Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students

A dissertation submitted

by

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to

College of Saint Mary

in partial fulfillment of the requirement

for the degree of

DOCTOR IN EDUCATION

with an emphasis on

Health Professions Education

This dissertation has been accepted for the faculty of

College of Saint Mary by:

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“The Road Too Traveled”

Dedicated to Barbara - my sister, my friend ☺, and Carol Goranson, whose friendship will forever be held deep in my heart.

Acknowledgement Page

To My Family, who has supported me in more ways than one.

To my son Dan, who entered in all my data!

To Dr. Peggy Hawkins, who demonstrates the true inspiration for learning and passion for nursing.

To Dr. Astrid Ferony, who set one of the initial building blocks on this journey and cemented it with confidence.

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Abstract

Nurses and other health care providers are often unaware of their attitude toward, and misconceptions about, obese individuals. Twenty-eight percent of teachers in one study said that becoming obese was the worst thing that can happen to a person while twenty-four percent of nurses said that they were repulsed by obese persons; and, controlling for income and grades, parents provided less college support for their overweight than for their thin children (Puhl & Brownell, 2001). The purpose of this quasi-experimental mixed method study was to determine whether obesity sensitivity education was an effective intervention in changing nurses' attitudes and beliefs about obese people. Utilizing a pre-test/post-test: Attitudes Toward Obese People (ATOP) and Beliefs About Obese People (BAOP) and an open-ended question: "When you first enter your patient's room and you realize your patient is obese, you think…" Nurses and nursing students were asked to use an online format to complete the questionnaires and open-ended question, view an education PowerPoint, retake the questionnaires and answer the open-ended-question immediately after and thirty days later after viewing the PowerPoint. A paired t-test was used to compare scores from the pre and post-tests. NVivo 8 and traditional analysis methods were used in identification of themes from the open-ended question. The 101 respondents were primarily Caucasian, female, had family or friends that were obese, had not received obesity training, and did not work in a designated obesity facility. The age groups 19-29 and 50-and-older comprised 60% of the respondents. Nurses and nursing students' attitudes toward obese people did not change after the education

PowerPoint. However, nurses' and nursing students' beliefs about obese people did change by graduate nursing students; respondents who were not obese; and those employed at a designated obesity facility. Answers to the open-ended question demonstrated a sense of awareness toward their obese patients and a decrease in judgmental remarks. The identified change in beliefs about obese people from this study and supporting literature demonstrated further obesity education and training for nurses and nursing students is needed.

CHAPTER I: INTRODUCTION

Multiple studies have substantiated the existence of bias against the obese by healthcare practitioners. Reto (2003) identified that RN graduate students, who cared for obese patients, were repulsed by them and nursing students preferred not to touch obese patients. Older nurses exhibited less favorable attitudes toward obese patients than younger nurses. The range of negative beliefs and attitudes toward obesity and obese patients was documented in a study (Brown, Stride, Psarou, Brewins, & Thompson, 2007) that discovered obese patients were evaluated more negatively than patients of normal weight and there was strong evidence to suggest discriminatory practices by doctors towards their overweight female patients.

Attitudinal tests have indicated helpfulness in identifying bias towards the obese. Many researchers developed attitudes/beliefs tests to identify specific thoughts and behaviors regarding obesity. Studies using these tests reflected beliefs of the obese as being lazy, stupid, and worthless and, further, showed a lack of knowledge associated with causes of obesity. Allison's Attitudes Towards Obese People (ATOP) and Beliefs About Obese People (BAOP) questionnaires have been cited in numerous studies, including Anne Hague's "Web-Based Intervention for Changing Attitudes of Obesity Among Current and Future Teachers." These questionnaires were provided as a research tool by Yale University's Rudd Center for Food Policy and Obesity (1991).

An assessment of the effectiveness of obesity sensitivity education on attitudes and beliefs of nurse participants toward obese people undertaken by first administering the attitudes/beliefs questionnaire developed by DB Allison (Appendices B and C), having participants view an obesity sensitivity education PowerPoint, and then re-administer the same attitudes/beliefs questionnaire allowed for comparison of responses.

Having the participants take the questionnaire after thirty days demonstrated whether the prior responses remained the same, or changed from the previous answers. Adding a post-session open-ended qualitative question ("When you first enter your patient's room and realize your patient is obese, you think…") allowed for additional revelation of participants' attitudes and beliefs following the obesity sensitivity education and the healthcare setting. It was anticipated that the healthcare professionals participants' newly acquired knowledge on obesity would lay the foundation for a more enlightened and sensitive treatment of their obese patients in the future.

Purpose of the Study

The purpose of this study was to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people.

Background and Rationale

The Constitution of the United States valiantly attempts to protect Americans from discrimination and ensure that all people are treated equally. However, obese citizens remain discriminated against daily at school, work, and play, with little to no legal recourse. Name calling, ridicule, and jokes aimed at the obese has not incited them to lose weight, nor has the blizzard of health information distributed by the media promoting weight loss by eating Subway sandwiches, participating in The Biggest Loser television series, using quick weight loss pharmaceuticals, and bariatric surgery. More than half of adults in the United States are estimated to be overweight or obese (CDC, 2009). For America's Healthy People 2010 program, among other programs, successful reduction of obesity requires a change in societal attitudes and beliefs. One of the first and most helpful places for societal changes to occur is among healthcare workers and their educators. These very individuals, instrumental for information, guidance, and

support for the obese, have been shown to be two of the prime offenders in obesity discrimination in the workforce (Puhl & Brownell, 2001). Yet many healthcare workers and educators are unaware of their own attitudes and beliefs toward the obese. They do not realize the negative effect they are having on those seeking their help. Awareness of attitudes and beliefs about obese people is the first step toward changing negative behavior toward obese patients and may also result in changes to participants' personal attitudes and beliefs.

Research Question

The research question of this study is:

"Do nurses and nursing students score higher on the Attitudes Toward Obese People (ATOP) and Beliefs About Obese People (BAOP) questionnaires after an obesity sensitivity education PowerPoint than before the education PowerPoint?"

Further questions based on demographic answers include:

1. Is there a difference in attitudes and beliefs about obese people among nurses, nursing instructors, undergraduate nurses, or student nurses?
2. Is there a difference in attitudes and beliefs about obese people based on age?
3. Is there a difference in attitudes and beliefs about obese people based on ethnicity?
4. Is there a difference in attitudes and beliefs about obese people based on being obese or prior to being obese?
5. Is there a difference in attitudes and beliefs about obese people based on having a close friend or family member who is obese?
6. Is there a difference in attitudes and beliefs about obese people based on prior obesity sensitivity training?

7. Is there a difference in attitudes and beliefs about obese people based on working in a designated obesity facility?

Hypotheses

1. A. There will be a difference in attitudes about obese people among nurses, nursing instructors, undergraduate nurses, and graduate student nurses after viewing an obesity sensitivity education PowerPoint than before the education PowerPoint.
1. B. There will be a difference in beliefs about obese people among nurses, nursing instructors, undergraduate nurses, and graduate student nurses after viewing an obesity sensitivity education PowerPoint than before the education PowerPoint.
2. A. Older registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students will score more negatively on Attitudes Toward Obese People questionnaires than younger participants.
2. B. Older registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students will score more negatively on Beliefs About Obese People questionnaires than younger participants.
3. A. There is no difference in attitudes about obese people based on registered nurses', nursing instructors', undergraduate nursing students' and graduate nursing students' ethnicity.
3. B. There is no difference in beliefs about obese people based on registered nurses', nursing instructors', undergraduate nursing students' and graduate nursing students' ethnicity.

4. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who are obese or have been obese have more positive attitudes about obese people than those who have never been obese.
4. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who are obese or have been obese have more positive beliefs about obese people than those who have never been obese.
5. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with obese close friends or family, will have more positive attitudes toward obesity than those without obese close friends and family.
5. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with obese close friends or family, will have more positive beliefs toward obesity than those without obese close friends and family.
6. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with prior obesity sensitivity training will have more positive attitudes toward obesity than those without obesity sensitivity training.
6. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with prior obesity sensitivity training will have more positive beliefs toward obesity than those without obesity sensitivity training.

7. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who work in designated obesity facilities will have more positive attitudes about obese people than those who do not work in designated obesity facilities.

7. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who work in designated obesity facilities will have more positive beliefs about obese people than those who do not work in designated obesity facilities.

Conclusion

Obesity has been identified as a major health issue in the United States. Many Americans working in healthcare have unknowingly discriminated against obese individuals. Multiple studies have identified negative attitudes and beliefs about obese people through tests that would not otherwise become known to individuals. Once identified, the purpose of this study was to determine whether obesity sensitivity education is an effective intervention in changing attitudes and beliefs about obese people for nurses and nursing students. The use of a web-based study which incorporates an on-line attitudinal and beliefs test given before and after watching an on-line obesity sensitivity education PowerPoint allows for a comparison of scores. These results answer the research question, Do nurses and nursing students score higher on the Attitudes Toward Obese People (ATOP) and Beliefs About Obese People (BAOP) scales after an obesity sensitivity education PowerPoint than before the education PowerPoint? Influencing responses to these answers are identified through the demographic questions.

Definition of Terms

The following operational definitions were used in this research study:

Andragogy: The art and science of helping adults learn in an effort to emphasize the differences between the education of adults and children (Holmes & Abington-Cooper, 2009).

Attitude: Posture or position of a person; manner, emotion, or actions toward an object or person (New Webster's Dictionary, 1976).

Attitude toward obese people: The affective component toward the body shape of obese people (Allison, 1995).

ATOP: Attitudes Toward Obese People questionnaire (Allison, Basile, & Yuker, 1991).

Belief: An acceptance of the truth or reality of something without certain proof (New Webster's Dictionary, 1976).

Belief about obese people: Belief in the controllability of obesity by the obese person (Allison, 1995).

BAOP: Beliefs About Obese People questionnaire (Allison, Basile, & Yuker, et al., 1991).

BMI: Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women. BMI Categories:

- Underweight = <18.5 BMI
- Normal weight = 18.5-24.9 BMI
- Overweight = 25-29.9 BMI
- Obese = BMI of 30 or greater (National Heart Lung and Blood Institute, 2009).

Cognitivism: An information processing theory which describes how people perceive, learn, remember, and think about information. It defines learning as taking place

within the learner while focusing on processing rather than behavior. (Cognitivism, 2009).

NVivo: Qualitative data analysis software produced by QSR International Pty Ltd (Davidson & Jacobs, 2008).

Obesity: A term used to describe body weight that is much greater than what is considered healthy. A much higher amount of body fat than lean muscle mass. Adults with a BMI greater than 30 are considered obese. Anyone more than 100 pounds overweight or with a BMI greater than 40 is considered morbidly obese. (Obesity, 2009).

SPSS: Statistical Package for the Social Sciences. A statistical package from SPSS, Inc., Chicago (www.spss.com) that runs on personal computers, most mainframes and minis and is used extensively in marketing research. It provides over 50 statistical processes, including regression analysis, correlation and analysis of variance (*SPSS,* 2009).

SurveyMonkey.com: SurveyMonkey.com encompasses a set of online tools used to design, administer and evaluate custom online questionnaires. Results can be visualized graphically and in real time. Company: SurveyMonkey.com. Location: Portland, Oregon USA. Author/Owner: Ryan Finley. (SurveyMonkey.com, 2009).

CHAPTER II: LITERATURE REVIEW

"Obese persons are the last acceptable targets of discrimination"

(Puhl & Brownell, p. 788).

According to the CDC (2008), over 50% of the population of the United States is obese. The American public abhors fat people while idolizing the thin. People associate fat people with a wide variety of negative characteristics, resulting in over-sized discrimination with little to no relief available through the United States legal system. Every day, people are inundated with images of the thin and beautiful, to the point where the two have become synonymous. Society spends hundreds of thousands of dollars on diet pills, exercise equipment, and health clubs trying to achieve the idyllic body.

Although one of the national health objectives for the year 2010 is to reduce the prevalence of obesity among adults to less than 15%, data indicate that the situation is worsening rather than improving (CDC, 2008). The United States citizenry has not only failed to lose weight, but has *increased in size every year*. An unfortunate additional side effect of failing to meet the visual expectations we have been programmed to seek is that the obese find that people do not want them around—not in school classrooms, as employees, or even as tenured faculty (Biskupic, 2007). The media has had a role in teaching society how to treat the overweight. In a 2003 study by Greenberg, Eastin, Hofschire, Lachlan, and Brownell, overweight and obese male actors were more likely to be shown eating and less likely to interact with romantic partners, and female characters were less likely to be considered for major roles calling for an attractive person interacting with romantic partners.

Defining Obesity

Webster's Ninth New Collegiate Dictionary (1983) defined obesity as simply "a condition characterized by excessive fat" (p. 814) and does not explain the complexity of being obese. Nor is it as simple as Healthline's explanation that obesity is "a term used to describe body weight that is much greater than what is considered healthy" (Obesity, 2009, p. 1). Obesity is not simply the result of overeating but rather "a result of a complex variety of social, behavioral, cultural, environmental, physiological, and genetic factors" (Healthy People 2010, 2009).

Many health organizations including the CDC use the Body Mass Index (BMI) in their definition of obesity. BMI is a measure of body fat based on height and weight that applies to adult men and women. The CDC and National Heart Lung and Blood Institute defined the following weight status categories based on BMI:

- Underweight = <18.5
- Normal weight = 18.5-24.9
- Overweight = 25-29.9
- Obese = BMI of 30.0 or greater

The formula for calculating BMI is readily available at Epic4health.com (2009, p. 1):

$$\text{BMI} = \left(\frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \right) \times 703$$

For example, a person who weighs 220 pounds and is 6 feet 3 inches tall has a BMI of 27.5. (2009).

$$\text{BMI} = \left(\frac{220 \text{ lbs}}{(75 \text{ inches}) \times (75 \text{ inches})} \right) \times 703 = 27.5$$

The multiple facets of obesity also include distribution of body fat, one's resting metabolic rate, changes in energy expenditure in response to overeating, food preferences, and physical activity. Carryer's (2001) research indicated a high percentage of the variance in body mass index (BMI) is attributable to genetic factors, which cannot be ignored. Puhl and Brownell (2001) believed the genetic tendency toward obesity is both metabolic and behavioral. Findley (2008) agreed that obesity causes can be compared to the *genetic* factor of some heart attacks and the *behavioral* factor (smoking) of some lung cancers. Like many major diseases including heart disease, cancer, stroke, and AIDS, obesity can often be attributed to lifestyle and behavioral choices. However, in pointing out the many health risks associated with obesity, The Endocrine Society stated that it is imperative the American public understand obesity cannot be designated *only* as a behavioral condition, (Obesity by the Numbers, 2008).

