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Facilitating Weight Tolerance Among Health and Fitness Majors Toward Obese Persons

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MEd, Southwestern Oklahoma State University, 2007

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Abstract

Weight bias exists in some health-related degree programs. Overweight and obese persons who experience weight bias in health-related services often delay or avoid medical attention altogether. Guided by the attribution theory, the purpose of this sequential explanatory study was to examine weight bias among health majors at a southwest regional university to illuminate how attitudes can affect the level of care provided to overweight persons. The Attitudes toward Obese Persons (ATOP) scores from a convenience sample of 184 health majors revealed that participants' scores were found to be significantly lower than the midpoint (60) of the ATOP scale, $M = 56.68$, $SD = 16.75$, $t(183) = -2.69$, $p < .01$, indicating more negative attitudes toward obese persons. As a follow-up measure, 12 interviews were conducted to examine how health majors described their own experiences in working with obese persons. Thematic analysis revealed that the majority of participants expressed common stereotypes to describe obese persons as lazy, lacking self-discipline, and unhealthy. The integration of both sets of data supported the need to develop weight bias curriculum to facilitate social change whereby adaptive approaches to minimize weight bias among students within the classroom and clinical settings become best practice. Future research efforts in the development and evaluation of interventions are needed to reduce weight bias among academic institutions that offer health-related degree programs.

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Section 1: The Problem

Introduction

In 2000, obesity was formally recognized as a universal epidemic with significant health implications, as stated by the World Health Organization (WHO). As a result, schools, workplaces, communities, and a few food corporations began to implement various obesity awareness and prevention initiatives (Haby, Doherty, Welch, & Mason, 2012; MacLean et al., 2009; Puhl & Heuer, 2010). Despite these efforts, "obesity rates have doubled for adults and tripled for children" (Centers for Disease Control and Prevention [CDC], 2011, p. 2), and there has been a marked increase in obesity "across all population groups, regardless of age, sex, race, ethnicity, socioeconomic status, education level, or geographic region" (CDC, 2011, p. 2). More specifically, Hoffman (2012) stipulated that this generation of children may not outlive their parents.

Due to the complexity of factors that play a role in the development of obesity, it is a difficult health issue to address. As a result, obesity is "rapidly becoming the leading cause of preventable death in the United States" (Hurt, Kulisek, Buchanan, & McClave, 2010, p. 780). According to the WHO (2010), obesity has become "one of the most serious public health challenges of the 21st century" (p. 190). The Health implications associated with obesity are complications such as hypertension, cardiovascular disease, and diabetes (National Institutes of Health [NIH], 2013). In addition, these health conditions have an effect on the nation's health care system (U.S. Department of Health and Human Services [USDHHS], 2011). In 2008, obesity-health-related conditions cost

the nation more than $147 billion, with an average of 300,000 obesity related deaths (Finkelstein, Trogdon, Cohen, & Dietz, 2009).

Numerous risk factors are associated with obesity. These include psychological, environmental, genetic, and dietary issues as well as inactive lifestyles. Of these, an increase in unhealthy dietary intake and sedentary lifestyles play a role in the number of individuals who are overweight or obese (Caballero, 2007). Globalization and technological advancements have been cited as possibilities for the steady decline in physical activity and increased sedentary behaviors (Puska, Pietinen, & Uusitalo, 2002). The evolution of the U.S. food industry is another possible reason for the rising obesity numbers (Schwartz & Brownell, 2007). Regardless of the variables at play, obesity is a disease that not only has the potential to increase the risk of comorbidities, but also has the potential to impede both the quality and the length of life.

To combat the global obesity epidemic, scholars from a variety of fields have begun to investigate possible reasons why the standard prescription of eating less and exercising more is not working. For instance, theorists from the medical community continue to explore the physiological causes of obesity and secondary implications related to obesity. Scholars from the mental health field have focused on the psychological, psychosocial, and behavioral components that relate to obesity. Contributions from the research have laid the foundation for future research in this area.

For example, some scholars have investigated antifat attitudes, biases and discriminatory practices toward overweight and obese individuals (Andreyeva, Puhl, & Brownell, 2008; Ashmore, Friedman, Reichmann, & Musante, 2008; Benas & Gibb,

2008; Brochu, Gawronski, & Esses, 2011). There is a strong correlation between weight-related biases and the physical and psychosocial consequences of obesity (Chambliss, Finley, & Blair, 2004; Gatineau & Dent, 2011; Merrill & Grassley, 2008; National Institutes of Health, 2013). Stigmatization of obese individuals has led to social disadvantages that extend beyond the home to include the workplace, educational systems, and even the health care industry (O'Brien, Puhl, Latner, Mir, & Hunter, 2010; Puhl & Heuer, 2010).

Health care industry professionals' antifat attitudes first became apparent more than 40 years ago (Brownell, Puhl, Schwartz, & Brownell, 2005). Larkin and Pines (1979) noted that overweight applicants in their sample were rated as significantly less tidy, active, and ambitious and less productive as compared to normal weight applicants. Within educational systems, the most common place that children report weight-related biases is within the school setting (Neumark-Sztainer, Story, & Harris, 1999). Stigmatizing attitudes exist among a broad spectrum of educators, including teachers, counselors, principals, and administrators. The beliefs that obese people are lazy (Sutin & Terracciano, 2013), less intelligent (Forth, 2013), and lack willpower (Randall-Arell, 2014) continue to be recorded throughout the research community.

Studies examining antifat bias among scholars from diverse fields have undergone significant growth. Whereas, exploring ways to reduce antifat bias within those disciplines remains deficient among the research communities. To counter this barrier, constituents from across the globe have begun to initiate obesity awareness campaigns and prevention strategies (Hoffman, 2012). In particular, initiatives emphasizing weight

bias awareness and strategies to reduce antifat attitudes among health care providers are needed (USDHHS, 2011). Such initiatives would provide health-related professionals with the tools needed to minimize the instance of weight bias when interacting with overweight and obese persons.

The purpose of the present study was to identify if weight bias was evident among students majoring in health and fitness at one southwest regional university. Using a mixed methods approach, quantitative data were used to measure the explicit attitudes of health and fitness majors toward overweight and obese persons. An analysis of the quantitative data was used in the design of a protocol for individual interviews; a follow-up measure was used to further understand how health and fitness majors described their own experiences in working with overweight and obese persons. Analysis of both sets of data revealed instances of weight bias and the educational components needed to support the development of weight bias curriculum for health and fitness majors at the regional university.

Definition of the Problem

In the fight against obesity, O'Brien et al. (2010) agreed that effective approaches to the reduction of antifat prejudice must be designed and implemented within those settings that are deemed most in need. Health and medical professionals hold key positions within the community to initiate such an action. However, researchers specializing in reduction of weight bias concur that gaps in practice exist within health-related communities. These gaps include (a) a lack of professional development opportunities that enable health-related professionals to identify their own levels of

weight bias and (b) a lack of intervention strategies to aid health-related professionals in reducing negative attitudes toward the overweight and obese population (Peters & Jones, 2010; Welborn, 2013).

According to Trust for America's Health (2014), this state in the southwest U.S. ranks sixth in the nation for obesity. Educators within health science departments in this state's institutions of higher education are in an ideal position to provide preprofessionals with the guidance and knowledge needed to develop specific skills regarding weight management practices. Such skills would allow the students to promote positive health behaviors while reducing negative weight-related stigmas.

However, colleges and universities within this state currently fail to include content that directly addresses weight bias and its negative impact upon professionalism and success in the health and fitness related fields. For instance, during the past 5 years, I have been employed as a full-time faculty member in the exercise science department at two different regional universities where I have had the opportunity to teach a variety of courses. Both universities require students to take such courses as nutrition, health, exercise prescription, wellness, and exercise, to name a few; chapters within the required textbooks for these classes often only attend to the typical controllable causes of obesity and/or those etiologies that are genetically based.

Both controllable and genetic causes are important aspects to understanding obesity. At present, textbooks do not address weight bias. From a local context, lack of weight bias content within the educational curriculum has the potential to limit students' abilities to remain cognizant of such biases when interacting with overweight and obese

people. In turn, antifat attitudes remain with the student, manifest itself at the professional level, and have the potential to affect the quality of care provided to overweight or obese persons.

An antifat mentality exists within society; researchers have validated the existence of such biases among health care professionals (e.g., doctors, nurses, dietitians, fitness specialists, coaches, and physical educators) toward overweight and obese persons and children (Adams, 2008; Puhl & Heuer, 2009). According to O'Brien, Hunter, and Banks (2007), reports of weight biases among health care professionals have been shown to be equivalent to, or even exceed that reported within the general population. For instance, Puhl and Brownell (2006) found that 69% of female participants reported instances of weight bias from their health care providers. In addition, 28% of teachers referenced obesity as "the worst possible thing that can happen to a person" (Puhl & Brownell, 2001, p. 788). Further, one third of nurses attributed obesity to lack of self-discipline in regards to nutritional habits (Brown, Stride, Psarou, Brewins, & Thompson, 2007). Finally, in a sample of 400 doctors, 1 in 3 responded negatively by inferring obesity was an ailment (Washington, 2011).

Some of the negative characteristics ascribed to obese persons are that they are apathetic, lack self-control, ineptitude, filthy, and unmanageable (Puhl, Andreyeva, & Brownell, 2008). In addition, O'Connor (2011) reported that youths are not exempt from the negative outcomes when labeled as overweight. According to O'Connor, children experience repeated bantering, bullying, harassment, and aggression. Weight bias is already apparent in children as young as 3 years of age (Puhl & Heuer, 2010), and

negative attitudes toward overweight peers steadily increase from ages 4 through 11 (Holub, 2008). Weight bias has been shown to increase susceptibility for despair, low self-esteem, anxiety, and suicidal tendencies (Rudd Center, 2008). Furthermore, scholars have found that individuals who are perceived as being overweight are more likely to develop eating disorders, evade physical activity, as well as being less likely to seek health and wellness services (Gatineau & Dent, 2011; Puhl & Latner, 2007; Waumsley, 2011).

To understand the nature and extent of such repercussions, the federal government created an education and awareness task force of key stakeholders. This task force includes the First Lady, the Secretary of the Department of Health and Human Services, the Surgeon General, the CDC, the Food and Drug Administration (FDA), and the NIH. As the task force continues to implement obesity education initiatives, a need to develop weight bias education remains (Pomeranz, 2012). With overweight and obese individuals comprising more than half of all U.S. adults, there is little evidence of a reversal in this trend. Because of this, instances of negative stereotypes, discrimination, and biases continue to be reported across all domains (Puhl & Heuer, 2010; Wott, 2010).

While legal constraints are used to deter other forms of discrimination, few standards are in place to protect overweight and obese persons against discrimination (Latner, O'Brien, Dunso, Brinkman, & MacDonald, 2008). As antifat attitudes and weight-based discrimination continue to be common in employment settings, such as the medical and educational professions, instances of unfair treatment, social injustice, and

impaired quality of life for the overweight or obese individual remains a likely scenario (Puhl & Brownell, 2001; Rudd Center, 2012c).

Despite having a deeper understanding of the physiological causes of obesity, health-related specialists are not immune from the negative social stigmas described by the overweight and obese population (Creel & Tillman, 2011; Puhl et al., 2008). Findings about weight bias among the health and fitness related professions confirm previous authors' views (O'Brien et al., 2007; Puhl, Luedicke, & Grilo, 2013; Puhl, Wharton, & Heuer, 2009; Welborn, 2013) regarding the need to develop weight bias programs among frontline health care leaders.

Rationale

Researchers have begun to explore implicit and explicit weight biases among college students majoring in health-related degree programs (Bissell & Parrott, 2010; Li & Rukavina, 2011; O'Brien, Puhl et al., 2010; Puhl, Heuer, & Sarda, 2010). Implicit (indirect) attitudes pertain to positive and negative thoughts that occur outside of a person's control, such as laughing at a joke or not sitting next to an overweight person. Whereas, explicit (direct) attitudes are consciously acknowledged and identified using self-report measures and could include teasing, bullying, or name calling (Schwartz, Vartanian, Nosek, & Brownell, 2006). There are many complexities associated with the overweight or obese person and the many forms of unfair treatment they receive. However, intervention strategies to address implicit and/or explicit antifat attitudes remain limited at the university level.

Evidence of the Problem at the Local Level

As a former instructor at one of the southwest regional universities, my area of concentration ranged from physical education and coaching to personal training and cardiac rehabilitation. Whether lecturing on topics related to obesity or supervising students within the classroom or in a clinical setting, certain antifat biases expressed by students became apparent. Of particular concern were the comments made by students within the classroom that often referenced the overweight or obese individual as being lazy, lacking the willpower to change the unwanted behavior, or playing the victim as a substitute for personal responsibility. In the clinical setting, when students were assigned to an overweight or obese patient/client, I became aware of a lack of communication, poor observation, and mocking of patients. Of additional concern for clinicians and instructors are preservice physical education teachers' incorrect usage of the word fat, lack of empathy, and/or the failure to hold students in the classroom accountable for inappropriate terminology used when referencing the obese to include fat jokes, slang terms, or negative perception towards overweight and obese persons.

These incidents spurred my interest in weight bias, which eventually became the focus of my doctoral project study. Through informal discussions with faculty members regarding weight bias among kinesiology students, I found that other instructors within the department had observed similar incidents. For example, instructors reported that during lecture and casual conversation, some students made statements suggesting that obese individuals will use any excuse to justify why they are fat, and others implied that a lack of motivation and failure to accept responsibility for oneself were contributors to the

obesity epidemic. In particular, instructors noted that when students openly expressed harsh attitudes about a person's choice to be fat, other students within the classroom often concurred with the antifat bias mentality, causing an escalation in antifat attitudes toward the overweight and obese population.

After transitioning to a new teaching position in the health and fitness department at a similar regional university in the same state, I found comparable biases among preservice health majors during class discussions and during student observation hours. During classroom lectures about obesity and discussions about ways to address the number of individuals who fall within the overweight and obese categories, the most common response from students is to "eat less and exercise more;" if obese people would "just do that," the students say, all their weight issues would be resolved. Although students referenced psychological, social, and/or behavioral influences as additional causes related to obesity, the general consensus among students continued to favor the simple remedy of eating less and exercising more as the end-all solution to the problem.

In the clinical setting, several students expressed frustration when having difficulty in properly managing the care of, or giving proper direction to, an overweight or obese individual who seemed unwilling or unable to follow a particular regimen. Students would ask, "How can I help someone if they don't want to help themselves?" In monitoring these students, I found similar types of biases to be apparent among the professionals who were assigned to help the overweight and obese individual. For instance, instead of providing appropriate guidance or redirecting attitudes with knowledge, professionals led with fat jokes or belittling comments or demonstrated the

same level of frustration expressed by students regarding the laziness and a lack of willpower exuded by obese persons. Faculty members reported instances of weight bias by students within all aspects of the teaching environment, including the classroom and practicum settings, thus validating previous findings. Further exploration of the issue led me to conclude that these negative biases and weight-related stigmas play a role in the students' education, as these biases have the potential to affect the level of care for the overweight and obese population including children, athletes, patients, and/or clients.

In researching ways to address this area of concern, I examined a number of texts. However, the majority of course textbooks (i.e. nutrition, exercise prescription, health and wellness, physical education K-12, and school and community health) evaluated referenced only the most common causes of obesity such as sedentary behavior, overeating, and genetic and medical conditions. During this process, the void of information available on weight bias became apparent. For instance, no textbook authors discussed the identification and explanation of weight-related stigmas, the impact of such biases on the overweight and obese population, the subsequent reduction in the level of care administered or received, or effective methods to reduce antifat attitudes.

In working with students at other regional universities, I found a similar pattern among students majoring in various health-related fields. A finding that concurs with previous authors who found that prejudices have the potential to not only affect the level of care received by the overweight and obese individual, but can also deter the overweight and obese individual from seeking medical and preventative care. Puhl and Brownell (2001) contended that one of the most important variables that contributes to

the success of students in working with overweight and obese persons is to identify those implicit (unconscious attitudes) and explicit (consciously acknowledged) antifat biases that affect personal perception of self and others in relation to the terms associated with being overweight or obese. Only then can students begin to identify their own weight-related biases and make appropriate decisions about how to address those negative attitudes. Recognition of weight-related biases enables students to take a proactive approach toward minimizing their effects upon the relationship established between the health professional and the overweight and obese individual.

Evidence of the Problem from the Professional Literature

For the current study, I examined the existence of weight bias among health and fitness related majors at several regional universities in the same state. According to the literature, antifat bias among college students majoring in health-related fields is prevalent in other state universities that offer similar degree programs. Researchers have shown ongoing weight bias among several preprofessionals majoring in health-related fields toward the overweight and obese population. For instance, Wear, Aultman, Varley, and Zarconi (2006) reported that obese persons were the most popular subjects of inappropriate humor among medical professionals, which occurred most often in surgical and gynecological settings. Hare, Price, Flynn, and King (2000) explored antifat attitudes of fitness students and found that 62% of participants held implicit or explicit biases toward obese clients and believed that variables such as inactivity, poor dietary habits, and emotional issues were listed as the primary reasons for obesity.

In assessing implicit weight bias, researchers using the Implicit Association Test reported a strong bias existed among preservice physical education and exercise science students in comparison to a sample of other trained disciplines. More specifically, O'Brien et al. (2007) revealed a marked increase in weight stigma as physical education and exercise science students progressed through the degree program. Exploring explicit antifat bias among exercise science students, Chamblis et al. (2004) found that participants appeared to endorse antifat attitudes, using statements to imply that overweight and obese persons lack self-discipline, are ugly, have poor diets, and lack the willpower to lose weight.

In measuring both types of antifat bias among dietetic students, Berryman, Dubale, Manchester, and Mittelstaedt (2006) found participants to exhibit moderate to severe levels of fat phobia, with the majority of students agreeing that overweight persons are insecure, sedentary, and express poor self-control. Yielding similar results, Magliocca, Jabero, Alto, and Magliocca (2005) examined antifat bias among dental students and found that nearly one third responded negatively to the way that obese patients looked. The findings included that 30% agreed that obese people were less active in comparison to nonobese people, 18% stated being uncomfortable when examining obese patients, and 17% found difficulty expressing empathy for an obese patient.

As preprofessional health students continue through college, antifat biases have the potential to become part of the student teaching and internship experiences, which often include direct contact with the overweight and obese population. Because student

teaching and internship experiences warrant supervisory mentors, health majors become subject to the mentor's viewpoints regarding overweight and obese persons. As a result, studies have found preservice professionals to modify their own beliefs to suit those of the mentoring professional. Maio, Haddock, and Jarman (2007) explored implicit and explicit antifat bias among those currently practicing in health-related fields and determined one theme that stood out across all domains, ambivalence.

Ambivalence expressed by health care practitioners concerning the management of obesity was not reflective of their feelings regarding other lifestyle issues such as smoking and alcoholism (Hansson, Rasmussen, & Ahlstrom, 2011). Rather, these attitudes involve beliefs that patients who are obese lack the willpower to change, fail to accept personal responsibility for their own treatment, or simply choose not to care. In a similar study of more than 620 physicians (Foster et al., 2003), half regarded obese patients as unappealing and uncooperative. One third of participants categorized obese patients as lazy and lacking in willpower, and a larger percentage of physicians referred to obesity as more of a behavioral issue precipitated by lack of physical activity and eating too much.

In a study of 600 general practitioners, findings concluded that when compared to normal weight persons, 30% of participants considered overweight or obese persons to be far less motivated due to self-indulgent behaviors (Bocquier et al., 2005). In addition, 30% of general practitioners viewed a lack of motivation by obese patients to be one of the most difficult barriers to overcome when developing a treatment plan (Bocquier et al., 2005). A large majority of participants viewed overeating as the primary culprit for

obese patients (Bocquier et al., 2005). A study of 752 general practitioners reported similar findings by providers in regards to lack of motivation and compliance from the overweight or obese patient (Campbell, Engel, Timperio, Cooper, & Crawford, 2000). Yet, Epstein and Ogden (2005) found that primary care physicians place responsibility for weight management on the patients themselves.

Negative attitudes among nurses toward overweight and obese patients have been reported (Puhl & Heuer, 2009). Brown (2006) revealed that a large percentage of nurses held biases consistent with weight-related stereotypes (i.e., unmotivated, gluttonous, and less disciplined) to describe overweight and obese persons. Similarly, nearly 69% of nurses in another study believed that personal choice regarding food consumption and physical activity were contributing factors to weight gain (Brown et al., 2007). In the same study, one third of participants believed that obesity was caused by lack of willpower; surprisingly, only 8% believed that obese people are motivated to make lifestyle changes (Brown et al., 2007).

As a prescription of exercise has become the focal point of governmental strategies to reduce obesity (Greenleaf, Martin, & Rhea, 2008; Robertson & Vohora, 2008). Physical education teachers (Peterson, Puhl, & Luedicke, 2012) and exercise specialists (Puhl, Luedicke, & Grilo, 2013) who develop and implement exercise regimens for various populations, including overweight and obese individuals, are not without fault in projecting an antifat bias. Martinek (1997) measured expectations of physical education teachers regarding specific performance and ability standards of normal weight versus overweight or obese students and found that physical educators

displayed moderate to high levels of antifat attitudes. Because of these biases, performance and ability expectations were significantly lower for students who were labeled as overweight or obese. Martinek concluded that participants who exhibited stronger antifat viewpoints also demonstrated a stronger conviction that students of normal weight would outperform students who were overweight or obese, emphasizing cardiovascular strength and endurance, coordination, physical ability, and social interaction with peers.

Expectations posed by the teacher can sway the quality of instruction and the manner in which feedback is provided that subsequently can affect student performance. Greenleaf and Weiller (2005) noted that a direct relationship sometimes exists between individuals who have negative antifat bias toward individuals who are perceived as being overweight and their belief that normal-weight students are far more superior to their overweight or obese peers. This type of bias has the potential to not only create an inclusive climate that supports weight-biased attitudes among normal-weight students, but also produces an environment that overlooks the teasing, bullying, and exclusion that is often associated with being labeled as fat. More specifically, the National Education Association ([NEA], 1994) concluded that "for fat students, the school experience is one of ongoing prejudice, unnoticed discrimination, and almost constant harassment.… From nursery school through college, fat students experience ostracism, discouragement, and sometimes violence" (para. 7).

Fitness trainers, often-called personal trainers, focus on an individual's fitness level by designing and implementing an exercise program tailored to meet the specific

fitness goals of the client. Weight biases within this profession parallel those of other health-related professions, with trainers finding fat people to be lazy, to lack willpower, and to be physically unattractive (Russell, 2011). In a study measuring implicit and explicit antifat bias among fitness professionals, Robertson and Vohora (2008) provided insight into the increased antifat attitudes within health-related fields. Robertson and Vohora found weight bias was more pronounced among those fitness professionals who reported no personal issues with weight gain and those who attributed self-discipline as dictating body weight. The individuals who are hired to facilitate such exercise programs for overweight and obese clientele may be compromised (Robertson & Vohora, 2008).

Another area of concern among students majoring in health-related fields and among those practicing within the health care setting is the apprehension associated with not being adequately prepared to treat obesity. For example, from a sample of 400 dietitians, Campbell and Crawford (2000) reported that less than half received the education needed to treat obese persons. Investigating antifat attitudes of medical interns, Block, DeSalvo, and Fisher (2003) found participants to demonstrate poor skills in gathering information to accurately identify and evaluate obese patients, with 56% stating they felt unqualified to treat the obese population.

In a study of 510 family physicians, Fogelman et al. (2002) found that more than half of the participants reported insufficient knowledge regarding nutritional issues and poor preparation from medical training as barriers to effectively treating overweight and obese patients. Royal College of Physicians (2010) and Thomas, Hyde, Karunaratne, Herbert, and Komesaroff (2008) concurred that lack of professional development

opportunities to improve obesity management skills among health-related professionals have the potential to impede the level of care administered to the obese patient.

Because obesity encompasses "one of the last forms of socially acceptable discrimination" (Falkner et al., 1999, p. 572), a person's physical appearance has the power to influence the reactions of others and to elicit different types of feedback (Herbozo, 2008). Researchers examining the lived experiences of obese individuals have found that weight biases held within the health-related communities provide similar, if not more blatant, viewpoints. In a study examining the frequency and prevalence of antifat bias toward obese patients, Puhl and Brownell (2006) concluded that "doctors were the most frequent source of stigma reported by women and the second most frequent source reported by men" (p. 1812). In another study, obese patients attributed weight bias to lack of educational training and basic viewpoints regarding weight reduction efforts (Puhl & Heuer, 2010). One of the more common complaints expressed by these patients was that some health professionals' judgments were based solely on first impressions, and as a result, they were prescribed the typical weight loss regimen to "eat less and exercise more."

The problem with this generic prescription is the lack support needed to make behavioral changes. Many overweight and obese individuals described feelings of isolation, fear, and depression in their effort to lose weight (Thomas et al., 2008). Embarrassment about weight, poor care, and a lack of knowledge from health-related specialists help to explain why overweight and obese patients frequently delay treatment or avoid medical attention altogether (MacKean & GermAnn, 2013; Rao et al., 2011).

Therefore, the purpose of the present study was to identify if weight bias was evident among health and fitness majors at one southwest regional university.

Definitions

Studies regarding overweight and obesity do not universally differentiate between the two. Therefore, overweight and obesity are often used interchangeably when referencing weight gain (Puhl & Latner, 2007). In addition, associated terms including antifat attitudes, explicit and implicit bias, fat, overweight, stigma, weight bias, weight discrimination or stigma, and weight prejudice are often categorized together and/or used interchangeably. To provide clarification of the differences between the above terms, the definitions used within this project study are listed below.

Antifat attitude: Antifat attitude is a bias that manifests itself within an individual toward another person who is either clinically diagnosed as overweight or obese or whose body shape is subjectively viewed as exceeding what he or she perceives to be an attractive weight. As a result, the individual is labeled as lazy, unattractive, unmotivated, or fat (Puhl et al., 2008).

Body mass index (BMI): Because excess body fat is difficult to measure directly, BMI is often used as a guide to classify excess body weight. It is defined by the CDC (2014) as a "person's weight in kilograms divided by the square of his or her height in meters (kg/m^2)" (para 5). BMI is recognized as the most useful population level indicator of body fat. However, it should be regarded as a screening tool due to weight differences of persons based on percentage of fat vs. muscle mass (WHO, 2010, para. 3).

Although BMI has limitations as a measure, researchers have reported the usefulness of such a tool in screening for possible weight problems and have concluded that adults with a high BMI are at increased risk for one or more obesity-related health conditions including diabetes, breathing disorders, and cardiovascular disease (CDC, 2005). In 1998, the NIH established universal BMI guidelines for both adults (Table 1) and children (see Table 2) and based upon their BMI were placed within the following categories.

Table 1

Adult Weight Classifications by Body Mass Index (BMI)

Terminology	BMI Range
Underweight	≤ 18.5
Healthy Weight	18.5-24.9
Overweight	25.0-29.9
Obese class 1	30.0-34.9
Obese class 2	35.0-39.9
Obese class 3	$\geq$40.0

Table 2

Child Weight Classifications by Body Mass Index (BMI)

Terminology	BMI Range
Underweight	$\leq 5^{th}$ percentile
Healthy Weight	5^{th} to the 85^{th} percentile
Overweight	85^{th} to the 95^{th} percentile
Obese	$\geq 95^{th}$ percentile

Typically, a BMI of 25 or greater is considered overweight, whereas a BMI of 30 or greater is classified as obese. Within a medical context, overweight and obesity are distinguished by the use of the above BMI definitions (Puhl & Brownell, 2003).

Explicit bias: Explicit bias is an intentional (conscious) expression of blatant negative attitudes toward overweight and obese persons, including mocking, bullying, or verbal abuse (Li & Rukavina, 2011).

Fat: Fat is a slang term often used to describe an individual who is either clinically diagnosed as being overweight or obese or is subjectively viewed as exceeding what one perceives to be an attractive weight (Wear et al., 2006).

Implicit bias: Implicit biases are deeply rooted attitudes that are activated without conscious control or awareness, including nonverbal behaviors (decrease in smiling and eye contact) or automatic responses (not sitting next to an obese person) toward overweight or obese individuals (Larkin, 2006).

Overweight and Obese: The terms overweight and obesity are often used interchangeably as a common definition used to encompass both is the "abnormal accumulation of fat, usually 20% or more above the individual's ideal body weight" (Liu, 2008, p. 17) that may impair health.

Stigma: In regards to obesity bias, stigma is the attribute that is carried by the individual who is the target of weight bias (Washington, 2011).

Weight bias/stigma: Weight bias and weight stigma are negative connotations generated by others toward individuals who are perceived as being overweight or obese (Puhl et al., 2008).

Weight discrimination: Weight discrimination is the treatment of an individual based upon the person's weight that results in exclusion or restriction from opportunities that are readily available to other persons (Carr, Jaffe, & Friedman, 2008).

Weight prejudice: Weight prejudice is a negative preconceived notion about a person's physical weight that is often demonstrated by avoidance, belittlement, and/or harassment (Eller, 2010).

Significance

As first responders within this obesity epidemic, health and fitness related professionals who aid overweight and obese persons in losing weight and adopting healthier lifestyle behaviors face complex challenges. Researchers have shown that overweight and obese individuals must contend with multiple forms of weight-related biases within the health care setting. Therefore, one of the main challenges for health-related professionals is to remain cognizant of biases (i.e. weight-related biases and negative attitudes) that have the potential to impede the level of care administered to overweight and obese persons. Research communities have begun to experiment with a diverse set of intervention strategies to reduce weight bias in a variety of contexts. Interventions or professional development opportunities to reduce antifat bias within the health and fitness related fields remain in their infancy.

To fill this gap in educational practice, social change was needed at the university level, where preprofessional health-related majors demonstrated negative antifat attitudes that have the potential to affect their level of interaction with and quality of care for overweight and obese persons. Cultivating an environment which encourages weight tolerance among health-related majors at one southwest regional university required introspection of students toward personal biases and attitudes. As a result, curriculum to

address the multiple domains of obesity to include weight bias reduction efforts was developed.

The purpose of this project study was to determine if obesity bias was present among health/fitness majors and to explore in more depth how health/fitness majors described their own experiences in working with overweight and obese persons. As antifat bias was found to exist, the information provided resolution to the problem by identifying the components needed to develop weight bias awareness curriculum toward facilitating weight tolerance among health/fitness majors at one regional university.

The impact of this project study on weight tolerance coincides with Walden's mission of social justice and change. Development of weight bias awareness curriculum has the potential to enhance the classroom setting by creating opportunities for students to explore their own attitudes and identify effective strategies toward maintaining a level of professionalism when interacting with overweight and obese persons within health/fitness-related settings. Creating a culture that fosters shared understanding, inquiry, and critical thinking has the potential to facilitate social change beyond the classroom and university setting to include the community in which it serves.

Guiding Research Questions

Weight bias exists in some health and fitness related degree programs offered at institutions across the nation as the occurrence of explicit attitudes expressed by students toward overweight and obese persons continues to be reported. For the purpose of this research, two different approaches to examine weight bias from multiple perspectives were used to better understand health/fitness majors' attitudes toward overweight and

obese persons at one southwest regional university. The primary research question that guided the quantitative portion of the study was the following: To what extent, if any, does antifat bias exist among health and fitness majors from one southwest regional university? Based upon quantitative findings, the primary question that guided the qualitative phase of the research process was the following: How do health and fitness majors from one southwest regional university describe their own experiences in working with overweight and obese persons?

Review of the Literature

The review of literature is divided into three main sections. In the section, I discuss the procedures involved in the review process and the steps taken to achieve saturation of literature. I then explore attribution theory in terms of a theoretical framework along with detailed descriptions of attribution theory studies to include the similarities and differences among leading scholars in the field of obesity bias research. The third section provides a critical review of the problem within a larger context, including causes associated with antifat bias among health and fitness related settings, the attitudes of health and fitness professionals toward obese persons, and repercussions of antifat bias that affect obese persons.

Search Terms

When researching obesity bias, several interrelated topics were explored: victims of obesity bias, attitudes and behaviors related to obesity bias, laws and regulations regarding obesity bias, types and causes of obesity bias, impact of obesity bias, and treatment and intervention strategies used to address obesity bias. The initial review of

literature was done by Boolean searches using several combinations of key words including *fat, overweight, weight, obese, obesity, BMI, prejudice, discrimination, stigma, antifat attitudes, stereotypes, attributes, teasing, health care, employment, fitness, interventions, media, television, family, friends, physical education, exercise science, physician, nurse, dietitian,* and *specialization.* A systematic literature search followed that used search terms such as *psychological, medical, behavior, fat phobia, education, weight bias, social science, sport, health,* and *fitness* within online databases, including ERIC, EBSCO, Education Research Complete, PubMed, SCOPUS, PsychINFO, and SPORTDiscus. When exploring the literature, journal articles and books were used to create reference lists that led to manual searches in databases for experts within the field. An investigation of experts led to article references that provided additional insight into related areas of study, including international sources in Australia, the United Kingdom, France, and other European countries.

Theoretical Framework

Attribution Theory

Weight bias has been found among some health and fitness related majors and practicing professionals alike, proving to affect the level of weight management care provided to overweight and obese persons (Adams, 2008; Berryman, Dubale, & Manchester, 2006; Brown, 2006; Budd, Mariotti, Graff, & Falkenstein, 2011; Danielsdottir, O'Brien, & Ciao, 2010; Davis, Shishodia, Taqui, Dumfeh, & Wylie-Rosett, 2008; O'Brien et al., 2010; Wolf, 2010). To date, however, "no theory has fully explained the reasons for weight bias or the origins of negative stereotypes" (Rudd

Center, 2013b, para 1) that would help reduce negative attitudes of health and fitness related professionals toward overweight and obese persons. Rather, social psychologists, through the use of attribution theory, have begun to investigate specific aspects of stigma to better understand the complexity of weight bias (Carr et al., 2008). Attribution theory provides insight as to why people generate assumptions based on behaviors displayed by other people. To illustrate, an overweight or obese person's success of being thinner or the failure of being fat influences how a person reacts to and evaluates that person (i.e. negative or positive). According to Rudd Center (2013b), "we do this with many types of people because it helps us to quickly categorize information about social groups and form expectations of the people in those groups" (para. 2).

