Hello! If you are viewing this page, you just completed a survey for Carla Antenucci's doctoral dissertation project.

If you wish to be entered into a raffle for a $15.00 gift cards, please provide your name and email address for inclusion. Your chance of winning a gift card depends on the number of students that participant and may be as high as 20%. **Your personally identifiable information will not be linked to your survey responses.**
Again, If you have any questions or concerns about this study, or if you wish to inquire about the results of this study, you may contact the researcher, Carla Antenucci, at antenuccic@xavier.edu, or the professor supervising this study, Dr. Tammy Sonnentag, at sonnentagt@xavier.edu.

1. Please enter your name and email address below:

Name

Email Address

Thank you for your time and participation!
We will contact you with a link to your online survey if you win the raffle!

Done

Summary

Title: Effects of Nursing Students' Emotion-Related Motivations to Care for Geriatric Patients of Varying Weights

Problem: Weight discrimination has been described as one of the last acceptable prejudices in American (Falkner et al., 1995; Puhl & Brownell, 2001). Although a considerable amount of research has documented weight-related stigmatization and discrimination within the healthcare setting, only a few studies have examined the impact of weight-bias in healthcare for older adult patients. The poor provision of care provided to obese, compared to average-weight, patients in healthcare settings may be explained by the negative emotions healthcare providers experience in response to obesity.

Method: Participants included 132 students from the School of Nursing at a small, private Midwest university. Participants were recruited by email or verbal invitation. Participants were primarily White/European American (90.9%) and female (87.9%). Participants were provided a secure transfer protocol hyperlinked to the anonymous online Qualtrics survey that opened to an informed consent document. After agreeing to participate, the participants learned that the researcher was examining healthcare professionals' experiences with patients who have medical characteristics that were considered a problem. Participants were randomly assigned to review one of two patient profiles depicting an obese (245lbs, BMI = 40.8) or average-weight (145, BMI = 24.8) patient seeking medical treatment for a single episode of a migraine headache. Participants then completed the modified PANAS and CBI-24, which were presented in a counter-balanced order across the study. Subsequently, participants completed the ATOP imbedded within a larger measure that served as a guise to conceal the study's purpose. Subsequently, participants responded to the SDS – Short Form C, a demographic questionnaire, and a manipulation check questions assessing their recollection of the weight status of the patient depicted in the patient profile. When participants completed the study's tasks, they were thanked and debriefed. As part of the debriefing, participants were provided with a second, separate, secure transfer protocol where they had the opportunity to enter a raffle for one of 20 $15.00 gift cards.

Findings: Results revealed no differences in nursing students' self-reported positive affect, negative affect, or intentions to provide quality care toward older adult patients described as average-weight or obese. That is, participants reported similar affective reactions and intentions to care for patients, regardless of the patients' weight status. Further, although participants with relatively high weight-based prejudice scores reported less positive (but not more negative) affective reactions toward patients generally, this reduced positive affect was not greater for obese compared to average-weight patients. Finally, participants' (positive and negative) affective reactions did not explain the relationship between their weight-based prejudice and intentions to provide quality care for obese patients.

Implications: Despite extensive research documenting heightened negative emotions (e.g., disgust, anger, and blame) toward patients who are obese, results from the current study suggest that such negative reactions may not robustly apply to older adult patients. The current study highlights the need for additional research examining the intersection of stigmatized characteristics, such as obesity and aging, and nursing students' motivations to care for such patients. To prevent weight-bias from compromising patient care, future studies should continue examining the patient characteristics that tend to elicit avoidance-oriented responses from healthcare providers. Learning what specific behaviors affect nursing students' intentions to provide quality care for obese patients can help inform future clinical training programs to include education of subtle and overt behaviors that may be perceived as discriminatory by patients. The goal of such research would be to educate healthcare providers about how their biases toward patient characteristics may rupture the patient-provider alliance.

Press Release

A recent study examined the effects of nursing student's emotion-related motivations to care for geriatric patients of varying weights. The study sought to determine whether nursing students' negative emotions could explain why they may intend to provide poorer quality of care to older adult patients who are obese (compared to average-weight). Lead researcher, Carla Antenucci, found that nursing students' relatively high in weight-based prejudice reported less positive emotions (but not higher negative emotions) toward the older adult patients *generally*. In contrast to the wealth of literature citing poor quality of care to young adult patients who are obese, the present study found that nursing students' negative emotions did not explain their intentions to provide poorer quality care to obese older adult patients compared to average-weight counterparts. This study has important implications for treatment of older adult patients in the healthcare setting. Continued research related to care for geriatric patients of varying weights is critical for development of best-care practices, as healthcare providers prepare for the surging number of aging baby-boomers who will present with complex and comorbid conditions within the healthcare setting.