Attitudes and Beliefs

Even a cursory look at attitudes and beliefs about overweight individuals reveals a strong negative stigmatism. Common beliefs about people exhibiting excessive fat include that they are lazy, lack willpower, have no self control, cannot say "no," and love to eat. This bias follows obese individual through their school years, college admission, employment, and even salary negotiations (Kersh & Morone, 2002; 'Report on Size Discrimination, 2008). Racial discrimination was also found to be associated with an increased body mass index in a study by Gee, Ro, Gavin, and Takeuchil (2008). Further, Kersh and Morone (2002) documented a widespread antipathy toward overweight people that affected obese individuals' personal esteem, lowered their college admission rates, and limited their employment opportunities. Employers' views of their overweight employees included assumptions of laziness, less conscientiousness, incompetence,

sloppiness, disagreeability, lack of self-discipline, and emotional instability (Puhl, et al., 2001). Finkelstein, Frautschy Demuth, and Sweeney found, in 2007, that overweight individuals were rated less positively than average-weight individuals in hiring situations. Such attitudes demonstrated bias in the attitudes and treatment of obese people.

Puhl and Brownell (2001) determined that teachers and nurses, the very individuals the obese look to for education and support, were often repulsed by obese persons. Peternelj-Taylor researched "The effects of patient weight and sex on nurses' perceptions: A proposed model of nurse withdrawal" (1989 questionnaire) and revealed that obese patients were evaluated more negatively than normal patients. Registered Nurse (RN) graduate students who cared for obese patients were found to be repulsed by obese patients and students preferred not to touch obese patients (Reto, 2003). Another result of the Reto questionnaire was that older nurses had less favorable attitudes toward obese patients than younger nurses. Zuzelo and Seminara (2006) found that when nurses were aware of their biases they generally worked hard to bracket them.

The range of negative beliefs and attitudes toward obesity and obese patients was documented in a study by Brown, Stride, Psarou, Brewins, and Thompson (2007) discovered obese patients were evaluated more negatively than normal weight patients and that there was strong evidence to suggest that there were discriminatory practices towards overweight female patients by doctors. Research by Aramburu, Drury, and Louis (2002) found that reasons for avoiding healthcare by obese people included: having gained weight since last health care visit; not wanting to get weighed on providers' scales; and knowing they would be told "to lose weight." Carryer's (2001) study emphasized obese individuals were often afflicted with chronic reduction-dieting ailments and exercise injuries incurred while trying to eliminate their excess weight. Her

participants articulated their suffering and the difficulty of reaching their full potential to enjoy life.

Strong negative attitudes toward obese people indicating discrimination among exercise professionals was found in a study by Chambliss, Finley, and Blair (2004). These professionals, whose expertise could aid the overweight in their reduction efforts, frequently ended up contributing to obese individuals' unhealthy lifestyle behaviors and reduced quality of life by pushing them away. Overgaard (2002) discovered similarly paradoxical situations in a qualitative study on attitudes of five obese individuals. Five paradoxical themes were identified in obese individuals' lives: 1) to hide and to show one's body; 2) to be oneself and to be another person; 3) to want and not to want weight loss; 4) food as a source of social fulfillment or social isolation; and 5) overweight as disease or own responsibility."

Being overweight has impacted obese students' admissions, scholarships, and application success rates. Overweight children have been the brunt of jokes and bullying. Students who are obese are discriminated against from the first day they enter school. Robinson's study on Victimization of Obese Adolescents in 2006 found that those so victimized were more passive, quiet, sensitive, and suffered low self-esteem. In a 1994 report entitled "Discrimination Due to Physical Size," the National Education Association stated "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" (Puhl & Brownell, 2001). These students were not selected to represent the class in activities; they were not picked to be in study groups or on physical education teams; and they did not "fit in" with the popular cliques. A perceived threat value also was found to

be higher in overweight children, which may lead to increased body dissatisfaction and psychological distress, according to Jansen, Smeets, Boon, Nederkoorn, Roefs, and Mulkens (2007). Robinson (2006) added that school nurses should help preserve the psychosocial integrity of obese adolescents by promoting healthy peer interactions and experiences. She further added that it is up to school nurses and school communities to develop effective interventions for preventing and responding to negative peer experiences by obese adolescents.

In college, discrimination continues to follow obese students' quests for education — that is, if they are admitted to college. Obese students, and especially obese girls, were less likely than non-obese students to be accepted by the more competitive colleges, even if the girls' grades, standardized test scores, and other variables were the same, according to Kersh and Morone (2002). Findings also included a decrease in financial support and lower grades for obese students as opposed to thin students (Puhl & Bronwell, 2001). The National Association to Advance Fat Acceptance (NAAFA) questionnaire showed that 20% of male and 26% of female respondents experienced anti-fat tricks and jokes in college; 14% of males and 21% of females received negative nicknames; and over 8% of males and 3% of females received threats of violence or were assaulted because of their weight (Report on Size Discrimination, 2008). In 1985, an obese nursing student named Sharon Russell was dismissed from Salve Regina College for failing to lose weight, one year before obtaining her Nursing degree (Puhl & Brownell, 2001).

Legal Implications

Although the United States Constitution aims to protect the rights of all citizens, obesity in and of itself is not uniformly seen as a protected class. No one can deny that jokes and derogatory comments aimed at the obese are heard every day. Americans

would be aghast if, in these comments made about “fat” persons, “fat” was replaced with “black,” “female,” or “Jew”—any of which might lead to serious legal consequences. Yet this very common physical characteristic remains a common prejudice. Whether the government should provide any recourse to over-sized Americans who are being mistreated is undetermined.

For example, obese employees are often overlooked for promotions. Although both the Constitution and state laws prohibit discrimination, the bulk of employment discrimination litigation has involved federal civil rights laws, especially Title VII of the Civil Rights Act of 1964. Overall, few locations have weight-specific legislation so most obese persons are forced to use existing human rights statutes for legal protection. In particular, overweight individuals have depended on the Rehabilitation Act (RA) of 1973 and the American Disabilities Act (ADA) of 1990, and to a lesser extent on the Equal Employment Opportunity Commission (EEOC) regulations. Ultimately, knowledge gained from certain studies may lead to a change in the U.S. Government’s stance but in 2008 there is no specific protection from discrimination for overweight citizens. Some institutions and states have made attempts to intervene.

In education, obesity has been seen to impact faculty members who were being discriminated against because of their size while trying to attain tenure. The National Education Association Human and Civil Rights did a study on discrimination due to physical size and reported that not only is it harder for fat people to obtain a job, it is worse for females (Report on Size Discrimination, 2008). In Nedder v. Rivier College, “a morbidly obese woman was removed from her teaching position because of her weight” (Puhl & Brownell, 2001). Obesity is not considered a disease by the government, but in 1994 the National Education Association Board of Directors did adopt the position to

designate obesity as a disease (Report on Size Discrimination, 2008). In some cases, leading institutions of higher learning have recognized the inequality of treatment of obese individuals and became proactive by taking initiatives to cover obesity in their discrimination policies and guidelines.

Michigan, the District of Columbia, New York, New Jersey, and Oregon, have passed laws against discrimination based on size (Report on Size Discrimination, 2008). In 2000, the city of San Francisco passed legislation to ban weight discrimination, adding weight and height to existing characteristics (Puhl & Brownell, 2001).

Progress in policy to address obesity has been minimal. In 2002, the IRS acknowledged the condition of obesity by allowing taxpayers to deduct costs of weight loss programs prescribed by doctors (Findley, 2008). In 2004, the U.S. Department of Health and Human Services Centers for Medicare and Medicaid Services introduced a new policy identifying obesity as an illness. This opened the opportunity for patients to have treatment covered by Medicare (Obesity by the Numbers, 2008).

Legal aspects and implications that intertwine may offer some relief to obese individuals attempting to “fit in” at school and work; however, progressive laws protecting the obese are unlikely to be implemented until the *culture* changes, according to Mello, Rimm, and. Studdert (2003). Regulation of food advertising is a specific example of one area Mello, et al. identified as ready for change. To help curb obesity, persuasive food advertising must be addressed. Advertising–verging on false advertising–aimed at children under eight was particularly cited. Daynard, Hash, and Robbins (2002) concurred with Mello, et al. that litigation against food companies that misrepresent food products, hire developmental psychologists, and pay for focus groups in order to help develop advertising aimed at young children is deserved. Whether more ethical behavior

can be legislated or enforced will remain an ongoing discussion; meanwhile, positive effects may be achieved by identifying and changing attitudes and beliefs at the individual level.

Identification of Attitudes and Beliefs

Attitudinal tests can be helpful tools to utilize in identifying bias towards the obese. Many researchers have developed attitude/belief tests to identify specific thoughts and behaviors regarding obesity. The ORK-10 & Obesity Belief Scale was utilized in a study by Swift, Glazebrook, and MacDonald (2005) to measure beliefs about obesity-related knowledge in obese adults. This study suggested little knowledge of the health risks associated with obesity. An Anti-Fat Attitudes Test was developed by Lewis, Cash, Jacobi, and Bubb-Lewis in 1997, and the Attitudes Towards Obese People (ATOP) and Beliefs About Obese People (BAOP) scales created by Allison have been cited in numerous studies and provided as research tools by Yale University's Rudd Center for Food Policy and Obesity (1991). The Implicit Attitudes Test (IAT) is another frequently used tool, originally developed by Greenwald, McGhee, and Schwartz in 1998. It is still used in2008 for many obesity research studies, educational classes, and seminars online (Greenwald, Banaji, & Nosek, 2008).

Implicit measures, such as 'good versus bad' and 'motivated versus lazy', were employed in a study by Chambliss, Finley, and Blair (2004), who identified a strong bias against obesity. Data provided by Vallis, Currie, Lawlor, and Ransom, (2007) using the IAT also showed strong evidence for the presence of bias against the obese. The obese were perceived as bad, lazy, stupid, and worthless. Research by Teachman, Gregg, and Woody (2001) using the IAT reiterated that strong bias existed but found that it appeared to be lower in healthcare workers than in the general public.

Promotion of Change through Education

Identifying attitudes is a beginning. To change attitudes, beliefs, and actions of the uninformed and biased is where education can institute a pivotal role. A scientific basis and social disapproval for the way obese individuals are treated is important for change, according to the Mello, Studdert, and Brennan (2006) study *Obesity—The New Frontier of Public Health Law*. School nurses, educators, and parents must be educated to take more active roles in the prevention and treatment of childhood obesity. Hague and White (2005) incorporated an education PowerPoint online ("Web-Based Intervention for Changing Attitudes of Obesity Among Current and Future Teachers") to change attitudes and increase awareness and knowledge about treatment of obese students, as well as using the online Implicit Project (Greenwald, Banaji, & Nosek, 2008). Sutherland, Gill, and Binns (2004) found that although health professionals were supportive of schools taking leading roles in obesity prevention, teachers were the least supportive. In educating obese students, school nurses should advocate and address the lack of counseling for obesity, lobby for parental support, and be competent to provide counseling, according to Moyers, Bugle, and Jackson (2005). Education on attitudinal change and false beliefs about obesity can eliminate barriers and influence unbiased and fair treatment.

Healthcare is a particularly important area in which to implement attitude change. A study by Carryer (2001) identified that obese individuals experience inappropriate care by nurses and doctors in a wide range of settings. Considerable development and training are needed to create programs to address beliefs and attitudes about obesity, according to a questionnaire by Brown, Stride, Psarou, Brewins, and Thompson (2007). Very few

healthcare workers reported having any training in obesity management, according to a questionnaire by Brown, et al (2007).

Hoppe and Ogden (1997) agreed that nurses could play a key role in educating people about weight loss if their knowledge and skills were not lacking. The majority of nurses gave advice more than once per week but only spent 10 minutes or less discussing weight loss with patients. Brown and Thompson (2007) identified that nurses were aware of the obesity stigma but believed that it was too sensitive an issue to discuss. They identified the need for nurses to exhibit good communication tactics in talking with obese individuals and establish a good rapport. Although many nurses were sensitive to obese clients, some slim nurses believed they might come off as insensitive and some obese nurses felt that they were poor role models. In Evan's (1999) study, it was found that the majority of obese patients advised to lose weight by physicians received poor guidance and only a small percentage received positive advice.

Education can provide a knowledge base to help healthcare workers ease the feelings of insecurity obese patients often have so that they, in turn, can provide good advice to enable their patients to improve their health. Obesity sensitivity courses can be made available to doctors, nurses and nursing students and feature an array of offerings: seminars, classroom instruction, learning PowerPoints, and online interaction. It is anticipated that the acquired knowledge on obesity can lay the foundation for a more enlightened and sensitive treatment of obese individuals by all healthcare professionals, educators, employers, and peers.

Conclusion

The literature has demonstrated that obese individuals have been targets for bias and discrimination from early childhood to adulthood as seen in not being selected for

school activities, scholarships, or job promotions. Prime offenders have been those whom the obese need desperately, educators and healthcare workers. The United States Government has made little progress in acknowledging or protecting the rights of this sizable group of Americans. Further research is needed to understand the obese and aid in their quest to fight this disease. The first step is in identifying attitudes and beliefs about the obese and taking steps to change misinformed and biased nurses.

Theoretical Context

The study is designed to incorporate Knowles' adult learning theory. Knowles, Holton, and Swanson's (2005) definition of learning is "the process of gaining knowledge and/or expertise" (p. 17). Education is the vehicle that enhances learning. According to Knowles, learning adults want to know why, want to have responsibility for their own decisions, and want to have the information be life-centered. They have internal motivators rather than external motivators (p. 64).

- Adults are *autonomous* and *self-directed.* They need to be free to direct themselves.
- Adults have accumulated a foundation of *life experiences* and *knowledge* that may include work-related activities, family responsibilities, and previous education. They need to connect learning to this knowledge/experience base.
- Adults are goal-oriented.
- Adults are *relevancy-oriented*. They must see a reason for learning something. Learning has to be applicable to their work or other responsibilities to be of value to them (Lieb, 2009).

Evidence has suggested that successful educational teaching programs use the andragogical process. Knowles advocated the following eight elements in an adult plan of study intended to educate the adult learner:

1. Preparing the learners
2. Considering the physical and psychological climate setting
3. Involving the learners in planning for their learning
4. Involving the learners in diagnosing their own needs for learning
5. Involving the learners in formulating their own learning objectives
6. Involving the learners in designing learning plans
7. Helping the learners carry out their learning plans
8. Involving the learners in evaluating their own learning outcomes (Knowles, Holton, & Swanson, p. 295).

The pre-questionnaire, the obesity sensitivity education PowerPoint, and the post-questionnaire were written to target the adult learner, utilizing Knowles' adult learning approach:

- The learners place value on the information and are motivated as demonstrated by their voluntary participation, completion, and submission of the online questionnaire.
- The learners receive information through the pre-test and the educational PowerPoint, in a web-based format undertaken at participants' convenience.
- The learners actively respond by participating in the questionnaires and the interactive education PowerPoint.

- The participants demonstrate they have absorbed the information and changed attitudes, based on the knowledge/experience resulting in changes in scores from the pre-questionnaire to the post-questionnaire.