With the common North American cultural values of individualism and self-determination, these attributes are inherent (Brownell et al., 2005; Puhl & Heuer, 2010). According to this cultural norm, people all have the same opportunity to affect their life situation; thus, people get what they deserve. Even with a preponderance of evidence supporting the causes of obesity to be a complex combination of genetics, biology, and environment (Cheung & Mao, 2012; Dokken & Tsao, 2007), a significant number of people contend that the individual is ultimately responsible for his or her own obesity and the control of his or her weight gain or loss (Puhl & Heuer, 2010).

One of the best established relations in the study of attitudes toward fat people is the attribution of controllability (Brownell et al., 2005). In other words, bias and negative attributions toward overweight and obese persons regarding the success of being thin or the failure of being fat influences how a person reacts to and evaluates that person (Puhl

& Brownell, 2003). If an individual believes a person is responsible for his or her fatness, comments such as laziness, worthlessness, ugliness, unmotivated, or gluttonous are often assigned; although prejudicial in nature, these terms are used in passing judgment on the individual for failing to accept responsibility for his or her fatness (Crandall et al., 2001).

It is attribution of controllability or the judgment of responsibility that ultimately leads to moral degradation of the person (Weiner, 1993). As one of the first to provide insight regarding the close relationship between attributions and moral judgment, Cahnman (1968) stated:

> Contrary to those that are blind, one-legged, paraplegic, or dark-pigmented, the obese are presumed to hold their fate in their own hands; if they were only a little less greedy or lazy or yielding to impulse or obliviousness of advice, they would restrict excessive food intake, resort to strenuous exercise, and as a consequence of such deliberate action, they would reduce… While blindness is considered a misfortune, obesity is branded as a defect. (p. 294)

Building on this assumption, researchers have corroborated the power of negative attributions when judging overweight and obese persons (Latner, Ebneter, & O'Brien, 2012; Lewis & Puymbroeck, 2008). Attributes are rooted within a person's ideological beliefs (Crandall & Martinez, 1996; Crandall & Moriarty, 1995). Scholars have focused on changing negative attributions and have provided powerful evidence to support the notion that "attributions play an important role in determining attitudes" (Brownell et al., 2005, p. 86).

In comparison to normal weight targets, DeJong (1980) conducted two experiments examining how teen-age girls' opinions are influenced by their assumptions associated with the cause of an obese peer. DeJong concluded that peers gave a less positive evaluation of the obese target if an excuse for the target's weight was not provided. Anesbury and Tiggemann (2000) investigated whether changing youths' views about a person's control over obesity would decrease their negative outlook toward obese youth. An intervention was used to discuss the uncontrollability of obesity and did in fact decrease the amount of controllability that students assigned the target. However, compared to the control group, the intervention strategy proved unsuccessful in reducing participants' negative stereotypes of obese youth (Anesbury & Tiggemann, 2000). An individual's views about a person's control over obesity can be changed, but stereotypes are more resilient to change. In addition, changing attitudes of a group as a whole (i.e., the overweight or obese population) compared to an individual (overweight or obese peer) is more difficult to prove and maintain over time.

However, several examples of theorists attempting to change attitudes toward the group are worth discussing because each provides insight for further research efforts. Wiese, Wilson, Jones, and Neises (1992) incorporated the use of an educational intervention to decrease the negative stigmas of first-year medical students toward obese patients. The intervention used multiple mediums, including video, audio, and a written component. Weise et al. (1992) concluded that students who received the educational intervention were more aware of the significance between genetics and obesity. As a result, endorsements of negative stereotypes regarding obese people were reduced in

comparison to the control group. Weise et al. noted that even after 1 year, students maintained a decrease in negative attitudes, thus providing some validation for the intervention method. However, stigmatization of obesity did not change within the group that received the educational intervention

In another study, Crandall (1994) attempted to change attitudes by having participants read either an article stressing the effect of genetics on weight or an article discussing the physiology of stress. In comparison to the stress group, the weight group's attitudes toward obese people improved significantly, suggesting that education about the different reasons for obesity might warrant further investigation. In similar fashion, Teachman, Gapinski, Brownell, Rawlins, and Jeyaram (2003) had one group of participants read a newspaper article about research describing the genetic causes of obesity, a second group read an article that attributed obesity to overeating or lack of exercise, and a third group (control group) read no article. Results indicated that participants in the overeating/lack of exercise group reported more implicit bias than in the genetic and control groups. However, the genetic group in comparison to the control group failed to report any reduction in bias; therefore, "it may be easier to increase antifat prejudice than to reduce it" (Brownell et al., 2005, p. 87).

Puhl et al. (2010) contended that society often attaches negative personal qualities to individuals with certain conditions, particularly when the unacceptable behavior precipitates the cause. This coincides with Schessler-Jandreau's (2008) findings that society openly communicates its disapproval of fat people, and discrimination often becomes attached to the person as a form of punishment for the undesired behavior.

As one of the first studies to explore the stigmatized experiences of overweight and obese individuals, Puhl and Heuer (2010) reported that the worst prejudice and stigmatizing experiences of participants took place within the home by primary care givers. One instance of such prejudice was reported by a 75-year-old female, who stated:

> My father was always telling me I was fat because I was lazy. I have always been active but I didn't participate in athletics in school. I was in marching band, chorus, and other more academic pursuits so therefore I was 'lazy.' To this day, I feel guilty if I sit down to read a book or magazine. (p. 351).

Further illustrating these biases, Schwartz, Vartanian, Nosek, and Brownell (2006) found that 46% of respondents stated they would be willing to decrease life expectancy by one year, 15% willing to decrease life expectancy by 10 years, and 5% willing to lose a limb to avoid being obese. In addition, 10% and 8% of respondents were willing to make child-related trade-offs, including having an anorexic or learning disabled child as opposed to an obese child. These two studies show that antifat bias, along with society's innate fear of becoming overweight or fat, is an important variable to consider when discussing discrimination and stigma because both terms have been linked with the obese population (Azetsop & Joy, 2011).

Critical Review

The Causes of Antifat Bias in Health and Fitness Settings

As noted by Collins and Bentz (2009), the majority of individuals are not aware of the social and psychological challenges that obese persons face in their day-to-day lives or that they are often discriminated against by health and fitness professionals. Puhl

et al. (2008) found that among 247 females and 44 males who completed self-reported online questionnaires, the most commonly reported instances of stigmatization occurred between friends, parents, strangers, spouses, and family members. Similarly, Levi, Vinter, Richardson, St. Laurent, and Segal (2009) reported that long-term discrimination experienced by obese persons can have lasting consequences and can lead to adverse behaviors. For instance, children may refuse to go to school for fear of being ridiculed; some may resort to drinking to hide their frustrations, while others may even contemplate suicide.

Before exploring the causes of antifat bias in health and fitness settings, the occurrence of weight bias among obese persons is prevalent in other settings as well. Heuer, McClure, and Puhl (2011) observed that media reporting has also proven to have an impact on obesity-related stigmas. Russell (2011) referenced a *New Zealand Herald* article about a study that reported finding that a human-to-human transmitted virus could be a possible cause of obesity. The headline read, Western Obesity May Have Been Caused by 'Fat Bug (Gabbert, Donohue, Arnold, & Schwimmer, 2010; Lawrance, 2010). Lawrance postulated that such outbursts by the media have the potential to perpetuate society's panic and demand for protection from this so called "infectobesity" paradigm inappropriately.

Himes and Thompson (2007) reported another area of concern. Overweight characters on television often fill stereotypical roles in which their characters are ridiculed and teased, and they are rarely shown to exhibit positive social interactions and/or romantic relationships. Within the same context, Brownell, Schwartz, Puhl,

Henderson, and Harris (2009) and Penny and Haddock (2007) alluded to the significant influence of the media on children. These researchers have shown that fat stereotyping has expanded to childhood characters, and children who watch more television are more prone to labeling the overweight target as negative.

Another source behind antifat bias is the continued idealization of thinness in American culture. Thus, having self-control, working hard, and showing the willpower to avoid overeating have become symbolic. This perception fuels the belief that a person is in total control of his or her weight. To lose weight, the person must exhibit the discipline and self-control needed to achieve success. Overweight and obese individuals who fail to acquire these traits are perceived as lazy, unmotivated, and/or lack self-control. As studies indicate, overweight and obese persons are less stigmatized by others when the individual's obesity is associated with a medical condition that inhibits the person's ability to control weight levels (Bell & Morgan, 2000; Crandall, 1994; DeJong, 1980; Puhl & Latner, 2007). Higher percentages of negative attitudes have been reported when individuals are not given an explanation of why the person is overweight or obese (Puhl, Peterson, & Leudicke, 2012).

The major cause of antifat bias in health and fitness settings is the existing societal perceptions that depict obese individuals negatively. Negative terms such as lazy, lack of self-control, unsuccessful, awkward, unpleasant, bad, and ugly are used by society to refer to obese individuals, and they affect health and fitness professionals, often making them reluctant to provide quality care to obese individuals. A growing body of research shows that weight bias awareness among professionals in the health care

setting is needed in order to enhance the quality of care provided to overweight or obese persons (Baine & Farley, 2010; Hand, Robinson, & Creel, 2012).

In 2011, Creel and Tillman found that common terms such as "ashamed," "embarrassed," and "humiliated" were evident among overweight participants with many of them expressing strong feelings of emotions, including "angry," "degraded," "defensive," "mortified," and "self-hatred" (p. 1344). In the same study, nurses were also found to contribute to those feelings of shame, which are consistent with society's negative perceptions of obese persons. Similarly, Merrill and Grassley (2008) reported ongoing bias when investigating eight overweight and obese women's stories about health care provider experiences. Feeling out of place, being perceived as less than human, and thoughts of humiliation were commonly reported among female participants. Rather than being seen as human beings, the participants felt as though they were perceived only as an overweight body. According to Lewis and Puymbroeck (2008), discrimination toward and negative perceptions about obese persons has been evident since the 1960s. For example, in the 1960s, Maddox and Liederman (1969) conducted a study from a medical clinic on fat biases among physicians and students. Their findings show how the long-standing stigma of negative perceptions attributed to obese individuals affect the willingness of health and fitness professionals to offer health care services.

Puhl and Heuer (2009) pointed out that preprofessionals within the health and fitness related domains lack proper training on how to care for obese victims. Without such training, they are likely to develop or maintain negative attitudes toward obese

persons, especially in communities where obesity stigmatization is high. Wolf (2010) conducted a study among Physician Assistant (PA) students and established that the medical students had substantial discrimination toward overweight and obese individuals, mirroring findings among undergraduate nurses, registered nurses, and dietetic students. Wolf (2010) found that PA students demonstrated average-to-moderate levels of fat phobia, and she suggested that pre-assessment measures like the Fat Phobia Scale (Bacon, Scheltema, & Robinson, 2001) be employed by institutions that have a direct affect in the care of obese patients.

O'Brien et al. (2010) and Peters and Jones (2010) further noted that lack of proper training of health and fitness related students from the early stages of their careers inhibits the process of change in attitudes as well as embracement of positive perceptions regarding obese individuals. Over the 3 month period, Wear et al. (2006) led five voluntary focus groups consisting of 58 third and fourth-year medical students. The data revealed several classifications: "(a) patients who were objects of humor; (b) locations for humor; (c) the humor game; (d) not-funny humor; and (e) motives for humor" (p. 454). Wear et al. concluded that medical interns become physicians by working closely with resident faculty and in the process become subjected to and often learn to accept insulting and sarcastic humor that is deemed suitable for a specific category of patients.

Attitudes of Health and Fitness Professionals toward Obese Persons

According to Puhl and Heuer (2009), health and fitness professionals' antifat attitudes may at times prevent obese persons from seeking medical attention. In an experimental study involving more than 400 health professionals, Klein, Najman,

Kohrman, and Munro (1982) found that the medical professionals identified the features of the obese persons that cause discomfort and dislike. Professionals were asked to anonymously identify negative responses assigned to undesired characteristics of patients. Obesity was listed by one third of the professionals and was the fourth most-common category listed. The three social characteristics that professionals reacted negatively toward that ranked higher than obesity included mental illness, drug addiction, and alcoholism.

In their study, Klein et al. (1982) found instances in which health professionals labeled overweight and obese patients as dishonest, having low hygiene levels, and lacking the willpower to change. It was concluded that such responses among health professionals reflect societal perceptions that emphasize achievement and self-discipline as positive characteristics that the health care professionals deemed absent in some of the patients' conditions such as obesity and drug addiction (Klein et al., 1982). In a similar study involving dietitians, Harvey, Summerbell, Kirk, and Hill (2002) reported mixed attitudes toward overweight or obese people. The study found dietitians to perceive overweight patients as having a low self-esteem, less sexually attractive, and unhealthy, with higher instances of weight stigma among individuals classified as obese. Yet, Maroney and Golub (1992) noted that 63% of the nurse respondents felt that obesity could be prevented by self-control. A majority of the respondents felt that obese persons are excessively angry over nothing, lazy, unsuccessful, and overindulgent. Similarly, the authors indicated that 48% of the nurses reported usually feeling uncomfortable while

caring for obese individuals and 31% of the nurses inferred that they would rather avoid having to care for obese individuals at all.

As Puhl and Brownell (2001) pointed out, these findings show similarities with those of another study conducted to establish the attitudes of women registered nurses toward individuals with obesity. The study found that 24% of the participant nurses were usually repulsed by the idea of caring for obese individuals. In the same study, 12% of the registered nurses preferred not to have anything to do with taking care of obese individuals. The study established that the much older nurses who had been in the nursing profession for a longer time had less favorable attitudes toward the obese individuals as compared to their younger counterparts. Interestingly, a positive correlation between nurses who reported being dissatisfied with their own weight and negative stereotypes was found.

As research suggests, dietitians should be at the forefront of managing obese individuals' attitudes toward food and nutrition in general (Puhl, Wharton, & Heuer, 2009). In this regard, McArthur and Ross (1997) pointed out two different studies that examined the attitudes of dietitians toward obese persons. The first study established that the dietitians had hesitant attitudes toward individuals with obesity. In the second study, both dietitian professionals and dietitian students had negative attitudes toward individuals with obesity. In addition to the studies that examined the attitudes of health and fitness professionals toward obese persons, Puhl and Heuer's (2009), Vartanian and Shaprow's (2008), and Bacon and Aphramor's (2011) studies documented adjectives

such as unsuccessful, awkward, unpleasant, bad, and ugly continue to be used in today's health and fitness related cultures to describe individuals with obesity.

The Repercussions of Antifat Bias on Obese Individuals

According to Levi et al. (2011), there is an urgent need to address the repercussions of discrimination and negative attitudes of health and fitness related professionals who care for individuals with obesity. Kristeller and Hoerr (1997) showed that having negative attitudes toward obese individuals might lead to unprofessional judgment as well as unprofessional practices by health care providers. This study evaluated clinical judgments made by mental health workers. Kristeller and Hoerr (1997) reported that patients who suffered from obesity were always ascribed negative symptoms when compared to the patients with average body weight. In addition, the obese patients were rated more severely in terms of the dimensions of psychological functioning.

In a study that involved health and fitness professionals from different specialties, Puhl and Brownell (2001) found poor management practices in terms of caring for obese persons. In this study, the health professionals completed report surveys on the referral practices, attitudes, and practices of intervention when treating obese individuals. Medical professionals reported being aware of obesity risk factors and acknowledged that many of their patients who seek treatment are overweight. However, the authors established that the medical professionals were reluctant to intervene with the obese individuals because they were unsure about how to handle the obesity conditions, and

they were unlikely to impose referral services such as weight loss programs for obese individuals.

In a similar study, Price, Desmond, Krol, Snyder, and O'Connell (1987) established that a majority of health and fitness professionals recommended commercial weight loss programs with questionable success to their obese patients. Similarly, a majority of the health professionals felt that they had responsibility for helping their patients who suffered from obesity. However, 23% of the responding health professionals failed to recommend any treatment to their obese patients, while 47% of the responding health professionals felt that counseling and giving proper health guidance to the individuals with obesity was an inconvenience.

Out of a total of 211 responding physicians, Pratt, Nosiri, and Pratt (1997) found that medical professionals are hesitant when treating obesity. To illustrate, 33% indicated responsibility over the management of their patients' overweight conditions, whereas 39% of the respondents felt that their role was just to cooperate with other medical professionals in providing medical assistance to their obese patients. The attitudes of the physicians were not observed in this study, however limitations such as lack of time and lack of proper medical training were identified by the physicians as the possible causes of neglect of individuals suffering from obesity.

In a survey examining the practices and attitudes of general medical practitioners specializing in weight management, findings produced mixed results (Campbell & Crawford, 2000). The practitioners felt that they had a positive role to play in promoting healthy lifestyles for overweight individuals. They also felt that the management of

obese individuals was an unrewarding profession, and they noted lack of motivation as well as poor patient compliance as their typical frustrations when dealing with obese individuals. According to Puhl et al. (2008), attitudes and general reluctance by health care professionals to provide appropriate care and/or referrals have the potential to affect overweight and obese persons by delaying when they receive health care.

Exploring the association between obesity and the rate at which women schedule pelvic exams, Rand and MacGregor (1990) conducted a survey where 290 women and more than 1,300 medical professionals responded to the questionnaire. The results indicated that average weight women are less likely to be reluctant to seek pelvic examinations compared to their overweight counterparts. Similarly, body image was seen to have a direct association with pelvic examinations; 69% of women with an ideal body image sought pelvic examination, while only 55% of women who had body image issues sought pelvic examination (Rand & MacGregor, 1990).

In the same study, Rand and MacGregor (1990) further noted that young and inexperienced physicians were more hesitant to conduct pelvic examinations on obese women than the older and more experienced physicians. Males were more reluctant compared to their female counterparts, who had a high level of willingness to perform pelvic examinations on obese women. Similarly, Stephenson (2011) observed that obese women are more reluctant to seek pelvic examinations and other health care services and may end up not receiving necessary treatment, even in serious situations.

According to Budd et al. (2011), obese women have a tendency to delay seeking medical care due to “disrespectful treatment, embarrassment at being weighed, negative

attitudes, unsolicited advice to lose weight, and medical equipment that was too small to be functional" (p. 127). In a study involving female medical employees, Olson, Schumaker, and Yawn (1994) found that BMI was directly related to a majority of appointment cancellations for women. More than 12% of the female respondents either delayed or cancelled health appointments due to weight issues; when weight concerns were discussed with their physicians, negative outcomes were reported. In the same study, 32% of women who had a BMI of less than 27 and 55% of those who had a BMI greater than 35 had a tendency to cancel or delay their medical appointments due to the fear of being weighed before receiving treatment. Thus, a majority of respondents felt that cancellations and delays in appointments were simply caused by fear of embarrassment on weight matters.

Although research studies have succeeded in focusing on the attitudes of health and fitness related professionals toward individuals with obesity, Puhl (2011) conceded that research examining how those attitudes affect the delivery of services to overweight and obese individuals' remains in its infancy. More attention should focus on the various reasons as to why overweight and obese persons delay or cancel medical appointments. Phul (2011) provided one such reason that emphasized the fear associated with being weighed before treatment regardless of how much support they are shown by the medical professionals and/or the failure of facilities to provide appropriately sized equipment.

Camden, Brannan, and Davis (2008) agreed that a majority of health care professionals who have negative attitudes toward obese individuals have perceptions that obesity is a social problem and as such, they should do their best to avoid it in their

practices. Equally, Camden et al. (2008) suggested that health care professionals who choose to treat obese individuals should do so without degrading them in order to promote success in the process of offering much needed medical service. Initiatives proposed by the U.S. Department of Health and Human Services (2011) included the need for additional changes to help reduce the stigma of obesity, including recognizing obesity as a serious medical condition. Providing health care services to overweight and obese individuals with more support and respect from health care providers. As standard practice, incorporating professional development training over bias reduction strategies among employees within the health care setting.

Implications

Antifat bias appears to be a national problem that exists in some health and fitness related degree programs offered at various institutions with limited research on how to address this emerging issue within the classroom. Part of the problem may be that, "to date, no theory has fully explained the reasons for weight bias" (Rudd Center, 2013b, para. 1) or why negative stereotypes remain so resilient to change. However, after completing the initial literature review of attribution theory, I have developed a more comprehensive understanding of weight stigma as well as how negative assertions made about overweight and obese persons can become apparent within health and fitness related disciplines. As a result, attribution theory proved useful in providing a framework to help guide the development of weight bias curriculum.

For example, use of multiple strategies to include written materials, videos, reflective exercises, case studies, and practice of subtle communication skills during role-

play could provide one possible solution on how to address the issue of obesity bias within the classroom. Emphasis on a more compassionate yet inclusive approach toward weight stigma may provide the missing content needed within the health and fitness-related disciplines toward aiding health and fitness majors in acquiring the skills needed to deliver weight management practices that foster patient health that is devoid of weight related biases. In turn, the development of such curriculum has the potential to facilitate social change whereby adoptive approaches to minimize antifat bias are identified and use of weight tolerance strategies among health and fitness majors within the classroom become best practice. This would support the project outcome of social change that extends beyond the regional university to include health professionals of surrounding communities and the people they service.

Summary

In the first section, the problem of weight bias among health and fitness majors from regional universities in a southwestern state was identified followed by the rationale to include evidence from the local context and supporting evidence found within the professional literature. The importance of the problem and research questions to address this area of concern have been identified along with the literature review, which provided an in-depth analysis of the theoretical framework used to address weight bias among health and fitness professionals. Based on the analysis of quantitative and qualitative data, possible implications for this project study have been identified.

In regards to Section 2, emphasis was placed on methodology design and approach, setting and sample, sequence of how data collection and analysis procedures

were implemented, and tables and figures to describe key components. Additionally, a section was included to specifically address the measures that were taken to protect participants' rights throughout the research process. Information and findings from Section 2 were applied to Section 3, with emphasis on project description and goals, rationale for the study choice, the relationship of the theoretical approach to the research problem and findings, and the potential for social change. Section 4 addresses strengths, weaknesses, and/or limitations of the project study as well as providing a discussion of alternative solutions to the problem. In addition, a self-analysis of the doctorate journey will be revealed and will include the following components: significance of work, what was learned, and directions for future research.

Section 2: The Methodology

Introduction

In the first portion of the methodology section, I will reveal the purpose and rationale for choosing a mixed methods approach. Furthermore, discussion of the strategies used for data collection will include the order in which quantitative and qualitative data were implemented, the priority given to a specific approach, and how the two data sets were connected throughout the research process. Next, data collection tools, data analysis procedures, and justification for research design and approach will be explored. Lastly, discussion over my role in the research process and the measures taken to ensure that participants' rights were protected throughout the research process will conclude this portion of the methodology section.

Mixed Methods Sequential Explanatory Design

Mixed methodology refers to the collection, analysis, and integration of both quantitative and qualitative measures during some point of the research process (Creswell, 2014). The purpose of this design was "to obtain different but complementary data on the same topic" (Morse, 1991, p. 122) in order to provide a deeper understanding of the research problem. More specifically, a mixed methods sequential explanatory design was used for this project study. The collection and analysis of quantitative data was completed during the first part of the research study, followed by the collection and analysis of qualitative data in the second part of the research study.

As the focus of this project study was to examine the attitudes of health and fitness majors from one southwest regional university toward overweight and obese

persons, quantitative findings were used to provide a general understanding of the research problem (antifat bias). Analyses of qualitative findings were used as a follow-up measure to describe how health and fitness majors explained their own experiences in working with overweight and obese persons. Collectively, findings were used to determine that weight bias awareness content would be developed and implemented as supplemental curriculum to enhance obesity education among health and fitness majors at one southwest regional university.

Strategy for Data Collection

Collins, Onwuegbuzie, and Sutton (2006) identified four assumptions in conducting mixed methods research. These assumptions validate the choice of using a sequential explanatory design in this study, (a) participant enrichment (mixing quantitative and qualitative research to optimize sampling), (b) instrument reliability (appropriateness and utility of existing instruments), (c) treatment integrity (trustworthiness/dependability of the intervention), and (d) significance enhancement (facilitating richness of data by expanding upon the interpretation and usefulness of both quantitative and qualitative findings).

According to Teddlie and Tashakkori (2009), the selection of a mixed methods design is also related to the timing, weight, and approach used to mix the data. Timing refers to the order in which data are used; weight implies the priority placed upon the qualitative and quantitative approaches used; and mixing encompasses how the two data sets will be connected within the different stages of the research process. Based upon these guidelines, the timing of data collection occurred within the following two phases:

- Phase I: ATOP questionnaire (Allison, Basile, & & Yuker, 1991)
- Phase II: 2-week follow-up individual interviews

Vogt, Gardner, and Haeffele (2012) further elaborated on the significance of the weight given to a particular approach when using a mixed methods design that is dependent upon several variables: (a) interest, (b) audience, or (c) purpose. The authors concluded that in a typical sequential explanatory design "priority is often given to the quantitative element because it comes first and often represents the major facet of the mixed methods data collection process" (p. 72). At the same time, Bickman and Rog (2008) suggested that the researcher's goals, scope of research questions, and/or the design phase are also important variables to consider when assigning weight.

For this project study, more weight was given to the quantitative approach as the findings obtained from ATOP (Allison et al., 1991) scores provided descriptive estimates as well as relationships that existed between variables toward identifying similarities and differences of antifat attitudes among health and fitness majors toward overweight and obese persons. Thus, qualitative findings were used to build upon those initial findings by conducting individual interviews to further understand how health and fitness majors described their own experiences in working with overweight and obese persons.

Multiple Forms of Data Collection and Analysis

Based on the sequential explanatory design, collection of data occurred within two distinct phases that built upon one another to collectively provide answers to the research questions posed and to provide insight regarding the need to develop weight bias

curriculum among health and fitness majors toward weight tolerance within the health and fitness related settings.

Quantitative. The instrument used in this portion of data collection consisted of a reliable questionnaire provided by Rudd Center for Food Policy and Obesity at Yale University: the Attitudes Towards Obese Persons (ATOP; Allison et al., 1991; Rudd Center, 2012a). This instrument (Appendix B) has been used by experts in the field of weight bias research and has been validated as one of the main instruments for the psychometric measure of attitudes about obesity (Allison et al., 1991; Rudd Center, 2012a). Although the questionnaire and the scoring instructions are publically available for researchers through the Rudd Center for Food Policy, permission from the copyright holder for approval to use the ATOP questionnaire was requested and approved (see Appendix C).

Qualitative. Following the analysis of ATOP scores, a semistructured interview format was used to expand upon quantitative findings. Open-ended questions were used to provide health and fitness majors with the opportunity to describe their own experiences in working with overweight and obese persons (Appendix D).

Justification for Design and Approach

The sequential explanatory approach used in this study provided for the accumulation of qualitative data that provided additional insight into quantitative findings. In using this design, the methodology also compensated for inherent method weaknesses, capitalized on method strengths, and offset method biases (Greene, 2007). As data from quantitative findings found biases to exist, qualitative interviews provided

additional insight in understanding those biases. In combining quantitative and qualitative methods, answers to the research questions posed in the project study provided justification for the development of a weight bias awareness program for health and fitness majors at one southwest regional university.

Data Integration

Integration of the two forms of data occurred when quantitative results were used to guide the direction and theme of interview questions asked during the qualitative phase of the research study (Creswell, 2009; Creswell & Plano Clark, 2006). The two forms of data were further integrated during analysis, when qualitative results were used to expand on and further explain the results of quantitative data (Creswell, 2009; Plano Clark, Huddleston-Casas, Churchill, O'Neil Green, & Garrett, 2008). By linking the different stages of the research process, I was able to do the following during data analysis:

- Examine ATOP scores regarding explicit antifat attitudes of kinesiology students from one southwest regional university
- Expand upon kinesiology students' attitudes toward overweight and obese persons
- Interpret the data to assess whether or not the development of obesity bias awareness curriculum was needed

Research Questions

The problem addressed in this research study was my observation of negative attitudes portrayed by health and fitness majors from southwest regional universities toward overweight and obese persons in both the classroom setting and during

observation and clinical settings. Therefore, I focused on a mixed methods approach to further examine this problem in more depth. To facilitate this process, research questions were used to identify if weight bias was evident, followed by interviews to gain a deeper understanding of participants' attitudes toward overweight and obese persons, which lead to a resolution of the problem. More specifically, the integration of both sets of data which supported the need to develop weight bias awareness curriculum to facilitate weight tolerance among health and fitness related majors at one southwest regional university.

Phase One: Quantitative

RQ1: To what extent, if any, does antifat bias exist among health and fitness majors from one southwest regional university?

Phase Two: Qualitative

RQ2: How do health and fitness majors from one southwest regional university describe their own experiences in working with overweight and obese persons?

Quantitative Setting and Sample

Quantitative Population

The research took place in the health science department at one southwest regional university. The population represented 256 health and fitness majors who were estimated to be enrolled in courses with PE, PRM, and KINES prefixes for the fall 2013 semester.

Quantitative Sampling Method

The sampling method used for the quantitative portion of this study was nonprobability sampling. In using this method, one of the limitations was that of the study's lack of generalizability. However, Lodico, Spaulding, and Voetgle (2010) concluded, depending on the overall purpose of the study and how the results will be used, lack of generalizability may not be regarded as an issue. For this project study, generalizability of findings was not the anticipated outcome. Rather, the results were intended to inform a project specific to this university.

Quantitative Sample Size

The focus of this project study was to examine weight bias among health and fitness majors at one southwest regional university. Therefore, convenience sampling was the method used, and the entire population of health and fitness majors was invited to participate in the survey. With a population size of 256 health and fitness majors, 195 health and fitness majors volunteered to complete the survey.

Quantitative Eligibility of Selected Sample

Eligibility procedures were established to control for errors and to maintain representation of the sample under study. The criteria for selecting participants for the quantitative portion of this study were based on the following: (a) the participant was listed as a health and fitness major in the university computer, (b) the participant was enrolled for the fall 2013 term, and (c) the participant was at least 18 years of age.

Quantitative Characteristics of Selected Sample

one southwest regional university was used to obtain a sample group for this project study. All participants in the study were classified as health and fitness majors ranging from freshman to senior level status.

Qualitative Setting and Sample

Qualitative Population

The second phase of data collection took place in the health science department at one southwest regional university. The focus of the study transitioned from a population of 256 participants identified in the quantitative phase of the study to 12 participants for the qualitative phase of the study.

Qualitative Sampling Method

The sampling method used for the qualitative portion of this study was nonprobability sampling. Purposive sampling was the procedure used to gather information rich-cases for in-depth analysis of health and fitness majors' attitudes toward overweight and obese persons (Patton, 2002).

Qualitative Sample Size

Extreme case sampling was the strategy used to identify outlier cases to include the six highest scores and the six lowest scores obtained from the ATOP scale that was completed by participants in phase one. Based on quantitative findings, 12 health and fitness majors were selected to complete individual interviews.

Qualitative Eligibility of Selected Sample

For this phase of data collection, eligibility requirements were based on the results of ATOP scores collected from the quantitative data. This sample was based upon the six participants who scored the highest and the six participants who scored the lowest on the ATOP scale.

Qualitative Characteristics of Selected Sample

Characteristics of the selected sample stressed dissimilar scores. This method was used to ensure that diverse perspectives of participants from across the spectrum were used in gathering useful information during the interview process.

Quantitative Sequence

A mixed-methods research design proved valuable in providing a platform for bridging quantitative and qualitative findings. In using a sequential approach, quantitative data were used to statistically analyze the human experience; of health and fitness majors' attitudes toward overweight and obese persons.

Instrument

The ATOP questionnaire was the instrument used to collect data for this portion of the research study. The ATOP scale is designed to measure explicit attitudes toward obese persons. It is a 20-question survey using a six-point Likert Scale. The items included, "Most obese people are more self-conscious than other people," "Severely obese people are usually untidy," "Most people feel uncomfortable when they associate with obese people" (Allison et al., 1991). The instructions asked participants to respond to the questions by marking each item from one to three and placing a minus or plus sign

(- or +) to indicate whether they strongly agree or strongly disagree (i.e., -3 strongly disagree or +3 strongly agree). Scores ranged from 0 to 120, and 60 was added to the total to remove negative scores, with lower scores indicative of more negative attitudes towards obese persons.

Validity

Validity is the degree to which a measurement "accurately reflects the specific concept that the researcher is attempting to measure" (Carmines & Zeller, 1979, p. 20). In essence, does the study measure what the researcher set out to measure? To answer this question, internal validity was used to assess the rigor in which the study was conducted and the extent to which alternative explanations were accounted for. To assess internal validity, four types were explored: face validity, criterion related validity, construct validity, and content validity (Pierce, 2008).

Face Validity. Originally devised in 1991 by Dr. David Allison of the John Hopkins University Medical School, the ATOP questionnaire was composed of items created by the authors and those items that were modified from the Attitudes Toward Disabled Persons (ATDP) and the disparaging image factor of the Maiman, Wang, Becker, Finlay, and Simonson (1979) scale. According to Allison et al. (1991), all items were selected on "face validity and past utility in measuring attitudes" (p. 602). Multiple studies since then have been conducted by leading experts in field of weight bias research thus solidifying face value of the instrument.

Criterion Related Validity. Criterion related validity is used to measure the exactness of the instrument by comparing it with another instrument, which has already

been validated (Cronbach & Meehl, 1955). For this instrument, the ATOP scale has been reported to have acceptable validity in adult populations, with significant correlations (r = .52, $P < .01$) between ATOP and the Antifat Attitudes Scale (Crandall, 1994; Latner et al., 2008).

Construct Validity. Construct validity is characterized by "the extent to which a test measures a theoretical construct or attribute" (Pierangelo & Guiliani, 2008, p. 98). According to Allison et al. (1991), association was found to be significant across the three samples used in the ATOP scale. More specifically, participants who scored more positively toward overweight or obese persons did so because of perceiving obesity as operating outside of a person's control. Whereas, participants who believed obesity to be within the person's control scored more negatively on the questionnaire. Allison et al. (1991) found the findings to be consistent with prior research and suggested that construct validity was achieved.

Content Validity. For this measure, Allison et al. (1991) concluded that there were three separate domains identified in the ATOP scale that were used to measure weight bias among overweight and obese persons. These factors were Different Personality, Social Difficulties, and Self Esteem. The authors indicated that these factors were in fact helpful in understanding weight bias.

Reliability

Reliability is the extent to which "any measuring procedure yields the same result on repeated trials" (Carmines & Zeller, 1979, p. 11). For this instrument, the ATOP scale

has been reported to have acceptable reliability in adult populations, with an ά coefficient range of .80 to .84 (Puhl & Brownell, 2006).

Descriptive Statistics

Descriptive statistics include the use of numbers and tables to summarize and present raw data specific to the sample population being studied (Lodico et al., 2010). For this phase of the research process, descriptive statistics were used to answer the main research question: "To what extent, if any, does antifat bias exist among health and fitness majors from one southwest regional university?" Using SPSS software (version 19), the following categories of data were generated:

- Frequency distribution: organize the raw data in a meaningful way
- Dispersion: measure how spread out the data might be
- Skew: determine what scores will be at the high and low end of the scale
- Central tendency: indicate the most commonly occurring points of data sets

Inferential Statistics

Inferential statistics are used to make predictions or inferences about the larger population from which analysis of the sample occurs. In this instance, inferential statistics were used to answer whether or not health and fitness majors scored below the midpoint of the ATOP scale indicating overall negative attitudes toward overweight and obese persons. More specifically, a one-sample *t*-test was used to compare each participant's ATOP score with the midpoint of the scale to determine if the participants, on average, held a negative bias toward overweight and obese persons. In order to explore the relationship between ATOP bias (dependent variable) and demographic

characteristics (independent variables), ANOVAs to measure nominal level data and correlations to measure interval level data were used. ATOP bias was compared between men and women, among ethnicities and current year of study using ANOVAs. Pearson correlations were used to examine the relationship between ATOP bias, BMI, and age.

Processes

Prior to conducting the quantitative phase of data collection, I met with the chair of the health science department to develop a timeline and review IRB expectations in regards to my role in conducting research at the institution. During this time, I confirmed and then scheduled the two-week period needed to complete this portion of data collection. During the recruiting phase (week one), dissemination of information and collection of data occurred outside of scheduled class times. In a neutral location, students were recruited by me and provided with the consent form which doubled as the introductory letter stating the purpose and procedures of the study to include consent to participate. I informed students that if they were interested in completing the survey that I would be available in the same location the following week.

During the data collection phase (week two), 195 students that volunteered to participate were asked to complete the consent form first (Appendix E). Upon completion of the consent form, I compared each participant's name to my data sheet and wrote down the pre-assigned number on the survey to maintain confidentiality of participants' names. Participants were then asked to complete demographic questions and the actual ATOP survey. Once all data had been collected within the allotted period, participants with the six highest scores and six lowest scores on the ATOP questionnaire

were identified and selected as the participants for the qualitative portion of the project study.

Raw Data

Management of data played an integral role during the analysis phase. The following measures were used to ensure that data collection, storage, accuracy, and security of information were maintained throughout the research process. IRB approval from Walden University and the regional university, consent forms, and ATOP questionnaires were placed in a secure box and stored in a personal locked filing cabinet. IRB approval forms, consent forms, and ATOP questionnaires were copied to a password protected USB drive as a backup measure. SPSS software (version 19) was used to house student identification numbers followed by the input of raw data, which will be kept for five years following completion of the research project and then destroyed.

Explanation of Data

Using SPSS software (version 19), demographic data were evaluated first followed by the analysis of data gathered from the administration of the ATOP questionnaire. Use of descriptive statistics was used to summarize the data, provide a visual presentation of data, and illustrate how findings from the sample were used to answer the main research question. Mean (*M*) and standard deviation (*SD*) ratings of ATOP items were used to reflect ATOP scores. Inferential statistics are used to make predictions or inferences about the larger population from which analysis of the sample occurs. A one-sample *t*-test was performed in order to determine if the participants, on average, had a bias toward overweight and obese persons. ANOVAs to measure nominal

level data and correlations to measure interval level data were used to explore the relationship between ATOP bias (dependent variable) and demographic characteristics (independent variables). ATOP bias was compared between men and women, among ethnicities and current year of study using ANOVAs. Pearson correlations were used to examine the relationship between ATOP bias, BMI, and age.

Qualitative Sequence

According to Mack, Woodsong, MacQueen, Guest, and Namey (2005), "the strength of qualitative research is the ability to provide complex descriptions of how people experience a given research issue" (p. 1). Thus, "expressive information not conveyed in the quantitative data about beliefs, values, feelings, and motivations" (Berkwits & Inui, 1998, para 3) were examined through the use of individual interviews that provided the context necessary to help explain quantitative findings.

Procedure for Gaining Access to Participants

The procedure for gaining access to participants was determined by the analysis of ATOP scores where the six highest scores and six lowest scores were identified and then selected to participate in the individual interviews. Once the 12 participants were identified, I made contact with each participant by phone and/or email to discuss the purpose of the study, voluntary consent (Appendix F), and guidelines that would be used to conduct the interview. For those students who did not give voluntary consent, I selected the next highest/lowest number on the ATOP scale and followed the above protocol in discussing this phase of data collection.

Interview Plan

Conducting a good interview involves constructing the protocol that will be used to inform participants of the interview process (Lodico et al., 2010). Therefore, an outline of the interview plan was created and used as a guide to ensure that participants were accurately informed. Prior to beginning the interview process, I provided the participant with the list of interview questions and used that time to enable the participant to review each question. Once completed, I explained the purpose of the study and went over each element of the consent form to include voluntary participation and confidentiality of the participant. Next, I explained the type of interview format that would be followed and how long the interview would take to complete. At this point, I used this time to provide the participant with information on how to contact me, asked the participant if he/she had any questions, and asked for permission to tape record the interview.

During the interview process, use of audio recording was the primary measure used to ensure that accuracy of data was maintained; whereas, note-taking was the secondary measure used to identify participants' nonverbal reactions and/or identify key words and potential themes. I summarized key data immediately following each interview. All 12 interviews were held outside of standard class time and conducted at a neutral location on the first floor of the health science department. The duration for each interview was approximately thirty minutes in length and the period required to complete this portion of data collection was two weeks.

Methods of Establishing a Researcher-Participant Relationship

As I am not associated in any way with the regional university, my intent was to provide all participants with an atmosphere that was free of judgment or bias. However, my initial presence as an authoritative figure may have caused some of the participants to be uncomfortable or be hesitant in answering questions. Therefore, I made sure to address this concern at the beginning of the interview and continued to provide reassurance by communicating openly with each participant throughout the interview process. I remained cognizant of any non-verbal gestures and/or facial expressions exhibited by me in order to minimize any potential factors that could have affected the participant's answers. Upon completion of the interview, I used this time to answer any additional questions posed by the participant.

Data Triangulation

Triangulation occurred during the first phase of quantitative analysis as ATOP scores were examined to reveal whether or not antifat bias existed among health and fitness majors and served as a building block for the incorporation of qualitative data. Interview questions were developed to verify and deepen the analysis of quantitative findings. Interviews were conducted to understand how health and fitness majors described their own experiences in working with overweight and obese persons. Triangulation occurred during the second phase of qualitative analysis as crosschecking for similarities and differences between quantitative and qualitative findings was used to improve the credibility and validity of the results. Collectively, findings were used to explain more fully health and fitness majors' attitudes toward overweight and obese

persons and to provide evidence for resolution of the problem (antifat bias) such as the development of weight bias awareness content for undergraduate health and fitness majors at one southwest regional university.

Role of the Researcher

For the past fifteen years, my educational background included working in both the public school and university setting as an educator for lifetime health and fitness. During that time, my experiences in witnessing weight bias among students, teachers, faculty, and professionals in the community stimulated my interest in antifat bias, which became the focus of my doctoral project study. As I currently reside as the department chair for sports and exercise science at a southwest regional university, a conflict of interest was evident and therefore required that I select a sister institution to conduct my research.

A regional university located in the same state was selected based on similar demographics and degree program. As I have no direct affiliation with the institution and/or academic program, the potential for bias was minimized. However, additional safeguards were put into place help improve objectivity. For instance, Greenbank (2003) concluded that, describing relevant aspects of self and experiences associated with the research problem helps to qualify the researcher's ability to conduct the research. In this regard, I addressed my personal biases, predispositions, and attitudes that I felt had the potential to affect interaction with participants and data collection by writing down my own experiences (Merriam, 2009), which allowed me to be directly aware of these variables throughout the research process. Additionally, participation in the study was

voluntary and member checking, along with peer debriefing were used to maintain the accuracy of analysis procedures.

Data Analysis and Validation Procedures

A mixed methods study involves the analysis of both quantitative and qualitative data with the intent of integrating the two approaches at one or more stages of the research process (Dörnyei, 2007). Due to the study's sequential explanatory design, the two forms of data were analyzed separately, with analysis of quantitative findings occurring first followed by the analysis of qualitative findings (Creswell, 2009). Qualitative analysis was used to help explain and interpret quantitative findings.

Quantitative Analysis

For quantitative analysis, SPSS software (version 19) was used to conduct statistical procedures. Demographic characteristics to include current year of study, gender, race, age, and height/weight (BMI) were analyzed. ATOP scoring instructions were used to identify ATOP scores of participants (Appendix G). Descriptive statistics were displayed in tables to describe, organize, and represent the data collected (Green & Salkind, 2011). Mean (*M*) and standard deviation (*SD*) ratings of ATOP items were used to reflect ATOP scores. For inferential statistics, a one-sample *t* test against a mean of 60 was performed and compared to each participant's ATOP score to determine if the participants, on average, had a bias toward overweight and obese persons. ANOVAs to measure nominal level data and correlations to measure interval level data were used to explore the relationship between ATOP bias (dependent variable) and demographic characteristics (independent variables). ATOP bias was compared between men and

women, among ethnicities and current year of study using ANOVAs. Pearson correlations were used to examine the relationship between ATOP bias, BMI, and age.

Qualitative Analysis

For qualitative analysis, demographic characteristics to include current year of study, gender, race, age, and height and weight (BMI) were analyzed to identify frequency and percentages of data occurrence in the sample population. Transcriptions of the interviews were analyzed to identify common themes and used to answer the research questions. NVivo software (version 10) was used to code interview data, aid in understanding conceptual relationships, and count key words; all of which were used for thematic analysis. Braun and Clarke (2006) described thematic analysis as "identifying, analyzing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic" (p. 79). From an interpretive standpoint, data revealed meaningful descriptions that were used to develop themes in order to help explain what was unique and shared by participants (Finlay, 2008).

Validity of the Data

Verifying involves the examination of the integrity and correctness of the information gathered (Guion, Diehl, & McDonald, 2011). For this study, member checking was used to assess whether the interpretation of data was perceived to be accurate by the interview participants. Peer debriefing occurred by having two colleagues review and analyze the set of transcripts and to provide feedback concerning the accuracy of analysis procedures. Integrity of data analysis was achieved by

examining outlier cases that had the potential to provide alternative explanations contrary to the ones generated from the study. Lastly, mixed methods provided an opportunity to compare multiple sets of data to understand human behavior from more than one standpoint.

Integration of Quantitative and Qualitative Data

A mixed-methods research study using a sequential-explanatory strategy was employed. Collection and analysis of data for this project study occurred in two phases. In the first phase, quantitative data were collected and analyzed. The Attitudes Toward Obese Persons (ATOP) questionnaire was administered to 195 health and fitness majors at one southwest regional university. Analysis of data was used to assess the level of explicit bias of health and fitness majors towards overweight and obese persons. Additionally, analysis of data was used to identify participants who were asked to participate in the interview process during phase two of data collection. Lastly, quantitative findings prompted the development of probing questions that were used to supplement interview questions posed during the interview process.

For phase two, individual interviews from 12 participants were used to collect qualitative data (Appendix H). The data were audio recorded, transcribed, and inductively analyzed. Upon completion of phase two, examination of quantitative and qualitative findings were evaluated to account for similarities and differences. Quantitative data were presented in the form of tables; whereas, passages from interviews were used to explain quantitative findings and to provide alternative explanations regarding health and fitness majors' attitudes toward overweight and obese persons.

Integration of Findings

The sequential explanatory approach used in this study provided for the accumulation of qualitative data that provided additional insight into quantitative findings. This methodology also compensated for inherent method weaknesses, capitalized on method strengths, and offset method biases (Greene, 2007). In summation, integration of findings provided answers to the research questions posed within the project study. Analysis of both sets of data provided depth and breadth toward understanding health and fitness majors' attitudes toward overweight and obese persons. Findings supported the need for weight bias curriculum to be developed within the health science department at one southwest regional university.

Protection of Participant's Rights

Prior to collection of data for this study, Walden University's Institutional Review Board (IRB) requirements (Appendix I) were completed first and approval granted (07-08-13-0161935) followed by endorsement of the southwest regional university's IRB requirements second (Appendix J). Approval from both institutions was sought to ensure that proper guidelines regarding informed consent, ethical issues, and confidentiality were maintained throughout the project study. Prior to conducting each phase of data collection, a consent form containing privacy, masking of names and anonymity of participants along with voluntary participation was discussed in detail by me. While collecting data, a safe environment that encompassed privacy and trust was employed to minimize participants concerns. As I am not associated in any way with the regional university, I provided all participants with an atmosphere that was free of judgment or

bias. Upon completing each phase of data collection, I remained in the classroom to answer any questions or concerns from participants and had readily available handouts with additional contact information. All completed ATOP questionnaires, identifying information, and transcripts from individual interviews are currently being kept in a locked filing cabinet and on a password protected USB as a backup measure and will remain stored for five years following the completion of this study.

Mixed Methods Results

The purpose of this project study was to identify if weight bias was evident among health and fitness majors at one southwest regional university and to examine how health and fitness majors' describe their own experiences in working with overweight and obese persons. Using a sequential explanatory design, quantitative results are presented first followed by qualitative findings. Accompanying the research findings is a brief discussion on the project as an outcome.

Quantitative Analysis

Demographic characteristics (Table 3) for this study included gender, ethnicity, age, current year of study, and height and weight (used to calculate BMI). The population for this study targeted 256 health and fitness majors at one southwest regional university. Of the targeted group, 195 participants voluntarily completed the ATOP questionnaire. Eleven questionnaires had to be excluded due to missing data (i.e., unanswered questions and questions answered incorrectly). The final study sample included 184 participants resulting in a response rate of 72%. There was a relative equal distribution of females (n = 86; 47%) and males (n = 98; 53%) in this study. Of the 184 participants, the ethnic majority in the sample was Caucasian (n = 155; 84%) followed by African American (n = 13; 7%), and 'other' representing 9% (n = 16) of the sample. The mean age for the sample was 21.03 with a standard deviation of 2.63. Age ranged from 18 to 44 years and most frequently recorded ages were between 18 and 22 (n = 157; 85%). Participants' current year of study was represented by freshmen (n = 18; 11%), sophomores (n = 43; 22%), juniors (n = 60; 33%), and seniors (n = 63; 34%).

The mean BMI of participants was 25.85 with a standard deviation of 4.97. The BMI of participants was classified using proven guidelines established by the National Heart, Lung, and Blood Institute (NIH, 1998). This stratification showed 2% (*n* = 3) of the participants were underweight (BMI < 18.5), 46% (n = 84) were healthy weight (BMI 18.5 to 24.9), 36% (*n* = 67) were overweight (BMI 25.0 to 29.9), and 16% (*n* = 30) were obese (BMI of 30 to ≥ 40). Due to the small percentage of participants who were classified as obese, the weight groups of obese class 1 (BMI 30-34.9), obese class 2 (BMI 35 to 39.9), and obesity class 3 (BMI ≥ 40) were combined.

Table 3

Demographic Characteristics of Health and Fitness Majors

Gender	*N*	%
Female	86	47
Male	98	53
Ethnicity	*N*	%
Caucasian	155	84
Other	16	9
African American	13	7
Age	*N*	%
18-26	179	97
27-34	3	2
35-44	2	1
Year of Study	*N*	%
Freshman	18	11
Sophomore	43	22
Junior	60	33
Senior	63	34
BMI	*N*	%
Underweight (<18.5 kg/m²)	3	2
Healthy Weight (18.5-24.9 kg/m²)	84	46
Overweight (25.0-29.9 kg/m²)	67	36
Obese (>30.0 kg/m²)	30	16

The scoring of the 20 Attitudes toward Obese People questions were entered into SPSS (version 19) following instructions by Allison and Baskin (2009) to multiply the response to the following questions by -1(reverse scoring): Questions two through six, questions 10 through 12, questions 14 through 16, and questions 19 through 20. These were then added to 60 to find the total value ranging from 0-120 with lower ATOP scores indicating higher levels of bias.

Inferential Statistics

According to the one-sample *t*-test, participants' scores were statistically significantly lower than the midpoint (60) of the scale, $M = 56.68$, $SD = 16.75$, $t(183) = -2.69$, $p < .01$, indicating more negative attitudes toward overweight and obese persons. An analysis of variance (ANOVA) showed no statistically significant differences in attitudes toward obese people among Caucasians, African American, and 'other,' $F(2, 181) = .80$, $p>.05$. In addition, an ANOVA showed no significant differences occurred among freshman, sophomores, juniors, or seniors, $F(3, 180) = .53$, $p >.05$. Lastly, the correlational analysis revealed no significant relationship between age and ATOP score, $r(183) = .06$, $p >.05$. However, an ANOVA revealed more negative attitudes about obese persons among women than men, M-women = 54.06, M-men = 58.99, $F(1,182) = 4.04$, $p < .05$. The correlational analyses revealed a significant correlation between attitudes toward obese persons and BMI, $r(182) = .18$, $p <.02$; the higher a participant's BMI, the more positive the participant's attitudes were toward obese persons. Correlational analyses were calculated separately for men and women. Among men, the higher the

BMI, the more positive attitudes were towards obese persons, $r(96) = .31$, $p < .01$. Whereas, among women, there was no relationship and the trend was in the opposite direction, $r(85) = -.10$, $p > .05$.

Investigation of individual items in the ATOP scale identified several important attributions in understanding the attitudes of health and fitness majors toward overweight and obese persons. As shown in Table 4, the mean and standard deviation ratings of ATOP items are reported. Reversed scored items are starred and all scores are conveyed on a 1-6 scale with lower numbers indicating stronger bias.

Table 4

Mean and Standard Deviation Ratings of ATOP Items

ATOP Items	M	SD
Obese people are as happy as non-obese people.	2.48	1.81
Most obese people feel they are not as good as other people.*	2.26	1.72
Most obese people are more self-conscious than other people.*	1.42	1.73
Obese workers cannot be as successful as other workers.*	3.63	1.91
Most non-obese people would not want to marry anyone who is obese.*	2.71	1.83
Severely obese people are usually untidy.*	2.92	1.85
Obese people are usually sociable.	3.76	1.53
Most obese people are not dissatisfied with themselves.	2.11	1.58
Obese people are just as self-confident as other people.	2.35	1.65
Most people feel uncomfortable when they associate with obese people.*	4.41	1.51
Obese people are often less aggressive than non-obese people.*	3.28	1.71
Most obese people have different personalities than non-obese people.*	3.45	1.87
Very few obese people are ashamed of their weight.	1.66	1.65
Most obese people resent normal weight people.*	3.35	1.74
Obese people are more emotional than non-obese people.*	3.24	1.65
Obese people should not expect to live normal lives.*	4.46	1.67
Obese people are just as healthy as non-obese people.	.84	1.48
Obese people are just as sexually attractive as non-obese people.	1.64	1.79
Obese people tend to have family problems.*	3.95	1.56
One of the worst things that could happen to a person would be for him to become obese.*	3.11	2.32

Individual items in the ATOP scale revealed that negative attitudes and stereotypical assumptions were identifiable within each the following ATOP categories:

> (A) different personality- attribution of negative or different personality characteristics or inferior abilities of overweigh and obese persons, (b) social difficulty- perception that overweight and obese persons either experience or produce social problems, (c) and self-esteem- judgment of how overweight and obese persons perceive and evaluate themselves (Allison et al., 1991, p. 604).

In particular, lower self-esteem, dissatisfaction with self, unhappiness, shame, sexual unattractiveness, and poorer health revealed a stronger bias among the participants. However, positive attitudes with regard to personality characteristics, self-esteem, and sociability were reported.

Quantitative Outcomes

The research question guiding this portion of the project study was: To what extent, if any, does antifat bias exist among health and fitness majors from one southwest regional university? In this study, the primary dependent variable was weight bias, which was measured using the ATOP scale. Analysis with the ATOP scale revealed that health and fitness majors' in this study on average scored below the midpoint (60) of the scale, $M = 56.68$, $SD = 16.75$, $t(183) = -2.69$, $p < .01$, indicating more negative attitudes toward overweight and obese persons. Of significance, ATOP scores, on average, were found to be relatively lower than those reported in previous studies (Allison et al., 1991; Crerand et al., 2007; Marcum, 2009; McCardle, 2011; Swami, Pietschnig, Stieger, Tov'ee, & Voracek, 2010), indicating a higher level of bias toward overweight and obese persons.

ATOP bias did not differ among ethnicities or current year of study. It was not related to age. However, females were more biased than males. Among men, the higher the BMI, the less biased he was. Among women, there was no relationship between BMI and attitudes. These findings are similar to past studies and current literature which reported conflicting results among these variables.

In reviewing the scores of individual items, a higher level of bias was reported among items measuring self-esteem, satisfaction with self, happiness, pride, sexual attractiveness, and health. These findings are similar to other studies (Chen & Brown, 2005; Giglia, 2012; Harvey et al., 2002; Magliocca et al., 2005; Poon & Tarrant, 2009; Puhl et al., 2009; Vroman & Cote, 2011), which measured students' attitudes toward overweight and obese persons. However, neutral to more positive scores were reported for other items. This suggests that while health and fitness majors may not ascribe to some of the negative stereotypes about overweight and obese persons, they are more likely to attribute more neutral to positive responses, hence potentially being unaware that they hold negative associations. From past research to current findings, it is apparent that negative attitudes about overweight and obese persons among students in health-related degree programs continue to be a viable concern.

Qualitative Analysis

To build upon quantitative findings, the qualitative data were then analyzed to decipher how health and fitness majors describe their own experiences in working with overweight and obese persons. The qualitative data consisted of 12 semistructured interviews based upon the six participants who scored the highest and the six participants

who scored the lowest on the ATOP scale. For those students who did not give voluntary consent, the next highest/lowest number on the ATOP scale was selected (as shown in Table 5).

Demographic characteristics (Table 5) of interview participants included gender, ethnicity, age, current year of study, and height and weight (used to calculate BMI). The sample consisted of eight females (67%), and four males (33%). The ethnic majority of the sample was Caucasian (*n* = 11; 98%) followed by African American (*n* = 1; 8%). Age ranged from 19 to 25 years and most frequently recorded age was 21 (*n* = 7; 58%). Participants' current year of study was represented by sophomores (*n* = 1; 8%), juniors (*n* = 3; 25%), and seniors (*n* = 8; 67%). The BMI of participants showed 42% (*n* = 5) of the participants were healthy weight (BMI 18.5 to 24.9), 25% (*n* = 3) were overweight (BMI 25.0 to 29.9), and 33% (*n* = 4) were obese (BMI of 30 to ≥ 40).

Table 5

Demographics and ATOP Scores of Interview Participants

Interview Participants	Gender	Ethnicity	Age	Year of Study	BMI	ATOP Score
1	F	Caucasian	23	Senior	23.3	80
2	M	African American	21	Junior	38.7	76
3	M	Caucasian	21	Senior	32.0	70
4	F	Caucasian	21	Junior	32.5	68
5	F	Caucasian	21	Senior	23.4	61
6	F	Caucasian	22	Senior	26.6	61
7	F	Caucasian	21	Junior	25.6	55
8	F	Caucasian	21	Senior	21.6	53
9	M	Caucasian	24	Senior	27.3	48
10	F	Caucasian	19	Sophomore	21.3	41
11	F	Caucasian	25	Senior	38.5	38
12	M	Caucasian	21	Senior	24.3	29

Further analysis of qualitative data emphasized individual interviews. Responses from each of the 12 participants were audio recorded and immediately transcribed following each interview to maintain clarity. Multiple readings of individual transcripts were performed first in order to get a better understanding of the data set. Items were then coded to identify themes and patterns that were related to the main research question. NVivo software (version 10) was the next step utilized in coding the data where nodes were created to help index words and segments of transcripts into categories and themes, identify similarities and differences among the data, and to identify their relationship with each other. Lastly, analysis of data was further revised to more tightly define the commonalities that eventually became the major themes. The themes reflect responses to the following interview questions (modified from Rudd Center (n.d.):

1. What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?
2. How comfortable are you in working with peers, patients, students, and/or clients of different sizes?
3. How are you sensitive to the needs and concerns of overweight and obese individuals?
4. What are your personal views about the causes of obesity?
5. What are your views regarding common stereotypes about overweight and obese persons?

Themes

Through the process of inductive analysis, three major themes emerged. These included perceptions of overweight and obese persons, working with overweight and obese persons, and causes related to obesity.

Perceptions of Overweight and Obese Persons.

In response to Question One (What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?) and Question Five (What are your views regarding common stereotypes about overweight and obese persons?), it was interesting to hear the choice of words used by participants to convey their thoughts. Although the majority of participants (n = 9; 75%) verbally disagreed with the common stereotypes associated with overweight and obese persons, the body language and commentary provided by several of the participants suggested otherwise as evidenced by the field notes (Table 6).

For instance, the two most common reoccurring stereotypes used by participants to describe their perceptions of overweight and obese persons included lazy and the lack of self-discipline which was endorsed by 67% (n = 8) of the sample.

Table 6

Common Stereotypes

Labels	*N*	%
Lazy/Lack Self-Discipline	8	67%
Unhealthy	3	25%
Low Self-Esteem	1	8%

One participant stated that:

> I feel that overweight people are lazy when it comes to exercise. I have struggled with my weight and I have chosen to make a lifestyle change. People take the easy way out by popping a pill or taking medicine to lose weight rather than putting forth the effort to exercise.

Likewise, another participant responded by saying,

> I often wonder if they have self-discipline. I mean do they choose to be fat or have they tried to make healthier choices in the way they eat and workout? It takes hard work to make changes and in my experience they don't always follow through.

The next most frequently cited stereotypes included that overweight and obese persons are unhealthy (n = 3; 25%), and have low self-esteem (n = 1; 8%). In reference to the participant who indicated low self-esteem, I had written down in my field notes, rather than stating what his perceptions of overweight and obese persons were, he recounted his own experience in growing up as an overweight child. To illustrate, he commented by saying:

> That person is lazy, doesn't work out, and doesn't care about their well-being. Or, that person is depressed, has no friends, is a loner. Those are all the things you hear when you're going through school from grade school all the way up. I struggled with this throughout my adolescence and in hind sight I don't think I thought very highly of myself. In reality, I still struggle with my self-confidence. However, I find it better now that I am in college; I do not hear it that often.

When asking participants to elaborate on their assumptions based on weight in regards to level of intelligence, character, and/or professional success, all participants (*n* = 12; 100%) disagreed with the assumption that weight was a factor in determining one's character and level of intelligence. However, several of the participants (*n* = 3; 25%) believed that weight could be perceived as a factor in determining the level of professional success based on the type of career. For example, one participant indicated that he was going to be a personal trainer and that it would be very difficult to be a successful trainer if he could not effectively lift heavy equipment, navigate through the gym (i.e. spacing issues), and spot his clients safely due to being overweight. He added, "If I can't do the job requirements that people would hire me to do, then I probably won't have a lot of clients which means less money." He further went on to say that, "I also believe that some jobs are more superficial than others and what you look like matters. If I am overweight, I doubt someone is going to hire me to get them in shape."

Working with Overweight and Obese Persons

In response to Question Two (How comfortable are you in working with peers, patients, students, and/or clients of different sizes?) and Question Three (How are you sensitive to the needs and concerns of overweight and obese individuals?), participants' responses were coded into three categories: (1) experiences; (2) demeanor; and (3) empathy.

For Question Two, the majority of participants (*n* =11; 92%) reported having some hands on experience in working with overweight or obese persons. When asking participants about whether or not they felt comfortable in working with overweight and

obese persons, the responses varied (Table 7). For instance, one participant discussed her experience in working at a cardiac rehabilitation clinic for her internship and remarked on the frustrations of carrying out the prescribed exercise programs and nutritional recommendations provided to overweight persons. She concluded that:

> I get so angry with these patients because some of them will do the rehab exercises but choose not to make any dietary changes. They fail to realize that it requires a lifestyle change and diet is just as important as exercise.

Whereas, another participant from a personal trainer perspective equated her experience as one that can be very challenging and unrewarding at times. She referenced clients who hire her to lose weight (e.g., wedding, vacation, summer) yet many of them fail to make any significant changes outside of the gym. Instead, she felt as though they expected her to perform a miracle. She noted that, "It just doesn't work that way- I can provide the tools, a plan, and motivation but it is the client's responsibility to have the self-discipline to follow through with those recommendations."

As a nursing student, one participant held a differing viewpoint and stated that she was much more comfortable in working with overweight and obese persons as opposed to someone who was fit or of normal weight. She discussed her own struggle with weight and believed she had more insight as to the challenges (e.g., depression, anxiety, and lack of knowledge) that overweight and obese persons have to overcome.

Table 7

Working with Overweigh and Obese Persons

Responses	*N*	%
Experience in Working with Overweight and Obese Persons	11	92%
Comfortable in Working with Overweight and Obese Persons	7	58%

Another topic that appeared from the interview transcripts included the demeanor of a person. Several participants (n = 5; 42%) voiced opinions about how the attitude of a person played a direct role in how that person was perceived and treated. For instance, one participant who was completing her internship experience in cardiac rehabilitation described how some of the overweight patients she met were rude and unmotivated when completing their rehabilitation session. She emphasized that, "These patients don't want to be here and make a point to let everyone know how miserable they are." In this regard, she recalled that this was the hardest part of her internship experience because she did not feel as confident in handling difficult clients. She went on to say, "I feel as though I have to be self-conscious of what I say around these people so I don't make them mad." However, she also recounted having other overweight patients that were very dedicated in completing therapy to improve their overall quality of life. In her experience, she concluded that a person's attitude can be a big factor in how you are treated especially when you meet a person for the first time.

In contrast, one participant discussed his experience in working with fellow football coaches and the demeanor of athletes in sports. He mentioned that:

> Many athletes today do not have the drive to push beyond their limits. This is particularly true for some of the kids that are overweight. They lack self-discipline, complain, and can be lazy in putting forth the effort needed to perform.

He revealed that an athlete that is overweight is often times unable to complete workouts or practice and in return has a poor performance on the field. As a result, he inferred that, "The athlete becomes a liability and has to be used in small increments."

In regards to Question Three (How are you sensitive to the needs and concerns of overweight and obese individuals?), several participants (n = 3; 58%) expressed genuine empathy for overweight and obese persons. This empathy included confirmations from, "I struggle with being overweight myself," and "I have Type I diabetes and can relate to others who have similar diet restrictions placed on them," to "I've worked in a facility where obesity was the result of a disability and have true compassion for those people." Additionally, several participants (n = 4; 33%) commented on their own experiences and invested interest in dealing with overweight family members. Of the participants, one or more of their family members were reported as having a history of hypertension, cardiovascular disease, and/or Type II diabetes that was directly related to inactivity and poor diet.

As participants conveyed their passion for the health and fitness related profession, each provided their own account of how they took an active role in helping the family member(s) to develop better lifestyle choices. As such, one participant commented that she felt as though she was very sensitive towards overweight persons

because of her sister's own struggles with weight gain. Yet, when trying to help her sister achieve a healthier lifestyle, she voiced her frustration as:

> My sister constantly asks me for advice so I tell her some things she can do (i.e. physical activity, food choices) and she does something totally different (i.e. eating fast food) and we end up getting into an argument every time.

Similarly, another participant reiterated a similar frustration in that several of her family members indicated that they would much rather live a happy life than one filled with restrictions (i.e., diet and exercise). She further went on to say that, "I think this is why I am leery in working with overweight people. If the person is not willing to put forth the effort, I tend not to be as sympathetic with their situation."

Causes Related to Obesity

In response to Question Four (What are your personal views about the causes of obesity?), all interview participants (n = 12; 100%) highlighted diet and exercise as being the top factors. Further discussion with participants lead to the identification of three internal attributions: (1) individual dispositions (i.e., laziness, lack of self-discipline, emotional); (2) genetics; and (3) lack of education (i.e. risk factors, dietary recommendations, and how to make healthier lifestyle changes) followed by external influences (i.e., fast food, cost, family dynamics, time, and media) related to obesity.

Internal attributions provided a variance in responses of participants as to which dispositions were directly related to obesity (Table 8). For instance, several participants referenced lack of self-discipline, laziness, or emotional eating as one of the main inhibitors to successful weight loss. In particular, one participant stated that:

> Most causes of obesity fall under lack of self-discipline. People go to food for comfort, out of boredom, or maybe when they are upset. People who are overweight don't pay attention to what they put into their bodies- they simply want it and consume it based on their emotions at the moment and don't worry about the consequences."