Supplemental Theoretical Context

Cognitivism is a primary building block for educating the adult learner. Cognitive theorists "stress the importance of psychological climate of orderliness, clearly defined goals, careful explanation of expectations and opportunities, openness of the system to inspection and questioning, and hones an objective feedback" (Knowles, Holton, & Swanson, 2005, p. 120). An evaluation of the attitudes and beliefs about obese people by nurses and nursing students prior to and after viewing an obesity sensitivity education PowerPoint specifically assesses the effectiveness of such education. This includes patient knowledge, behavior, attitude, and skills.

Cognitivism is seen through the participants' thinking and reacting to the questionnaires and information. "Anxiety levels are appropriately controlled to motivate," as suggested by personality theorists, during interactions with healthcare providers. The humanistic attempt to produce a "psychological climate as safe, caring, accepting, trusting, respectful, and understanding" is made by health care providers, family and support group involvement (Knowles, Holton, & Swanson, p. 120).

Summary

Although Americans strive to believe that "all men are created equal" and legislate to protect the rights of citizens, it means individuals must treat each other fairly. Fairness and integrity are areas that learning has often illuminated for society. Changes in perception must occur—whether mandated legally or achieved through moral or

educational enlightenment—so that all citizens, regardless of size, are treated as valuable human beings.

Although obese individuals are easily recognized, identifying misconceptions and the indefensibility of many common beliefs regarding weight is not as simple. As studies have reflected, healthcare workers and educators are prime offenders in obesity discrimination. It is imperative that health professionals are made aware of their attitudes and beliefs toward obese people. Studies have shown that changes in attitudes and beliefs can occur through education. Obesity sensitivity training can produce a clearer understanding that obesity has many underlying causes which may or may not be controlled by diet and exercise alone. Taking steps toward changing attitudes and beliefs of healthcare professionals toward the obese is a necessary prerequisite to producing a nondiscriminatory environment in which the obese who choose to reach out to their healthcare providers for help can find support.

CHAPTER III: METHODS AND PROCEDURES

This chapter presents the methods and procedures that were used to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people. The sample size, data collection procedures, Attitudes Toward Obese People (ATOP) and Beliefs About Obese People (BAOP) questionnaires, and a qualitative open-ended question are discussed. In addition, the statistical tests used to analyze the data and ethical considerations are provided.

Research Design

The design for this study was mixed method quasi-experimental; pre-questionnaire /post-questionnaire. Participation was strictly voluntary with the explanation that the participant may not get any benefit from being in this research study. The information obtained from this study was intended to provide a better understanding of obesity and related attitudes and beliefs of nurses and nursing students. Permission was sought and obtained from Directors of seven Midwest nursing programs to participate. The Directors agreed to send out through email, and/or flyer, an invitation to nursing students and nursing faculty to participate in this study (Appendix J). The email invitation explained the purpose of the study, a two-week window in which to complete steps 1 and 2, and a link to the Web page http://lindamarcum.webs.com/ (Appendix K). On the web page were instructions for the participants to 1) Click on the link provided by SurveyMonkey.com to complete the online questionnaire. Completion and submission of the first questionnaire indicated consent to participate in the study as approved by the Institutional Review Board (IRB) College of Saint Mary (Appendix F) and Institutional Review Board (IRB) The Nebraska Medical Center (Appendix G). The online questionnaire took approximately 10 minutes to complete 2) View the PowerPoint

education PowerPoint by clicking on the provided link. Watching the online PowerPoint Obesity Education PowerPoint took approximately 25 minutes to complete. Upon completion of viewing the PowerPoint, the participants were asked to retake the questionnaire within three days by clicking on the provided link to SurveyMonkey.com. 3) All participants who completed the first questionnaire, watched the PowerPoint, yet did not retake the questionnaire, were sent out a reminder to complete the questionnaire in step two (Appendix M). All participants who completed the questionnaire, viewed the PowerPoint and retook the questionnaire were sent out a reminder to again, retake the questionnaire—step 3, after 30 days of viewing the PowerPoint (Appendix M). This reminder included a hyperlink to the web page http://lindamarcum.webs.com/ which linked to SurveyMonkey.com. Participants were able to withdraw at any time by exiting the questionnaire. This design was piloted by twelve volunteers which included two nursing faculty, two undergraduate nursing students, one graduate nursing student, four registered nurses, and three non-healthcare workers.

The pre-questionnaire, the obesity sensitivity education PowerPoint, and the post-questionnaires were written to target the adult learner, utilizing Knowles' adult learning theory:

- The learner receives information through the pre-test and the educational PowerPoint, in a web-based format undertaken at the participant's convenience.
- The learner actively responds by participating in the test taking and the interactive education PowerPoint.

Identification of Sample

The population in this study was nurses, nursing educators, and nursing students age 19-or-older.

Ethical Considerations

Per College of Saint Mary's Institutional Review Board standards, as well as The Nebraska Medical Center's Institutional Review Board, this study was deemed minimal risk for all participants (Appendix G and Appendix H). All responses did not affect the participants' relationship with College of Saint Mary or any other entity. Responses were used for research purposes only and were strictly confidential. No one at College of Saint Mary associated individual responses with the participants' name. Withdrawal from this study was simply done by exiting the questionnaires at any time. This study does not cost the participant in any way, except the time spent completing the questionnaire. There was no compensation or known risk associated with participation.

Rights of Research

Participants were included in the invitation to participate (Appendix H) as well as contact information was provided in the invitation to participate for questions about rights as a research participant.

Demographics

This study's participants were asked to be in this study if they were19 years or older. The targeted population was nurses, nursing instructors, and nursing students from the Midwestern area including seven nursing colleges and universities.

Description of Setting

An online Web page http://lindamarcum.webs.com/ included direct links to the questionnaire on SurveyMonkey.com and an Obesity Sensitivity Education PowerPoint.

This online format provided independence and convenience for the participants.

Procedure

Voluntary participants were asked to use an online tool (SurveyMonkey.com) to:

1. Complete a demographic questionnaire (Appendix A).
2. Complete the attitudes and beliefs questionnaire and open-ended question (Appendixes B, C, and E).
3. View the Obesity Sensitivity Education PowerPoint (Appendix L).
4. Retake the attitudes and beliefs questionnaire, as well as answer the open-ended-question within three days of completion of viewing the obesity sensitivity education PowerPoint. An email reminder was sent to participants for those that only took the questionnaire once (Appendix M).
5. Retake the attitudes and beliefs questionnaire, as well as the open-ended question 30 days after viewing the PowerPoint. An email reminder was sent to participants for this final step (Appendix M).

The Attitudes Toward Obese People (ATOP) and Beliefs About Obese People(BAOP) questionnaire is also referred to as the pre-questionnaire, first post-questionnaire, and second post-questionnaire, It was comprised of two scales, ATOP /BAOP, and an open-ended question.

Online Questionnaire

After completing the demographic questionnaire (Appendix A), participants were presented with the online questionnaire. The questionnaire consisted of two scales and an open-ended question:

- The Attitudes Toward Obese Persons (ATOP) scale consisted of a 20-statement questionnaire (6-point Likert scale) to measure attitudes regarding

obesity (Appendix B).

The ATOP focused on perceptions and attitudes about obese people. Higher scores reflected more positive attitudes toward obese people (Allison, Basile, & Yuker, 1991).

- The Beliefs About Obese Persons (BAOP) scale consisted of an 8-statement questionnaire (6-point Likert Scale) to measure explicit beliefs regarding obesity (Appendix C).

  Each question of the BAOP questionnaire asked individuals to indicate the extent of agreement or disagreement (+3 to - 3) to a specific statement, such as "obesity is really caused by a lack of willpower." Higher scores indicated beliefs that obesity is not controllable (Allison, Basile, & Yuker, 1991).
- The open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…"

  This question allowed for additional revelation of attitudes and beliefs from the participants in relation to the obesity sensitivity education and the healthcare setting.

Online Obesity Sensitivity Education PowerPoint

The Obesity Sensitivity Education PowerPoint was viewed online at http://lindamarcum.webs.com/ .It incorporated a 16-minute video on Weight Bias in Health Care (produced by the Yale Rudd Center for Food Policy and Obesity) and a Microsoft PowerPoint presentation. Objectives for the participants included:

- Recognizing weight bias and discrimination
- Recognizing the impact of obesity discrimination
- Recognizing the impact that obesity has on healthcare

- Identifying the consequences of insensitivity
- Identifying how healthcare providers can improve their interactions with obese patients.

Statistical Tests

Reliability for the Attitudes Toward Obese Persons (ATOP) and Beliefs About Obese Persons (BAOP) scales:

- The Attitudes Toward Obese Persons (ATOP) scale is a 20-statement questionnaire (6-point Likert scale) to measure attitudes regarding obesity (Appendix 1). The ATOP focuses on perceptions and attitudes about obese people. Higher scores reflect more positive attitudes toward obese people. Reliability for the ATOP, based on samples consisting of 514 members of the National Association to Advance Fat Acceptance and 124 college and graduate students, showed coefficient alpha ranges from .80 to .84 in various samples. (Allison, 1995).
- The Beliefs About Obese Persons (BAOP) scale is an 8-statement questionnaire (6-point Likert Scale) to measure explicit beliefs regarding obesity (Appendix 2). The BAOP focuses on the individual's extent of agreement or disagreement with a specific belief statement. Higher scores indicate beliefs that obesity is not controllable. Reliability for the BAOP, based on samples consisting of 514 members of the National Association to Advance Fat Acceptance and 124 college and graduate students, showed the coefficient from various samples a range from 0.65 to 0.82. (Allison, 1995).

Validity data for the ATOP and BAOP are for content validity and construct validity. The BAOP and ATOP correlated between .40 and .45 with a small statistically

significant correlation between positive ATOP scores and percentage of friends who are obese (Allison, 1995).

Statistical Package for the Social Sciences (SPSS) was used for comparison and analysis of the pre-questionnaire, first post-questionnaire, and second post-questionnaire scores of the total participants' answers as well as individual responses.

NVIVO 8 was used for responses to the open-ended question "When you first enter your patient's room and realize your patient is obese, you think…" for qualitative analysis after being downloaded from SurveyMonkey.com. Responses to the open-ended question "When you first enter your patient's room and realize your patient is obese, you think…" allowed for the bracketing of identified significant statements and meaning units and development of common themes. According to Creswell (2007), "Participants in the study would all have experienced the process, and the development of a theory might help explain practice or provide a framework for future research.

Methodological Limitations

This quasi-experimental design was limited primarily to the participants contacted through Midwestern nursing directors at area universities and colleges. The time frame did not allow access to individuals not attending school at the time of this study nor to those who do not receive/read the emailed invitation, or to those who choose not to participate. The study did not reflect attitudes and beliefs from other areas of the country. The study was limited to those connected within an academic setting, as opposed to the general workforce or specialized areas of nursing. Analysis of data from the ATOP, BAOP, and open-ended question was limited to those participating in this study.

Summary

This study targeted nursing educators and nursing students as key to successfully changing attitudes and beliefs about obese people. This population encompassed established nurses within the academic arena who are influential and serve as role models for nursing students. The nursing students, not yet practicing, bring to healthcare facilities an increased knowledge and awareness of obesity and obesity sensitivity. Utilizing area colleges and universities for point of access affords contact with nurse educators and nursing students. Demographic questions allowed a comparison between levels of nursing and education, possible influential factors (such as being or having been obese, knowing someone who is obese, having had an obesity education PowerPoint in the past), and whether the participant works in an obesity designated facility.

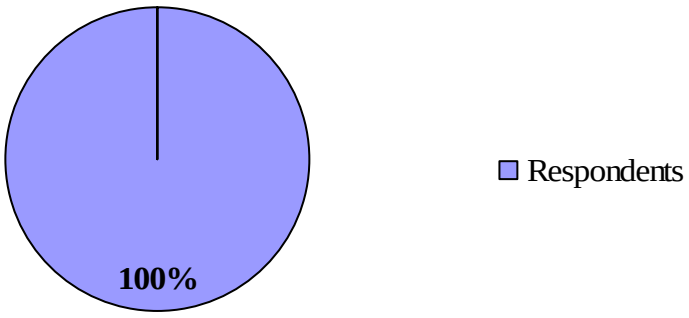
Utilizing an Internet Web Page, which incorporated an online questionnaire tool (SurveyMonkey.com) and obesity sensitivity education PowerPoint allowed for easy access, protection, and privacy for the participants in a non-threatening environment. This format allowed the incorporation of a specific research design. The use of SurveyMonkey.com provided accurate data collection for statistical analysis of the demographic questionnaire and questionnaires. It also provided data for coding of the open-ended question for the identification of possible themes.

CHAPTER IV: RESULTS

The purpose of this study was to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people. The data collected from the pre-questionnaire, the first post-questionnaire, and second post-questionnaire provided the statistics needed to evaluate whether attitudes and beliefs were changed after providing pertinent and up-to-date information on obesity and obese people. The open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…"asked before and after viewing the Obesity Sensitivity Education PowerPoint provided additional information and was analyzed qualitatively.

Data Analysis

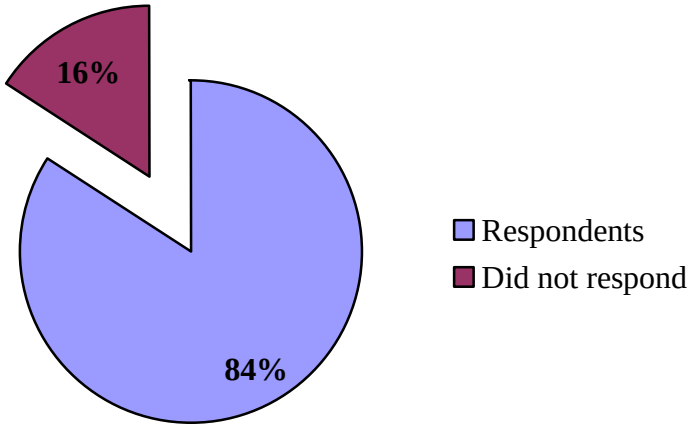
Data from submitted questionnaires were submitted successfully by participants collected using SurveyMonkey.com. A total of 101 pre-Attitudes Toward Obese People questionnaires and 101 pre-Beliefs About Obese People questionnaires were submitted to SurveyMonkey.com. (See figure1).



N=101

Figure 1. Completed pre-attitudes toward obese people and pre-beliefs about obese people questionnaire.

First post-Attitudes Toward Obese People and first post-Beliefs About Obese People Questionnaires successfully submitted by participants after viewing the Obesity Sensitivity PowerPoint totaled 85 each as shown in Figure 2.