On the other hand, two participants agreed that genetics can be a factor. However, stipulating that only for those specific cases were additional measures such as medicine, pills, and/or surgery considered acceptable practice. In contrast, field notes revealed the body language (i.e., increase in voice projection, hand gestures, and facial expressions) of one participant as being very passionate when describing her feelings about the causes of obesity. In particular, she explained that the lack of education about the risk factors associated with obesity, how to make healthier choices, and how to exercise as being the main culprit.

Table 8

Internal Attributions Related to Obesity

Factors	*N*	%
Diet and Exercise	12	100%
Additional Attributions	*N*	%
Lack of Self-Discipline	4	33%
Laziness	3	25%
Emotional Eating	2	17%
Genetics	2	17%
Lack of Education	1	8%

External influences (e.g., fast food, cost, family, time) were rated moderately as the majority of participants (*n* =10; 83%) were recorded as making at least one reference

to external causes (Table 9). These influences emerged with no clear patterns of difference among the individual participants. Many participants described how the quality of food has declined over the years and that unhealthy food (i.e., fast food) in comparison to healthier food options are a lot cheaper, more easily accessible, and provide immediate gratification. Several participants also commented on the role of family (i.e., single parents and number of dependents) and the limited amount of time (e.g., job(s), school, sports) to prepare home cooked meals. As one participant stated, "We live in a society today where we work 24-7 and no longer have time for ourselves- we often make choices based on survival."

Table 9

External Causes Related to Obesity

Factors	*N*	%
Quality of Food	2	20%
Price of Food	2	20%
Accessibility of Food	1	10%
Family Dynamics	3	30%
Time Restraints	2	20%

According to Creswell (2014), qualitative data should build and add credibility to the quantitative data. Initially, qualitative data collection was used to expand upon the explicit attitudes of health and fitness majors toward overweight and obese persons. After further examination, the qualitative data generated explanations that added a new dimension to quantitative findings (Saldaña, 2013). Collectively, findings reveal that education on weight bias is needed to help bring awareness to weight related stigma

towards overweight and obese persons among undergraduate health and fitness majors at one southwest regional university.

Qualitative Outcomes

The research question guiding the qualitative phase of the research process was: How do health and fitness majors from one southwest regional university describe their own experiences in working with overweight and obese persons?

Findings from this sample of interview participants (n = 12) expanded upon quantitative results by providing additional insight as to how health and fitness majors defined their own perceptions of overweight and obese persons, experiences in working with overweight and obese persons, and viewpoints on the causes of obesity. These personal accounts are significant in understanding the relationship between attributions and treatment practices associated with overweight and obese persons.

For instance, Brownell et al. (2005) described attributions as, "judgments about the causes of outcomes that have substantial consequences for emotions and motivation" (p. 84). In essence, negative stereotypes are formed when attributing personal accountability for other people's current situation. Thus, someone who believes that weight is a controllable condition will more likely blame those who are overweight and obese. In this regard, when I asked participants to describe their perceptions of overweight and obese persons, the majority of participants' responses included such terms as poor diet, unmotivated, laziness, and lack of self-discipline thus indicating an association between weight and personal responsibility.

In asking participants to describe their experiences in working with overweight and obese persons, some of the participants perceived overweight and obese persons as unpleasant, expecting a miracle, unwilling to make lifestyle changes, and/or lazy. According to Phul et al. (2013), health professionals who become frustrated when helping overweight persons to lose weight may actually perpetuate the instance of weight bias. As opposed to understanding the barriers associated with the weight loss regimen of 'diet and exercise', "health care professionals tend to blame their patients for non-compliance and lack of self-discipline" (Rudd Center, 2013a, para one). This was seen when participants described their own frustrations in trying to help family members who had been diagnosed with hypertension, cardiovascular disease, and/or Type II Diabetes due to inactivity and poor diet.

Weight bias has also been reported to have an important influence on emotion and physical health. On an emotional level, several studies (Puhl & Brownell, 2006; Puhl et al., 2010; Puhl et al., 2007; Schvey, Phul, & Brownell, 2014) concluded that weight bias can increase susceptibility to body dysmorphia, lack of self-worth, and despair. When asking participants to describe how they are sensitive to the needs and concerns of overweight and obese persons, responses were varied. However, two interview participants shared their own personal accounts of being overweight. One participant responded with stereotypes that he frequently heard growing up as child such as lazy, loner, and depressed. He concluded that to this day he continues to struggle with self-confidence. Whereas, another participant indicated that she preferred to work with overweight and obese persons due to her own weight struggles and indicated that she felt

more uncomfortable when working with ‘fit’ persons as she implied that they would perceive her as being overweight and thought she would not have any expertise to offer them. Such descriptions indicate that overweight and obese persons may internalize negative stereotypes that in turn can affect their emotional well-being.

In regards to physical health, studies have reported that people who are victims of weight bias are more likely to take part in unhealthy eating habits (Durso et al., 2011), exercise less (Carels et al., 2009), and avoid, cancel or even delay preventative health care services (Forhan & Salas, 2013). Although a direct link to the above findings was not found in this study, weight bias was evident among participants and instances of frustration, lack of support, and inaccurate assumptions have the potential to manifest into weight bias at the professional level. In taking a proactive approach, addressing weight bias and discussing the negative impact it can have on the quality of care provided to the patient or client will likely bring about awareness to include preventative strategies to minimize the instance of biases for both the classroom setting and the workplace.

The findings support the need to develop weight bias education in existing curricula for undergraduate programs specializing in health and fitness as previously stated in the literature (Diedrichs & Barlow, 2011; Gillespie & Jay, 2010; O’Brien, et al., 2010; Peters & Jones, 2010; Phelan et al., 2014; Poustchi, Saks, Piasecki, Hahn, & Ferrante, 2013; Weidlong & Rukavina, 2011). This awareness education may help to ensure that negative assumptions about overweight and obese persons do not adversely influence the treatment practices of future health and fitness professionals. Specifically, findings suggest that health and fitness majors would benefit from information that

challenges their assumptions about overweight and obese persons. Given the moderate level of weight bias present in the current sample of health and fitness majors and their attributions that overweight and obese persons are lazy, unmotivated, and/or lack self-discipline in comparison to normal weight persons, it seems warranted to include stigma-reduction efforts as part of the standard health and fitness curriculum.

Quality Indicators

The use of a mixed methods approach provided for the integration of qualitative data to help build upon the quantitative results. This method combined the strengths of both designs to provide an in-depth look at interactions (Tashakkori & Teddie, 2010) as well as compensate for inherent method weaknesses and to offset method biases (Creswell, 2014). For this study, the sequential explanatory design was chosen and called for the collection and analysis of quantitative data first, followed by the collection and analysis of qualitative data.

Two different approaches to examine weight bias from multiple perspectives were used to develop a better understanding of the explicit attitudes of health and fitness majors toward overweight and obese persons. The analyses of both quantitative and qualitative data provided a justification for the selection of strategies that were used in presenting the findings of this study. Accuracy of data analysis were reviewed by a colleague to ensure that researcher bias did not compromise the study and to enhance reliability and credibility of the study. To ensure internal validity of the qualitative data, member checks and peer review were employed. A copy of the qualitative transcript was provided to each of the interview participants to verify and/or revise their comments

based on the semistructured interviews that were conducted. Additionally, two peers scanned the raw data and reviewed the findings regarding the accuracy of the analysis procedures. Lastly, cross-checking was used to build a more comprehensive picture.

Other quality indicators were protecting the rights of the participants in the questionnaire and those participants who participated in the interview process. For the questionnaire, the consent form doubled as the invitation. Anonymity of participants was achieved by pre-assigning each questionnaire with an identification number. Pre-numbered questionnaires were used with the intent of increasing the response rate and to obtain valid information because the participants knew that the information could not be tracked by others. The use of both explicit and implicit factors in maintaining the protection of participants throughout the research process ensured that the quality of work was maintained.

For the interviews, a consent form doubled as the invitation and was provided to participants for review and signature. The form detailed the reason for the interview, that participating in the study was strictly voluntary and that no compensation would be provided. More importantly, participants were informed that their identity would not be revealed and they could choose not to answer any question and/or terminate the interview at any time without any ramifications. This was evident in the presentation of the interview transcripts as each was pre-coded with a number to conceal the participant's identity. Data collected was secured and stored on a personal home computer and password protected. A flash drive requiring a personal password was used as a backup measure and stored in a locked filing cabinet. All paper documents were locked in a

personal filing cabinet and accessible only to the researcher. These procedures were put into place to ensure that participants were protected throughout the study and to guarantee that the work was of high quality, credible, and trustworthy.

The Project

The outcome of this study was curriculum development with the purpose of providing undergraduate health and fitness majors at one southwest regional university with the tools needed to reflect on personal biases to bring about a greater awareness of weight bias and its negative affect on patients/clients within the health and fitness setting. The project as a deliverable includes the development of supplemental weight bias content. Integration of content with select health/wellness courses would include the following units of instruction: (a) identification of personal biases, (b) multimedia use and stereotypes, (c) environment, (d) etiology, (e) perceptions of overweight and obese persons, (f) case study reports, and (g) role-modeling skills. Within those units, lessons incorporating the use of materials (i.e. research articles, media, textbooks, videos, self-analysis, peer interaction, surveys, and interviews) will be presented in a variety of formats (i.e., written, oral, classroom setting, clinical setting, and online) to effectively monitor student learning and acquire feedback in gathering both formative and summative assessment measures. A more detailed description of the project is described in Section 3.

Conclusion

In Section 2, a detailed discussion describing the intent of mixing quantitative and qualitative data was presented first, which was followed by the study's setting and

sampling methodology. Quantitative data collection followed by qualitative data collection was then discussed. Following this section, quantitative data analyses, qualitative data analyses, data validation, and research findings were described in detail. Measures taken for the protection of participants' rights including confidentiality, informed consent, and protection from harm throughout the research process were then presented. Lastly, quantitative findings and qualitative findings were presented, followed by quality indicators and description of the project as an outcome.

In Section 3, the project is discussed in detail and includes the project description, literature review, and implementation. Additionally, the method for evaluating the project is examined and implications for social change is addressed. The focus of Section 4 will emphasize the project's strengths, limitations, and recommendations followed by my own reflection as a leader, practitioner, evaluator, and scholar to include implications, applications, and directions for future research.

Section 3: The Project

Introduction

This section provides a brief overview of the project and goals followed by the study's rationale based on the data analyses in Section 2. Then, the review of literature is discussed in detail to defend the project direction by connecting data analyzed in Section 2 to current research in the field. Next, emphasis of the project is defined in terms of the following components: (a) implementation; (b) resources; (c) barriers, (d) timetable; and (e) roles and responsibilities. This section ends with the project's evaluation plan and implications for social change at the local level and within the larger context. The completed project is included in Appendix A.

Description and Goals

The project was curriculum development, which has not been implemented. Development of curriculum was designed to supplement existing curriculum in an entry-level basic nutrition course for health science majors. The use of a best practices teaching format was the method used to present the curriculum. The 16-week weight bias curriculum focuses on understanding antifat bias with an emphasis on self-awareness and bias-free treatment approaches. The curriculum consists of the following units:

1. Self-assessment
2. Awareness
3. Perceptions of obesity
4. Bias-free treatment approaches
5. Evaluation

The antifat bias curriculum aims to achieve the following goals: (a) identify and reflect on personal biases (explicit and implicit); (b) increase awareness of antifat bias; (c) explore perceptions of weight discrimination in diverse settings, causes related to obesity, and legal issues; (d) examine effective strategies to minimize the instance of weight bias during clinical evaluation; and (e) reflect upon learned experiences conducted throughout the semester.

Rationale

In Section 1, I discussed weight bias and its implication among the attitudes (explicit and implicit) of health and fitness professionals toward overweight and obese persons. In the data analysis in Section 2, I presented the quantitative and qualitative findings of this study. The results revealed similar stereotypes to exist among health and fitness majors toward overweight and obese persons (i.e., low self-esteem, lazy, unmotivated, lacking self-discipline, sexually unattractive, and unhealthy). Puhl, Luedicke, and Grilo (2013) agreed that gaps in knowledge remain in identifying specific strategies to address weight bias among undergraduate programs that specialize in health and fitness related disciplines. Collectively, researchers (Diedrichs & Barlow, 2011; Ogle & Damhorst, 2013; Persky & Eccleston, 2011; Poustchi et al., 2013) concluded that interventions to reduce weight bias among students training in health-related professions are needed. As a viable solution to the problem, curriculum development was the strategy selected for this project with the potential to bring awareness to weight bias at the undergraduate level for health and fitness majors at one southwest regional university.

When implemented over the course of a semester (16-weeks), the curriculum is designed to address the problem of weight bias in a variety of contexts. For instance, findings from the ATOP survey were varied in that students demonstrated negative attitudes toward overweight and obese persons when answering some of the questions yet revealed more neutral to positive attitudes when answering other questions. While health and fitness majors may not ascribe to some of the negative stereotypes about overweight and obese persons, they are more likely to attribute neutral to positive stereotypes, hence being unaware that they hold negative associations. To address this concern, the first unit of the program focuses on identifying and reflecting upon personal biases (explicit and implicit) toward overweight and obese persons. Next, Unit 2 offers insight into the different biases (explicit vs. implicit) that occur within a variety of settings (i.e., home, school, and health care) and investigates current research specific to weight bias in the health and fitness related disciplines.

Findings from the ATOP survey also suggested that students automatically assumed that overweight and obese persons were unhealthy compared to normal weight persons which paralleled interview findings with some participants reporting that overweight and obese persons' have a poor diet, need to exercise more, are lazy, and lack the motivation/discipline to adopt healthier lifestyle behaviors. Therefore, Unit 3 provides students with the opportunity to examine overweight and obese persons' perceptions of weight bias in a variety of settings, recognize the diverse causes related to obesity, and identify the legal issues surrounding discrimination of overweight and obese persons.

Lastly, when conducting interviews, I asked each participant if he or she received any education about weight bias in the health care setting, and all 12 participants stated that they had received no training during their academic career. In conjunction with Units 1 through 3, Unit 4 provides students with a variety of effective strategies to use to minimize the instance of weight bias when interacting with overweight and obese persons. This unit also provides students with the opportunity to evaluate different health-related websites in order to identify valid content in devising their own online database for educational purposes.

Review of Literature

The maltreatment associated with antifat bias and weight stigma is well documented and includes the following: low self-esteem, lack of self-worth, loneliness, depression, avoidance of physical activity, and psychological disorders (Latner et al., 2012; Lewis, Thomas, Blood, Hyde, & Komesaroff, 2010; MacKean & GermAnn, 2013; Puhl et al., 2013; Schvey et al., 2014). However, a paradigm shift has occurred within the research communities. Scholars have begun to employ various intervention methods toward the reduction of weight bias among health and fitness related professions.

Search Terms

The initial review of literature was undertaken by Boolean searches using several combinations of key words including *victims of obesity bias, attitudes and behaviors related to obesity bias, laws and regulations regarding obesity and obesity bias, types and causes of obesity bias, weight bias interventions, weight bias reduction efforts, weight bias reduction strategies, language preferences associated with obesity,*

communicating with overweight and obese persons, strategies to reduce weight bias in the health care setting, health care education about obesity bias, antifat bias reduction efforts, facilitating weight tolerance, weight tolerance workshops, bullying reduction on weight bias in schools, reduction of medical students weight bias, strategies to reduce exercise science students weight bias, obesity bias in the family, medias portrayal of overweight/obesity, weight bias curriculum, impact of obesity bias, and *treatment and intervention strategies to address obesity bias.* A systematic literature search followed that used search terms such as *psychological*, *behavioral*, *medical*, *nursing*, *dietitian*, *education*, *social science*, *health*, *sport*, and *fitness* within online databases, including EBSCO, Education Research Complete, ERIC , ProQuest, PsychINFO, PubMed, SCOPUS. and SPORTDiscus. When exploring the literature, journal articles and books were used to create reference lists that lead to other article references and credible websites. Therefore, the literature review was drawn from a mixture of sources in order to provide diverse perspectives of traditional approaches to more contemporary strategies of interventions used to minimize weight bias in a variety of contexts.

Critical Analysis of Interventions

Evoking Empathy

Evoking empathy is an area of interest with emphasis on the ability of an individual to demonstrate genuine concern, feeling, and/or emotion for another person due to his/her unfortunate predicament. As one of the first measures in countering this type of prejudicial bias, the use of empathy as a mode in changing perceptions regarding the various causes of obesity has been implemented in a variety of studies and continues

to remain a challenge as research within this field has produced mixed results. For instance, Hennings et al. (2008) assessed empathy by having high school students watch a twenty minute video that interviewed a variety of adolescents who discussed their personal reasons for being overweight and their encounters with weight discrimination. Although findings reported an increase in overall knowledge regarding difficulties of being obese, a stronger antifat bias was present at post-test. In another study, Gapinski, Schwartz, and Brownell (2006) thought to evoke empathy by using two 10 minute videos with one featuring an obese woman in a positive way and the other portraying a woman within a negative way. Findings indicated no change within the implicit and explicit attitudes of participants.

In using several experiments to evoke empathy, Teachman et al. (2003) conducted experiment one by having participants either read stories (empathy) about an obese person, a person in a wheelchair, or a neutral story. In experiment two, participants listened to stories about severe weight discrimination and experiment three focused on having participants read articles that emphasized the genetic causes of obesity, behavioral causes of obesity, or no cause related to obesity. In assessing implicit and explicit biases of participant groups, evoking empathy did not reduce either bias nor did genetic causes produce a decrease. The only notable decrease in biases occurred within those participants who had a BMI over 25. Although research continues to produce mixed results, Brownell et al. (2005) denoted that using empathy to establish measures that aid individuals in separating the overweight or obese person from the disease (obesity) itself

constitutes an important component for future research regarding the progress of individual responsibility towards decreasing weight bias.

Intergroup Theories

According to Brownell et al. (2005), there is not a more powerful social psychological principle than the fact that "our attitudes, beliefs, and behaviors are profoundly influenced by our perceptions of the attitudes, beliefs, and behaviors of others we care about" (p. 97). According to the group-norm theory, prejudice develops as a result of group socialization which is established through group formation, interaction, and role identification (Smith & Lewis, 2008). In essence, as in-group behaviors and attitudes are created, failure to comply with norms and standards established within the group often entails punishment, rejection, and/or isolation for those individuals who choose to deviate from the group norm (Schachter, 1951; Sherif & Sherif, 1953).

Similarly, social consensus literature investigating intergroup contact has proven to be valuable in that it offers an explanation as to why and how individuals develop negative attitudes about groups in which they interact with directly or not at all (Dovidio & Gaertner, 2010). For instance, Strangor, Sechrist, and Jost (2001) and Stangor and Schaller (1996) investigated racial prejudice by assessing participants' attitudes about African Americans and based on their own attitudes were provided additional information that their beliefs were either supported or not supported by other students. In both instances, strong attitudes were expressed in support of continued prejudice or with lack of support, a decrease in prejudice. Within this field, the majority of research has focused on changing racial prejudice. Exploration of this theory regarding prejudice

against obese individuals has produced promising results (Abrams, 2010). In particular, two studies have investigated the role of social influence and obesity. Puhl et al. (2005) emphasized three different experiments assessing social consensus and controllability of obesity. In the first experiment, positive trait ratings increased and negative trait ratings decreased because of favorable peer feedback in support of providing positive ratings of obese people. In the second experiment, antifat prejudice was reduced by employing more positive feelings towards obese people following in-group peer responses as opposed to outside feedback. The third experiment as well found participants to support positive ratings based upon in-group feedback. In addition, negative ratings decreased regarding uncontrollable causes of obesity but increased when attributed to controllable causes.

Another study of significance was conducted by Zitek and Hebl (2007), which assessed social norms by having participants listen to statements about prejudice toward five social groups to include obese people. Response options included condoning discrimination, condemning discrimination, or answering within a concealed manner. As positive findings were reported, the authors alluded to the importance of the study as signifying the potential to convert the prejudicial opinions of others. Rather, social influence can either enhance prejudice that may cause further harm to the stigmatized person(s) or sustain it.

Service Based Learning

A more conceptual approach in decreasing weight bias includes the use of service based learning interventions towards changing attitudes of preprofessional kinesiology

majors towards obese individuals. For instance, several studies (Adams, Smith, Wilbur, & Grady, 1993; and Olson et al., 1994) assessed residents' training needs in order to determine how best to improve the quality of care provided for the overweight and obese populations. Common themes emerged among these studies to include curriculum implementation, residents' competence and perceived skill level, and attitudes toward obesity treatment in general. However, Gillespie and Jay (2010); Pantonburg et al. (2012); and Miller et al. (2013) imply that treating obesity may require a shift from one of a generic application to one that explores topics of weight bias as part of a comprehensive obesity curriculum.

In contrast, Rukavena, Li, and Rowell (2008) employed a six-week program consisting of curriculum covering lecture, group discussion activities, evoking empathy, and reflective writing about weight bias. As findings produced significant changes in weight control and assessing blame, other endorsements such as laziness and attractiveness did not improve following the intervention. Although this study produced positive attitude changes among the participants, no control group was used posing the question as to what intervention strategies contributed to the attitude change.

In conducting studies using multiple strategies, Hague and White (2005) thought to change antifat attitudes by exposing student teachers and practicing teachers to a web-based educational model promoting size acceptance. The etiology of obesity, treatment, health risks, stigma, sociocultural pressures, and interventions to promote bias-free behaviors within the school setting were used to facilitate self-paced learning. Given the same credentials, one module presenter was given the in-weight appearance whereas the

other presenter represented the fat presenter (treatment group). Findings proved beneficial as antifat attitudes were reduced in the treatment group from pre-test/post-test and pre-test to six-week follow-up. Unlike the normal weight presenter, exposure to the overweight presenter influenced antifat attitudes more favorably. To account for this finding, the authors suggested that the overweight presenter might have been construed as being more of an expert due to her own personal challenges with weight (Hague & White, 2005).

In another example, Bacon, Stern, Van Loan, and Keim (2005) emphasized size acceptance by conducting a six-month weekly group intervention study to compare a diet intervention program vs. health at every size program. The outcomes measures included BMI, fitness levels, energy expenditure, eating behaviors, and psychological variables. Authors concluded that the health at every size group showed improvement in all outcomes and exhibited signs of improvement over longer periods. Whereas, the diet group of participants displayed initial signs of improvement but regained the majority of weight back within a year.

In using a qualitative approach, Puhl et al. (2008) identified subjective experiences of overweight and obese participants with the intent of providing suggestions of specific strategies to be used in developing educational interventions to reduce weight stigma. Findings revealed that the most common suggestion involved increased training about the causes of obesity, the struggles, and barriers associated with weight loss, and the misconceptions of common stereotypes. Another recommendation included increasing compassion and weight acceptance toward obese persons. Of particular

significance is that this study represents one of the first to actually elicit feedback from overweight and obese individuals regarding the implication of a variety of strategies to improve positive attitudes towards the overweight and obese populations.

As these studies focused on reducing antifat prejudice, antifat attitudes, or weight bias, several of the intervention strategies proved to be beneficial in changing beliefs, attitudes, and attributions that support antifat prejudice (Danielsdottir et al., 2010). However, while some of these intervention strategies show potential other approaches have produced less conclusive results (Puhl & Brownell, 2003; Puhl et al., 2005). Experts concluded that examination of potential reasons for antifat prejudice, antifat attitudes, and weight bias needs to be adopted especially in regards to exploratory measures that continue to employ new intervention strategies (Danielsdottir et al., 2010; Puhl & Heuer, 2009; Puhl et al., 2008; Puhl et al., 2009).

Obesity Bias Awareness Education

In light of the various intervention studies mentioned, implementation of effective techniques to reduce weight bias among academic institutions that offer health-related degree programs appears to be lacking. In part, the topic of obesity is frequently presented within the health and fitness textbooks. However, Puhl et al. (2009) agree that the inclusion of weight bias, prejudice, discrimination, stigma, and antifat attitudes remains missing from the curriculum. For instance, one of the most common complaints reported by preprofessional and practicing health-related professionals is the lack of education and professional development opportunities on how to address the complexities

associated with the obese population in today's society to include those biases, stigmas, and prejudices that can affect perceived level of care.

Failure of health and fitness related disciplines to provide curricula that address weight bias and antifat attitudes has led to practicing professionals who may be unaware that they possess weight bias or that particular attitudes or behaviors expressed towards students, patients, or clients are prejudicial in nature. As McVey et al. (2013) contended, should these negative attitudes interfere with their ability to provide the highest quality of care, health and fitness professionals have a responsibility to explore those attitudes, recognize when they occur, and learn how to minimize them. Therefore, this project builds upon prior research and offers new insight by narrowing the educational lens from a generic scope of obesity education to one that includes best practice principles in providing education about weight bias and awareness for health and fitness majors at one southwest regional university.

Curriculum Development Model

According to Parsons and Beauchamp (2012), "curriculum is the foundation of the teaching-learning process" (p. 25). One way of developing a curriculum plan is through modeling (Lunenburg, 2011). Curriculum models help designers to "map out the reasoning for the use of particular teaching, learning, and assessment approaches" (O'Neill, 2010, p. 2). In education, there are many models of curriculum development. In researching various models, I concluded that there is no model that is deemed superior to other models. Rather, the type of model selected is based on a variety of variables that are deemed important to the developer(s).

For this project, the criteria that proved important to me in developing weight bias curriculum emphasized the educational need, goals, objectives, practicality, and flexibility of a model. Therefore, components of the Saylor, Alexander, and Lewis Curriculum Development Model (1981) were used as a reference when creating the weight bias content (as shown in Figure 1). This model is deductive in nature and proceeds from a general to a more specific context. Components of the curriculum development model include design, implementation, and evaluation.

During the design phase, goals and objectives to reflect learning experiences that emphasize personal growth, social competence, skill acquisition, and specialization are established. The next phase encompasses the processes associated with the actual design of the curriculum. For the final phase, the curriculum is implemented and evaluated by instructors to establish whether or not the goals and objectives were achieved.

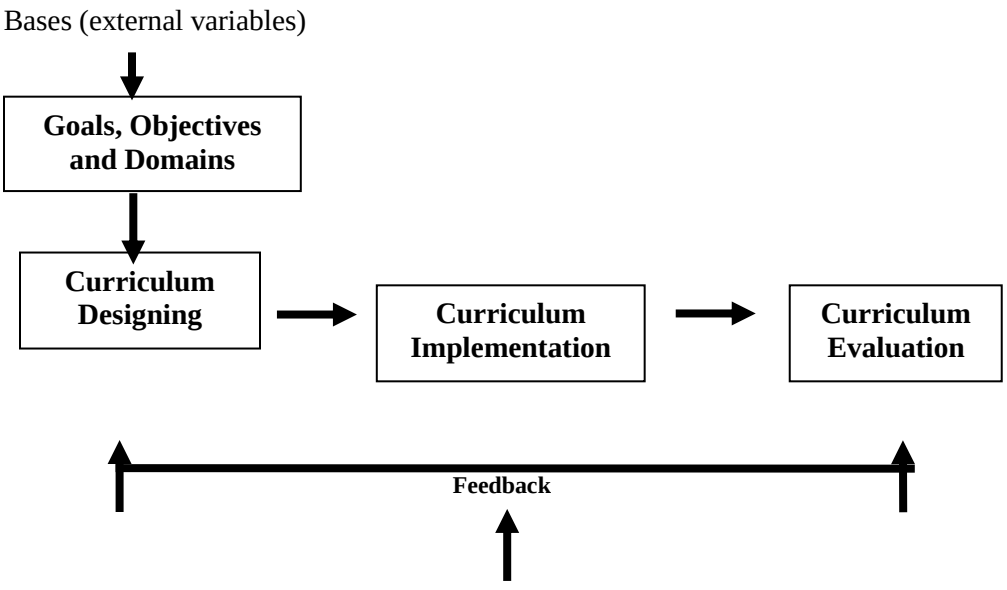

Figure 1. Saylor, Alexander and Lewis Curriculum Development Model

Best Practice in Teaching

As an educator, one should strive to design and develop instruction that is effective, consistent, and meaningful. In an effort to achieve this outcome, there is no universal definition of a best practice. However, "The expression 'best practice' was originally borrowed from the professions of medicine, law, and architecture, where 'good practice' and 'best practice' are everyday phrases used to describe solid, reputable, state-of-the-art work in a field" (Zemelman, Daniels, & Hyde, 2012, p. 1).

In this context, best practice in teaching would imply those evidence-based teaching strategies that become an integral part of a curriculum that illustrates the connection and relevance to educational research. For instance, Chickering and Gamson (1987), authors of, *Seven Principles of Good Practice in Undergraduate Education*, conducted over fifty years of research on good teaching principles. Decades later, these principles continue to be used as a guide for teaching and learning in today's educational systems. Key principles in shaping best practice in undergraduate education include (p. 1):

1. Encourages contact between students and faculty.
2. Develops reciprocity and cooperation among students.
3. Encourages active learning.
4. Gives prompt feedback.
5. Emphasizes time on task.
6. Communicates high expectations.
7. Respects diverse talents and ways of learning.

Based the analysis of over 500,000 studies examining the performance of students, Hattie (2003) concluded that teachers account for 30% variance in relation to student performance, with the remainder pertaining to home, peers, and student variables. Hence, interaction among faculty and students in the classroom setting becomes significant. For example, Harris and Sass (2007) concluded that the distinction between an effective teacher verses a non-effective teacher is not based upon the professional qualifications related to the subject content. Rather, the difference exists by the way, in which the teacher conveys concepts while engaging students in the learning process. In essence, the manner in which teachers treat, respect, and exhibit genuine care for students can have a direct or indirect effect on the learner. In using best practice, establishing a positive rapport with students can provide teachers with the foresight needed to recognize potential barriers to learning and ways to pursue alternative measures in helping students to overcome those barriers.

Additionally, another important way teachers can help students succeed in the classroom is to incorporate active learning strategies that appeal to a wide range of learning styles, backgrounds, and skill levels. Research indicates that there is a close connection between students' cultural background and their preferred learning styles. For instance, Sanchez (2000) found Hispanic/Latino students to prefer feedback, authentic activities, group work, and experiential learning. Whereas, Palma-Rivas (2000) reported African-American students' achievement to be higher when verbal and social engagement activities were used. Yet, other students may prefer to learn through more standard formats such as lecture and individual work. Therefore linking instruction with

problem solving, case study, role play, reflection, research, debriefing sessions, and group discussion related activities have been shown to benefit the learner (Xiaoshu & Huimin, 2014) toward the enhancement of critical thinking skills, increased retention and application of new information, greater motivation, and improved social skills.

According to Hattie (2009), the most powerful single modification that enhances achievement is feedback from students to teachers. In other words, creating a classroom where feedback is encouraged has the potential to nurture a climate where "student error is welcome, student questioning is high, student engagement is the norm, and students can gain reputations as effective learners" (Hattie, 2003, p. 7). This reciprocal process affords the opportunity for teachers to develop and test learning of students while ascertaining the effectiveness of different teaching strategies. The ongoing analysis of feedback can then be used by teachers to modify the content, the processes used, and/or the classroom climate in order to make learning viable for all learners.

Final Product

In using the Saylor, Alexander, and Lewis Curriculum Development Model (1981), a blueprint of the various processes associated with curriculum development was created. This plan afforded me the opportunity to locate experts and resources in the field (Rudd Center, 2012b; n.d.) that were integrated in the development of a diverse set of learning opportunities that reflected best practice principles in teaching (Chickering & Gamson, 1987). Collaboration with faculty elicited formative feedback that helped to maintain the alignment between course goals and instructional objectives and strategies of the curriculum throughout the development phase. As a result, a completed project to

address a gap in practice (weight bias) while identifying student needs was achieved (Appendix A).

Implementation

The following subsection includes a description of the needed resources, existing supports, and potential barriers of the project. Additionally, a timetable, and roles and responsibilities that pertain to me and others involved in the implementation process of the project were addressed.

Potential Resources and Existing Supports

Faculty members of the health science department at one southwest regional university will be the existing support for the successful implementation of the curriculum for awareness of weight bias . The department provided the training facility for a two-day workshop for faculty to include the technology and materials needed to implement the revised course design for the Basic Nutrition course (HLTH 1063) in fall of 2014. The workshop dates and times were established by the department chair during a regularly scheduled faculty meeting. I processed a reservation request for a smart classroom and it was approved by the department chair. The administrative assistant of the department contacted the university's information technology service of the workshop dates and times to confirm availability of staff for support in handling potential computer related issues. Additionally, the administrative assistant made copies of the curriculum, syllabus, and timetable, which were placed in separate notebooks for workshop participants. I developed surveys to be included in the notebooks to obtain constructive

feedback from participants about the curriculum design upon completion of the workshop.

Potential Barriers

A change in course design may prove challenging for faculty who have previously taught the Basic Nutrition course (HLTH 1063). The modifications made to the course curriculum affects faculty preparation time, learning of new material, becoming comfortable in presenting the new information, and the additional time needed to grade and discuss course assignments. To address this potential barrier, a two-day workshop was conducted in summer of 2014 to help faculty overcome the potential challenges associated with the modified course content.

Another potential barrier associated with a change in the course design is the students' expectation of faculty to deliver learning content in a traditional lecture format rather than the use of a best practices teaching format as indicated in Appendix A. While students may resist this change, a framework to include clear outcomes and a course timetable can help to minimize the potential for student dissatisfaction.

Proposal for Implementation and Timetable

Implementation of the revised course syllabus will occur in the fall semester of 2014 (Appendix A). Revising the course syllabus led me to help faculty create a new timetable (Table 10) for health science majors enrolled in Basic Nutrition (HLTH 1063). Information pertaining to the addition of weight bias awareness curriculum will be integrated throughout the 16-week period with content highlighting each unit outcome and associated points for select assignments.

Table 10

Weight Bias Curriculum Timetable

Schedule	Unit Outcome: Content	Points
Week 1	Pre-Assessment: Case Study Analysis	
Week 2	Self-Assessment: Distribute ATOP/IAT Survey	
Week 3	Self-Assessment: Reflection and Group Discussion	30
Week 4	Awareness: Weight Bias at Home and School Video	
Week 5	Awareness: Weight Bias in Health Care Video	
Week 6	Awareness: Research Article Assignment	
Week 7	Awareness: PowerPoint and Research Article Review	50
Week 8	Perceptions: Article Review and Debriefing Session	
Week 9	Perceptions: PPT over Perceptions/Causes of Obesity	
Week 10	Perceptions: Debriefing Session of Media Assignment	50
Week 11	Perceptions: Weight Related Language Questionnaire	
Week 12	Perceptions: Weight Discrimination Questionnaire	30
Week 13	Bias Free Treatment Approaches: Counseling Strategies	
Week 14	Bias Free Treatment Approaches: Evaluating Websites	
Week 15	Post-Assessment: Case Study Analysis	
Week 16	Evaluation: Self Reflection and Curriculum Survey	

Roles and Responsibilities of Student and Others

All students declared as a health science major are required to complete the Basic Nutrition course (HLTH 1063) during their freshman or sophomore year. In regards to faculty, I had the primary role of providing a two-day workshop in the summer of 2014 for faculty who volunteered to pilot the Basic Nutrition (HLTH 1063) course in fall of 2014. In January of 2014, I met with the department chair to review the revised course content. Upon receiving final approval from the chair, each faculty member was provided with an electronic copy of the curriculum and online resources for review. I scheduled times to meet with each faculty member in order to gain feedback about the modified curriculum and syllabus timetable. After several revisions were made, I met with faculty as a group in May of 2014 where I held a two day workshop over the revised curriculum.

Upon completion, additional revisions were made based on feedback received from the workshop participants and a final copy of the curriculum, syllabus, and course timetable were provided to each faculty member for use in fall of 2014.

Project Evaluation

A final component of the project includes a thorough discussion of the project evaluation plan. The evaluation design and approach used within this project include the following: (a) type of evaluation, (b) justification, (c) project goals, (d) evaluation goals, and (e) key stakeholders.

Type of Evaluation

According to the U.S. Department of Health and Human Services [USDHHS] (2011), program evaluation addresses the needs of participants and stakeholders by "assessing and documenting program development, implementation, outcomes, efficiency and cost-effectiveness of activities, and taking action based on evaluation results to increase the impact of the program" (p. 1). Modification of curriculum in a Basic Nutrition (HLTH 1063) course to include supplemental content for weight bias awareness was the focus of this project. In line with the Saylor, Alexander, and Lewis' (1981) Curriculum Development Model, formative evaluation was the method used to gather data so that revisions could be made to the curriculum prior to implementation of the course in fall of 2014. The data collected was obtained from the department chair of the research institution and faculty who volunteered to pilot test the Basic Nutrition (HLTH 1063) course in fall of 2014.

The data collected from the above participants occurred in two phases. During the beginning stages of development, a rough draft of the curriculum design was provided to each of the faculty members to obtain constructive feedback about the curriculum materials, syllabus, and course timetable. Whereas, the second phase of the evaluation process was integrated in a two-day workshop for faculty in summer of 2014. During the workshop, the revised curriculum was used by me to ascertain additional feedback from faculty in a variety of contexts: individual presentations, observation, group work, debriefing sessions, interviews, and open and closed-ended questionnaires. Information collected from the workshop was used to identify the strengths and weaknesses between the instructional objectives and strategies and materials used, and the learning outcomes in order to produce a final draft of the curriculum to pilot test in fall of 2014.

Justification

As the project was not yet implemented, the intent of this evaluation was used to review the progression of curriculum development at several points in time for the purpose of formative feedback. Use of faculty as collaborators in the feedback process not only facilitated reliable data but also created ownership in the learning process. In particular, faculty developed a better understanding of the revised course content and its significance when applied within the classroom and clinical settings.

Goals of the Project

The term "goals" denotes the anticipated outcomes that will result from this project. As defined, "Goals are high-level statements that provide the overall context for what the project is trying to accomplish" (Hames & Miller, p. 34). Therefore, goals were

developed and intended as a starting point for both the planning and evaluation phases (Table 11). In essence, "a goals roadmap" was developed to demonstrate the logic behind the curriculum redesign. The goals created were used to provide a framework that when implemented in fall of 2014 should lead to the attainment of the goals denoted.

Table 11

Curriculum Goals

Goals
To identify and interpret personal attitudes toward overweight and obese persons.
To assess the effect of weight bias in the health and fitness related disciplines.
To review policy and legal statutes surrounding weight discrimination.
To critique the media's role in shaping the public's understanding and attitudes toward obesity and weight loss.
To investigate current literature on weight related terminology and language preference of overweight and obese persons.
To evaluate research based intervention strategies to reduce weight bias and apply findings to practice in the classroom setting.

Evaluation Goals

The next phase of the evaluation process will be directed toward assessing the effectiveness of the piloted curriculum in fall of 2014. At this juncture, the overarching evaluation goal is to continue to improve the curriculum redesign for the intended audience as well as to achieve the desired course outcomes for full implementation in spring of 2015. To achieve this goal, evaluation questions as shown in Table 12 were developed to elicit formative feedback to the effectiveness of the course redesign.

Table 12

Evaluation Questions

Formative Evaluation Questions
Did the course achieve its stated goals and outcomes?
To what degree did the course reach the target audience?
What implementation problems have emerged?
What are the strengths and weaknesses of the course?
Are measurement criteria appropriate and adequate?
Do different parts of the course relate to each other meaningfully in terms of sequence and organization?
Is the balance of teaching and learning methods appropriate to ensure learning?
Do teachers have the knowledge and skills required to deliver the curriculum?
Where the materials and delivery of the content presented at the right level for the learners at different points in the course?
Did the course activities have unexpected or unintended consequences?
Have new ideas emerged, and can they be tested?
What lessons can be learned from this approach?
Do the results support existing evidence?

Key Stakeholders

"Stakeholders can help an evaluation before it is conducted, while it is being conducted, and after the results are collected and ready for use" (USDHHS, 2011, p. 14). Stakeholders as well as participants are much more likely to be supportive and proactive in responding to the findings and recommendations if they are involved in each phase of the program. Without buy-in from constituents, evaluation may be discounted, criticized, or resisted. To meet the above guidelines, the stakeholders involved in the development and evaluation processes included myself, the department chair of the research institution, and associated faculty who volunteered to pilot test the curriculum redesign in fall of 2014. Additionally, prospective students who enroll in the Basic Nutrition (HLTH

1063) course for fall of 2014 will be included as stakeholders and regarded as key participants in obtaining valuable feedback to the effectiveness of the course content.

Implications Including Social Change

According to the CDC (2013), state statistics for the southwest United States revealed that 66.3% of adults were overweight with a BMI of 25 or greater and 30.4% of adults were obese with a BMI of 30 or greater. These findings bear significance in that many health and fitness related professionals are becoming more exposed to a growing number of overweight and obese persons within the health-related fields (Poustchi et al., 2013). Research has shown that many undergraduate students in the health and fitness related fields harbor negative attitudes and stereotypes toward overweight and obese persons (Pantenburg et al., 2012; Phelan et al., 2014), which can lead to negative interpersonal behaviors, ineffective care, and/or avoidance of care.

In light of this study, future efforts to reduce weight bias among undergraduate health and fitness majors were identified. As a result, undergraduate curriculum was created to contribute to improving the educational experience of the participating health and fitness majors at one southwest regional university. Several experimental studies (O'Brien et al., 2010; Poustchi et al., 2013; Swift et al., 2013) have illustrated the effectiveness of a variety of strategies toward the reduction of weight bias within the health-related settings. These studies have provided evidence in support of educational interventions that emphasized self-assessment and awareness of weight bias, perceptions of, and causes related to, overweight and obesity, and bias free treatment approaches as being effective in reducing weight bias.

Local Community

Caffarella (2010) concluded that, "Learning is what occurs within the event, transfer is taking that learning to a new context, and impact is the change in organizations and systems caused by that learning" (p. 317). Within the local context, a variety of learning formats were used to help health and fitness majors at the undergraduate level to develop an understanding of the relationship between weight bias and the complexities associated with overweight/obesity. In developing this knowledge and skills, health and fitness majors will be better able to understand how beliefs and attitude play a role in the level of care provided to the overweight and obese populations. Rather than viewing the patient/client as a victim or perpetrator, students can begin to employ an attitude that is free of bias toward the patient or client by treating overweight and obesity as a disease. In doing so, the knowledge and skills applied by future health and fitness professionals during the clinical setting will likely facilitate a higher instance of long-term success toward the treatment of overweight and obesity.

Likewise, completion of the curriculum design can help the health science department to maximize student learning at the university while providing a framework for faculty to use in supplementing their own course curriculum to include weight bias awareness content and resources. In providing an interactive learning format, faculty may be more apt to implement this content in other upper division courses in an effort to increase retention and application of concepts learned throughout the degree program.

Beyond the university context, the weight bias awareness curriculum may help bridge the gap between the university and the community. Many of the students in the

health science department regularly complete service learning hours in the public school, coaching, physical therapy, hospital, corporate, and gym settings. This is significant in that weight bias, including bullying, has been found to be evident among elementary to high school students (Puhl, Luedicke, & Heuer, 2011; Washington, 2011), parents (Puhl & Luedicke, 2013), health and fitness professionals (Puhl, Luedicke, & Grilo, 2013; Puhl, Luedicke, & Peterson, 2013), and the hiring process (Pomeranz & Puhl, 2013). In collaborating with various community resources, students will have the opportunity to actively engage in the real world setting and contribute to the learning process by bringing awareness to weight bias, its relevance, and legal ramifications specific to those environments.

Far-Reaching

As indicated earlier, interventions to address weight bias among health and fitness professionals is in its infancy. Of those interventions, some are offered independently (completely online), have a short duration time, and/or have few learning outcomes. Therefore, the development of a 16-week weight bias awareness program was meant provide an interchangeable platform for similar universities to use to help close the gap between weight bias and its effect on the quality of care provided by future health and fitness professionals toward overweight and obese persons.

Conclusion

This section introduced the proposed project to include the goals, why the project was chosen, and how the problem would be addressed through the design of the project. The review of literature followed and provided an in-depth view of the problem and how

ideologies from the research were used to outline the development of the project. Next, a thorough description of the project was discussed to include the resources needed, existing supports, potential barriers, and roles and responsibilities of students and others involved. Lastly, the type of evaluation and justification for use were discussed in detail and implications for social change were highlighted.

Section 4 culminates the study by discussing the strengths and limitations, recommendations for addressing the problem in a different manner. An analysis of what was learned about scholarship, project development, evaluation, leadership, and change will then be presented. Discussion about what I learned about myself as a scholar, practitioner, and project developer will be highlighted next. Lastly, reflection on the significance of the project and what was learned to include implications, applications, and directions for future research will be revealed.

Section 4: Reflections and Conclusions

Introduction

In the first section of this project, I introduce the problem that initiated the study and discuss the rationale with evidence from the local context and support from the literature review. The research questions posed in Section 1 were used to identify if weight bias was evident among health and fitness majors and to further explore how health and fitness majors described their own experiences in working with overweight and obese persons.

In Section 2, a discussion of mixed methods was used to guide the scholarly project followed by the study's setting, population and sample data, and protocol for protection of participants throughout the research process. Collection and analysis of data were reported and findings revealed the existence of weight bias to be prevalent among health and fitness majors toward overweight and obese persons with several students reporting a lack of knowledge regarding how to effectively communicate and/or engage with overweight and obese persons.

To address the issues and challenges associated with weight bias among health and fitness majors toward overweight and obese persons, a weight bias awareness curriculum was developed and outlined in Section 3. The goals and objectives were clearly defined and supported the learning units created for a 16-week course. The mode of delivery included implementation of content for use in health and fitness related courses specific to undergraduate majors pursuing a career in the health and fitness related field.

In the final section of this study, I outline the project's strengths, limitations, and recommendations for addressing this problem in a different manner. Discussion and analysis regarding what was learned about scholarship, project development, and leadership is provided with particular emphasis on learning that occurred throughout my doctoral journey toward becoming an active research scholar, practitioner, and project developer. Lastly, Section 4 concludes this scholarly project by providing a reflective summary to include implications, applications, and directions for future research efforts.

Project Strengths

Researchers who have examined weight bias in a variety of health-related fields (Creel & Tillman, 2011; Fikkan & Rothblum, 2012; Persky & Eccleston, 2011; Puhl & Heuer, 2010) have concurred that educational content specific to weight stigma is missing from the majority of institutions that offer health-related degree programs. As a result, the lack of reform to address this emerging issue has the potential to hinder the quality of care provided to a patient or client. Therefore, one of the strengths of this project resides in the development of educational curricula to address this gap in practice for one southwest regional university. The curriculum (Appendix A) offers educators the opportunity to take a proactive approach in creating a learning environment that exemplifies weight tolerance within the classroom and clinical setting. An additional strength is the use of a best practices teaching approach. In this regard, Wood, Knight, and Kinash (2011) defined best practices in teaching as those mechanisms that interject rigor into the curriculum, embrace active learning, encourage feedback and reflection, and serve as a springboard for developing mastery of the content learned. Thus,

originality of this project affords a framework, which enables educators to guide and empower future health and fitness professionals in acquiring the tools needed to facilitate best practices in preventing, assessing, and treating obesity while minimizing weight bias.

Project Limitations

As I incorporated educational training tools based upon a best practices teaching approach, additional time and effort to learn the material by those faculty members who are assigned to teach the basic nutrition course (HLTH 1063) will be required. Additionally, Bickerstaff and Edgecombe (2012) concluded that a shift in pedagogical practice may cause faculty to exhibit feelings of anxiety, frustration, or resentment by limiting their ability to execute academic freedom within the classroom setting. Hence, it becomes imperative that the project encompass a framework that offers faculty the autonomy to choose from a diverse set of teaching strategies and access to readily available resources to increase the successful implementation of the project. However, this project was not employed and, therefore, limits my ability to obtain sufficient evidence as to whether or not buy-in will occur among faculty as well as impeding my ability to evaluate the effectiveness of the project. A second limitation was the lack of input from all of the students in developing the project curriculum. The weight bias awareness curriculum was based primarily upon an extensive review of scholarly literature and the findings concluded from this study. However, the project does not include a full representation of students' perspectives about weight bias within a variety of contexts.

Recommendations

The problem that initiated this project was the existence of weight bias among undergraduate health and fitness majors at one southwest regional university. A viable solution to the problem was the development of supplemental curriculum to be integrated in select health and fitness courses to enhance awareness of weight bias. One recommendation to address this problem differently would be to include professional development opportunities for faculty. Training sessions that emphasize personal biases, influence of weight bias, and use of tools to facilitate weight tolerance would provide faculty with the knowledge and skills needed to implement content specific to weight bias. Another recommendation would be the implementation of an interactive workshop for both faculty and students. This format would provide an opportunity for participants to engage in the learning process actively by experiencing it from both the faculty and student perspective. Interactive strategies to elicit different types of teaching and learning styles could be used to enhance the learning experience as well as provide useful feedback in regards to preferences associated with teaching and learning. Lastly, the interactive workshop would provide an opportunity for participants to immediately apply the techniques and skills learned within the real world context.

Scholarship

At my university, each faculty member is evaluated annually based on their contribution to the following categories: (a) teaching, (b) scholarship, and (c) service learning. Specific to scholarship is the expectation of faculty to demonstrate competency in a wide variety of avenues (i.e., internal-external grants, publications, state/national

presentations, and university workshops/in-service training). During my first year at the university, I had just completed my course work for the doctorate program and the majority of my time focused on the beginning stages of the writing process for my project study. As a result, trying to achieve success in scholarship was challenging as I felt I lacked the skill set in meeting this evaluation criterion.

It was not until my second year that clarity of scholarship was realized. As a doctoral student, I worked on identifying a problem, collected current research articles to support the problem, developed a research proposal to investigate the problem, and received approval from IRB to carry out the research. Having gone through this process, I became confident in the research process and was able to collaborate with other department faculty in conducting several studies to assess the fitness level of students in the health and fitness program. In addition, I submitted a proposal regarding my review of the literature in Section 1, which lead to a poster presentation at a state conference. It was an excellent opportunity for me to share that knowledge with faculty and students at other universities.

My third year as a doctoral student consisted of providing meaning to the data collected through analysis and discussion of study findings. This particular range of activities required me to seek guidance from my chair, member checking from participants, and peer debriefing of select faculty to maintain objectivity and accuracy of findings. This learning experience helped to enhance my ability as a faculty member to critically analyze and interpret data, help others to gain an understanding of the findings, and identify outcomes to address those findings.

My fourth year as a doctoral student focused on creating a project to address the problem. My choice was curriculum development, which I felt confident in creating as I often completed this process when teaching courses at the university. Although I felt confident in this process, I found myself reflecting on my current practice as an instructor in preparing learning experiences for students in my courses. Having to revisit processes associated with curriculum development, I found myself revising assignments and assessment measures to enhance the learning environment of my students.

Lastly, a final component of the writing process included my account of what was learned throughout the doctoral journey. In retrospect, I have come to realize that I now have a much better understanding of what it means to develop scholarship. For me, scholarship includes the use of critical thinking skills to discover and share knowledge by applying what was learned through a reciprocal process of teaching and learning in order to help others to gain understanding.

Project Development and Evaluation

Prior to creating the project, I recognized that a clear vision was needed along with findings to support the development of the project. An extensive review of literature was conducted and the one common theme found among all prior literature on the topic was the prevalence of weight bias among health and fitness professionals toward overweight and obese persons. In conducting mixed methods research, I was able to accumulate diverse perspectives about how health and fitness majors perceived overweight and obese persons. Analysis of data revealed biases to exist but more importantly provided further insight into the various reasons for such bias. Therefore, the

vision of the project became clear and the data supported the need to develop curriculum for creating awareness of weight bias.

While developing the project, the purpose, the level of learner, scope and sequence, and materials needed were prerequisites to devising units to encompass the curriculum. Once these components were identified, an extensive review of literature and educational websites was conducted to identify various measures used to educate health professionals about weight bias. Findings from these sources helped to guide the development of individual units to address the areas identified in this mixed methods study. Additionally, a variety of assessment measures was integrated throughout the curriculum to obtain information about learning and instruction. Lastly, a course timetable was created to serve as a visual guide for students and faculty in completing curriculum outcomes.

As this project is now complete, I learned that project evaluation is an ongoing and very time-consuming process yet a critical component for further development of the project. For instance, a two-part evaluation phase was completed. First, I met with each instructor who volunteered to pilot the nutrition course in fall of 2014. Individual feedback was used to gain useful insight about the curriculum, timetable, and clarity of instructions and assignments. This feedback was then used to modify instructions in order to clarify student expectations for select assignments and essential elements to the curriculum were realigned to enhance the appropriate progression of learning outcomes. Secondly, an interactive workshop was conducted for faculty in summer of 2014 to help aid in the facilitation process of the curriculum. As a result, additional elements of the

curriculum were redesigned to address the outcomes of the final project. However, actual implementation of the project by faculty will initiate another integral component of the evaluation process. Based on feedback received from students in regards to various assessments and evaluation criteria, faculty and I can then proceed to further develop the quality of the curriculum design.

Leadership and Change

My natural instinct has always been that of a follower, until 2011, when I was recruited by another university to take on the leadership role as department chair. Upon accepting this position, colleagues provided me with a book about leadership. In his book, *The 360 Degree Leader: Developing Your Influence from Anywhere in the Organization*, Maxwell (2005) determined that, "Great leaders don't use people so they can win. They lead people so they can all lead together" (p. 242). For me, this signifies the true essence of leadership- empowering others to become leaders. Over the years, I have come to realize that as a leader you must earn that leadership with each person. To achieve this goal, it takes an enormous amount of energy, trust, and time to interpret the fundamental assumptions and beliefs of others in order to develop each person's strengths. However, I found that the return on each investment likely produces another leader that further empowers the leadership capability of the team in becoming effective agents for social change.

For instance, at the department level, administrators, faculty, and students work together as team to achieve a productive learning environment. It was at this juncture where leadership takes form and agents for social change are revealed. To illustrate, my

role as chair led to a shared vision among faculty in the development and implementation of a new degree program to address the needs of the community while providing students with additional career opportunities. As an instructor, collaboration among my students and me led to the development of a service learning opportunity where young adults with special needs come to campus and receive personal training sessions from students. My journey as a doctoral student challenged my assumptions and knowledge in an effort to establish a worthwhile solution to an institutional problem that further nurtured my growth as a change agent.

Analysis of Self as a Scholar

I can remember being offered a full time faculty position at a local university some five years ago with the condition that I would obtain my doctorate. I eagerly accepted the challenge as the various pathways that lead to learning have always intrinsically motivated me. However, I can still remember one of my first classes and the writing project that was assigned and remember thinking what have I gotten myself into? In completing this assignment and many others, I quickly realized early on that scholarly activity required a diverse set of skills that I did not yet have and thus proved to be a very challenging learning experience.

For instance, I learned that my writing style and form had to be significantly revised. This learning curve consisted of developing a time line to complete objectives, outlining information to be presented, writing in a more clear and concise tone, incorporating transitions, using correct scientific terminology, eliminating redundancy, and documenting sources correctly. Through constructive feedback, patience, and time

from family, friends, peers, committee chairs, and course instructors, I was able to address the majority of my deficiencies throughout the writing process in order to produce a scholarly research project.

Another skill set that proved equally challenging was learning how to analyze the data collected. As I chose mixed methods, I was compelled to use SPSS software (version 19) to analyze surveys and NVivo software (version 10) to analyze interviews. During each phase, I exhibited severe anxiety, frustration, and depression. As a result, I sought guidance from several colleagues who proved invaluable in guiding me through the statistical processes associated with each phase. In completing this major undertaking, there is still much to learn, technology is ever-changing but I feel confident in pursuing these necessary tools for future use.

As this journey comes to an end, I have spent years accumulating knowledge from experts in the field of weight bias, I have learned how to critically analyze and interpret the findings of other scholars. More importantly, I learned how to apply that knowledge in developing my own research endeavors. As a result, I developed my own scholarly voice that lead to the discovery of weight bias at the undergraduate level for health and fitness majors at one southwest regional university. In conducting mixed methods, I was able to contribute new information to the field of weight bias that did not previously exist. Based on this information, curriculum for awareness of weight bias was developed as a viable option in addressing the problem. Through years of trial and error, I believe I have acquired the foundational skill set needed to conduct future research efforts as a beginning scholar.

Analysis of Self as a Practitioner

One of my primary roles as a health educator is to reflect upon my own personal beliefs and competences that encompass the educational arena. As I gain additional experience, knowledge, and skills through teaching, my beliefs and practices continue to evolve. One of those areas that evolved over time was the awareness of increased challenges that health and fitness professionals face in providing weight management care to overweight and obese persons.

This complex issue eventually carried over into my research as a doctoral student. Upon further investigation, I found that weight bias among health professionals played an important part in the quality of care provided to overweight and obese persons. This finding prompted me to wonder if our own majors exhibited weight bias towards overweight and obese persons and whether or not their biases would affect the level of care they provided to their patients or clients. Inquiries into these questions were used to assess whether or not similar majors exhibited weight bias. The data revealed biases with the result of the study being the development of curriculum to bring awareness to weight bias among undergraduate health majors.

In combining research and practice, I now feel compelled to apply these observations in my own classroom setting. I believe implementing the curriculum will offer students the opportunity to prevent and decrease weight biases that may otherwise persist and possibly escalate in the absence of mediation. Evaluating this curriculum will prove to be the next step as a practitioner in contributing to the research literature.

Analysis of Self as a Project Developer

Revising curriculum for a basic nutrition course to include supplemental material to address weight bias over a 16-week period became a labor-intensive process. One of the most difficult steps in revising the curriculum was deciding which nutrition topics to exclude and how to structure and sequence weight bias activities and assignments to align with the learning outcomes of the nutrition course. This component was addressed by asking instructors who taught this course to provide insight by discussing the dynamics of the course to include the syllabus, course timetable, activities, assignments, and assessment measures. Based on this information, I drafted a list of outcomes to clarify what I wanted the students to accomplish; constructed activities and assignments to reflect different teaching methods and learning styles; devised a logical arrangement of course content to include embedded assessments, and created a timetable to highlight the pace of the course. Instructors were further asked to provide additional feedback about the tentative draft and as a result, further revisions were made to capture the main concepts of the curriculum as a whole. In completing the curriculum, my growth as project developer has evolved over time due to my ability to collaborate with others, accept constructive criticism, and entertain alternative directives to enhance my project study.

Reflection

My pursuit of a doctorate included many obstacles and triumphs on both a personal and academic level. A major roadblock in my doctoral journey was my lack of confidence and subsequent fear that my research and writing were inadequate, a fear that

created a barrier between my advisors and me. Instead of reaching out for help, I spent numerous hours attempting to perfect my work prior to asking questions or requesting feedback. In retrospect, seeking advisement early and often would have expedited my doctoral progress. As my doctoral experience ends, I have grown more secure in my writing and research methods and in my self-confidence. This growth in confidence positively influenced my role as chairperson at the university and my endeavors at the university. A major triumph in my doctoral journey is discovering within myself the resilience and perseverance required to complete years of tedious work and overcome seemingly impossible obstacles. In completing my doctoral program, I have proven to myself that I can accomplish any feat in life, personal, and professional, to which I aspire.

Implications, Applications, and Directions for Future Research

Upon analyzing quantitative data, it was identified that participants held some biases toward overweight and obese persons. Upon further analysis of qualitative interviews, participants' answers reinforced quantitative results. However, lack of educational training for students on how to handle the diverse set of challenges associated with overweight and obese persons was identified as a common variable and attributed to negative attitudes displayed by participants. Based on these findings, the proposed solution was to develop a curriculum for awareness of weight bias to be used in conjunction with select health and fitness courses to enhance weight tolerance among those majors seeking careers in the health and fitness industry. In doing so, this provides faculty with a framework to use as a guide toward bringing awareness to weight bias in the classroom. The curriculum also includes educational tools and resources for faculty

to use in helping students to develop the skills needed to minimize instances of weight bias when interacting with overweight and obese persons.

Development of such curriculum positions one southwest university to be recognized as a leader in taking the initiative to implement curriculum to address the issue of weight bias among its future health and fitness professionals with the potential to facilitate social change beyond the classroom to include the surrounding communities and the people they serve. This project can also provide insight for additional universities that offer degrees in the health and fitness arena to take a proactive approach toward minimizing instances of weight bias thus bringing about educational reform that has the potential to promote social restructuring on a much larger scale to include those businesses that retain such professionals.

Future application of this research will also be achieved as I plan to share findings at state and national conferences in order to facilitate awareness of the weight bias within the health and fitness related professions. Of particular importance, I plan to publish the weight bias awareness curriculum for use by other institutions who offer similar degree programs in order to provide one means of addressing the problem at the undergraduate level. In turn, this may provide an opportunity for me to provide professional development sessions for faculty to understand the significance of weight bias and ways to integrate weight bias awareness curriculum into courses to facilitate transformative learning.

Lastly, further research efforts should expand upon the findings indicated within this project study to include additional universities in the state who offer health and

fitness programs. Dissemination of surveys to identify if weight bias exists among health and fitness majors and use of qualitative interviews to explore further how health and fitness majors describe their own experiences in working with overweight and obese persons could reveal significant findings to further enhance the curriculum developed within this project study. With a wider scope and greater participation of participants, sample results could be generalized back to the population with greater confidence and provide support for continued interest in developing effective ways to minimize the instance of weight bias among future health and fitness related professionals.

Conclusion

Using mixed methods, this study investigated health and fitness majors' attitudes toward overweight and obese persons using the ATOP scale. Additionally, individual interviews were conducted which provided further insight into how health and fitness majors' described their own experiences in working with overweight and obese persons. Combined, these findings found negative attitudes and perceptions about overweight and obese persons to be evident among students at one southwest regional university. These findings are similar among other institutions as indicated in the review of literature and reiterate the importance of developing awareness interventions to minimize the instance of weight bias in the health-related disciplines. As such, the project in the present study addressed this need by devising curriculum to include a diverse set of resources and interactive assignments among faculty and students to use in bringing awareness to weight bias in the health science department at one southwest regional university.

Contributing to the scholarly aspect of my project study in this section were the project's strengths and limitations, and recommendations for addressing the problem in a different context. Next, my role in defining scholarship, project development, evaluation, leadership, and change and their relevancy to my growth as a practicing professional were identified. Then, highlights about my journey in becoming a scholar, practitioner, and project developer were revealed. Lastly, reflection on the significance of the project and what was learned including implications, applications, and directions for future research concluded the final section of this project study.

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Appendix A: The Project

Weight Bias Awareness Goals:

To identify and interpret personal attitudes toward overweight and obese persons.

To assess the effect of weight bias in the health and fitness related disciplines.

To review policy and legal statutes surrounding weight discrimination.

To critique the media's role in shaping the public's understanding and attitudes toward obesity and weight loss.

To investigate current literature on weight related terminology and language preference of overweight and obese persons.

To evaluate research based intervention strategies to reduce weight bias and apply findings to practice in the classroom setting.

The Project

A. Purpose: The weight bias curriculum aims to (a) identify and reflect on personal biases, (b) increase awareness of weight bias among health science majors, and (c) equip students with sensitive, client-centered strategies for developing relationships with overweight and obese persons.

B. Level and Learners: Development of curriculum was designed to supplement existing curriculum in an entry-level basic nutrition course for health science majors. A best practices approach in teaching will be the method used to present the curriculum.

C. Scope and Sequence: The sixteen week weight bias program focuses on understanding weight bias with an emphasis on self-awareness and bias-free treatment approaches. The format is divided into five units: (1) self-assessment, (2) awareness, (3) perceptions of obesity, (4) bias-free treatment approaches, and (5) evaluation.

D. Materials: The curriculum content requires access to a computer, printer, and the Internet.

E. Units

Pre-Assessment
Case Study Analysis

1. Self-Assessment: Unit 1 focuses on the first step towards confronting weight bias, identifying and reflecting upon personal attitudes and biases toward overweight and obese individuals. This unit includes:
    a. Self-Assessment Surveys (ATOP and IAT)
    b. Analysis and Reflection of Self-Assessment Surveys
    c. Guided Group Discussion Questions

2. Awareness: Unit 2 addresses implicit and explicit bias in the home, school, and health care setting and their implication on overweight and obese persons. This unit includes:
    a. Prevalence of Weight Bias
    b. Videos (weight bias at home and school and weight bias in health care)
    c. Guided Group Discussion Questions
    d. Research Article Assignment

3. Perceptions of Obesity: Unit 3 discusses overweight and obese persons perceptions of weight discrimination in diverse settings, implications associated with the causes related to obesity, and legal issues surrounding discrimination of overweight and obese persons. This unit includes:
    a. Overweight and Obese Persons Reports of Bias
    b. Causes of Obesity
    c. Portrayal of the Media Towards Overweight and Obese Persons
    d. Weight Terminology and Language Preference
    e. Policy and Legal Solutions to Weight Discrimination

4. Bias-Free Treatment Approaches: Unit 4 provides students with a variety of effective strategies to use to minimize the instance of weight bias when interacting with overweight and obese persons. This unit includes:
    a. Strategies for Health and Fitness related Professionals
    b. Weight Loss Counseling Strategies
    c. Internet Resources

Post-Assessment
Case Study Analysis

5. Evaluation: Unit 5 offers students the opportunity to reflect upon learned experiences conducted throughout the semester in regards to weight bias and to provide feedback about the integration of weight bias curriculum into the nutrition course. This unit includes:
    a. Self-Reflection PPT
    b. Student Feedback (curriculum survey)

Basic Nutrition: Course Timetable

Week	Assigned Reading	Assignments	Points
Week 1	Blackboard Review, Plagiarism Requirement, and Syllabus Introduction Weight Bias: pre-assessment	Participation Points Plagiarism Assignment Case Study Analysis	10 Pre-requirement to continue in course
Week 2	Ch. 1: Choosing What You Eat and Why Weight Bias- Self Assessment: Distribute ATOP Survey	Bb: Learn Smart Out of Class Assignment- ATOP and IAT Analysis	67
Week 3	Ch. 2: Guidelines for Designing a Healthy Diet Weight Bias- Self Assessment	Food Label Assignment Weight Bias Findings (Reflection Activity) and Group Discussion	15 30
Week 4	Ch. 2: Guidelines for Designing a Healthy Diet Weight Bias- Awareness	Bb: Learn Smart Weight Bias at Home and School Video and Group Discussion	67
Week 5	Ch. 4: Carbohydrates Weight Bias- Awareness	Bb: Learn Smart Weight Bias in Health Care Video and Group Discussion	67
Week 6	Ch. 5: Lipids Weight Bias- Awareness	Bb: Learn Smart Out of Class Assignment- Research Article on Weight Bias	67

Week 7	Ch. 6: Proteins Weight Bias-Awareness	Bb: Learn Smart 3 Day Dietary Report Group Discussion over Weight Bias Research Article and PPT over Current Research Findings	67 48 50
Week 8	Ch. 8: Vitamins Weight Bias-Perceptions Related to Obesity	Article Review and Debriefing Session	
Week 9	Ch. 8: Vitamins Weight Bias-Perceptions Related to Obesity	Bb: Learn Smart PPT over Perceptions/Causes of Obesity Out of Class Assignment-News Media's Portrayal of Overweight and Obese Persons	67
Week 10	Ch. 9: Water and Minerals Weight Bias-Perceptions Related to Obesity	Debriefing Session of Media Assignment Article Review/Handout	50
Week 11	Ch. 9: Water and Minerals Weight Bias-Perceptions Related to Obesity	Bb: Learn Smart Health & Wellness Exam (Gen. Ed. Assessment-Bb) Weight Related Language PPT and Handout Complete Weight	67 45

		Preference Questionnaire Out of Class Assignment-Questionnaire Assignment	
Week 12	Ch. 7: Energy Balance and Weight Control Weight Bias-Perceptions Related to Obesity	Debriefing over Questionnaire and PPT over Weight Discrimination and the Law	30
Week 13	Ch. 7: Energy Balance and Weight Control Weight Bias- Bias Free Treatment Approaches	Bb: Learn Smart Nutrition Goals/Plan Group Discussion over Home, School, Health, and Counseling Strategies	67 20
Week 14	Ch. 10: Nutrition-Fitness and Sports Weight Bias- Bias Free Treatment Approaches	Evaluating Websites-Computer Lab	
Week 15	Ch. 10: Nutrition-Fitness and Sports Weight Bias (post-assessment)	Bb: Learn Smart Exercise Goals/Plan Case Study Analysis	67 20
Week 16	Review for Final: Bingo and Jeopardy Nutrition/Health Weight Bias-Evaluation	Participation Report Documentary Reflection Report Self-Reflection Report and Student Feedback Curriculum Survey	10 40
Week 17	Final Exam	Comprehensive Final	100

Pre-Assessment

Friday, August 22: In class activity (30 minutes)

Introduction: The focus of this lesson is to assess the communication techniques and questions used to elicit information from the client in order to develop an effective weight management plan.