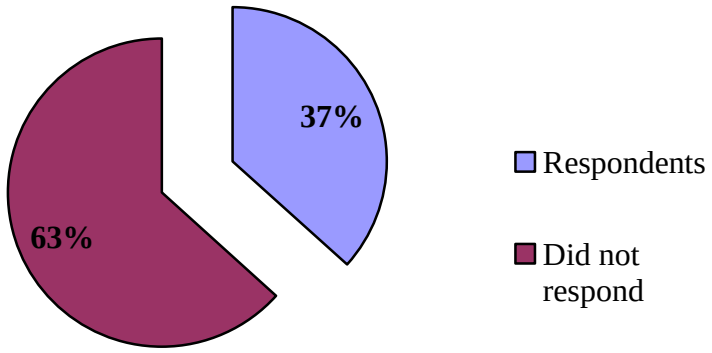


N=101

Figure 2. Completed first post-attitudes toward obese people and post-beliefs about obese people questionnaire.

Reminders were sent via email to participants who did not submit the first post-attitudes and beliefs questionnaire after viewing the Obesity Sensitivity Education PowerPoint (Appendix M). There were 16 respondents who never completed this step, even after a reminder was sent. The 85 respondents who completed both pre-questionnaires and first post-questionnaires provided data for comparison of scores before and after viewing the education PowerPoint. The second post-attitudes and beliefs questionnaire had a response of 37 (see Figure 3) even after a reminder was sent via email just prior to 30 days from the date of viewing the Obesity Sensitivity Education PowerPoint (Appendix M). The response was equally divided between Registered Nurse, Nursing Instructor, Undergraduate Nursing Student, and Graduate Nursing Student. Only one respondent who marked “other” participated in the second post-questionnaires. The data were downloaded from SurveyMonkey.com into an Excel file to group participant

responses into pre-attitudes questionnaires (named prea), pre-beliefs questionnaires (named preb), first post-attitudes questionnaires named (posta1), first post-beliefs questionnaires (named postb1), second post-attitudes questionnaires (named posta2), and second post-beliefs questionnaires (named postb2). Answers to the open-ended question were separated into a before viewing education PowerPoint and an after viewing education PowerPoint.



N=101

Figure 3. Completed second post-attitudes toward obese people and beliefs about obese people questionnaire.

The identifiable email addresses were used for grouping individual responses. This was needed as participants' responses were entered into SurveyMonkey.com at varying times. Dates of completion, as well as the actual questionnaire response number, were also entered in order to track the actual response and send out reminders. A number was assigned to each individual participant's grouped data. The identifiable email addresses were then deleted from the file.

The demographic responses were numbered and downloaded into SPSS as follows:

Status: Registered Nurse=1, Nursing Instructor=2, Undergraduate Nursing Student=3, Graduate Nursing Student=4, Other= 5.

Age was first downloaded as the same number as the response from participants. The ages were then grouped as 19-29=1, 30-39=2, 40-49= 3, and 50 and over=4.

Race was identified as Caucasian=1, African-American=2, Hispanic=3, Asian=4. No other ethnicities participated.

Gender was identified as Female=1, Male=2.

The question, "In your opinion, are you currently, or have you ever been obese?" was entered as Yes=1, No=2.

The question, "In your opinion do you have a close friend or family member who is obese?" was entered as Yes=1, No=2.

The question, "Have you ever taken or participated in obesity sensitivity training?" was entered as Yes=1, No=2.

The 20 Attitudes Toward Obese People questionnaire (Appendix B) and 8 Beliefs about Obese People questionnaire (Appendix C) responses had a number value from -3 to +3 and downloaded into SPSS as follows:

Pre-questionnaire (questionnaire taken before viewing the Obesity Sensitivity PowerPoint): The responses were entered in as scoreprea1 through 20 for pre-Attitudes Toward Obese People questions. The responses were entered in as scorepreb1 through 8 for pre-Beliefs About Obese People questions.

First post-questionnaire (first questionnaire taken after viewing the Obesity Sensitivity PowerPoint: The responses were entered in as post1a1 through 20 for first post-Attitudes Toward Obese People questions, post1b1 through 8 for first post-Beliefs About Obese People questions.

Second post-questionnaire (the second questionnaire taken 30 days after viewing the Obesity Sensitivity PowerPoint): The responses were entered in as post2a1 through

20 for the second post-Attitudes Toward Obese People questions and post2b1 through 8 for second post-Beliefs About Obese People questions.

NVivo8 and traditional analysis methods were used for qualitative analysis of the open-ended question: “When you first enter your patient’s room and realize your patient is obese, you think…” Data collection was done following the Data Collection Circle described by Creswell (2007). Survey Monkey.com web site. All 101 participants finished the responses before viewing the Obesity Sensitivity Education PowerPoint and 83 of the 85 respondents answered the question after viewing the PowerPoint. All respondents have experienced the phenomenon of interacting in some way with an obese person. There were no access rapport issues, as the question was stated on the website and allowed for a voluntary response from the participant. SurveyMonkey.com kept track of the responses. The purposeful sampling was done by selecting registered nurses, nursing faculty, undergraduate and graduate nursing students from Midwest nursing schools. The forms of data were the written responses from participants to the open-ended question: “When you first enter your patient’s room and realize your patient is obese you think…” before and after viewing the PowerPoint. The data obtained used three of the four basic types of information approaches suggested by Creswell (2007). Firstly, data were collected through a website that asked one open-ended research. Secondly, the type of data collection used was the direct verbatim responses typed into SurveyMonkey.com from the respondents. The third type of data collection used was downloaded from the website to an Excel file for traditional analysis methods and NVivo8 analysis. Responses were downloaded from SurveyMonkey.com into an Excel file in order to group responses according to their email addresses. The same number assigned to the participants’ quantitative responses was assigned to the open-ended

question response. The email addresses were deleted. The total pre-questionnaire open-ended question responses, identified with a 1 and post-questionnaire open-ended question responses, identified with a 2 were entered into NVivo 8.

Scoring

The scoring of the 20 Attitudes Toward Obese People questions was entered into SPSS following the instructions by Allison (1995) to multiply the response to the following questions by -1: Questions 2 through 6, questions 10 through 12, questions 14 through 16, and questions 19 through 20 (Appendix D). These were then added to 60 to find the total value. The higher numbers indicated more positive attitudes toward obese people. The 8 questions on Beliefs About Obese People (BAOP) were scored using Allison's instructions (1995) to multiply the response to the following items by -1: Question 1, question 3 through 6, and question 8. After summing the responses to these eight questions, 24 was then added to obtain the total value (Appendix D). The higher numbers indicate a stronger belief that obesity is not under the obese person's control.

Data Results

There were a total of 101participants. Of the respondents, 26 were registered nurses, 21 were nursing instructors, 31 were undergraduate nursing students, 20 were graduate nursing students, and 3 marked other as shown in Table 1.

With a total of 101 participants, 26 % were RNs, 21 % were Nursing Instructors, 31% Undergraduate Nursing Students, and 20% were Graduate Nursing Students. Only 3% of the respondents answered "other" as depicted in Figure 4.

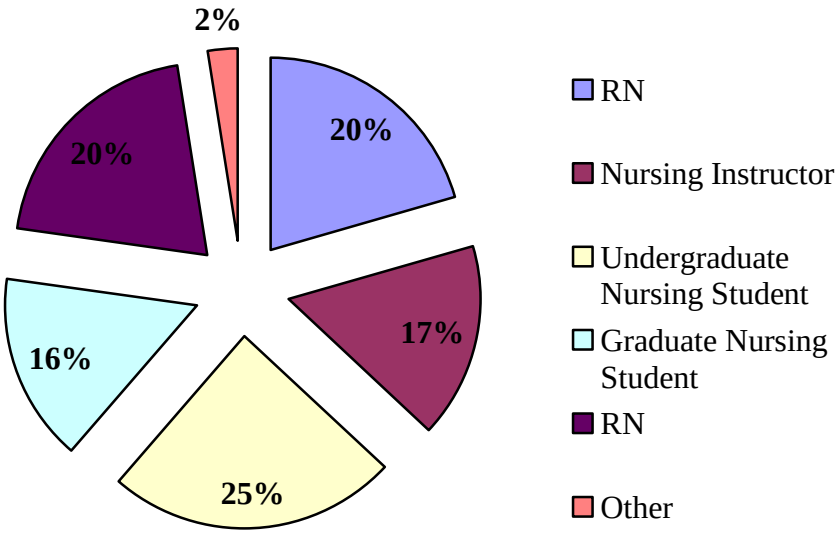
Table 1.

Type of Respondents

Respondents

Type of respondents

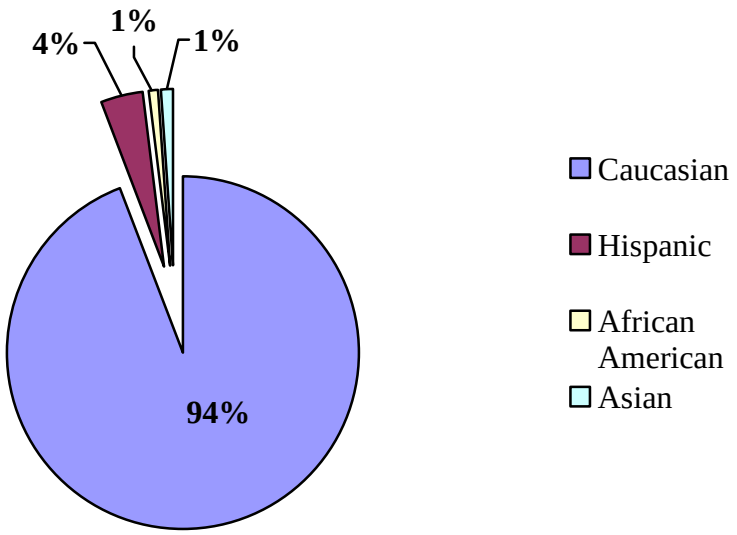
	Frequency	Valid Percent
RN	26	25.7
Nursing Instructor	21	20.8
Undergrad Nursing Student	31	30.7
Grad Nursing Student	20	19.8
Other	3	3.0
Total	101	100.0



N=101

Figure 4. Type of respondent percent.

The majority of the respondents (95) were Caucasian. There were four Hispanics, one African American, and one Asian participant that are displayed in Figure 5.



N=101

Figure 5. Race.

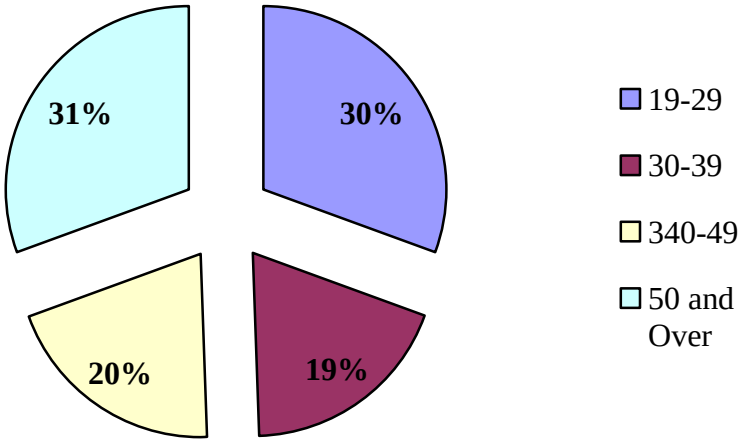
The ages of the respondents ranged from 19 to 64. These were grouped into four categories. Table 2 represents the frequency and percent of age groups of the 101 respondents that participated (1=19-29, 2=30-39, 3=40-49, 4=50 and over).

Table 2

Age of Respondent

	Age	Frequency	Valid Percent
Valid	1	31	30.7
	2	19	18.8
	3	20	19.8
	4	31	30.7
	Total	101	100.0

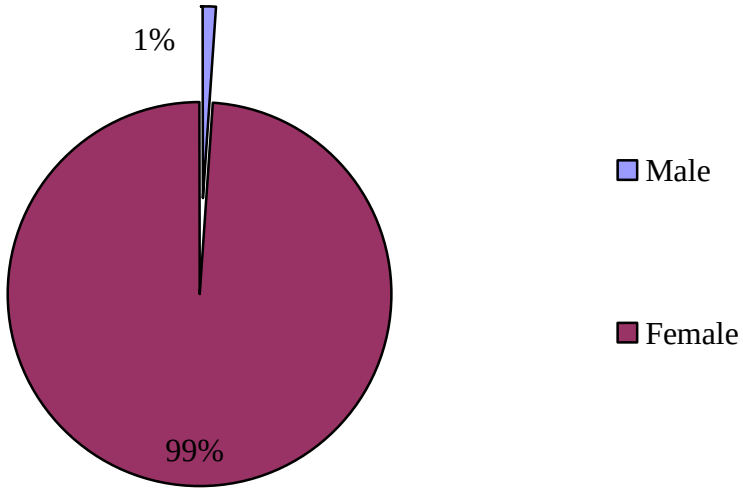
Figure 6 displays the percentages of the age groups. There were 31% in the 19-29 age group, 19% were in the 30-39 age group, 20% were in the 40-49 age group, and 31% were in the 50-and-over age group.



N=101

Figure 6. Age percent.

Only one of the respondents was male; the remaining 100 participants were female as shown in figure 7.



N=101

Figure 7. Gender.

The response to the question: “In your opinion, are you currently, or have you ever been, obese?” resulted in 100 responses. There were 49 participants who answered yes and 51 participants who answered no as shown in Table 3.

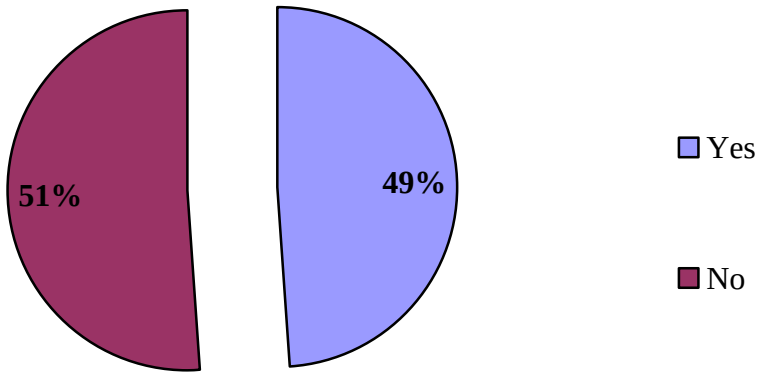
Table 3.

Have You Been Obese Response

In your opinion, are you currently, or have you ever been, obese?

		Frequency	Valid Percent
Valid	yes	49	49.0
	no	51	51.0
	Total	100	100.0
Missing	System	1	
Total		101	

Figure 8 displays the percentage of respondents who answered: “Have you ever been obese?” Respondents answered 49% “yes” and 51% “no.”



N=100

Figure 8. Have you been obese response percent.

Table 4 displays the frequency and percent of 101 respondents’ answer to: “In your opinion, do you have a close friend or family member who is obese?” Respondents answered 88 times “yes,” they did have family or friends who were obese and 13 times “no,” they did not have family or friends who were obese.

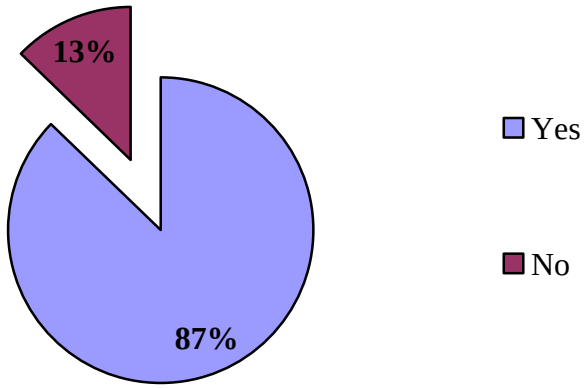
Table 4

Family or Friend Obese

In your opinion, do you have a close friend or family member who is obese?

		Frequency	Valid Percent
Valid	yes	88	87.1
	no	13	12.9
	Total	101	100.0

Figure 9 represents the 101 respondents' answers to: "In your opinion, do you have a close friend or family member who is obese? Respondents answered 87% "yes," they had family or friends who were obese and 13% "no," they did not have family or friends who were obese.



N=101

Figure 9. Family or friend obese percent.

The question "Have you ever taken or participated in obesity sensitivity training?" produced a response from 30 participants who answered yes and 71 participants who answered no as shown in Table 5.

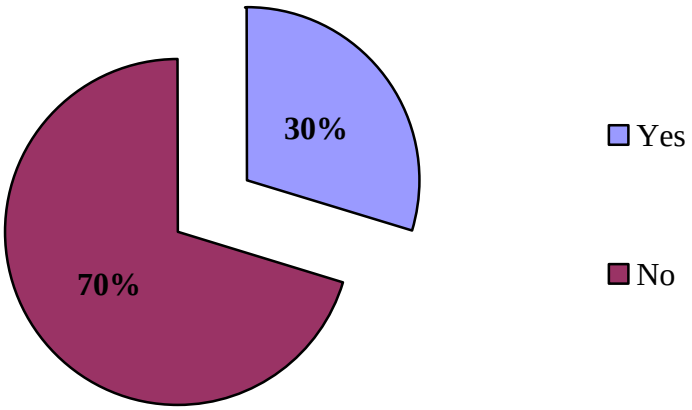
Table 5

Obesity Training

Have you ever had obesity training?

		Frequency	Valid Percent
Valid	yes	30	29.7
	no	71	70.3
	Total	101	100.0

The percentage of 30 “yes” to 71 “no” answers to this question is displayed in Figure 10.



N=101

Figure 10. Obesity training percent.

The last demographic question: “Do you work in a designated obesity facility?” had a response of 19 participants answering yes and 82 participants who answered no. This is shown in Table 6.

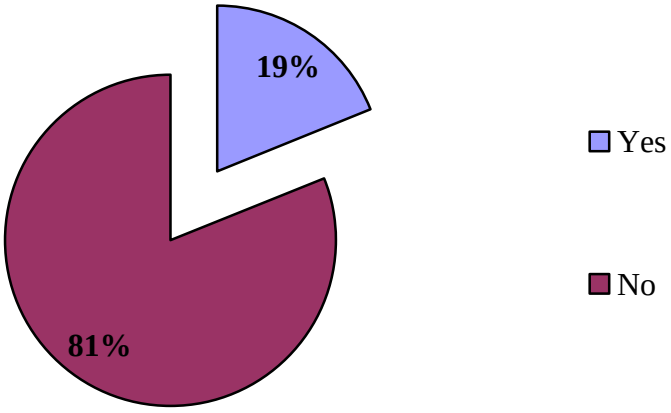
Table 6

Obesity Facility

Do you work in a designated obesity facility?

		Frequency	Valid Percent
Valid	yes	19	18.8
	no	82	81.2
	Total	101	100.0

Eighty-one percent of 101 respondents answered “no” and 19% “yes,” they work or worked in a designated obesity facility. The percent of respondents’ answers is displayed in Figure 11.



N=101

Figure 11. Obesity facility percent.

The total pre-Attitudes Toward Obese People questionnaire scores (scoreprea) from the 20 questions on Attitudes Toward Obese People from the 101 respondents before viewing the Obesity Sensitivity Education PowerPoint are shown in Appendix N.

Figure 12 displays the frequency of scores from the pre-Attitudes Toward Obese People questionnaire by the 101 respondents. The scores ranged from 30-101. The higher the score demonstrated a more positive attitude toward obese people. Most respondents’

scores were within 50-85% or 5 of respondents each scored 64 and 87. Four or 4% of respondents each scored 58, 63, 76, 77, 84, 85, and 86. The remaining scores were widely dispersed by single respondents.

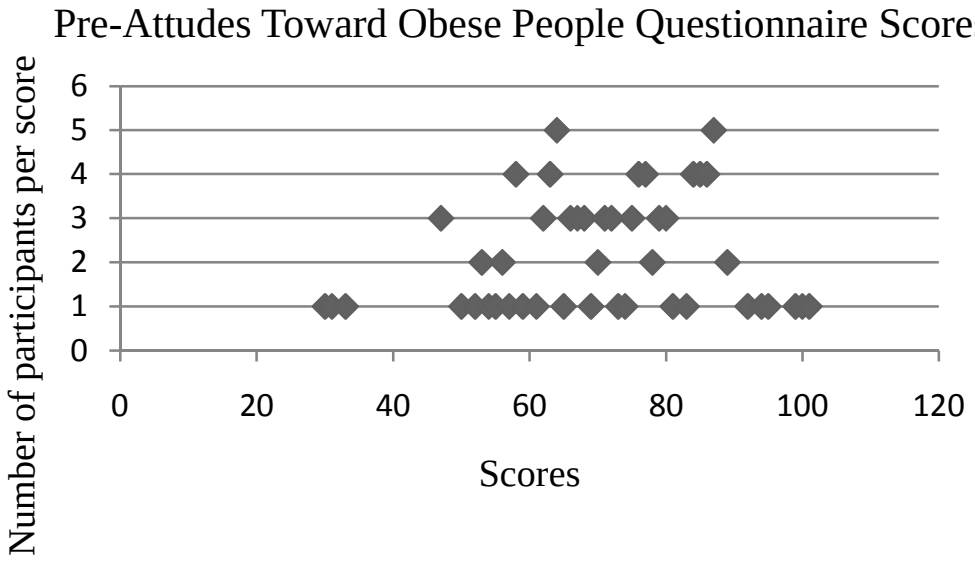


Figure 12. Pre-attitudes toward obese people scores.

Figure 13 represents the frequency and percent of 85 respondents' answers to the first post-Attitudes Toward Obese People questionnaire. There was a slight increase in the range in scores of 44-106. The higher the score demonstrated a more positive attitude toward obese people.

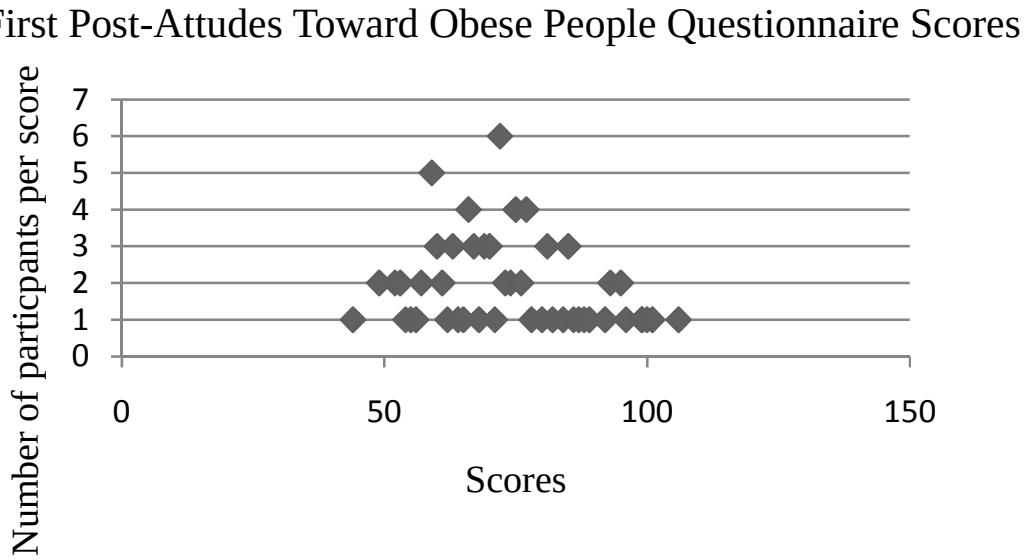


Figure 13. First post attitudes toward obese people scores.

There were 7% or 6 respondents each who scored 72.5 or 6% of the respondents scored 59.4 respondents each or 5% scored 58, 63, 76, 77, 84, 85, and 86. The majority falling within 45-85.The remaining scores were widely dispersed. The total scores from the first post-Attitudes Toward Obese People questionnaire (scoreposta1) can be viewed in Appendix O.

Figure 14 displays the frequency of 37 respondents' answers to the second post-Attitudes Toward Obese People questionnaire. The total scores from the second post-Attitudes Toward Obese People questionnaire (scoreposta2) are listed in Appendix P.

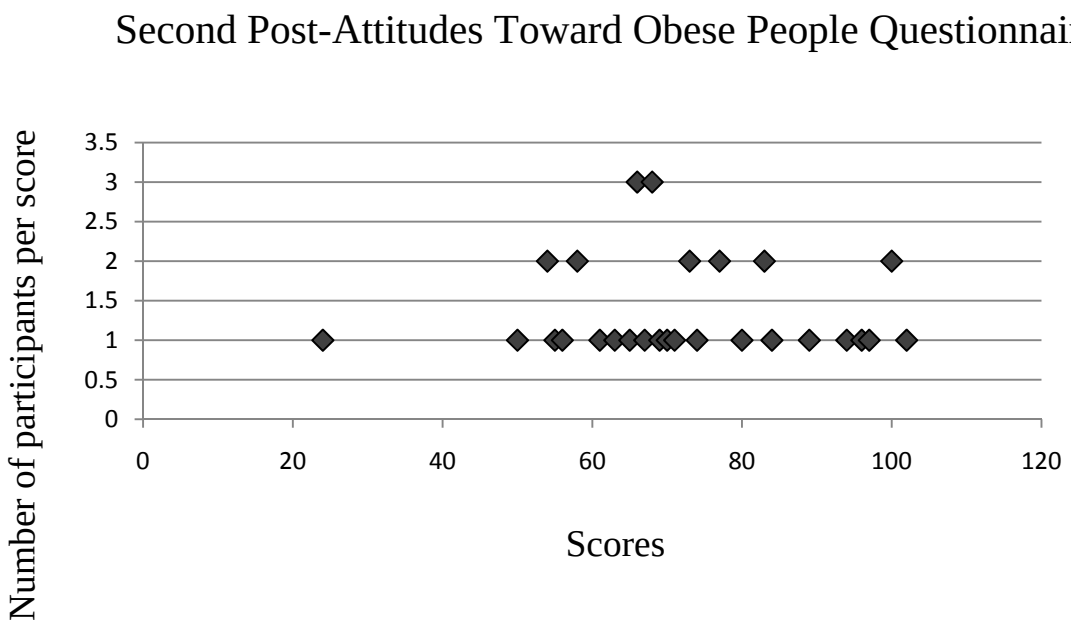


Figure 14. Second post-attitudes toward obese people scores.

There was a decrease in the range in scores to 24-102. The higher the score demonstrated a more positive attitude toward obese people. There were 8% of respondents or 3 each who scored 59 and 72. Again the majority of scores fell around 40-85. Two or 5.4% respondents each scored 54, 58, 66, 68, 73, 83, and 100. There was only one respondent for each of the remaining scores.

Figure 15 represents the frequency of 101 respondents' answers to the pre-Beliefs About Obese People questionnaire. The total pre-Beliefs About Obese People questionnaire scores (scorepreb) from the eight questions on Beliefs About Obese People are displayed in Appendix Q. The scores ranged from 4-85. The higher the score indicated a stronger belief that obesity is not under an obese person's control.

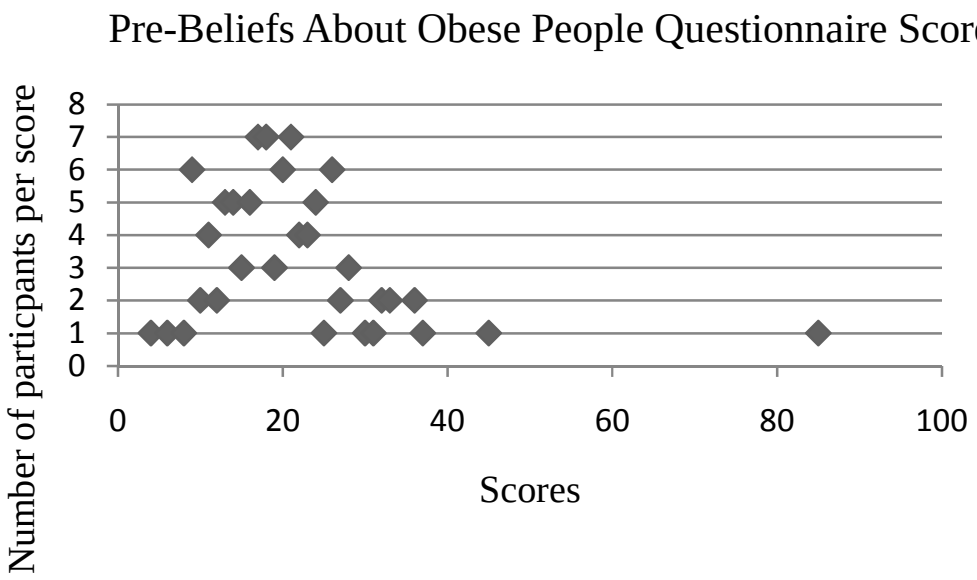


Figure 15. Pre-beliefs about obese people scores.

Seven respondents or 7% scored 17, 18, and 21 on the pre-Beliefs About Obese People questionnaire. There were 6 respondents or 6% each who scored 9, 20, and 26. The remaining scores were widely dispersed.

Figure 16 displays the frequency of 85 respondents' answers to the first post-Beliefs About Obese People questionnaire. The total scores from the first post-Beliefs About Obese People (scorepostb1) are shown in Appendix R.

The scores ranged from 4 to 44. The higher the score indicated a stronger belief that obesity is not under the obese person's control. Seven respondents each or 8% scored 17. There were 9% or 8 of respondents who each scored 20. The remaining scores were widely dispersed.