Health and fitness related professionals are faced with the challenge of acknowledging the client's risk as well as creating a safe exercise program. To address the health concern identified in each case study, list some effective communication techniques that may help you to address BMI in a professional manner and obtain pertinent health-related information for this particular client. In addition, please provide a list of additional questions that you would ask the client in order to develop an effective exercise program.

Case Study
Mary is a 40-year-old woman who is 5'4", 184 pounds, and has gained over 30 pounds within the last 3 years. Tired of being overweight and being told by her physician that she needs to change her lifestyle – eat less and exercise more, she has decided to consult a personal trainer to help her lose weight and thus prevent health risks that could escalate to illness or even death.

Case Study
Danny is a 12 year old boy who is 50 pounds overweight and his pediatrician recently told his parents that he needs to exercise in order to improve his overall health. His father is obese and has type 2 diabetes and his mother is overweight and has cardiovascular disease.

Unit One Overview

Title: Self-Assessment

Unit Summary: Students will begin the first step towards confronting weight bias by identifying and reflecting upon personal attitudes and biases toward overweight and obese individuals.

Subject Area: Weight Bias

Learning Outcomes
Students will:

- Examine personal attitudes toward overweight and obese persons
- Identify attitudes that can exist outside of student's conscious awareness
- Analyze personal attitudes toward overweight and obese persons
- Reflect on personal attitudes toward overweight and obese persons

Technology
Students will:

- Access assigned website (https://implicit.harvard.edu/implicit/selectatest.html) and complete weight IAT assessment and analysis

Unit Scope and Sequence

- Examination
- Identification
- Analysis
- Reflection

Student Assessment

- Analysis and interpretation of ATOP and IAT Questionnaires
- Reflection summary
- Guided group discussion questions

Approximate Completion Time
180 minutes
Friday, August 22 (11:20-11:50 a.m.)
Friday, August 29 (11:10-11:50 a.m.)
Friday, September 5 (11:00 a.m.-11:50 a.m.)

Students will be expected to work one hour outside of class time to complete unit assignments.

Materials and Resources Required for Unit

Materials

- Modified ATOP questionnaire and scoring instructions (documents)
- IAT questionnaire and analysis (Internet website)
- IAT instructions handout
- Reflection summary handout

Supplemental Resources (including Internet resources):

Technology – Hardware

☒ Computer(s) ☐ DVD ☐ Projection System ☒ Printer
☐ iPhone ☐ Television ☐ Video Camera/Camera ☐ Other

Technology – Software

☒ Microsoft Word ☐ Microsoft Power Point ☒ Microsoft Excel
☒ Microsoft Internet Explorer ☐ Skype ☐ Quick Time Player
☐ Other

Key Word Search

Antifat Bias, Explicit Weight Bias, Attitudes Toward Obese Persons (ATOP), Implicit Weight Bias, Harvard IAT, Implicit Association Test (IAT), Tools for Health Care Providers

References

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Unit One: Lesson Activities

Friday, August 29: In class activity (40 minutes)

Part I: Complete the ATOP (Allison, Basile, & Yuker, 1991; Rudd Center for Food Policy and Obesity, 2012) Questionnaire (20 minutes)

Survey has been approved by original author to use in study and classroom context (see Appendix C).

Allison, D., Basile, V., and Yuker, H. (1991). The measurement of attitudes toward and beliefs about obese persons. *International Journal of Eating Disorders*, 10: 599-607.

Directions
Please mark each statement below in the left margin, according to how much you agree or disagree with it. Please do not leave any blank. Use the numbers on the following scale to indicate your response. Be sure to place a minus or plus sign (- or +) beside the number that you choose to show whether you agree or disagree.

-3	-2	-1	+1	+2	+3
I strongly disagree	I moderately disagree	I slightly disagree	I slightly agree	I moderately agree	I strongly agree

1. _____ Obese people are as happy as non-obese people.
2. _____ Most obese people feel 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. _____ 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 feel 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 him/her to become obese.

Part II: Discuss out of class assignments for the following Friday (20 minutes)

Explain scoring instructions for ATOP questionnaire (10 minutes)

Handout
Step 1: Multiply the response to the following items by -1 (i.e., reverse the direction of scoring):

- Item 2 through Item 6, Item 10 through Item 12, Item 14 through Item 16, Item 19 and Item 20

Step 2: Add up the responses to all items
Step 3: Add 60 to the value obtained in Step 2. This value represents your personal ATOP score.

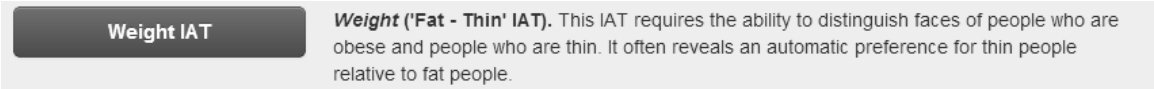
Example
+3 Most obese people feel that they are not as good as other people.
-2 Most obese people are more self-conscious than other people.
Multiple +3 by -1= -3 and 3. Multiple -2 by -1 = 2

Explain IAT (Greenwald, n.d.) handout for completing the implicit association test (10 minutes)

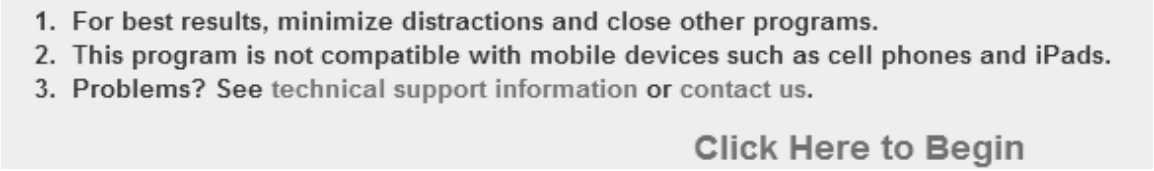
Handout
Type the link listed below into the search bar of your computer- when completed, click enter:

- Harvard University Project Implicit website (Harvard University, 2011): https://implicit.harvard.edu/implicit/selectatest.html

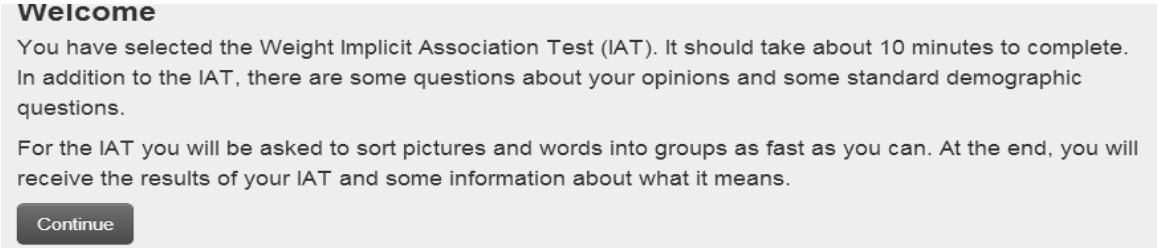
- Select the weight IAT icon as shown below:



- A page will appear as shown below- select begin:



- Click begin and you will be transferred to another page as shown below:



- Please read the instructions and select the continue button to begin the questionnaire

- Upon completing the questionnaire, the results will be immediately displayed on the screen

- Please select all of the 'read more' icons to reveal additional information

- Should your results fail to yield any results due to test error, please retake the IAT questionnaire again for educational purposes

- Once you have completed this process, print your findings or copy and paste the information into a word document using a landscape format, print document, and bring to class on the following Friday for reflection assignment and group discussion questions

Unit One: Lesson Activities

Friday, September 5: In class activity (50 minutes)

Part I: Discuss ATOP [Explicit] and IAT [Implicit] Weight Bias Findings (25 minutes)

Introduction: The self-assessment measures that you completed were purposefully selected to help increase self-awareness of weight bias toward overweight and obese persons. For example, the ATOP is a common questionnaire that is used to examine explicit attitudes toward overweight and obese persons. In essence, these are conscious attitudes that we exhibit or endorse that may hold a negative context toward another person or a group of persons. Whereas, the IAT is often used to observe implicit attitudes that we may have toward overweight and obese persons. In other words, this measure targets those attitudes that operate below conscious awareness and may be less obvious to the person especially in regards to biases that may exist (Banaji & Heiphetz, 2010).

Reflection Activity
Let's review your findings. To maintain confidentiality, individual scores will not be addressed in class. Rather, I have included the midpoint score for the ATOP questionnaire and IAT score information on your reflection summary assignment.

Handout

Reflection Summary

ATOP midpoint (60) - Scores that fall below 60 indicate more negative attitudes toward overweight and obese persons; whereas, scores above 60 indicate neutral to more positive attitudes toward overweight and obese persons.

IAT score- Based on the automatic associations of an individual's memory in regards to reaction time and classification of words (refer to feedback provided by Harvard University through Project Implicit).

Provide a brief summary of ATOP findings and include the following components:
What was your score?
Do you believe this score accurately reflects the various attitudes that you have toward overweight and obese persons? Why or why not?
In reviewing your initial responses to the questions asked, what does the information tell you? Identify and discuss some of those attitudes that reflect positively and some that reflect negatively.
What are some ways that you can minimize instances of weight bias in the work environment for your chosen profession?

Provide a brief summary of IAT findings that were provided by Harvard University: Project Implicit and include the following components:
What were your results?
How did your results compare with others who completed the weight IAT test? Refer to the table presented in your results?
Do you agree with the report? Why or why not?

Part II: Group Discussion Questions (25 minutes)
As the moderator, I will spend the remainder of class time asking students questions to include possible probing questions based on student feedback.

Introduction: As we rank 6th in the nation for obesity, one of our roles as future health professionals is to reflect upon our own personal attitudes and identify potential biases that may affect the level of care provided to overweight and obese persons. The focus of this lesson will be to add to the reflection assignment by further exploring some of those attitudes in a group setting to bring awareness to biases that may exist. These questions have been adapted from questions created by Rudd Center for Food Policy and Obesity (n.d.) to assess weight bias among actual practicing professionals in the health care discipline.

- What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behaviors?

- How comfortable are you in working with peers, patients, students, athletes, and/or clients of different body sizes?

- How are you sensitive to the needs and concerns of overweight and obese people?

- What are your personal views about the causes of obesity? Does this impact your attitude about obese persons?

- What are your views regarding common stereotypes about overweight and obese persons? Do you believe these stereotypes can affect the way that you will provide treatment to overweight and obese persons?

Unit Two Overview

Title: Awareness

Unit Summary: Addresses implicit and explicit bias in the home, school, and health care setting and their implication in interacting with overweight and obese persons.

Subject Area: Prevalence of Weight Bias

Learning Outcomes
Students will:

- Examine the prevalence of implicit and explicit bias in the home, school, and health care setting
- Reflect on weight bias in the home, school, and health care setting and their implication on overweight and obese persons
- Differentiate between various methodological approaches used to interpret weight bias among health-related disciplines

Technology
Students will:

- Access Rudd Center to review videos presented in class: Weight Bias at Home and School and Weight Bias in Health Care (http://www.yaleruddcenter.org/what_we_do.aspx?id=254)
- Access Google scholar (http://scholar.google.com/), university library or webpage to complete research article summary assignment

Unit Scope and Sequence

- Examination
- Reflection
- Differentiation

Student Assessment

- Post video guided group discussion questions
- Debriefing session over research article assignment
- Guided group discussion questions

Approximate Completion Time

300-360 minutes
Friday, September 12 (11:00 a.m.-11:50 a.m.)
Friday, September 19 (11:00 a.m.-11:50 a.m.)
Friday, September 26 (11:20 a.m.-11:50 a.m.)
Friday, October 3 (11:00 a.m.-11:50 a.m.)

Students will be expected to work outside of class time ranging from two to three hours to complete unit assignments.

Materials and Resources Required for Unit
Materials

- Research article assignment rubric
- Video links
- PPT- Evidence of weight bias

Supplemental Resources (including Internet resources):

Technology – Hardware
☒ Computer(s) ☐ DVD ☐ Projection System ☒ Printer
☐ iPhone ☐ Television ☐ Video Camera/Camera ☐ Other

Technology – Software
☒ Microsoft Word ☐ Microsoft Power Point ☐ Microsoft Excel
☒ Microsoft Internet Explorer ☐ Skype ☐ Quick Time Player
☐ Other

Key Word Search
Weight Bias among Physicians, Weight Bias among Coaches, Beliefs about Obese Persons among Dietitians, Explicit Weight Bias among Personal Trainers, Implicit Weight Bias among Nurses, Weight Bias among Physical Education Majors, Yale Rudd Center- Weight Bias Education, Obesity Action Coalition, Implicit and Explicit Weight Bias Among Health Care Providers.

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Schvey, N., Puhl, R., & Brownell, K. (2014). The stress of stigma: Exploring the effect of weight stigma on cortisol reactivity. *Journal of Biobehavioral Medicine*, 76, 1-7. doi:10.1097/PSY.0000000000000031

Schvey, N., Puhl, R., & Brownell, K. (2011). The impact of weight stigma on caloric consumption. *Obesity*, 19(10), 1957-1962. doi:10.1038/oby.2011.204

Vallis, M., Currie, B., Lawlor, D., & Ransom, T. (2007). Healthcare professional bias against the obese: How do we know if we have a problem? *Canadian Journal of Diabetes*, 31(4), 365-378.

Vartanian, L., & Novak, S. (2011). Internalized societal attitudes moderate the impact of weight stigma on avoidance of exercise. *Obesity*, 19(4), 757-762.

Unit Two: Lesson Activities

Friday, September 12: In class activity (50 minutes)

Part I: Weight Bias at Home and School Video (30 minutes)

Introduction: This video was developed by the Rudd Center for Food Policy and Obesity at Yale University. The video is about the obstacles that overweight and obese youth face in regards to weight bias. At the end, we will discuss evidence based strategies to help combat this growing problem.

What does the research say?
Research shows that overweight and obese children and youth are frequently bullied, teased, and socially rejected at home, at school, and in the media based solely on their weight.

According to Rudd Center for Food Policy and Obesity (n.d.), "weight bias can be seriously damaging to a child's social, emotional, and academic development" (p. 1). For instance, Levi, Vinter, Richardson, St. Laurent, and Segal (2009) reported that long term effects of weight bias can lead to adverse behaviors of children and youth to include: refusal to go to school for fear of being ridiculed, resort to drinking or use of drugs to hide their frustrations, and/or may even contemplate suicide.

The video I am about to show you was designed to educate parents, teachers, and/or coaches so that persons can develop the tools needed to help safeguard overweight and obese youth from weight bias and its long term effect.

Part II: Post Video Discussion Questions [questions modified from Rudd Center, Discussion Guide for Home, p. 1] (20 minutes)

- How do you perceive the attitudes of others (family, friends, significant other, peers, faculty) in regards to weight of a person?
- Have you personally and/or your children, family, friends etc… experienced any weight bias in the past?
- How do you think this university, schools, and/or your family handles issues related to weight-based teasing and bullying?

Unit Two: Lesson Activities

Monday, September 19: In class activity (50 minutes)

Part I: Weight Bias in Health Care Video (30 minutes)

Introduction: This video was developed by the Rudd Center for Food Policy and Obesity at Yale University. The video is about the bias and stigma associated with weight and provides insight into the lived experiences of overweight and obese persons within the health-related settings. At the end, we will discuss evidence based strategies to help combat this growing problem.

Things to think about as you watch the video (modified from Rudd Center for Food Policy and Obesity, n.d, p. 1):

- As the incidence of obesity has reached epidemic proportions, weight bias is an important concern especially for professionals who plan to work directly/indirectly with overweight and obese persons
- Research has found that overweight and obese persons have reported incidences of weight bias to exist among a diverse group of health care providers
- The negative effects of such bias have resulted in overweight and obese persons to become susceptible to emotional and physiological repercussions.

Think back to unit one and reflect on how you initially answered the following questions:

- What are your views about having to work with overweight and obese persons?
- What is your comfort level in working with overweight and obese persons?
- Based on your chosen profession, what kind of feedback would you give to an overweight or obese person?
- Do you believe that you will be empathetic to the concerns of overweight and obese persons?

Part II: Post Video Discussion Questions [questions modified from Rudd Center for Food Policy and Obesity, n.d., p. 2] (20 minutes)

- Have you experienced or foresee any challenges in providing care for an overweight or obese patient or client? If so, what were these challenges or what

challenges do you feel you will face? How did you (will you) deal with these obstacles?

- In light of challenges that are often associated with our profession, what are some ways that we can address this issue to ensure that the instance of weight bias toward overweight persons is minimized?
- What are some ways that you can improve your communication skills with overweight and obese persons when discussing weight management strategies?

Unit Two: Lesson Activities

Friday, September, 26: Out of class research article assignment (30 minutes)

Introduction: For the last couple of weeks, we watched two videos emphasizing weight bias in the home, school, and health care setting. In reviewing those videos, you were exposed to a variety of ways that weight bias can manifest itself to include (examples have been modified from Rudd Center for Food Policy and Obesity, Weight Bias in Health Care, p. 3):

- Verbal teasing (derogatory comments)
- Physical bullying and aggression (touching another person's body)
- Relational victimization (social exclusion)
- Cyber victimization (internet and cell phone)

Therefore, the purpose of this assignment is to explore recently published articles that emphasize weight bias among a variety of health-related disciplines. Among the articles you review, select one article that focuses on your area of expertise and address the following rubric components (50 pts.):

Article is <5 years (similar to your field of study)

- Topic is appropriate (related to weight bias)
- Article is research based and peer reviewed
- Summarize: purpose, type of research, setting and sample, collection and analysis of data, discussion and future research
- Assignment questions (modified from Rudd Center for Food Policy and Obesity, Overview of weight bias, module 3): identify the source(s) of weight bias, identify and discuss the implication of weight bias and its impact toward the quality of care provided to overweight and obese persons, and discuss some things that the health professional(s) could do to reduce the instance of weight bias
- Apply relevancy of article to area of expertise (how can you apply this knowledge to your area of study?)
- Mechanics (APA, in text citation and references, page length, and grammar/spelling)
- Format (times new roman, 12 inch font, and double spaced)
- Length (5-7 pages)

Research Article Assignment				
Components	Target	Acceptable	Needs Improvement	Score
Article Selection	5	4-3	<3	
	Article is current (<5 years), topic is appropriate, peer reviewed, provides sufficient information	Article is current (<5 years), topic is appropriate, not peer reviewed and/or article does not provide sufficient information	Article topic appropriate, not peer reviewed, and/or out of date, nature of article is questionable	Feedback:
Questions	10	9-7	<7	
	All questions are addressed and answered sufficiently	Some of the questions are addressed and/or briefly mentioned	Questions are not addressed and/or not mentioned	
Article Summary	20	19-14	<14	
	Purpose of study is addressed, type of research identified, setting and sample, collection and analysis of research is discussed, discussion and future research efforts clearly stated	Purpose of study is addressed, type of research is briefly mentioned, setting and sample, collection and analysis of research is vague, discussion and future research efforts are not clearly stated	Purpose of study is not addressed, and/or type of research is missing, and/or setting and sample, collection and analysis of research is missing, and/or discussion and future research efforts are not stated	Feedback:
Application of Article	5	4-3	<3	
	Relevancy of article to student's area of expertise is identified and discussed in detail (2	Relevancy of article to student's area of expertise is somewhat identified and discussed briefly	Relevancy of article to student's area of expertise is not identified and/or is not discussed	Feedback:

	paragraphs)	(< 2 paragraphs)		
Mechanics	10	9-7	<7	
	Correct APA format is used, citation and references used, format and page length requirements are met (2 pages), no grammatical errors or typos	APA format used with few errors, few citation and reference errors, format and page length requirements are met (2 pages), few grammatical errors or typos	APA format not used, and/or page length requirement is not met (< 2 pages), and/or several grammar errors/typos	Feedback:

Unit Two: Lesson Activities

Friday, October 3: In class assignment (50 minutes)

Part I: Debriefing session over article assignment (25 minutes)

Introduction: The focus of this lesson is to randomly select students to discuss their research findings to the class by addressing the following questions (based on students answers, probing questions will be used by the instructor and/or students):

- Identify the source(s) of weight bias
- Identify and discuss the implication of weight bias and the impact toward the quality of care provided to overweight and obese persons
- Discuss some things that the health professional(s) could do to reduce the instance of weight bias
- Discuss the significance of the components identified in your research article that are applicable to your area of study?

Part II: Overview of experts and current research findings in the field of obesity bias (25 minutes).

Weight Bias can be interpreted as:

- Negative attitudes toward persons who are labeled as overweight or obese
- Stereotypes that identify overweight and obese persons as being at fault for their weight such as lazy, lack motivation, emotional problems, unhealthy

Rarely challenged – often deemed acceptable in today's society (lead to rejection, prejudice, and discrimination)
Can be both subtle (implicit- may not be as aware of biases) and overt (explicit)

Revert back to your research article- were there any indications of weight bias? If so, what characteristics were reported that support your findings?
What does the research say?

Evidence of Weight Bias (Peters & Jones, 2010; Puhl & Heuer, 2009; Puhl et al., 2008; Vallis et al., 2007)

- Workplace
- Education

- Media
- Interpersonal Relationships
- Youth
- Health Care

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Puhl, R., & Brownell, K. (2006). *Confronting and coping with weight stigma: An investigation of overweight and obese adults*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/Confronting.Coping.Stigma.pdf

Overweight and Obese Women (N = 2,449) Reported:

Table 4. Descriptive statistics and frequency (%) of respondents in Sample 1 who experienced stigma from various interpersonal sources

Source of Bias	**Ever Experienced Times**	**More than Once/Multiple**
Family members	72	62
Doctors	69	52
Classmates	64	56
Sales clerks	60	47
Friends	60	42
Co-workers	54	38
Mother	53	44
Spouse	47	32
Servers at restaurants	47	35

Nurses	46	34
Members of community	46	35
Father	44	34
Employer/supervisor	43	26
Sister	37	28
Dietitians/nutritionists	37	26
Brother	36	28
Teachers/professors	32	21
Authority figure (e.g. police)	23	15
Mental Health Professionals	21	13
Son	20	13
Daughter	18	12
Other	17	13

Teaching/Coaching

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Puhl, R., Luedicke, M., & Heuer, C. (2011). *Weight-based victimization toward overweight adolescents: Observations and reactions of peers*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/VictiminationPeerObservations_JSH_11.11.pdf

Teasing Location	**Total**
Lunch room/cafeteria	55.70%
Classroom	51.90%
Gym	46.20%
Locker room	41.30%
Stairs/Hallway	40.80%
School bus	38.60%
Playground/athletic field	38.20%
Washroom/bathroom	28.70%

Table 3. Frequency of Different Forms of Weight-Based Teasing as Observed by Students

Types of Weight-Based Victimization (N = 1555)	
Made fun of	92%
Called names	91%
Teased in a mean way	88%
Teased during physical activity	85%
Ignored or avoided	76%
Teased in the cafeteria	71%
Excluded from activities	67%
Target of negative rumors	68%
Verbally threatened	57%
Physically harassed	54%

Table 2. Adolescents' Perceptions of Why Peers Are Teased/Bullied: Observed Frequency

Adolescent reports of why peers are teased/bullied (N = 1555)

Reason for teasing Often,	Primary reason students are teased	Observed, Sometimes, Very Often
	%	%
Being overweight	40.8	78.5
Gay/lesbian	37.8	78.5
Ability at school	9.6	61.2
Race/ethnicity	6.5	45.8
Physical disability	3.3	35.8
Religion	1.2	20.8
Low income/status	0.8	24.9

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Puhl, R. (n.d.). *Bias, discrimination, and obesity: A social injustice and public health priority*. Retrieved from http://www.phila.gov/health/pdfs/Bias%20and%20Obesity%20Rudd%20Center_3-16-2011.pdf

Parental Victimization

- Bias modeled at home by parents
- Parental victimization of children
- 47% of overweight girls, 34% of overweight boys report weight bias from families

Huizinga, M., Cooper, L., & Beach, M. (2009). Physician respect for patients with obesity. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771236/#__ffn_sectitle

Health Professionals view overweight and obese persons as:

- Less disciplined
- Less compliant
- More annoying

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Bertakis, K., & Azari, R. (2011). Patient-centered care is associated with decreased health care utilization. *Journal of the American Board of Family Medicine*, 24(3), 229-239. doi:10.3122/jabfm.2011.03.100170

Bertakis, K., & Azari, R. (2005). The impact of obesity on primary care visits. *Obesity Research*, 13(9), 1615-1623.

As patients BMI increases, reports of health professionals attitudes reflect:

- Less patience
- Less desire to help the patient
- Waste of their time
- Less respect

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Eisenberg, M., Berge, J., Fulkerson, J., & Neumark-Sztainer, D. (2011). Weight comments by family and significant others in young adulthood. *Body Image*, 8(1), 12-19.

Schvey, N., Puhl, R., & Brownell, K. (2011). The impact of weight stigma on caloric consumption. *Obesity*, 19(10), 1957-1962. doi:10.1038/oby.2011.204

How does this affect the level of care provided to overweight and obese persons?

- Less time spent in appointments
- Less discussion with patients
- More assignment of negative symptoms
- Reluctance to perform certain screenings
- Less intervention

Weight stigma increases the risk of consequences associated with the following eating behaviors:

- Chronic dieting
- Unhealthy weight control practices
- Eating disorders
- Binge eating
- Increased food consumption
- Those with more negative affect in response to weight stigma are more likely to binge eat, and eat more

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Schmalz, D. (2010). I feel fat: Weight-related stigma, body esteem, and BMI as predictors of perceived competence in physical activity. *Obesity Facts*, 3, 15–21.

Schvey, N., Puhl, R., & Brownell, K. (2014). The stress of stigma: Exploring the effect of weight stigma on cortisol reactivity. *Journal of Biobehavioral Medicine*, 76, 1-7. doi:10.1097/PSY.0000000000000031

Vartanian, L., & Novak, S. (2011). Internalized societal attitudes moderate the

impact of weight stigma on avoidance of exercise. *Obesity*, 19(4), 757-762.

Weight stigma and risk of consequences associated with Physical Health

- Avoidance of physical activity
- Lower motivation for exercise
- Cardiovascular health
- Elevated blood pressure
- Increased physiological stress
- Increased cortisol reactivity

Unit Three Overview

Title: Perceptions Related to Obesity

Unit Summary: Discuss overweight and obese persons perceptions of weight bias in diverse settings, causes and misconceptions related to obesity, and legal implications of weight discrimination.

Subject Area: Overweight and Obese Persons

Learning Outcomes
Students will:

- Reflect on overweight and obese persons perceptions of weight bias in a variety of contexts
- Investigate causes related to obesity
- Explore overweight and obese persons in the media
- Examine weight related terminology
- Consider legal rights of overweight and obese persons

Technology
Students will:

- Access media websites and review high profile weight discrimination cases on the internet

Unit Scope and Sequence

- Reflection
- Investigation
- Exploration
- Examination
- Consideration

Student Assessment

- Debriefing of Article Reviews
- Guided group discussion questions
- Media Reflection
- Survey Analysis

Approximate Completion Time
380-440 minutes
Friday, October 10 (11:00 a.m.-11:50 a.m.)
Friday, October 15 (11:00 a.m.-11:50 a.m.)
Friday, October 24 (11:00 a.m.-11:50 a.m.)
Friday, October 31 (11:00 a.m.-11:50 a.m.)
Friday, November 7 (11:00 a.m.-11:50 a.m.)

Students will be expected to work outside of class time ranging from three to four hours to complete unit assignments.

Materials and Resources Required for Unit
Materials

- Research Articles
- Media Guidelines Document
- Weight Preference Surveys

Supplemental Resources (including Internet resources):

Technology – Hardware
☒ Computer(s) ☐ DVD ☐ Projection System ☒ Printer
☐ iPhone ☒ Television ☐ Video Camera/Camera ☐ Other

Technology – Software
☒ Microsoft Word ☒ Microsoft Power Point ☐ Microsoft Excel
☒ Microsoft Internet Explorer ☐ Skype ☐ Quick Time Player
☐ Other

Key Word Search
Perceptions of Overweight and Obese Persons, Obese Persons Perception of Weight Bias, Obesity Action Coalition, Yale Rudd Center- Weight Bias Education, Causes of Obesity, Etiology of Obesity, Self-Perception of Being Overweight and Obese, Obese Persons in the Media

References

Chang, C., Chang, K., & Cheah, W. (2009). Adults' perceptions of being overweight or obese: A focus group study. Retrieved from http://apjcn.nhri.org.tw/server/APJCN/18/2/257.pdf

Davidio, F., & Fiske, S. (2012). Under the radar: How unexamined biases in decision-making processes in clinical interactions can contribute to health care disparities. *American Journal of Public Health*, 102(5), 945-952.

Heuer, C., McClure, K., & Puhl, R. (2011). Obesity stigma in online news: A visual content analysis. *Journal of Health Communication*, 0, 1-12. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/ObesityStigmaOnlineNews_JHC_5.11.pdf

Lewis, S., Thomas, S., Blood, W., Hyde, J., Castle, D., & Komersaroff, P. (2010). *Do health beliefs and behaviors differ according to severity of obesity? A qualitative study of Australian adults*. Retrieved from file:///C:/Users/stephanie/Downloads/ijerph-07-00443%20(2).pdf

McCullough, N., Muldoon, O., & Dempster, M. (2008). *Self-perception in overweight and obese children: A cross-sectional study*. Retrieved from http://www2.ul.ie/pdf/972621502.pdf

Minnesota Department of Human Rights. (2012). *Weight bias*. Retrieved from http://mn.gov/mdhr/education/articles/rs10_2weightbias.html

Pomeranz, J. (2012). *Policy and legal solutions to weight discrimination* [PowerPoint slides]. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/law/Policy_and_Legal_Solutions_to_Weight_Discrimination_5.12.pdf

Puhl, R. (n.d.). Obesity stigma: Implications for patients and providers [PowerPoint slides]. Retrieved from

http://www.yaleruddcenter.org/resources/upload/docs/what/bias/Clinical_Implications_of_Obesity_Stigma_Presentation_2013.pdf

Puhl, R., Andreyeva, T., & Brownell, K. (2008). *Perceptions of weight discrimination: Prevalence and comparison to race and gender discrimination in America*. Retrieved from http://www.nature.com/ijo/journal/v32/n6/full/ijo200822a.html

Puhl, R., Moss-Rascusin, C., Schwartz, M., & Brownell, K. (2008). *Weight stigmatization and bias reduction: Perspectives of overweight and obese adults*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/WeightStigmaBiasReduction_HER_9.07.pdf

Puhl, R., Peterson, J., DePierre, J., & Luedicke, J. (2013). Headless, hungry, and unhealthy: A video content analysis of obese persons portrayed in online news. *Journal of Health Communication*, 18(6), 686-702. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/VideoAnalysisOnlineNews_JHC_2.13.pdf

Puhl, R., Peterson, J., & Luedicke, J. (2012). Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *International Journal of Obesity*, 1-8.

Rudd Center for Food Policy and Obesity. (2013). Guidelines for the portrayal of obese persons in the media. Retrieved from http://yaleruddcenter.org/resources/upload/docs/what/bias/media/MediaGuidelines_PortrayalObese.pdf

Rudd Center for Food Policy and Obesity. (2013). Theories of weight bias. Retrieved from http://www.yaleruddcenter.org/what_we_do.aspx?id=205

Wadden T., & Didie E. (2003). What's in a name? Patients' preferred terms for describing obesity. *Obesity*, 11, 140-146.

Unit Three: Activities

Friday, October 10: In class activity (50 minutes)

Introduction: The focus of this session is to reflect on overweight and obese persons perceptions of weight and weight stigma in a variety of contexts.

Part I: Article review (30 minutes)

Chang, C., Chang, K., & Cheah, W. (2009). *Adults' perceptions of being overweight or obese: A focus group study*. Retrieved from http://apjcn.nhri.org.tw/server/APJCN/18/2/257.pdf

Davidio, F., & Fiske, S. (2012). Under the radar: How unexamined biases in decision-making processes in clinical interactions can contribute to health care disparities. *American Journal of Public Health*, 102(5), 945-952.

Lewis, S., Thomas, S., Blood, W., Hyde, J., Castle, D., & Komersaroff, P. (2010). *Do health beliefs and behaviors differ according to severity of obesity? A qualitative study of Australian adults*. Retrieved from file:///C:/Users/stephanie/Downloads/ijerph-07-00443%20(2).pdf

McCullough, N., Muldoon, O., & Dempster, M. (2008). *Self-perception in overweight and obese children: A cross-sectional study*. Retrieved from http://www2.ul.ie/pdf/972621502.pdf

Puhl, R., Andreyeva, T., & Brownell, K. (2008). *Perceptions of weight discrimination: Prevalence and comparison to race and gender discrimination in America*. Retrieved from http://www.nature.com/ijo/journal/v32/n6/full/ijo200822a.html

Puhl, R., Moss-Rascusin, C., Schwartz, M., & Brownell, K. (2008). *Weight stigmatization and bias reduction: Perspectives of overweight and obese adults*.

Retrieved from
http://www.yaleruddcenter.org/resources/upload/docs/what/bias/WeightStigmaBi

asReduction_HER_9.07.pdf

Divide students into small groups (5 students per group)

Each group will be assigned a research article focusing on self-perception of being overweight or obese. Each group member will be provided with a copy of the assigned article and asked to independently read the article. As a group, students will discuss the article and identify key findings to present to the additional groups during the debriefing session.

Part II: Debriefing session (20 minutes)

Each group will present findings and discuss relevancy of topic and answer questions posed by the instructor and/or other student groups.

Identification of the following components should be addressed by each group: Purpose, findings, discussion, and conclusion.

Unit Three: Activities

Friday, October 15: In class activity (50 minutes)

Introduction: The focus of this session will be to examine: (a) attitudes that lead to beliefs that obesity is within a person's control, and (b) causes that have a direct/indirect relationship to potential weight gain.

Part I: Attitudes/Beliefs about Causes of Overweight/Obesity [PowerPoint] (20 minutes)

- Attitude- that the cause of obesity is within a person's control
- Belief- that overweight and obese persons can lose weight through hard work and discipline
- Perception- cause of obesity can reinforce weight bias

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Rudd Center for Food Policy and Obesity (2013). *Theories of weight bias.* Retrieved

from http://yaleruddcenter.org/what_we_do.aspx?id=205

What does the research say? Studies have found that…

- If an overweight or obese person is perceived to responsible for his/her weight gain, blame is more likely to be placed on the overweight or obese person
- A person is less likely to place blame or stigmatize an overweight or obese person if the individual is told or under the assumption that the person's weight gain is attributed to a medical condition (in essence- outside of the person's control- hormone condition or genetic predisposition)

Theories to Explain Weight Bias

- No theory fully illuminates the motives for weight bias, or how stereotypes evolved, to help society reduce the problem
- Some research in social psychology has address specific components of stigma in an effort to increase our understanding of weight bias

Attribution Theory

- The way in which we react to a condition (overweight/obesity) and attribute reasons for that condition
- This theory contends that people are responsible for their life situation and get what they deserve
- For an overweight or obese person, the perception is that it is under his/her control to lose the weight
- Theory suggests that someone who believes that weight is a matter of personal responsibility is more likely to blame and stigmatize those who are overweight or obese

Part II: Causes of Overweight/Obesity [PowerPoint] (20 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from National Heart, Lung, and Blood Institute [NIH] (2012). *What causes overweight and obesity?* Retrieved from http://www.nhlbi.nih.gov/health/health-topics/topics/obe/causes.html

Causes of Weight Gain

- Lack of Energy Balance
    - Consume more calories than you use burn
- Inactive Lifestyle
    - Not physically active
- Environment
    - Lack of sidewalks, safety, recreational areas (parks and trails), and/or affordable gyms

  - Work schedules
  - Oversized food portions
  - Lack of access to healthy foods
  - Food advertising
  - Culture
  - Social

- Genes and Family History

  - Affect the amount of fat a person stores in the body and location on the body where fat is carried
  - Tend to run in families
  - One or both parent(s) are overweight- greater chance of becoming overweight
  - Social aspect of habits and the environment

- Health Conditions

  - Hormonal abnormalities within the body can cause weight gain

- Medicines

  - Certain medicines can cause weight gain
  - These medicines slow the rate at which the body burns calories, can increase appetite, and/or can cause the body to hold on to extra water

- Emotional Factors

  - Eat more than usual based on a ‘feeling’

- Smoking

  - Cessation of smoking may cause weight gain

- Age

  - Lose muscle with age which can decrease the rate at which the body burns calories

- Pregnancy

  - Weight gain to support growth and development of the baby

- Lack of Sleep
    - Increases the risk of weight gain

Part III: Discuss out of class assignment (10 minutes)

News Media
According to Pew Research Center Publications (2008):

- 40-61% of adults now access news online
- The use of pictures and videos are used to provide context to news events as opposed to reading and/or hearing the facts
- How does the media impact public perceptions of health-related issues?
    - More specifically- how does the media portray overweigh/obese persons?

Assignment [Due on Friday, October 24]

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from Rudd Center for Food Policy and Obesity (n.d.). *Guidelines for media portrayals of individuals affected by obesity*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/media/MediaGuidelines_PortrayalObese.pdf

Select a recent broadcast (<1 yr.) on the topic of obesity by the news media [internet or television only] and answer the following questions:

- Did any of the images provided by the broadcast imply or reinforce negative stereotypes of overweight and obese persons? Explain your findings and attach the photo(s)/image(s) that you are referencing
- Did any of the images provided by the broadcast portray an overweight or obese person in a respectful manner? Explain your findings and attach the photo(s)/image(s) that you are referencing

- What is the news value of the particular image? Think about the photo/image used and what comes to mind? Who might be offended, and why? Is it relevant to the discussion topic? Do you think it enhances the broadcast- explain your answer?
- Is there any missing information from the photograph?
- What other photos/images could the broadcast use [provide examples of photos] to convey the same message in an effort to minimize possible bias? Attach the photo(s)/image(s) and explain why you selected those particular photos/images

Unit Three: Activities

Friday, October 24: In class activity (50 minutes)

Introduction: The objective of this class period is to explore the portrayal of overweight and obese persons in the media.

Part I: Debriefing session [media assignment] (20 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from Rudd Center for Food Policy and Obesity (n.d.). *Guidelines for media portrayals of individuals affected by obesity*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/media/MediaGuidelines_PortrayalObese.pdf

Students will be randomly selected to discuss news media coverage on the topic of obesity by answering the following questions:

- Did any of the images provided by the broadcast imply or reinforce negative stereotypes of overweight and obese persons? Explain your findings and attach the photo(s)/image(s) that you are referencing
- Did any of the images provided by the broadcast portray an overweight or obese person in a respectful manner? Explain your findings and attach the photo(s)/image(s) that you are referencing
- What is the news value of the particular image? Think about the photo/image used and what comes to mind? Who might be offended, and why? Is it relevant to the discussion topic? Do you think it enhances the broadcast- explain your answer?
- Is there any missing information from the photograph?
- What other photos/images could the broadcast use [provide examples of photos] to convey the same message in an effort to minimize possible bias? Attach the photo(s)/image(s) and explain why you selected those particular photos/images

Part II: Article Review [PowerPoint] (10 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Heuer, C., McClure, K., & Puhl, R. (2011). Obesity stigma in online news: A visual content analysis. *Journal of Health Communication*, 0, 1-12. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/ObesityStigmaOnlineNews_JHC_5.11.pdf

Table 2. Comparison of portrayals for overweight and obese persons versus nonoverweight persons in online news reports about obesity

Visual Portrayals of Obese Persons in Online News Reports (N = 406)

	Overweight/obese (N = 287)	Non-overweight (N = 119)
Negative characteristic		
"Headless"	59%	6%
Shown from side or rear angle	40%	20%
Only abdomen or lower body shown	52%	0%
Shown without clothes or bare midriff	12%	4%
Inappropriate fitting clothing	6%	0%
Shown eating and/or drinking	8%	3%
Engaged in sedentary activity	5%	3%
Positive Characteristic		
Wearing professional clothing	11%	50%
Shown exercising	6%	20%
Portrayed as expert or advocate	1%	33%
Portrayed as health care provider	4%	22%

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Puhl, R., Peterson, J., DePierre, J., & Luedicke, J. (2013). Headless, hungry, and

unhealthy: A video content analysis of obese persons portrayed in online news. *Journal of Health Communication*, 18(6), 686-702. Retrieved from

http://www.yaleruddcenter.org/resources/upload/docs/what/bias/VideoAnalysisOnlineNews_JHC_2.13.pdf

Table 2

Portrayals of overweight and obese and non-overweight adults and youth in online news videos.

Visual Portrayals of Adults in Online News Videos (*N* = 371)

	Overweight/Obese Adults	Non-Overweight/Obese Adults
N**egative characteristics**		
headless	47%	4%
unflattering portrayal from the rear view	40%	6%
eating and drinking	32%	13%
eating unhealthy food	32%	16%
unflattering emphasis on isolated body parts	24%	9%
engaging in sedentary behavior	16%	4%
showing bare abdomen	4%	4%
dressed in inappropriately fitting clothing	4%	1%
Positive (non-stereotypical) characteristics		
dressed in professional apparel	58%	93%
eating healthy food	14%	13%
engaging in exercise	17%	15%
health professional	16%	43%
journalist/reporter	14%	77%
topic expert/advocate	10%	35%

Part III: Discuss guidelines of overweight and obese persons in the media [Article Handout] (20 minutes)

The content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Article handout- copied to illustrate the content that will be covered during this session of the activity.

Rudd Center for Food Policy and Obesity. (2013). Guidelines for the portrayal of obese persons in the media. Retrieved from

http://yaleruddcenter.org/resources/upload/docs/what/bias/media/MediaGuidelines_PortrayalObese.pdf

Guidelines for the Portrayal of Overweight and Obese Persons in the Media

Background

The media is an important and influential source of information about obesity. The way that obesity and weight loss is portrayed, described, and framed by the media profoundly shapes the public's understanding and attitudes toward these important health issues.

The Rudd Center for Food Policy and Obesity at Yale University and The Obesity Society (TOS) believe that mainstream journalists have an obligation to be fair, balanced, and accurate in their reporting of obesity and persons whose lives are affected by obesity. Unfortunately, overweight and obese persons are often portrayed negatively and disparagingly in the media, and reports about the causes and solutions to obesity are often framed in ways that reinforce stigma. These portrayals perpetuate damaging weight-based stereotypes and contribute to the pervasive bias and discrimination that overweight and obese persons experience in everyday life.

Overweight and obese persons frequently confront stigma and discrimination in the workplace, educational institutions, health care facilities, and many other settings. These stigmatizing experiences can impair emotional well-being, leading to depression, anxiety, low self-esteem, and even suicidal behaviors. Unfortunately, weight stigma can also lead to unhealthy behaviors that exacerbate obesity, as those who are stigmatized about their weight may cope with these experiences by engaging in unhealthy eating patterns and avoiding physical activity. Thus, weight stigma poses significant consequences for both emotional and physical health.

Purpose

The purpose of these guidelines is to ensure that all persons, regardless of their body weight, are represented equitably and accurately in journalistic reporting. We are not the media police and do not expect journalists to adhere to all suggestions that we provide in these guidelines. Rather, our aim is to assist journalists and reporters in their efforts to accurately cover obesity-related topics and to ensure that stigmatizing and pejorative portrayals of overweight and obese persons are avoided.

Application

These guidelines are broad and apply to a range of media, including, but not limited to, both print and broadcast journalism, entertainment television and film, internet media, and advertising.

Guidelines

Respect Diversity and Avoid Stereotypes

- Avoid portrayals of overweight and obese persons merely for the purpose of humor or ridicule
- Avoid weight-based stereotypes (e.g., such as obese persons are "lazy" or "lacking in willpower")
- Present overweight and obese persons in a diverse manner, including both women and men, of all ages, of different appearances and ethnic backgrounds, of different opinions and interests, and in a variety of roles
- Portray overweight and obese individuals as persons who have professions, expertise, authority, and skills in a range of activities and settings
- Do not place an unnecessary or distorted emphasis on body weight. Descriptions of a person's body weight should not imply negative assumptions about his or her character, intelligence, abilities, or lifestyle habits

Appropriate Language and Terminology

Consider carefully whether terminology and language used to describe body weight could be offensive to persons with obesity, and how this language will be interpreted by the intended audience. Avoid using potentially pejorative adjectives or adverbs when describing people who are overweight or obese, as well as language which implies moral judgments or character flaws of this population.

Use appropriate descriptive terms for body weight. Examples include referring to obesity or body weight scientifically with Body Mass Index (BMI) descriptors, and using terms like "weight" or "excess weight" rather than "weight problem", "fat", "morbidly obese", or other similar descriptors. While using the words "fat" or "fatness" might be acceptable to individuals who identify with the Fat Acceptance movement, these terms can be offensive to others. Similarly, while clinical terms to describe various degrees of obesity are appropriate when used in the scientific community, these terms may be viewed as pejorative to other public audiences. When interviewing a person who is overweight or obese, if their weight is relevant to the story, ask the individual what term(s) he/she prefers to be used when describing his/her body weight.

Balanced and Accurate Coverage of Obesity

Ensure that news stories, articles, and reports about obesity are grounded in scientific findings and evidence-based research. Identify the funding source of any science that is cited and be aware of potential conflicts of interest related to scientific research findings.

Be familiar with the complex causes of obesity, including environmental, biological, genetic, economic, social and individual factors, as well as the current scientific evidence on the treatment of obesity and weight loss.6-7 The causes and solutions of obesity are complex, and this complexity requires seeking multiple perspectives and comprehensive reporting.

To present balanced coverage about the causes and solutions for obesity, consider different sides of the debate (e.g., societal versus personal responsibility). Productive debates can only occur when different positions are adequately and accurately presented. Very often, media coverage of obesity is biased with an over-emphasis on individual responsibility, ignoring important societal, economic, biological, and environmental contributors of obesity.

Appropriate Pictures and Images of Obese Persons

- Pictures can often contribute to the depersonalization and stigmatization of overweight and obese persons
- Photographs used for reporting purposes should be chosen carefully to avoid stigma and pejorative portrayals of obese people

Examples of pejorative pictures that should be avoided include the following:

- Photographs that place unnecessary emphasis on excess weight or that isolate obese persons' body parts (e.g. abdomens or buttocks-This includes pictures of obese individuals from the neck down or with face blocked for anonymity)
- Pictures that depict obese persons engaging in stereotypical behaviors (e.g., eating junk food, engaging in sedentary behavior- if these photographs are chosen, they should be accompanied by pictures portraying obese persons in ways that challenge weight-based stereotypes such as eating healthy foods, engaging in physical activity)
- Photographs that depict obese persons in scantily clad clothing or looking disheveled in their appearance

Instead, select appropriate photographs, videos, and images that portray obese persons in the following manner:

- Engaging in diverse activities, roles, careers, and lifestyle behaviors
- Portrayed in appropriate-fitting clothing and a well-kept appearance
- Depicted in a neutral manner, free of additional characteristics that might otherwise perpetuate weight-based stereotypes

Unit Three: Activities

Friday, October 31: In class activity (50 minutes)

Introduction: The objective of this class period is to review current literature on the topic and examine weight related terminology and language preference of overweight and obese persons when discussing weight.

Part I: Weight Related Language [PowerPoint and Article Handouts] (30 minutes)

Documents used for this session include:

Adapted from Puhl, R. (n.d.). Obesity stigma: Implications for patients and providers [PowerPoint slides]. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/Clinical_Implications_of_Obesity_Stigma_Presentation_2013.pdf

Puhl, R., Peterson, J., & Luedicke, J. (2012). Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *International Journal of Obesity,* 1-8.

Puhl, R., Peterson, J., & Luedicke, J. (2011). Parental perceptions of weight terminology that providers use with youth. *Pediatrics,* 128, 786-793.

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from Puhl, R. (n.d.). Obesity stigma: Implications for patients and providers [PowerPoint slides]. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/Clinical_Implications_of_Obesity_Stigma_Presentation_2013.pdf

How Would Americans React? (2 National Studies: 1064 Adults and 445 Parents)

Preferences

- Most desirable: weight, unhealthy weight
- Least desirable: fat, obese, morbidly obese
- Same findings across socio-demographic variables, weight categories, and personal history of weight stigmatization

Perceived Connotations

- Least stigmatizing/blaming: weight, unhealthy weight, high BMI
- Most stigmatizing/blaming: fat, obese, morbidly obese
- Most motivating: unhealthy weight, overweight
- Least motivating: chubby, fat

1064 adults were asked:

If your doctor referred to your weight in a way that makes you feel stigmatized, how would you react?

- I would feel bad about myself 42%
- I would be upset/embarrassed 41%
- I would talk to my doctor about it 24%
- I would seek a new doctor 21%
- I would avoid future doctor appointments 19%

Reactions to stigmatizing language among parents (N = 445):

- Feel upset/embarrassed 42%
- Seek a new doctor 35%
- Avoid future medical appointments 24%

Talking to patients about weight

- Neutral terms such as *weight* and *BMI* rather than terms like *fat, morbidly obese*
- Avoid language that places blame on patients

Consider this language in discussions about weight:

- *"Could we talk about your weight today?"*
- *"How do you feel about your weight?"*
- *"What words would you like to use when we talk about weight?"*

As a health and fitness related professional:

- Be aware of personal biases and its potential for consequences
- Use respectful language
- Avoid approaches that shame and blame
- Explore all causes of presenting problems, not just weight
- Emphasize behavior changes rather than weight
- Acknowledge the difficulty of lifestyle change

Part II: Weight Preferences Questionnaire (10 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Students will complete the survey in class and assess their weight preference as a patient or client.

Modified from Wadden T., & Didie E. (2003). What's in a name? Patients' preferred terms for describing obesity. *Obesity Research*, 11(9), 1140-1146.

"*Imagine you are visiting your doctor for a routine check-up. The nurse has measured you and found that you are at least 50 pounds over your recommended weight. Your doctor will be in shortly to speak with you. You have a good relationship with your doctor, who is committed to your health and well-being. Doctors can use different terms*

to describe body weight. Please indicate how desirable or undesirable you would find each of the following terms if your doctor used it in referring to your weight" (Wadden & Didie, 2003, p. 1141)

Weight Preferences Questionnaire

Health and fitness professionals can use different terms to describe weight. Please indicate how desirable or undesirable you would find each of the following terms if a health and fitness related professional used it. Please rate each of the 11 terms as either (p. 1141):

1 = very desirable, 2 = desirable, 3 = neutral, 4 = undesirable and 5 = very undesirable

"Good morning. I want to talk with you about your"
_____ weight
_____ heaviness
_____ obesity
_____ BMI
_____ excess weight
_____ fatness
_____ excess fat
_____ large size
_____ unhealthy body weight
_____ weight problem
_____ unhealthy BMI

You are not limited to the terms listed in this survey and are free to write in your own desirable or undesirable terms for describing weight.

Please indicate the two terms you would **most** want a health and fitness related professional to use.

1.

2.

Please indicate the two terms you would **least** want a health and fitness related professional to use.

1.

2.

Part III: Out of class assignment [Due Friday, November 7] (10 minutes)
Students will be asked to distribute the Weight Preferences Questionnaire to 5 random persons, analyze data, and interpret findings. A one page summary to include tables is required. Findings will be presented to the class during the following Friday for comparison of results.

Unit Three: Activities

Friday, November 7: In class group discussion [PowerPoint and Internet] (50 minutes)

Introduction: The focus of this lesson is to examine policy and legal statutes surrounding weight discrimination.

Part I: Debriefing session over findings of weight preferences questionnaire (20 minutes)

Part II: Weight discrimination and the law [PowerPoint] (30 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from Minnesota Department of Human Rights. (2012). *Weight bias*. Retrieved from http://mn.gov/mdhr/education/articles/rs10_2weightbias.html

Adapted from Pomeranz, J. (2012). *Policy and legal solutions to weight discrimination* [PowerPoint slides]. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/law/Policy_and_Legal_Solutions_to_Weight_Discrimination_5.12.pdf

Overview

- Review of Weight Bias
    - Discrimination toward overweight and obese persons
    - Employment, education, public accommodations, home, schools
    - Being viewed as lazy, unmotivated, and lacking self-discipline
- Weight Bias Laws
    - There is one difference between weight bias and other forms of discrimination
    - Weight discrimination is generally not illegal

- Federal Law
    - No federal law that broadly prohibits employers from discriminating based on weight
- Where it's illegal
    - Only Michigan and six other cities (San Francisco, CA, Santa Cruz, CA, Urbana, IL, Madison, WI, Washington, DC, and Binghamton, NY) make it illegal to fire someone or not to hire them based on weight

Michigan
- The Elliot Larsen Civil Rights Act prohibits discrimination in employment based on weight and on height, in addition to race, color, religion, national origin, age, sex, and marital status

Cities and Municipalities (6)
Santa Cruz, California
- A city ordinance prohibits "differential treatment as a result of that person's.... height, weight, or physical characteristic," in addition to other protected characteristics

San Francisco, California
- A city ordinance prohibits discrimination in employment, housing and public accommodations based on a person's weight or height, in addition to other protected characteristics

Madison, Wisconsin
- A city anti-discrimination ordinance includes "height, weight, or physical characteristics" as protected categories

Urbana, Illinois

- A city anti-discrimination ordinance includes "height, weight, or physical characteristics" as protected categories

Washington, DC

- The human rights law includes "personal appearance," which includes weight and other physical attributes, as a protected category in employment

Binghamton, New York

- A city anti-discrimination ordinance includes "height, weight, or physical characteristics" as protected categories

When weight discrimination can be illegal

- If an employer engages in gender discrimination by having different standards for women than for men when it comes to weight and fitness;
- If weight rises to the level of disability;
- If the overweight person is perceived as disabled by the employer;
- If a weight requirement has a contrasting impact against another protected class, such as age etc…
- If obesity causes a disability
- If obesity results from an underlying disability, such as an eating disorder, or a compulsive behavior (though some argue that this theory may be more speculative)

Policy and legal solutions to weight discrimination

- Personal Responsibility in Food Consumption Acts (2005, 2006)
- 24 states (state bills 2012)

"Personal Responsibility in Food Consumption Acts"

- "This bill is about self-responsibility. If you eat too much, you get fat. It is your fault.
  Don't try to blame somebody else." Ohio Rep. Chabot
- The "availability of high-fat food is not a singular or even a primary cause" of obesity
  FL Rep. Cannon
- This bill "says, look in the mirror because you are the one who is to blame"
  WI Rep. Sensenbrenner

Americans with Disabilities Act (ADA) 1990; Rehabilitation Act (RA) 1973

- Protects disability discrimination
- Most cases involving weight are employment discrimination cases- not very successful

Rehabilitation Act 1973 (Federal government)

- Disability:
    - (A) Impairment that substantially limits 1+ major life activity
    - (B) Record of impairment
    - (C) Being regarded as having impairment

ADA: Private sector (15+ employees), state/local government

- Must claim disabled under heading (A)
- Obesity-induced disability is a disability
- Overweight people who are not "morbidly obese" but who experience weight discrimination cannot file claims under ADA (not considered disabled)

Before 2009

- Courts defined "impairment" as result of physiological condition only
- Obesity was not covered

Perception and ADA

- Record disability under heading (B)
- Misclassification
    - Congress addressing discriminatory stereotypes
    - What constitutes a disability
    - Unfounded concerns about limitations

ADA "Regarded As"

- Heading (C) Perceived disability
    - Mistaken belief person has impairment substantially limits
    - Mistaken belief non-limiting impairment substantially limits

ADA Amendments Act 2008

- Disability now construed more broadly
- Covers "visible" impairment which does not limit functioning but limits "person's ability to work as a result of the negative reactions of others"

Broader Definition of Disability:

- Impairment that substantially limits a major life activity; or
- Record of impairment; or

- When an entity (e.g., an employer) takes an action prohibited by the ADA based on an actual or perceived impairment

"Major Life Activities" defined as

- Basic activities: seeing, hearing, eating, walking, standing, thinking, reading, sitting, reaching, interacting
- "Type of work" –job or task
- Operation of major bodily functions

Severe Obesity

- "Clearly an impairment"
- Presence of impairment not automatically a disability

Disability depends on whether obesity:

- Substantially limits
- Has substantially limited, or
- Regarded as substantially limiting a major life activity

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Puhl, R., & Heuer, C. (2010). *Public opinion about laws to prohibit weight discrimination in the United States*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/PublicOpinionWeightDisc_Obesity_1.11.pdf

National Research Polling: Protective Laws

- Do Americans support anti-weight discrimination laws?
- Which type(s)?
- Who supports laws?

Weight discrimination support- Depends on type of law:

Disability legislation: Lowest support	27% men	32% women
Civil Rights law: Moderate support	47% men	61% women
Workplace legislation: Highest support	65% men	81% women

Unit Four Overview

Title: Bias-Free Treatment Approaches

Unit Summary: Provide a variety of effective strategies to use to minimize the instance of weight bias when interacting with overweight and obese persons.

Subject Area: Minimizing Weight Bias

Learning Outcomes
Students will:

- Examine effective strategies used to minimize the instance of weight bias
- Explore effective weight loss counseling strategies
- Locate, evaluate, and synthesize information on the internet

Technology
Students will:

- Access Rudd Center to review videos presented in class: Weight Bias at Home and School and Weight Bias in Health Care (http://www.yaleruddcenter.org/what_we_do.aspx?id=254)

Unit Scope and Sequence

- Examination
- Exploration
- Evaluation

Student Assessment

- Guided group discussion questions
- Website Review

Approximate Completion Time
160-220 minutes
Friday, November 14 (11:00 a.m.-11:50 a.m.)
Friday, November 21 (11:00 a.m.-11:50 a.m.)

Students will be expected to work outside of class time ranging from one to two hours to complete unit assignments.

Materials and Resources Required for Unit
Materials

- Published articles
- Strategy and Counseling Handouts
- Maryland Library Handout

Supplemental Resources (including Internet resources):

Technology – Hardware

☒ Computer(s) ☐ DVD ☐ Projection System ☒ Printer
☐ iPhone ☐ Television ☐ Video Camera/Camera ☐ Other

Technology – Software

☒ Microsoft Word ☒ Microsoft Power Point ☐ Microsoft Excel
☒ Microsoft Internet Explorer ☐ Skype ☐ Quick Time Player
☐ Other

Key Word Search

Obesity Action Coalition, Weight Bias Interventions, Yale Rudd Center- Weight Bias Education, Preventing Weight Bias, Strategies to Minimize Weight Bias, Communication Strategies to Minimize Weight Bias, Developing Patient Communication Skills, Weight Bias Reduction Efforts

References

Ahmed, S., Lemkau, J., & Birt, S. (2002). Toward sensitive treatment of obese patients. *Family Practice Management*, 9(1), 25-28.

Cameron University. (n.d.). *Tutorials: Using information to earn the best possible grade*. Retrieved from http://www.cameron.edu/library/tutorials

Rudd Center for Food Policy and Obesity. (n.d.). *Discussion guide for weight bias at home and school*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/DiscussionGuideHomeSchoolVideo.pdf

Rudd Center for Food Policy and Obesity. (n.d.). *Discussion guide for weight bias in health care*. Retrieved from

http://www.yaleruddcenter.org/resources/upload/docs/what/bias/DiscussionGuideHealthcareVideo.pdf

Serdula M., Khan L., & Dietz W. (2003). *Weight loss counseling revisited*. *JAMA*, 289; 1747-1750.

Unit Four: Lesson Activities

Friday, November 14: In class group discussion (50 minutes)

Introduction: The focus of this lesson is to examine effective strategies used to minimize the instance of weight bias in the health and fitness related setting.

Part I: Handout (15 minutes)
Talk about key strategies that were developed by Rudd Center for Food Policy and Obesity (n.d., p. 2) to help guide educators and parents alike in becoming advocates for health not weight among children and youth.

Content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Rudd Center for Food Policy and Obesity. (n.d.). *Discussion guide for weight bias at home and school*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/DiscussionGuideHomeSchoolVideo.pdf

Strategies for Teachers, Parents, and Coaches

- **Be Aware.** Be alert to incidences of weight bias, understand your own attitudes, and those of your children, students, and/or athletes
- **Educate Yourself.** Understand the multiple complex causes of obesity so you don't make false assumptions about people who are overweight or obese
- **Avoid "Fat-Talk".** Be careful of how you discuss weight in the presence of children, students, and athletes- Use sensitive and appropriate language
- **Intervene**. When you see teasing and bullying happen, intervene to stop the behavior- Encourage children, students, and/or athletes to do the same
- **Include Positive Role Models**. Identify role models with diverse body types and help children to understand that people of all shapes and sizes can be successful

- **Be Sensitive**. Avoid situations of potential embarrassment for overweight and obese children, where they may feel singled out or Excluded
- **Advocate Weight Tolerance**. Be a role model by enforcing a zero tolerance policy of weight-based teasing
- **Emphasize Health, not appearance**. Encourage healthy lifestyle habits for all children, regardless of their body size

Part II: Handout (15 minutes)
Talk about key strategies that were developed by Rudd Center for Food Policy and Obesity (n.d., p. 2) to help reduce the instance of weight bias among professionals in the health-related discipline so that the quality of care is equal for all patients or clients.

Content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Rudd Center for Food Policy and Obesity. (n.d.). *Discussion guide for weight bias in health care*. Retrieved from http://www.yaleruddcenter.org/resources/upload/docs/what/bias/DiscussionGuideHealthcareVideo.pdf

Strategies for Health-related Professionals

- **Recognize** the complex etiology of obesity and its multiple contributors, including genetics, biology, sociocultural influences, the environment, and individual behavior
- **Consider** that patients may have previously experienced bias from health science professionals (i.e. trainers, physical therapists, dietitians, gym setting)
- **Recognize** that being overweight is a product of many factors and that it is difficult to sustain significant weight loss
- **Recognize** that many patients or clients have tried to lose weight repeatedly
- **Emphasize** the importance of making behavior changes rather than focusing only on weight

- **Acknowledge** the difficulty of making lifestyle changes and provide support
- **Recognize** that small weight losses can result in important health gains

Part III: Handout (20 minutes)
Talk about effective client-centered strategies to use when developing relationships with overweight and obese persons.

Content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Effective Weight Loss Counseling Strategies

Ahmed, S., Lemkau, J., & Birt, S. (2002). Toward sensitive treatment of obese patients.

Family Practice Management, 9(1), 25-28.

Adapted from Serdula M., Khan L., & Dietz W. (2003). *Weight loss counseling revisited*.

Retrieved from file:///C:/Users/stephanie/Downloads/Serdula.pdf

Evaluate your patients/clients for current and potential health risks related to weight

- Measure body mass index (BMI)
- Measure waist circumference
- Assess for presence/extent of suspected comorbid disease

Talk to your patients/clients about weight loss

- Explain the importance of weight loss
- Assess your patients/clients readiness to make behavior changes
- Work with your patients/clients to establish realistic treatment goals

Help your patients/clients manage weight through dietary management

- Collaborate on strategies for reducing calories and balancing the diet
- Recommend weight loss programs and resources as needed
- Follow up with your patients/clients to monitor progress and provide support

Help your patients/clients manage weight through physical activity

- Collaborate on strategies for increasing physical activity in the daily lifestyle
- Recommend physical activity programs and resources as needed

- Follow up with your patients or clients to monitor progress and provide support

Optimize your communication and counseling style

- Establish an effective patient–health professional partnership
- Help your patients/clients obtain skills for self-management
- Be sensitive to antifat bias and approach the topic of weight sensitively

If indicated, help your patients/clients manage weight through proper referral

- Dietitian
- Physician
- Therapist
- Support Groups

Unit Four: Lesson Activities

Friday, November 21: Lab Assignment (50 minutes)

Introduction: The focus of this lesson is to locate, evaluate, and synthesize information provided on the internet in order to identify high quality and reliable articles and websites specific to the health and fitness related disciplines.

Students will provide a list of five websites that they use most often in retrieving health and fitness related information. Additionally, students will provide copies of two different research articles pertinent to their degree interest for evaluation and credibility.

Computer Lab

PPT and Quiz: Locating Information
http://www.cameron.edu/uploads/c3/7d/c37d2ed8e35102bf09695a05c0d9f290/Locating-Information.ppsx

PPT and Quiz: Evaluating Information
http://www.cameron.edu/uploads/f4/74/f474f547f1b04cfd3e5e0717ac156201/Evaluating-Information.ppsx

PPT and Quiz: Synthesizing Information
http://www.cameron.edu/uploads/e9/4b/e94b2775b0e2a144f3e599a8b694f495/Synthesizing-Information.ppsx

Reference

Cameron University (n.d.). *Tutorials: Using information to earn the best possible grade*.

Retrieved from http://www.cameron.edu/library/tutorials

Post-Assessment

Friday, November 24: In class activity (50 minutes)

Part I: Case Study (30 minutes)

Introduction: The focus of this lesson is to assess the communication techniques and questions used to elicit information from the client in order to develop an effective weight management plan.

Health and fitness related professionals are faced with the challenge of acknowledging the client's risk as well as creating a safe exercise program. To address the health concern identified in each case study, list some effective communication techniques that may help you to address BMI in a professional manner and obtain pertinent health-related information for this particular client. In addition, please provide a list of additional questions that you would ask the client in order to develop an effective exercise program.

Case Study
Mary is a 40-year-old woman who is 5'4", 184 pounds, and has gained over 30 pounds within the last 3 years. Tired of being overweight and being told by her physician that she needs to change her lifestyle – eat less and exercise more, she has decided to consult a personal trainer to help her lose weight and thus prevent health risks that could escalate to illness or even death.

Case Study
Danny is a 12 year old boy who is 50 pounds overweight and his pediatrician recently told his parents that he needs to exercise in order to improve his overall health. His father is obese and has type 2 diabetes and his mother is overweight and has cardiovascular disease.