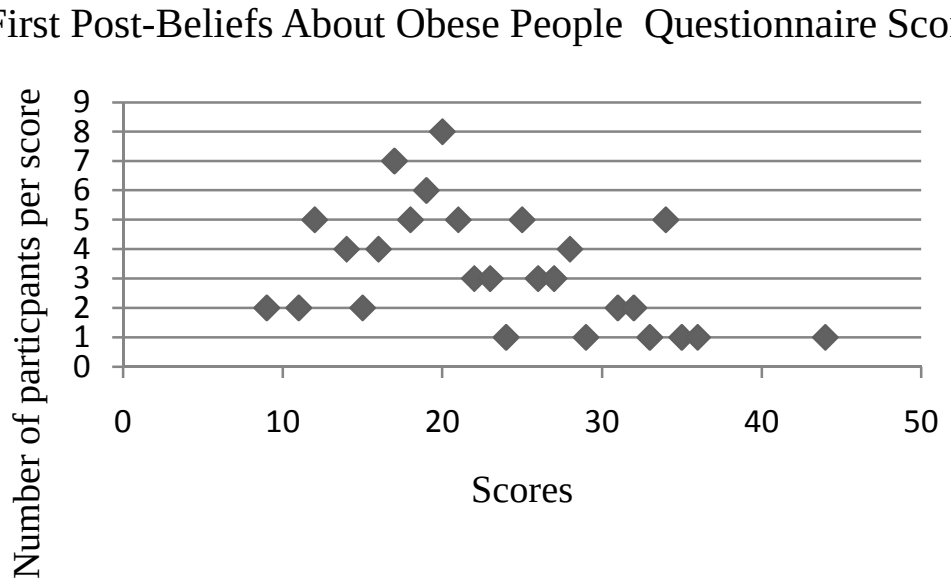


Figure 16. First post-beliefs about obese people scores.

Figure 17 represents the frequency of scores of 37 respondents' answers to the second post-Beliefs About Obese People questionnaire. The scores ranged from 8-35. The higher the score indicated a stronger belief that obesity is not under the obese person's control. Five respondents each or 14% scored 20. There were 11% or 4 respondents who scored 26. The remaining scores were widely dispersed.

The total 30-day second post-Beliefs About Obese People questionnaire scores (scorespostb2) are shown in Appendix S.

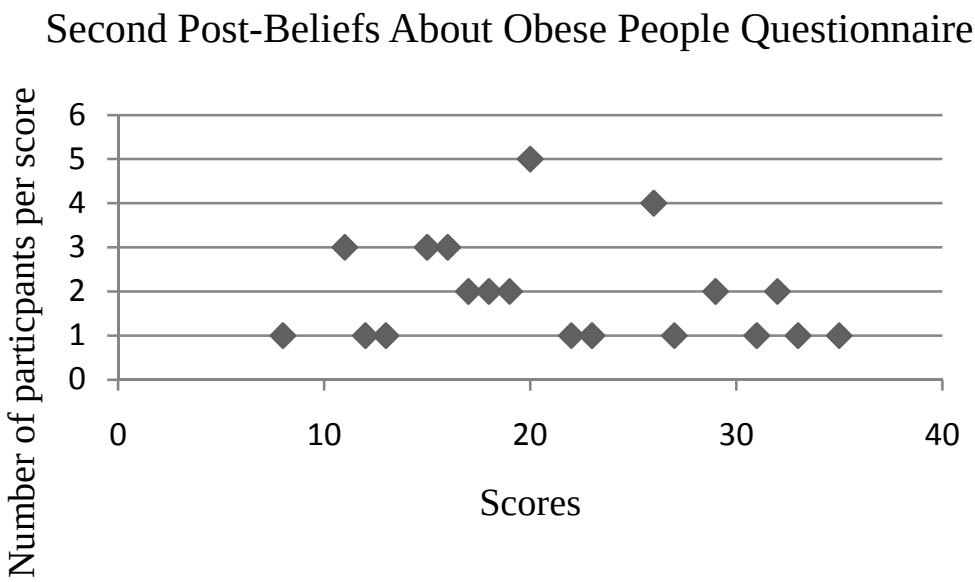


Figure 17. Second post-beliefs about obese people.

Table 7 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with each type of respondent.

Type of respondent refers to registered nurse (RN), nursing instructor, undergraduate nursing student, graduate nursing student, and other. The RN's mean score was 69.69 for the pre-Attitudes Toward Obese People questionnaire and 70.26 for first post-Attitudes Toward Obese People questionnaire. The second post-Attitudes Toward Obese People questionnaire had a mean score of 68.20. The pre-Beliefs About Obese People questionnaire mean was 20.19. The first post-Beliefs About Obese People questionnaire mean score was 22.39, and the second post-Beliefs About Obese People

was 20.19. The nursing instructors' mean score was 73.38 for the pre-Attitudes Toward Obese People questionnaire and a 70.80 for the first and second-post Attitudes About Obese People questionnaire. A mean score of 18.38 was attained on the pre-Beliefs About Obese People questionnaire and 19.05 the first post-Beliefs About Obese People questionnaires. The second post-Beliefs About Obese People questionnaires mean score was 19.60. The undergraduate nursing students' mean score on the pre-Attitudes About Obesity questionnaire was 69.48. The second post-Attitudes About Obesity questionnaire mean score was 71.29 with a 69.25 on the second post-Attitudes Toward Obese People questionnaire. A mean score of 17.61 was attained on the pre-Beliefs About Obese People questionnaire and a 21.54 on the first post-Beliefs About Obese People questionnaire. The second post-Beliefs About Obese People questionnaires mean score was 18.12. The graduate nursing students' mean score was 75.05 on the pre-Attitudes Toward Obese People questionnaire and 75.06 on the first-post Attitudes Toward Obese People questionnaire. The second-post Attitudes Toward Obese People questionnaires mean was 80.75. The mean scores on the pre-Beliefs About Obese People questionnaires was 26.80.

Table 7

Mean Scores by Type of Respondent Mean

Type of respondent		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
RN	Mean	69.6923	70.2609	68.2000	20.1923	22.3913	20.9000
	N	26	23	10	26	23	10
	Std. Deviation	11.88198	12.38847	12.78715	7.85885	7.63806	6.19049
Nursing Instructor	Mean	73.3810	70.8000	70.8000	18.3810	19.0500	19.6000
	N	21	20	10	21	20	10
	Std. Deviation	15.19367	12.02454	20.86358	5.92854	6.17699	6.53537
Undergrad Nursing Student	Mean	69.4839	71.2917	69.2500	17.6129	21.5417	18.1250
	N	31	24	8	31	24	8
	Std. Deviation	15.50026	12.03430	15.12566	7.60560	7.13216	7.12014
Grad Nursing Student	Mean	75.0500	75.0625	80.7500	26.8000	23.9375	24.6250
	N	20	16	8	20	16	8
	Std. Deviation	15.22282	15.76269	16.62829	15.47698	7.32547	8.61788
Other	Mean	66.0000	56.0000	69.0000	15.0000	23.5000	17.0000
	N	3	2	1	3	2	1
	Std. Deviation	2.00000	4.24264	.	5.00000	10.60660	.
Total	Mean	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	N	101	85	37	101	85	37
	Std. Deviation	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369

The first post-Beliefs About Obese People questionnaires mean score was 23.93 and second post-Beliefs About Obese People questionnaires means score was 24.62. The other type of respondent scored a 66.00 on the pre-Attitudes Toward Obese People

questionnaire, a 56.00 on the first post-Attitudes Toward Obese People questionnaire, and 69.00 on the second post-Attitudes Toward Obese People questionnaire. The pre-Beliefs About Obese People mean score was 15.00. The mean score on the first-Beliefs About Obese people was 23.50 and the second post-Beliefs About Obese People was 17.00.

Table 8

ANOVA Type of Respondent and Scores

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	625.689	4	156.422	.760	.554
	Within Groups	19765.183	96	205.887		
	Total	20390.871	100			
scoreposta1	Between Groups	724.281	4	181.070	1.097	.364
	Within Groups	13199.531	80	164.994		
	Total	13923.812	84			
scoreposta2	Between Groups	840.124	4	210.031	.753	.563
	Within Groups	8926.200	32	278.944		
	Total	9766.324	36			
scorepreb	Between Groups	1229.246	4	307.312	3.437	.011
	Within Groups	8583.546	96	89.412		
	Total	9812.792	100			
scorepostb1	Between Groups	238.599	4	59.650	1.165	.333
	Within Groups	4095.824	80	51.198		
	Total	4334.424	84			
scorepostb2	Between Groups	202.382	4	50.596	1.009	.417
	Within Groups	1604.050	32	50.127		
	Total	1806.432	36			

Table 8 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese

People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the type of respondent. Type of respondent refers to registered nurse (RN), nursing instructor, undergraduate nursing student, graduate nursing student, and other.

Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the type of respondent groups showed no significance with an F distribution of .760 and significance level of .554. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/ within the type of respondent groups showed no significance with an F distribution of 1.097 and significance level of .364. Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the type of respondent groups showed no significance with an F distribution of .753 and significance level of .563. Scores from the pre-Beliefs About Obese People questionnaire (preb) and between/within the type of respondent groups showed significance with an F distribution of .3.427 and significance level of .011. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the type of respondent groups showed no significance with an F distribution of 1.165 and significance level of .333. Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the type of respondent groups showed no significance with an F distribution of 1.009 and significance level of .417

Table 9 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1),

second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with each age group. Age refers to grouping 1(ages 19-29), 2(ages 30-39), 3(ages 40-49), and 4(ages 50-and-over).

Table 9

Mean Scores by Age

Age		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
1	Mean	74.0323	72.6957	72.1667	19.3226	23.2609	18.0000
	N	31	23	6	31	23	6
	Std. Deviation	14.17153	12.81134	16.35135	7.49839	8.07475	6.95701
2	Mean	71.3684	73.0000	76.0000	20.1053	20.6471	17.8333
	N	19	17	6	19	17	6
	Std. Deviation	11.33437	14.31782	17.14643	8.10963	5.72212	5.77639
3	Mean	66.8000	65.3125	66.1429	23.2500	19.3750	20.4286
	N	20	16	7	20	16	7
	Std. Deviation	12.69314	10.65657	14.25282	16.67609	6.37574	7.27684
4	Mean	71.5806	72.3448	72.6111	19.0968	22.3103	22.5556
	N	31	29	18	31	29	18
	Std. Deviation	16.68687	12.85989	17.81981	6.85738	7.54559	7.37422
Total	Mean	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	N	101	85	37	101	85	37
	Std. Deviation	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369

Group 1 or ages 19-29 mean score was 74.03 for the pre-Attitudes Toward Obese People questionnaires. The first and second post-Attitudes Toward Obese People questionnaires had a mean score of 72.69 and 72.16. The pre-Beliefs About Obese People questionnaires mean was 19.32. The first post-Beliefs About Obese People questionnaires mean score was 23.26 and the second post-Beliefs About Obese People was 18.00. The

29-39 age group or 2, mean score was 71.36 for the pre-Attitudes Toward Obese People questionnaires and a 73.00 for the first-post Attitudes About Obese People questionnaires and 76.00 for the second-post Attitudes About Obese People questionnaires. A mean score of 20.10 was attained on the pre-Beliefs About Obese People questionnaires and a mean of 20.64 on the first post-Beliefs About Obese People questionnaires. The second post-Beliefs About Obese People questionnaires mean score was 17.83. The third group or age range from 40 to 49 mean scored a 66.80 on the pre-Attitudes About Obesity questionnaire and a 65.31 on the first post-Attitudes Toward Obese People questionnaires. A mean score of 66.14 was attained on the second post-Attitudes Toward Obese People questionnaires. The pre-Beliefs About Obese People questionnaires mean was 23.25 and a 19.37 on the first post-Beliefs About Obese People questionnaires. The second post-Beliefs About Obese People questionnaires mean score was 20.42. Group 4 (50 and over) mean score was 71.58 on the pre-Attitudes Toward Obese People questionnaires and a 72.34 on the first. The second-post Attitudes Toward Obese People questionnaires mean was 72.61. The mean score on the pre-Beliefs About Obese People questionnaire was 19.09. The first and second post-Beliefs About Obese People questionnaires were 22.31 and 22.55.

Table 10 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' age. Age refers to grouping 1 (ages 19-29), 2 (ages 30-39), 3 (ages 40-49), and 4 (ages 50-and-over).

Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the age groups showed no significance with an F distribution of 1.046 and significance level of .376. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/within the age groups showed no significance with an F distribution of 1.427 and significance level of .241.

Table10

ANOVA Age and Scores

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	638.734	3	212.911	1.046	.376
	Within Groups	19752.137	97	203.630		
	Total	20390.871	100			
scoreposta1	Between Groups	698.953	3	232.984	1.427	.241
	Within Groups	13224.859	81	163.270		
	Total	13923.812	84			
scoreposta2	Between Groups	342.356	3	114.119	.400	.754
	Within Groups	9423.968	33	285.575		
	Total	9766.324	36			
scorepreb	Between Groups	247.769	3	82.590	.838	.476
	Within Groups	9565.023	97	98.608		
	Total	9812.792	100			
scorepostb1	Between Groups	172.149	3	57.383	1.117	.347
	Within Groups	4162.274	81	51.386		
	Total	4334.424	84			
scorepostb2	Between Groups	155.440	3	51.813	1.036	.390
	Within Groups	1650.992	33	50.030		
	Total	1806.432	36			

Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the age groups showed no significance with an F distribution

of .400 and significance level of .754. Scores from the pre-Beliefs About Obese People questionnaire (preb) and between/within the age groups showed no significance with an F distribution of .838 and significance level of .476. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the age groups showed no significance with an F distribution of 1.117 and significance level of .4347. Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the age groups showed no significance with an F distribution of 1.076 and significance level of .390

Table 11 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "In your opinion, are you currently, or have you ever been, obese?"

Table 11

Mean Scores by Having Been Obese

In your opinion, are you currently, or have you ever been, obese?

		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
yes	Mean	69.1224	70.8049	72.5294	19.6531	20.0732	20.4118
	N	49	41	17	49	41	17
	Std. Deviation	14.21653	12.53040	13.73462	11.98011	7.05121	6.81046
no	Mean	72.9216	71.1163	71.3000	20.7255	23.1860	20.8500
	N	51	43	20	51	43	20
	Std. Deviation	13.78382	12.97472	18.82635	7.60284	7.13895	7.47821
Total	Mean	71.0600	70.9643	71.8649	20.2000	21.6667	20.6486
	N	100	84	37	100	84	37
	Std. Deviation	14.05675	12.68378	16.47079	9.95343	7.22501	7.08369

The “yes” group’s mean score was 69.12 for the pre-Attitudes Toward Obese People questionnaire. The first post-Attitudes Toward Obese People questionnaires had a mean score of 70.80 and second post-Attitudes Toward Obese People questionnaires had a mean score of 72.52. The pre-Beliefs About Obese People questionnaires mean was 19.65. The first and second post-Beliefs About Obese People questionnaires mean score was 20.07 and 20.41. The “no” group mean score was 72.92 for the pre-Attitudes Toward Obese People questionnaires and a 71.11 for the first post-Attitudes About Obese People questionnaires. The second post-Attitudes About Obese People questionnaires mean was 71.30. A mean score of 20.72 was attained on the pre-Beliefs About Obese People questionnaires and 23.18 on the first post-Beliefs About Obese People questionnaires. The second post-Beliefs About Obese People questionnaires mean was 20.85

Table 12 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?" Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?" showed no significance with an F distribution of 1.841 and significance level of .178. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?" showed no significance with an F distribution of .013 and significance level of .911. Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?"showed no significance with an F distribution of .050 and significance level of .825.