Part II: Out of class assignment (20 minutes)
PPT Reflection Assignment

Students will create a PPT presentation over the weight bias content learned throughout the semester and discuss how this information will apply to their area of expertise.

Unit Five Overview

Title: Evaluation

Unit Summary: Reflect on knowledge and skills learned throughout the course and to provide feedback about the integration of weight bias curriculum in the basic nutrition course.

Subject Area: Weight Bias Curriculum

Learning Outcomes
Students will:

- Reflect on learning experiences of weight bias education
- Evaluate weight bias curriculum

Unit Scope and Sequence

- Reflection
- Evaluation

Student Assessment

- Reflection PPT
- Feedback Survey

Approximate Completion Time
110-170 minutes
Friday, December 5 (11:00 a.m.- 11:50 a.m.)

Students will be expected to work outside of class time ranging from one to two hours to complete unit assignments.

Materials and Resources Required for Unit
Materials

- Reflection PPT Guidelines and Rubric
- Feedback Surveys

Supplemental Resources (including Internet resources):

Technology – Hardware

☒ Computer(s)	☐ DVD	☒ Projection System	☒ Printer
☐ iPhone	☐ Television	☐ Video Camera/Camera	☐ Other

Technology – Software
☒ Microsoft Word ☒ Microsoft Power Point ☐ Microsoft Excel
☐ Microsoft Internet Explorer ☐ Skype ☒ Quick Time Player
☐ Other

Key Word Search
Weight Bias Education, Weight Bias Reduction Efforts, Evaluation of Curriculum, Student Reflection Survey

References
Adapted from Rudd Center for Food Policy and Obesity (n.d.). *Toolkits for health care providers*. Retrieved from http://www.yaleruddcenter.org/resources/bias_toolkit/feedback.html

Unit Five: Lesson Activities

Friday, December 5: In class activity (50 minutes)

Introduction: The focus of this lesson is to reflect on experiences learned throughout the semester regarding weight bias and to provide feedback about weight bias curriculum.

Part I: Reflection PPT Presentations (40 minutes)

Part II: Feedback survey (10 minutes)

Some of the content has been directly pulled from the original document posted online to maintain accuracy of content as well as to show relevancy of tables and findings from leading experts to further illustrate the significance of their findings and application to the topic of discussion for this lesson.

Adapted from Rudd Center for Food Policy and Obesity (n.d.). *Toolkits for health care providers*. Retrieved from http://www.yaleruddcenter.org/resources/bias_toolkit/feedback.html

Feedback Survey

1. Gender: Male Female

2. Age: _____ yrs.

3. Major (field of study)

Nursing

Physical Therapy

Personal Training

Strength and Conditioning

Teaching/Coaching

Sport/Fitness Management

Cardiac Rehabilitation

Other _____

4. Prior to completing content specific to weight bias in this course, were you familiar with weight bias?

Yes or No

5. If yes, please explain how you became aware of weight bias?

6. If no, how did the content in this course help you to become familiar with weight bias?

Please place the number that best corresponds to your opinions:

Strongly Agree	Moderately Agree	Agree	Moderately Disagree	Strongly Disagree
5	4	3	2	1

7. _____ The materials provided in this course fulfilled my educational needs on the issue of weight bias.

After completing this course, how likely are you to do one of the following?

8. _____ Do more reading on the topic of weight bias.

9. ____ Talk to peers or instructors about this issues.

10. ____ Find more educational activities on this subject.

11. ____ Integrate strategies to reduce weight bias within the classroom and professional setting.

12. What degree of confidence do you have that you will apply this 'new' learning in the classroom and professional setting? (circle one) 100% 75% 50% 25% 0%

13. ____ Overall, how would you rate the quality and educational value of the weight bias content provided in this course?

Excellent (5) Very Good (4) Satisfactory (3) Fair (2) Poor (1)

14. Please list the things that you like best about the weight bias activities provided in this course:

15. Please list any suggestions for improvements in delivery of weight bias content provided in this course:
16. Please comment on particular topics or materials relevant to weight bias that you would like to see incorporated into the curriculum for this course or deleted from this course:

Thank you for taking the time to complete this survey. Faculty will use your comments and feedback to improve the content provided in this course.

Appendix B: ATOP Questionnaire

Participant ID Number _____

Researcher's Name_____

Location_____

Research Date _____

Attitudes Toward Obese Persons Scale

Please mark each statement below in the left margin, according to how much you agree or disagree with it. Please do not leave any blank. Use the numbers on the following scale to indicate your response. Be sure to place a minus or plus sign (- or +) beside the number that you choose to show whether you agree or disagree.

-3	**-2**	**-1**	**+1**	**+2**	**+3**
I strongly disagree	**I moderately disagree**	**I slightly disagree**	**I slightly agree**	**I moderately agree**	**I strongly agree**

1. _____ Obese people are as happy as nonobese people.
2. _____ Most obese people feel 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 nonobese 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 feel uncomfortable when they associate with obese people.

11. _____ Obese people are often less aggressive than nonobese people.

12. _____ Most obese people have different personalities than nonobese 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 nonobese people.

16. _____ Obese people should not expect to lead normal lives.

17. _____ Obese people are just as healthy as nonobese people.

18. _____ Obese people are just as sexually attractive as nonobese people.

19. _____ Obese people tend to have family problems.

20. _____ One of the worst things that could happen to a person would be for him/her to become obese.

Demographic Characteristics:

Gender Male ___ Female ___

Current Year of Study _____ (Freshman, Sophomore, Junior, or Senior)

Race _____

Age _____

Height _____ and Weight _____ (used to calculate BMI)

Reference

Allison, D., Basile, V., & Yuker, H. (1991). The measurement of attitudes toward and beliefs about obese persons. *International Journal of Eating Disorders*, 10, 599-607.

Appendix C: Copyright Holder Approval to Use ATOP Questionnaire

RE: Approval for using ATOP survey instrument for Doctoral Project Study

Richard F Sarver [rsarver@uab.edu]

To:
Stephanie Boss; David B Allison [dallison@uab.edu]

Attachments:
(5)Download all attachments
ATOP manipulated for all ~1.docx (22 KB)[Open as Web Page]; ATTITUDES TOWARDS OBESE PE~1.PDF (47 KB)[Open as Web Page]; BELIEFS ABOUT OBESE PEOPLE~1.PDF (55 KB)[Open as Web Page]; Measurement of Attitudes T~1.pdf (1 MB)[Open as Web Page]; scoring_instructions_for_a~1.doc (21 KB)[Open as Web Page]

Good afternoon Stephanie,

Dr. Allison is delighted to hear of your interest in his research and is happy to grant your request. He has not worked with these scales for some years and does not have additional details to provide at this time, other than the actual paper and scales (which are attached). He would be interested in hearing the results of your further work.

In addition, some of his websites which are tracking his current work are: NIH-funded Nutrition Obesity Research Center (NORC), http://www.norc.uab.edu/, and the Office of Energetics,http://www.soph.uab.edu/energetics/home.

Should you need anything else, please let me know how I may be of assistance.

Regards,

Richard F. Sarver
Program Manager II, Office of Energetics
UAB SOPH Dean's office
1700 University Boulevard, LHL 452
205.975.9169 T; 205.975.7560 F
http://www.soph.uab.edu/energetics/home
http://theedgeofchaos.org/

From: Stephanie Boss [mailto:sboss@university.edu]
Sent: Thursday, June 20, 2013 2:05 PM
To: David B Allison [mailto:dallison@uab.edu]
cc: Richard F Sarver [mailto:rsarver@uab.edu]
Subject: Approval for using ATOP survey instrument for Doctoral Project Study

Dr. Allison,

I am completing my doctorate at Walden University and the title of my project study is Obesity Bias Awareness: Facilitating Weight Tolerance Among Health and Fitness-Related Majors Toward Overweight and Obese Persons. As I am completing the IRB process, I am seeking permission from you to use the Attitudes Toward Obese Persons (ATOP) survey instrument in this project study and for future publication. I would also like to ask for your permission to reproduce that item in an appendix to the project study. The completed project study will be deposited in the Walden University library. If you are the copyright owner and you grant permission for this use, please reply to this email with your permission.

I appreciate this assistance with my research.

Sincerely,
Stephanie Boss
Chair, Health & Physical Education Department
University

Appendix D: Interview Questions

Participant ID Number _____

Researcher's Name_____

Location_____

Research Date _____

1. What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?
2. How comfortable are you in working with peers, patients, students, and/or clients of different sizes?
3. How are you sensitive to the needs and concerns of overweight and obese individuals?
4. What are your personal views about the causes of obesity?
5. What are your views regarding common stereotypes about overweight and obese persons?

Reference

Modified from Yale Rudd Center (n.d.). Toolkits for health care providers. Retrieved from www.yaleruddcenter.org/resources/bias_toolkit/Module-1/1-02- Identify Attitudes.pdf

Appendix E: Quantitative Student Consent Form

You are invited to take part in a research study that will examine attitudes of preprofessionals within the health and fitness related disciplines toward overweight and obese persons. The researcher is inviting kinesiology students to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. Based on your decision to take part in the study, a copy of the signed consent form will be provided to you.

This study is being conducted by a researcher named Stephanie Boss, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to explore kinesiology students' attitudes towards overweight and obese persons.

Procedures:
If you agree to take part in this study, you will be asked to:

- Spend approximately 15 minutes completing a questionnaire with a total of 20 questions which will be done only once and administered by your course instructor.

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to take part in the study. No one at the Regional University will treat you differently if you decide not to participate in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as such as becoming stressed or upset if the questionnaire takes too long. Being in this study would not pose risk to your safety or well-being. There may also be benefits associated with this study. This study has the potential to bring awareness to attitudes of health and fitness related preprofessionals towards overweight and obese persons.

Payment:
There will be no compensation for participating in the study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the

study reports. Data will be kept secure by locking original paper documents in a steel file cabinet. Scanned and electronic data will be kept in a password-protected personal computer that will prevent unauthorized access.

Contacts and Questions:
The researcher conducting this study is Stephanie Boss. The researcher's committee chairperson is Dr. Sydney Parent at sydney.parent@waldenu.edu. The researcher will give you a copy of this form to keep for your records. You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at stephanie.boss@waldenu.edu or by phone at 580-581-2401. If you prefer to talk privately about your rights as a participant, you can contact the Research Participant Advocate at Walden University, Dr. Leilani Endicott at 1-800-925-3368 or by email address irb@walden.edu. Walden University's approval number for this study is **07-08-13-016935** and it expires on July **7, 2014**.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Participant's Signature _____

Researcher's Signature _____

Appendix F: Qualitative Student Consent Form

You are invited to take part in a research study that will examine how preprofessionals within the health and fitness related disciplines describe their own experiences in working with overweight and obese persons. The researcher is inviting kinesiology students to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. Based on your decision to take part in the study, a copy of the signed consent form will be provided to you.

This study is being conducted by a researcher named Stephanie Boss, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to explore how kinesiology students' describe their own experiences in working with overweight and obese persons.

Procedures:
If you agree to take part in this study, you will be asked to:

- Attend an audio-recorded semistructured interview to discuss questions regarding your experiences in working with overweight and obese persons. The interview will last approximately 30–45 minutes and will be completed only once and in one session.

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to take part in the study. No one at the Regional University will treat you differently if you decide not to participate in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as such as becoming stressed or upset if the interview is too long. Being in this study would not pose risk to your safety or well-being. There may also be benefits associated with this study. This study has the potential to bring awareness to attitudes of health and fitness related preprofessionals towards overweight and obese persons.

Payment:
There will be no compensation for participating in the interview.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the

researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by locking original paper documents in a steel file cabinet. Scanned and electronic data will be kept in a password-protected personal computer that will prevent unauthorized access.

Contacts and Questions:
The researcher conducting this study is Stephanie Boss. The researcher's committee chairperson is Dr. Sydney Parent at sydney.parent@waldenu.edu. The researcher will give you a copy of this form to keep for your records. You may ask any questions you have now. Or, if you have questions later, you may contact the researcher via email at stephanie.boss@waldenu.edu or by phone at 580-581-2401. If you prefer to talk privately about your rights as a participant, you can contact the Research Participant Advocate at Walden University, Dr. Leilani Endicott at 1-800-925-3368 or by email address irb@walden.edu. Walden University's approval number for this study is **07-08-13-016935** and it expires on July **7, 2014**.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Participant's Signature _____

Researcher's Signature _____

Appendix G: ATOP Scoring Instructions

ATOP scoring instructions:

Step 1: Multiply the response to the following items by -1 (i.e., reverse direction of scoring):

- Item 2 through Item 6, Item 10 through Item 12, Item 14 through Item 16, Item 19 and Item 20

Step 2: Add up the responses to all items.

Step 3: Add 60 to the value obtained in Step 2. This value is the ATOP score. Higher numbers indicate more positive attitudes.

Reference

Allison, D. B. & Baskin, M. L. (2009). *Handbook of assessment methods for eating behaviors and weight related problems: Measures, theory, and research*. Thousand Oaks, CA: Sage.

Appendix H: Excerpts of Interview Transcripts

Participant 2

1. *What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?*

Male: I am actually going into personal training so first and foremost really look at your weight as a health hazard. I didn't really look at that as a child; I just looked at it like some are bigger than others or maybe it was a disease or something they developed as a child. I really don't really look at bigger people differently just that is the life they live and maybe they are just comfortable in their skin.

Researcher: What about professional success or a person's character/intelligence?

Male: I think some jobs could affect your level of success. Like I said before, I want to be a personal trainer. If I can't lift weights, get winded when walking around or can't spot someone who is overweight then I'm probably not going to be very successful. If I can't do the job requirements that people would hire me to do, then I probably won't have a lot of clients which means less money. I also believe that some jobs are more superficial than others and what you

Participant 4

1. *What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?*

Female: My assumptions about a person's health is that they have no motivation to be healthier. It seems as though they are okay with where they are at, not wanting to change their eating habits. This leads to being lazy in what they do on a daily basis.

Participant 7

1. *What assumptions do you make based on weight regarding a person's character, intelligence, professional success, health status, or lifestyle behavior?*

Female: I don't make assumptions based on those things. I think everyone is different.

Researcher: What about health status or lifestyle behavior?

Female: I do question their health status and lifestyle behavior as it makes me wonder if they have any self-discipline?

Researcher: What do you mean by self-discipline?

Female: Whether or not they choose to be overweight or try to make healthier choices in the way they eat and workout. In my experience, they don't really put forth the effort. It takes hard work and sometimes they quit.

Participant 1

2. *How comfortable are you in working with peers, patients, students, and/or clients of different sizes?*

Female: I have applied for a nursing program and having to do clinicals requires that I speak and work with people at any size.

Researcher: You mentioned clinicals, can you give me some examples of your experiences in working with patients.

Female: I have done multiple clinicals and my internship was done at a cardiac rehabilitation clinic in Norman. I dealt with eight and four persons a day and sometimes my job was very frustrating in carrying out exercise programs and discussing healthier eating habits to overweight people. I get so angry with these patients because some of them would do the rehab exercises but choose not to make any dietary changes. They fail to realize that it requires a lifestyle change and diet is just as important as exercise. I also worked at the Health Club in Norman and did one-on-one personal training with the personal trainer and their clients. I have worked with several disabled people who were overweight and feel like I am very able to mold a program to what the client likes or needs. The saddest part of my job experience was when I worked at a Dialysis Clinic in Clinton and the majority of people were obese and on dialysis. There were two people who didn't have legs anymore because they had to have then amputated. It was surprising there was a 22 year old girl that was born with kidney failure and she was not morbidly obese but she was bigger. It was hard to handle sometimes and was very sympathetic towards them but still tried to challenge them.

Participant 8

2. *How comfortable are you in working with peers, patients, students, and/or clients of different sizes?*

Female: Size is just a number, it doesn't affect their personality.

Researcher: What about working with patients/clients regarding your chosen profession?

Female: I am a pre-nursing major and don't feel that this will be an issue for me. Lots of the patients I see during clinicals are overweight and are there because they have had a heart attack, diabetic, or have a disease. So far, a lot of the patients I come in contact with have several issues going on to include being heavy. I have spent a lot of time educating patients about healthier lifestyle choices. In my experience, some could care less and some try to make changes in their life so that they can live longer. But at the same time, I think this is why I am leery in working with overweight people. If the person is not willing to put forth the effort, I tend not be as sympathetic with their situation.

Participant 10

2. *How comfortable are you in working with peers, patients, students, and/or clients of different sizes?*

Female: I am totally comfortable working with people of different sizes. It has never been an issue as long as they can do their jobs as they are supposed to.

Researcher: You mentioned doing their jobs like they are supposed to, can you give me an example?

Female: I want to be a personal trainer and if I can't lift weights or equipment and have to ask for help then I am not doing my job very well.

Researcher: What about patients/clients that you will come in contact with in regards to your chosen profession?

Female: I want to work with clients who are motivated to change that's why I chose this profession. I think it will be hard to work with people who don't care and just expect me to perform a miracle- it just doesn't work that way.

Researcher: Perform a miracle, what do you mean by this?

Female: Some of my friends will have me train them to get skinny for their wedding, maybe to fit in a swimsuit or go on vacation and they expect me to perform some type of miracle. It just doesn't work that way- I can provide the tools, a plan, and motivation but it is the client's responsibility to have the self-discipline to follow through with those recommendations.

Participant 12

2. *How comfortable are you in working with peers, patients, students, and/or clients of different sizes?*

Male: As a coach, It is hard because of the type of athletes I get and what shape they are in. Many athletes today do not have the drive to push beyond their limits. This is particularly true for some of the kids that are overweight. They lack self-discipline, complain and can be lazy in putting forth the effort needed to perform. If they are overweight, they may not be able to complete a workout or practice. I feel this leads to poor performance on the field or worse could end up being a liability and has to be used in small increments.

Participant 1

3. *How are you sensitive to the needs and concerns of overweight and obese individuals?*

Female: I feel very sad because I feel like some people are trapped. I know that I like to eat and I am not obese but I know that I could work on things and just being trapped in that mentality of well food is going to make me feel better and it's really not, some of them are that way. Some people just don't care or really want to. I've been around patients who don't want help and make a point to let everyone know how miserable they are and it is hard to handle because you don't know what to say to these people to motivate them. You almost become self-conscious of what you say around them so you don't make them mad. I think how you treat them and how they treat you has a lot to do with it.

Participant 4

3. *How are you sensitive to the needs and concerns of overweight and obese individuals?*

Female: Very sensitive. I have Type 1 Diabetes and it hurts me to see the way people are living their life today. From my experience, I wouldn't want people to go through what I've been through especially when they have a choice.

Researcher: You mentioned being very sensitive. Can you give me a couple of examples?

Female: Well, having diabetes is hard and I can understand how someone might be judged. Having diabetes requires that I monitor the foods I eat and can't always have

what I crave. I can relate to someone who is overweight and struggles with eating but at the same time they have to do what is good for them and have self-control.

Participant 5

3. *How are you sensitive to the needs and concerns of overweight and obese individuals?*

Female: I'm very sensitive to the needs and concerns because I have a sister who is overweight and has three kids. My sister constantly asks me for advice so I tell her some things she can do such as eating healthier foods or walking around the block for 10 minutes and she does something totally different like eating fast food and we end up getting into an argument every time. It gets real old and don't understand why she asks me when she does just the opposite?

Participant 2

4. *What are your personal views about the causes of obesity?*

Male: My personal views are a lot of eating out, with this day and age. I know that a lot of parents are not able to make three to four home cooked meals. We stay busy, even as a college student I stay busy I haven't been able to cook for myself so I would actually have to go out and get something real quick and come home do homework or play football or any other activities that kept me busy. I am not a parent or anything but have coached several teams and know it's hard for parents to be healthy when they have one or more children and they have to work two maybe three jobs as a single parent. Other contributing factors are race, culture, environment, background and economic status.

Participant 3

4. *What are your personal views about the causes of obesity?*

Male: I think it is related to our world today how everything is so convenient and it's just right there as you need. It has caused people to be extremely lazy. I also think that we work 24-7 and no longer have time for ourselves- we often make choices based on survival. Instead of making time to buy healthier foods at the Walmart we go to McDonalds and grab a burger and go back to the house and watch TV to unwind or play on the computer. I think that is what is causing our obesity.

Participant 6

4. *What are your personal views about the causes of obesity?*

Female: It pisses me off because it's so easy to get ahold of gross/greasy food for cheap, when the nutritional and organic foods are double what you would spend at McDonalds, Burger King, etc. Just seems unfair, but that is the society we live in.

Researcher: You mentioned that it is the society we live in, what do you mean by this?

Female: Everywhere I turn there is junk food available and it is cheaper to buy food at the fast food restaurant than it is to go to the store and buy food. It's like people who sell food don't really want us to get in shape instead want us to get fatter.

Participant 7

4. *What are your personal views about the causes of obesity?*

Female: Most causes of obesity fall under lack of self-discipline. People go to food for comfort, out of boredom, or maybe when they are upset. People who are overweight don't pay attention to what they put into their bodies- they simply want it and consume it based on their emotions at the moment and don't worry about the consequences. Food is simply for energy and nourishment. We must stop looking to it as comfort.

Researcher: You mentioned food for comfort, how so?

Female: When we are bored or upset it is easy to go grab something else to eat. I don't think we pay attention to what we put into our bodies anymore. We simply want it and consume it and don't worry about the consequences.

Participant 8

4. *What are your personal views about the causes of obesity?*

Female: Some causes are genetic, but most of today's obesity is due to poor lifestyle choices. If people would just have more knowledge about the health risks they are in maybe there would be fewer cases. People want to take the easy way out of everything and lifestyle is a major one that people take shortcuts on.

Participant 9

4. *What are your personal views about the causes of obesity?*

Male: I believe that the main causes of obesity that can be controlled are lack of exercise or bad eating habits. I also believe that if it's not genetics or a disability that obese people have no excuse.

Participant 10

4. *What are your personal views about the causes of obesity?*

Female: I think it's our fault that America as a whole is obese. The foods we sell and all the fast food restaurants offer high calories and a lot of fat and everything is supersized. Plus it is cheaper than eating healthy.

Participant 11

4. *What are your personal views about the causes of obesity?*

Female: A lack of self-respect for the body, not understanding how the body works, not knowing the risk factors, or feeling unable to get out of obesity and doing what's necessary to stay healthy. I also think that our economies corrupted food production has become deceptive which prevents people with weight problems from being able to make decisions about choosing healthier food options.

Participant 3

5. *What are your views regarding common stereotypes about overweight and obese persons?*

Male: That person is lazy, doesn't work out, and doesn't care about their well-being. Or, that person is depressed, has no friends, is a loner. Those are all the things you hear when you're going through school from grade school all the way up. I struggled with this throughout my adolescence and in hind sight I don't think I thought very highly of myself. In reality, I still struggle with my self-confidence. However, I find it better now that I am in college; I do not hear it that often.

look like matters. If I am overweight, I doubt someone is going to hire me to get them in shape.

Participant 8

5. *What are your views regarding common stereotypes about overweight and obese persons?*

Female: It is very easy to stereotype these people. Like I said before, my family has multiple cases of diabetes and high blood pressure so I feel that the stereotypes are there. I have tried to help my own family to make healthier choices but they would much rather live life eating the foods they like and don't really want to exercise. So I can see why people think overweight people are lazy and overindulgent.

Researcher: You implied that it is easy to stereotype people, how so?

Female: I know for a fact that people that are obese or overweight don't try hard enough to change. I often wonder if they have self-discipline. I mean do they choose to be fat or have they tried to make healthier choices in the way they eat and workout? It takes hard work to make changes and in my experience they don't always follow through. They need a reality check by a doctor to show them their life 20 years down the road if they keep the same lifestyle.

Appendix I: Walden University IRB Approval

Subject : **Notification of Approval to Conduct Research-Stephanie Boss**

Date : Thu, Sep 05, 2013 01:17 PM CDT

From : **IRB <IRB@waldenu.edu>**

To : Stephanie Boss <stephanie.boss@waldenu.edu>

CC : "sydney.parent@waldenu.edu" <sydney.parent@waldenu.edu>,Doctoral Study <DoctoralStudy@waldenu.edu>

Dear Ms. Boss,

This email confirms receipt of the IRB approval notification for the community research partner and also serves as your notification that Walden University has approved BOTH your doctoral study proposal and your application to the Institutional Review Board (07-08-13-0161935). As such, you are approved by Walden University to conduct research.

Please contact the Office of Student Research Administration atdoctoralstudy@waldenu.edu if you have any questions.

Congratulations!

Jenny Sherer
Associate Director, Office of Research Ethics and Compliance

Leilani Endicott
IRB Chair, Walden University

Appendix J: Southwest Regional University IRB Approval

August 22, 2013

Dr. V.H. and Stephanie Boss
Department of Health Sciences

Re: IRB-PHS Application

Dear Dr. V.H.,

The Protection of Human Subjects Committee, through expedited review, has approved your research entitled: "Obesity Bias Awareness: Facilitating Weight Tolerance Among Health and Fitness related Majors Toward Overweight and Obese Persons."

It is the responsibility of the researcher to notify the committee and submit any modifications to the study protocol prior to implementation. It is also the responsibility of the researcher to submit an annual report if the study extends past a year and a final report upon completion of the protocol. IRB FORM HS-3 is provided on the university research page for your use in completing annual and final reports. For institutional compliance and auditing purposes, you are required to maintain all records pertaining to your conducted research including any informed consent forms for three years after completion of the research. For funded research, consult the time required for retention of records by the funding agency. University disposition policies should be used when disposing of research records. Annual reports must be received and approved by the PHSC by the anniversary date of the original approval.

The committee wishes you much success with the study.

Sincerely,

M.W., Ph.D.
Chair, IRB-PHS

cc: Office of Sponsored Programs
Dr. K.R., Dean, Graduate Studies

Curriculum Vitae

Stephanie Boss

Education/Certification

Ed.D.	Walden University, 2014 Specialization: Higher Education and Adult Learning
M.Ed.	Oklahoma Regional University, 2007 Specialization: Education Administration
B.S.	University of Central Oklahoma, 1996 Specialization: Health and Physical Education (K-12)
Teacher Certificate	Health and Physical Education K-12, Current, Oklahoma
Principal Certificate(s)	Oklahoma Principal's Core Certification, 2008

Professional Experience

Department Chair, August 2011- Present

Administrative Functions

- Coordinate and supervise departmental degree program, accreditation, departmental evaluations, general education and assessment reviews
- Collaborate with departments, university, and other units in accomplishing goals/tasks
- Develop and follow procedural guidelines in assigning faculty to classes, labs, general education courses, online courses, and/or faculty related responsibilities
- Analyze and interpret University decisions to faculty, staff, and students when applicable
- Correspond departmental progress, challenges, and vision to the Dean and VPAA

Faculty Functions

- Demonstrate leadership by collaborating with and recruiting/retaining exceptional faculty
- Evaluate faculty performance and development of procedures for assessing faculty accomplishment
- Communicate consistent feedback to faculty regarding progress toward meeting both professional and University obligations
- Emphasize progress of faculty performance in teaching, scholarship, and service related endeavors

- Facilitate multiple faculty development and enrichment opportunities to promote professional growth

Student Functions

- Coordinate academic advisement and monitor progress to maintain students path toward graduation
- Encourage student club within the department and support for professional development activities emphasizing immersive learning opportunities
- Address student complaints and protocol for resolving issues related to faculty, courses and/or programs
- Inform students of internal/external scholarships and procedures for submission
- Obtain student feedback within the program and align courses to meet their degree specialization(s)

Liaison Functions

- Maintain a positive rapport and collaborate with other disciplines and university units
- Enhance and promote departmental image through service learning and community based functions
- Facilitate cross-disciplinary opportunities to strengthen academic programs and university objectives

Courses Taught
Adapted Physical Education
Basic Nutrition
Student Teaching Supervisor
Health & Behavior Change
Research Methods
Methods in Teaching Physical Education
Capstone

Teaching Responsibilities

- Develop and implement unique "hands on" activities that directly relates to "real world" experiences in order to facilitate curriculum guidelines and up to date practices that preface state requirements (PASS Skills), NCATE guidelines, and exercise science objectives
- Demonstrate effective classroom techniques, elicit questions, and guide classroom discussions in order to achieve the competencies deemed necessary for all certified instructors, preservice teachers/ coaches, and preprofessional exercise science majors
- Develop and implement a transdisciplinary approach to learning by aligning both teaching and non-teaching curriculum standards to meet each student's individual degree requirements

- Incorporate the use of technology and media based learning within the classroom and online in order to achieve standards and competency requirements set forth by the Physical Education Department
- Advise, discuss, and implement state regulations with fellow physical education students regarding student teaching standards and sports and fitness internship guidelines

Research Interests
- Weight bias- perceptions and attitudes toward overweight and obese persons
- Health and Behavior Change- behaviors that pose a barrier to achieving a healthy lifestyle
- Exergaming- physical activity
- Self-Efficacy and Exercise

Instructor, August 2007- May 2011

Academic Advisement
- Advise, discuss program opportunities, modify-add changes as needed for enrollment, email, and communicate one-on-one regarding academic status, and qualifications needed for acceptance within the teaching program/ student teaching for Physical Education candidates, and/ or internship requirements for Exercise Science candidates

Courses Taught
Physical Education
- Sports labs (Team Sports/Fitness and Aquatics), Foundations, Therapeutics, Childhood Nutrition (online), and Health K-12, Wellness

Exercise Science
- Consumer Health, Nutrition, Exercise Prescription for Special Populations, and Wellness

Independence Middle School
Physical Education Teacher, August 1996-2007
- Developed and implemented an exemplary physical education program (6-8th grade)
- Coaching Career: Cheerleading, Track, and Softball

Awards/Special Recognition

Teacher of the Year, Independence Middle School, Yukon, Oklahoma, 2005
Good Gal Award, Yukon School District, Yukon, Oklahoma, 2002
Award for Outstanding Generosity and Volunteer Work, Yukon, Oklahoma, 2002

Emma Plunket Award, Outstanding Female Senior- Bachelors of Science in Health and Physical Education, University of Central Oklahoma, 1996

Lectureships

2014-2015, $2900, JoAnne Hudson Endowed Lectureship, University
2014-2015, $3000, Gladys "Slats" Patton Endowed Lectureship, University
2013-2014, $3500, Gladys "Slats" Patton Endowed Lectureship, University
2012-2013, $3500, Gladys "Slats" Patton Endowed Lectureship, University

Grants

2014-2015, $1800, Research Funding Initiative Grant
2014-2015, $5500, Innovative Teaching & Learning Grant
2014-2015, $1700, Professional Development Grant
2014-2015, $3750, Academic Funding Initiative Grant
2014-2015, $1884, Academic Funding Initiative Grant
2013-2014, $8900, Innovative Teaching & Learning Grant, University

Student Funding of Programs

2014-2015, $3750, University
2014-2015, $3500, University
2013-2014, $3500, University
2012-2013, $3000, University
2011-2012, $2100, University

Professional/University Committees

Teaching and Learning Committee, 2012- Present
Council of Chairs, 2011- Present
Teacher Education Committee, 2011- Present
Faculty Curriculum Transfer Committee, 2011-Present
Advisory Committee, 2011- Present
Scholarship Committee, 2011- Present
OAHPERD, State Organization, Advisory Council, College Chair, 2010- 2012 – Present
Virginia Peters Higher Education Professional of the Year, Selection Committee, 2012
Shape, National Organization, Active Member, 2012- 2014
Oklahoma State Department of Education, Curriculum Reviewer for Health/ Physical Education (K-12), 2006-2007
Mayor's Commission on the Status of Women, Committee Member, 2013-Present
Congressional Youth Leadership Council, Undergraduate Leadership Mentor, 2004-2006

Service

Oklahoma Public Schools, Student Teaching Supervisor, 2011- Present
Special Olympics , Supervisor for Undergraduate Students, 2009- Present
Camp of Champs, Activity Coordinator, June 2013- Present

Professional Workshops/Training

Weave- University Assessment Training, 2011- Present
NSCA Workshop, Training the Total Body from Start to Finish, University, March 2013
Annual Oklahoma Women in Higher Education Conference, University of Central Oklahoma, September 2013
The Oklahoma State Regents of Higher Education Summer Grant Writing Institute, August 2013
NSCA Oklahoma State Clinic, University of Central Oklahoma, April 2012

Presentations

Boss, S., & Hunt, A. (2014). Becoming a healthier you. Faculty and Staff. University, October 12.

Boss, S., & Lopez, A. (2014). Investigating sports and exercise science research. Honors Program. University, November 12.

Boss, S., Payne, M., Lopez, A., & Whigham, T. (2014). Geocaching and exercise. Presented at the Oklahoma Association for Health, Physical Education, Recreation, and Dance 2014 convention. Edmond, OK, October 6-7.

Oh, Y., **Boss, S.**, Hunt, A., & Adrian, P. (2013). Body composition in health and physical education undergraduate students. University, December 21.

Boss, S. & Lopez, A. (2013). Nutrition and fitness related research. Honors Program. University, November 13.

Oh, Y., **Boss, S**., Batiste, S., Bowen, C., Garrett, R., Gomez, S., Knight, T., Lopez, A., Pereira, A., & White, T. (2013). Exergaming for all ages. Presented at the Oklahoma Association for Health, Physical Education, Recreation, and Dance 2013 convention. Edmond, OK, October 7-8.

Boss, S. & Hunt, A. (2013). Nutrition and health. Administrative Professionals. University, September 20.

Hunt, A., & **Boss**, S. (2013). Healthy options for families. Be S.M.A.R.T. University, September 18.

Boss, S. & Hunt, A. (2012). TriFit technology and student learning. Presented at the Oklahoma Association for Health, Physical Education, Recreation, and Dance 2012 convention. Edmond, OK, October 15-16.