Table 12.

ANOVA Have Been Obese and Scores

In your opinion, are you currently, or have you ever been, obese?

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	360.688	1	360.688	1.841	.178
	Within Groups	19200.952	98	195.928		
	Total	19561.640	99			
scoreposta1	Between Groups	2.035	1	2.035	.013	.911
	Within Groups	13350.858	82	162.815		
	Total	13352.893	83			
scoreposta2	Between Groups	13.889	1	13.889	.050	.825
	Within Groups	9752.435	35	278.641		
	Total	9766.324	36			
scorepreb	Between Groups	28.741	1	28.741	.288	.593
	Within Groups	9779.259	98	99.788		
	Total	9808.000	99			
scorepostb1	Between Groups	203.375	1	203.375	4.039	.048
	Within Groups	4129.292	82	50.357		
	Total	4332.667	83			
scorepostb2	Between Groups	1.765	1	1.765	.034	.854
	Within Groups	1804.668	35	51.562		
	Total	1806.432	36			

Scores from the pre-Beliefs About Obese People questionnaire (preb) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?"showed no significance with an F distribution of .288 and significance level of .593. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?" showed significance

with an F distribution of 4.039 and significance level of .048. Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the respondents' yes or no answers to: "In your opinion, are you currently, or have you ever been, obese?"showed no significance with an F distribution of .034 and significance level of .854.

Table 13 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post--Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "In your opinion, do you have a close friend or family member who is obese?"

Table 13

Mean Scores by Family or Friend Obese

In your opinion, do you have a close friend or family member who is obese?

Family or friends obese		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
yes	Mean	71.3409	71.5616	71.3824	19.6250	21.4247	20.4706
	N	88	73	34	88	73	34
	Std. Deviation	13.72881	12.64470	16.59502	9.66010	7.20709	7.08064
no	Mean	71.3846	69.3333	77.3333	23.9231	23.2500	22.6667
	N	13	12	3	13	12	3
	Std. Deviation	18.24161	14.64944	17.03917	11.12401	7.13665	8.32666
Total	Mean	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	N	101	85	37	101	85	37
	Std. Deviation	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369

The “yes” group mean score was 71.34 for the pre-Attitudes Toward Obese People questionnaires, 71.56 for the first-Attitudes Toward Obese People questionnaires, and 71.38 second post-Attitudes Toward Obese People questionnaires. The pre-Beliefs About Obese People questionnaires mean was 19.62. The first post-Beliefs About Obese People questionnaires mean score was 21.42 and second post-Beliefs About Obese People questionnaires mean score was 20.47. The “no” group mean score was 71.38 for the pre-Attitudes Toward Obese People questionnaires and a 69.33 for the first post-Attitudes

Table 14

ANOVA Family or Friend Obese and Scores

In your opinion, do you have a close friend or family member who is obese?

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	.022	1	.022	.000	.992
	Within Groups	20390.850	99	205.968		
	Total	20390.871	100			
scoreposta1	Between Groups	51.172	1	51.172	.306	.582
	Within Groups	13872.639	83	167.140		
	Total	13923.812	84			
scoreposta2	Between Groups	97.628	1	97.628	.353	.556
	Within Groups	9668.696	35	276.248		
	Total	9766.324	36			
scorepreb	Between Groups	209.244	1	209.244	2.157	.145
	Within Groups	9603.548	99	97.006		
	Total	9812.792	100			
scorepostb1	Between Groups	34.338	1	34.338	.663	.418
	Within Groups	4300.086	83	51.808		
	Total	4334.424	84			
scorepostb2	Between Groups	13.295	1	13.295	.260	.614
	Within Groups	1793.137	35	51.232		
	Total	1806.432	36			

About Obese People questionnaires and 77.33 for the second post-Attitudes About Obese People questionnaires, a mean score of 23.92 was attained on the pre-Beliefs About Obese People questionnaires, a 23.25 on the first post-Beliefs About Obese People questionnaires and 22.66 on the second post-Beliefs About Obese People questionnaires.

Table 14 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "In your opinion, do you have a close friend or family member who is obese?"

Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is obese? showed no significance with an F distribution of .000 and significance level of .992. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is obese?" showed no significance with an F distribution of .306 and significance level of .582. Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is obese?" showed no significance with an F distribution of .353 and significance level of .556.

Scores from the pre-Beliefs About Obese People questionnaire (preb) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is obese?" showed no significance with an F distribution of 2.157 and significance level of .145. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is

obese?" showed no significance with an F distribution of .666 and significance level of .418. Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the respondents' yes or no answers to: "In your opinion, do you have a close friend or family member who is obese?" showed no significance with an F distribution of .260 and significance level of .614.

Table 15 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "Have you ever taken or participated in obesity sensitivity training?" The "yes" group's mean score was 72.63 for the pre-Attitudes Toward Obese People questionnaires, 71.77 first post-Attitudes Toward Obese People questionnaires, and 76.00 second post-Attitudes Toward Obese People questionnaires. The pre-Beliefs About Obese People questionnaires mean was 22.83. The first post-Beliefs About Obese People questionnaires means score was 22.07 and second post-Beliefs About Obese People questionnaires means score was 23.33 The "no" group's mean score was 70.80 for the pre-Attitudes Toward Obese People questionnaires and a 71.00 for the first post-Attitudes About Obese People questionnaires and 70.53 for the second post-Attitudes About Obese People questionnaires. A mean score of 19.05 was attained on the pre-Beliefs About Obese People questionnaires, a 21.50 on the first post-Beliefs About Obese People questionnaires, and 19.78 on the second post-Beliefs About Obese People questionnaires.

Table 15

Mean Scores by Obesity Training

Have you ever taken or participated in obesity sensitivity training?

Ever had obesity training		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
yes	Mean	72.6333	71.7778	76.0000	22.8333	22.0741	23.3333
	N	30	27	9	30	27	9
	Std. Deviation	14.89152	12.32987	15.32155	14.23469	8.40296	7.22842
no	Mean	70.8028	71.0000	70.5357	19.0563	21.5000	19.7857
	N	71	58	28	71	58	28
	Std. Deviation	14.08608	13.21881	16.87093	7.20692	6.61272	6.94613
Total	Mean	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	N	101	85	37	101	85	37
	Std. Deviation	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369

Table 16 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "Have you ever taken or participated in obesity sensitivity training?"

Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the respondents' yes or no answers to: "Have you ever taken or participated in obesity sensitivity training?" showed no significance with an F distribution of .344 and significance level of .559. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/within the respondents' yes or

no answers to: “Have you ever taken or participated in obesity sensitivity training?” showed no significance with an F distribution of .066 and significance level of .797.

Table 16

ANOVA Obesity Training and Scores

Have you ever taken or participated in obesity sensitivity training?

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	70.665	1	70.665	.344	.559
	Within Groups	20320.206	99	205.255		
	Total	20390.871	100			
scoreposta1	Between Groups	11.145	1	11.145	.066	.797
	Within Groups	13912.667	83	167.622		
	Total	13923.812	84			
scoreposta2	Between Groups	203.360	1	203.360	.744	.394
	Within Groups	9562.964	35	273.228		
	Total	9766.324	36			
scorepreb	Between Groups	300.851	1	300.851	3.131	.080
	Within Groups	9511.941	99	96.080		
	Total	9812.792	100			
scorepostb1	Between Groups	6.072	1	6.072	.116	.734
	Within Groups	4328.352	83	52.149		
	Total	4334.424	84			
scorepostb2	Between Groups	85.718	1	85.718	1.744	.195
	Within Groups	1720.714	35	49.163		
	Total	1806.432	36			

Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the respondents’ yes or no answers to: “Have you ever taken or participated in obesity sensitivity training?” showed no significance with an F distribution of .744 and significance level of .394. Scores from the pre-Beliefs About

Obese People questionnaire (preb) and between/within the respondents' yes or no answers to: "Have you ever taken or participated in obesity sensitivity training?" showed no significance with an F distribution of 3.131 and significance level of .080. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the respondents' yes or no answers to: "Have you ever taken or participated in obesity sensitivity training?" showed no significance with an F distribution of .116 and significance level of .734.

Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the respondents' yes or no answers to: "Have you ever taken or participated in obesity sensitivity training?" showed no significance with an F distribution of 1.744 and significance level of .195.

Table 17

Mean Scores by Obesity Facility

Do you work in a designated obesity facility?

Work in a designated obesity facility		scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
yes	Mean	66.6842	68.5882	72.6000	21.9474	25.3529	23.4000
	N	19	17	5	19	17	5
	Std. Deviation	15.61713	11.67829	15.14265	9.05829	8.29112	7.56968
no	Mean	72.4268	71.9118	71.7500	19.7683	20.7647	20.2188
	N	82	68	32	82	68	32
	Std. Deviation	13.82968	13.15321	16.89245	10.09987	6.63351	7.03326
Total	Mean	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	N	101	85	37	101	85	37
	Std. Deviation	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369

Table 17 represents the mean scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "Do you work in a designated obesity facility?" The "yes" group's means score was 66. 68 for the pre-Attitudes Toward Obese People questionnaires, 68.58 first post-Attitudes Toward Obese People questionnaires, and 72.60 second post-Attitudes Toward Obese People questionnaires. The pre-Beliefs About Obese People questionnaires mean was 21.94. The first post-Beliefs About Obese People questionnaires mean score was 25.35 and second post-Beliefs About Obese People questionnaires mean score was 23.40 The "no" group mean score was 72.42 for the pre-Attitudes Toward Obese People questionnaires, 71.91 for the first post-Attitudes About Obese People questionnaires, and 71.75 for the second post-Attitudes About Obese People questionnaires. A mean score of 19.76 was attained on the pre-Beliefs About Obese People questionnaires, a 20.76 on the first post-Beliefs About Obese People questionnaires, and 20.21 on the second post-Beliefs About Obese People questionnaires.

Table 18 represents the ANOVA results comparing all scores from the pre-Attitudes Toward Obese People questionnaire (prea), first post-Attitudes Toward Obese People questionnaire (posta1), second post-Attitudes Toward Obese People questionnaire (posta2), pre-Beliefs About Obese people questionnaire (preb), first post-Beliefs About Obese people questionnaire (postb1), second post-Beliefs About Obese people questionnaire (postb2) with the respondents' yes or no answer to: "Do you work in a designated obesity facility?"

Table 18

ANOVA Work in Designated Obesity Facility and Scores

Do you work in a designated obesity facility?

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
scoreprea	Between Groups	564.544	2	282.272	1.395	.253
	Within Groups	19826.327	98	202.309		
	Total	20390.871	100			
scoreposta1	Between Groups	153.933	2	76.966	.458	.634
	Within Groups	13769.879	82	167.925		
	Total	13923.812	84			
scoreposta2	Between Groups	3.124	1	3.124	.011	.916
	Within Groups	9763.200	35	278.949		
	Total	9766.324	36			
scorepreb	Between Groups	151.079	2	75.540	.766	.468
	Within Groups	9661.713	98	98.589		
	Total	9812.792	100			
scorepostb1	Between Groups	364.273	2	182.136	3.762	.027
	Within Groups	3970.151	82	48.416		
	Total	4334.424	84			
scorepostb2	Between Groups	43.764	1	43.764	.869	.358
	Within Groups	1762.669	35	50.362		
	Total	1806.432	36			

Scores from the pre-Attitudes Toward Obese People questionnaire (prea) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed no significance with an F distribution of 1.395 and significance level of .253. Scores from the first post-Attitudes Toward Obese People questionnaire (posta1) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed no significance with an F distribution of .458 and

significance level of .634. Scores from the second post-Attitudes Toward Obese People questionnaire (posta2) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed no significance with an F distribution of .011and significance level of .916. Scores from the pre-Beliefs About Obese People questionnaire (preb) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed no significance with an F distribution of .766 and significance level of .468. Scores from the first post-Beliefs About Obese People questionnaire (postb1) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed significance with an F distribution of 3.762 and significance level of .027. Scores from the second post-Beliefs About Obese People questionnaire (postb2) and between/within the respondents' yes or no answers to: "Do you work in a designated obesity facility?" showed no significance with an F distribution of .869 and significance level of .358.

The total frequency variables including the mean, median, mode, and standard deviation of the 101 respondents' answers to: Type of respondent, age, "In your opinion, are you currently, or have you ever been, obese?" "In your opinion, do you have a close friend or family member who is obese?" "Have you ever taken or participated in obesity sensitivity training?" "Do you work in a designated obesity facility?" The pre-Attitudes Toward Obese People questionnaire scores (scoreprea), first post-Attitudes Toward Obese People questionnaire scores (scoreposta1), second post- Attitudes Toward Obese People questionnaire scores (scoreposta2), pre-Belief s About Obese People questionnaire scores (scorepreb), first post-Beliefs About Obese People questionnaire scores (scorepostb1), and second post-Beliefs About Obese People questionnaire scores (scorepostb2) can be viewed in Appendix T.

Table 19 displays the following T-Test pairs and their means: Pair 1 = Pre-Attitudes Toward Obese People questionnaire (scoreprea) mean score of 71 and standard deviation of 14.369 with the first post-Attitudes Toward Obese People questionnaire (scoreposta1) mean score of 71 and standard deviation of 12.876.

Pair 2 = First post-Attitudes Toward Obese People questionnaire (scoreposta1) mean score of 73 and standard deviation of 13.550 with the second post-Attitudes Toward Obese People questionnaire (scoreposta2) mean score of 72 and standard deviation of 16.470.

Table 19

Paired T-Test Means

T-Test Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	scoreprea	71.1765	85	14.36943	1.55858
	scoreposta1	71.2471	85	12.87477	1.39646
Pair 2	scoreposta1	73.3514	37	13.55076	2.22773
	scoreposta2	71.8649	37	16.47079	2.70778
Pair 3	scorepreb	19.9647	85	7.68649	.83372
	scorepostb1	21.6824	85	7.18333	.77914
Pair 4	scorepostb1	22.4324	37	7.33917	1.20655
	scorepostb2	20.6486	37	7.08369	1.16455
Pair 5	scoreprea	74.0811	37	13.62673	2.24022
	scoreposta2	71.8649	37	16.47079	2.70778
Pair 6	scorepreb	20.0811	37	7.04106	1.15754
	scorepostb2	20.6486	37	7.08369	1.16455

Pair 3 = Pre-Beliefs About Obese People questionnaire (scorepreb) mean score of 20 and standard deviation of 7.686 with first post-Beliefs About Obese People questionnaire, (scorepostb1) mean score of 22 and standard deviation of 7.183.

Pair 4 = First post-Beliefs About Obese People questionnaire (scorepostb1) mean score of 22 and standard deviation of 7.339 with second post-Beliefs About Obese People questionnaire (scorepostb2) mean score of 20 and standard deviation of 7.083.

Pair 5 = Pre-Attitudes Toward Obese People questionnaire (scoreprea) mean score of 74 and standard deviation of 13.626 with second post-Attitudes Toward Obese People questionnaire (scoreposta2) mean score of 72 and standard deviation of 16.470.

Pair 6 = Pre-Beliefs About Obese People questionnaire (scorepreb) mean score of 20 and standard deviation of 7.041 with second post-Beliefs About Obese People questionnaire (scorepostb2) mean score of 20 and standard deviation of 7.083.

Table 20

Paired T-Test Differences

T-Test Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	scoreprea - scoreposta1	-.07059	11.16413	1.21092	-2.47864	2.33746	-.058	84	.954
Pair 2	scoreposta1 - scoreposta2	1.48649	12.82060	2.10769	-2.78812	5.76109	.705	36	.485
Pair 3	scorepreb - scorepostb1	-1.71765	7.55868	.81985	-3.34802	-.08728	-2.095	84	.039
Pair 4	scorepostb1 - scorepostb2	1.78378	7.23854	1.19001	-.62966	4.19723	1.499	36	.143
Pair 5	scoreprea - scoreposta2	2.21622	14.96317	2.45993	-2.77275	7.20518	.901	36	.374
Pair 6	scorepreb - scorepostb2	-.56757	6.32693	1.04014	-2.67707	1.54194	-.546	36	.589

Table 20 showed no significance with Pair 1, Pre-Attitudes Toward Obese People questionnaire (scoreprea), with the first post-Attitudes Toward Obese People questionnaire (scorepost1). There was no significance found in Pair 2, first post-Attitudes Toward Obese People questionnaire (scoreposta1), with the second post-Attitudes Toward Obese People questionnaire (scoreposta2). Significance of .039 was found in Pair 3, pre-Beliefs About Obese People questionnaire (scorepreb), with first post- Beliefs About Obese People questionnaire (scorepostb1). There was no significance found in Pair 4, first post-Beliefs About Obese People questionnaire (scorepostb1), with second post-Beliefs About Obese People questionnaire (scorepostb2).There was no significance found in Pair 5, pre-Attitudes Toward Obese People questionnaire (scoreprea), and second post-Attitudes Toward Obese People questionnaire (scoreposta2). There was no significance found in Pair 6, Pre-Beliefs About Obese People questionnaire (scorepreb), with second post-Beliefs About Obese People questionnaire (scorepostb2).

Qualitative Results

There were 184 responses to the open-ended question: “When you first enter your patient’s room and realize your patient is obese…” from participants. The data were first hand coded after being downloaded for analysis. The Phenomological template for coding the thick-rich data included five categories identified by Creswell: “Epoche or bracketing for first responses before viewing the Obesity Sensitivity Education PowerPoint and second responses after viewing the Obesity Sensitivity Education PowerPoint, significant statements, meaning units or themes, textural description, and structural description” (2007). To ensure quality, the data collection methods included triangulation, bracketing, and rich-thick description, which Creswell recommends as a minimum for validation (2007). Triangulation was attained by corroborating evidence

from peer review and using a professional outside source for collection and downloading into NVivo8. Bracketing of feelings, beliefs, and biases was performed with the question from the outset of the study. The rich-thick description in the template for coding and the written responses verbatim allowed for the ability to transfer the information to other settings (Erlandson et al., 1993, as cited in Creswell, 2007). This resulted into 80 common words which were then collapsed into 44 and then into 34 free nodes. (Appendix T). Reliability was attained as Silverman (2005, as cited by Creswell, 2007) suggests, by using SurveyMonkey.com, an outside source and NVivo8.

There were four themes which emerged:

1. Those that responded with a task-oriented answer
2. Those who answered with a sense of awareness response
3. Those whose thoughts evoked a client assessment mode
4. Those who responded judgmentally

Task-oriented Theme

The definition of *task-oriented theme* is the response given to the open-ended question: “When you first enter your patient’s room and realize your patient is obese you think…” which emits thoughts about how to perform nursing care which meets the needs and care of the patient. Free nodes included assistance, mobility, moving them, and help needed in caring for the patient. Responses include: “I wonder what this patient will need assistance with,” “That they will be two assist or I will need another person to help transfer them,” I will probably need help transferring this patient because I would not be able to do it myself,” and “If the patient is total care, I will need another person to help with bathing, ambulating, etc.”

Table 21 displays the number of each reference to the free nodes. Assistance was used in 5 responses when asked before viewing the Obesity Education PowerPoint. Assistance was then used twice after the PowerPoint from the respondents. Thoughts on mobility issues were voiced 7 times before the education PowerPoint and 5 times after. In regards to moving the patient, the response was 9 before the PowerPoint and 4 times after the viewing. Help was prevalent in responses 13 times before the education and 7 times after the education.

Table 21

Task-oriented Nodes

Node	Name	Sources	References	Before Viewing PowerPoint	After Viewing PowerPoint
	Task Oriented			34	18
Assistance 1		1	5		
Assistance 2		1	2		
Mobility 1		1	7		
Mobility 2		1	5		
Moving them 1		1	9		
Moving them 2		1	4		
Help 1		1	13		
Help 2		1	7		

Within the *task-oriented theme* the percent of respondents, as shown in figure 18 before viewing the Obesity Sensitivity Education PowerPoint, was 65% (34). After viewing the PowerPoint only about half, or 35% (18) responded in a “nursing duty” frame of mind.

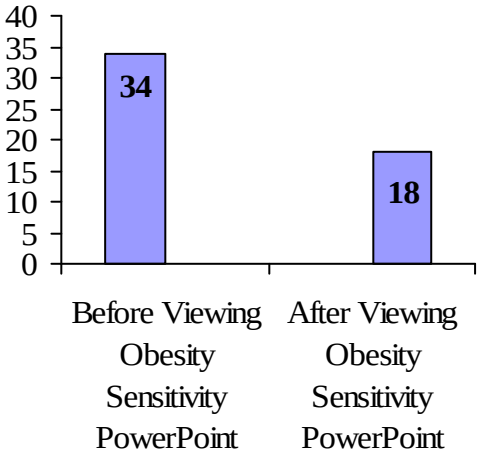


Figure 18: Task-oriented comparison.

Sense of Awareness Theme

Sense of awareness was defined as those who responded with words that emit a sense of understanding and knowledge of the multifaceted difficulties that an obese patient may incur. Identified words within this theme include: concern, empathy, feel, sensitivity, and need. These are displayed in Table 22 where concern was referenced 11 times before the education PowerPoint and 25 times after viewing the PowerPoint. Respondents used empathy in 5 responses the first time they answered the open-ended question and 4 times after the education. Feel was mentioned twice the first time the question was answered and once after the PowerPoint.

Sensitivity was not mentioned during the first data collection period, “When you first enter your patient’s room and realize your patient is obese,” but was referenced seven times after the education PowerPoint. Need was only mentioned once before the education and four times after.

Table 22

Sense of Awareness Nodes

Node	Name	Sources	References	Before Viewing PowerPoint	After Viewing PowerPoint
	Sense of Awareness			19	41
concern1		1	11		
concern2		1	25		
empathy1		1	5		
empathy2		1	4		
feel1		1	2		
feel2		1	1		
Sensitivity 1		1	0		
Sensitivity 2		1	7		
Need 1		1	1		
Need 2		1	4		

Quotes include: “How can I help this patient cope with their condition and co-morbidities?” “How can I make this person feel comfortable in their present environment?” “It might be hard to communicate and I need to pay attention to what I say in order not to hurt them,” and “I am going to have to make sure that my patient gets a little more attention” under the sense of awareness theme.

Figure 19 shows the respondents displayed a sense of awareness 32% (19) in their referenced answers and more than doubled it to 68% (41) after viewing the Obesity Sensitivity Education PowerPoint.

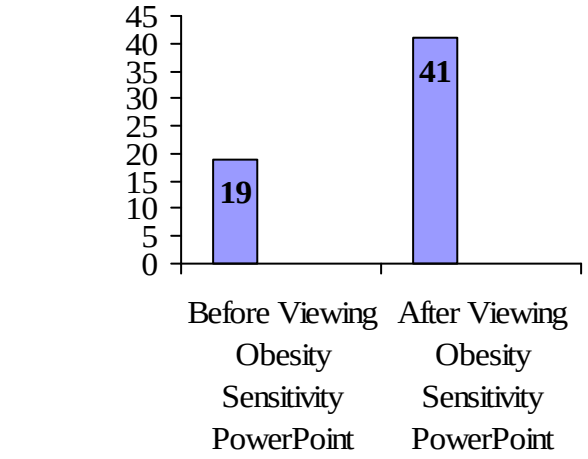


Figure 19. Sense of awareness comparison.

Client Assessment Mode Theme

The *client assessment mode theme* emerged from those who referenced patients' medical conditions, holistic care, and size of patients in their responses to the open-ended question. Thus, the definition of *client assessment mode* is the respondents whose first thoughts are concerned about the physiological state and needs of their patient.

Table 23

Client Assessment Mode Nodes

Node	Name	Sources	References	Before Viewing PowerPoint	After Viewing PowerPoint
	Client Assessment Mode			15	20
Medical condition1		1	14		
Medical condition 2		1	19		
Holistic 1		1	1		
Holistic 2		1	1		
Size 1		1	4		
Size 2		1	2		

Comments under the *client assessment mode* came from respondents who said they were concerned about "Many potential related health problems, even if not yet diagnosed." Others wanted to know: "What is their medical condition and the severity of

it?" "Is their medical condition directly related to their obesity?" "Does the patient have diabetes, heart disease?" Or, "Of the multitude of problems that might need to be addressed and the potential problems with mobility.

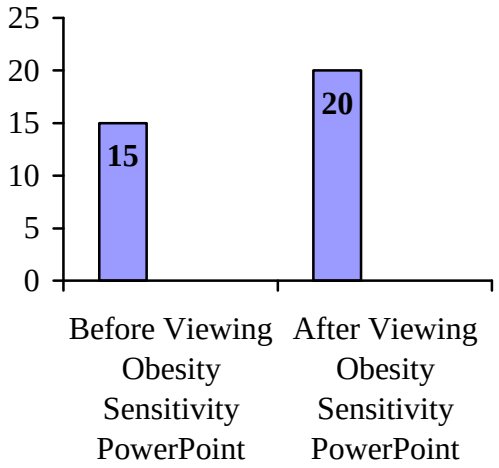


Figure 20. Client assessment mode comparison.

The *client assessment mode* theme was demonstrated by responses from 43% (15) of those answering the open-ended question before the education PowerPoint and 57% (20) of those answering the question after the PowerPoint as shown in Figure 15

Judgmental Theme

The fourth theme which emerged from this study was that of being *judgmental* or those that responded to the open-ended question: "When you first enter your patient's room and realize your patient is obese?" with answers of opinion and/or statements that are not fact based. These can be positive or negative judgmental statements. Referenced words under this theme include: hard, adequate care, nothing, same, and too bad. Table 24 shows the referenced statements of hard 10 times before viewing the Obesity Sensitivity Education PowerPoint and 8 times afterwards. Comments on adequate care emerged 4 times before the education and only 1 time after. Stating "nothing" was

referenced 7 times before viewing the PowerPoint and 3 times after. Treating the patient the same was mentioned 7 times before the PowerPoint and 14 times after the education. The reference to too bad was seen 5 times before the obesity PowerPoint and 3 times after the education. Comments under the judgmental theme include, “Too bad he let himself go,” “Ugh,” “How have they done this to themselves,” “They won't want to do what is expected for the day,” and “When is the last time this patient really had an adequate bath/shower?”

Table 24

Judgmental Nodes

Node	Name	Sources	References	Before Viewing PowerPoint	After Viewing PowerPoint
	Judgmental			33	29
Hard 1		1	10		
Hard 2		1	8		
Adequate care 1		1	4		
Adequate care 2		1	1		
Nothing 1		1	7		
Nothing 2		1	3		
Same 1		1	7		
Same 2		1	14		
Too bad 1		1	5		
Too bad 2		1	3		

Judgmental Theme

Figure 16 shows the respondents referenced comments. Before the Obesity Sensitivity Education PowerPoint was viewed, 53% (33) of answers were judgmental. After watching the PowerPoint this percentage dropped slightly to 47% (29).

Total overall change in themes is seen by the task-oriented theme change from 65% to 35 % after viewing the Obesity Sensitivity Education PowerPoint. The sense of awareness theme changed from 32% to 68%. The client assessment mode increased from 43% to 57%, while the judgmental theme decreased 53% to 47%.

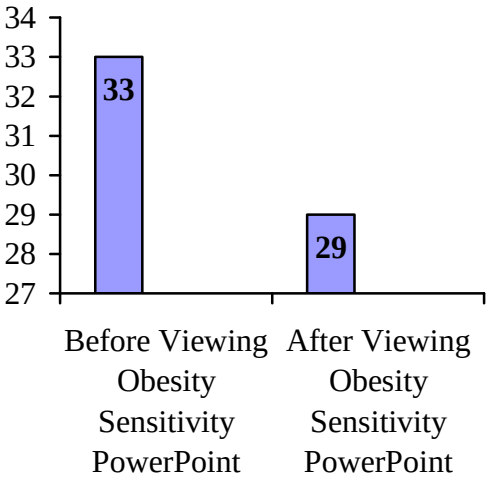


Figure 21. Judgmental comparison.

Summary

There were 101 individuals who participated in Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students. These respondents also answered the pre-Attitudes Toward Obese People questionnaire and pre-Beliefs About Obese People questionnaire. Of the 101 participants, there were 85 who completed the first post-Attitudes About Obese People questionnaire and first Beliefs About Obese People questionnaire after viewing the Obesity Sensitivity Education PowerPoint. From the 85, 37 participants completed the 30-day second post-Attitudes Toward Obese People questionnaire and second post-Beliefs About Obese People Questionnaire. The demographics were evenly distributed in “type of respondent” and “Have you ever been obese?” questions. Of the 101 participants, the respondents

were primarily Caucasian (92), female (100), had family or friends that were obese (87%), had not received obesity training (70%), and did not work in a designated obesity facility. The age group of 19-29 (group 1) and age group 50 and over (group 4) comprised 60% of the respondents. The age groups 30-39 (group 2) and age group 40-49 (group 3) comprised 40% of the respondents.

The type of respondent paired with pre-Beliefs About Obese People questionnaire scores and the question addressing having ever been obese paired with first post-Beliefs About Obese People questionnaire scores were significant. The combined group who answered to "working in a designated obesity facility" paired with scores from the first post-Beliefs About Obese People questionnaire showed significance. Significance was also determined in the paired T-Test scores for the pre-Beliefs About Obese People and the first post-Beliefs About Obese People.

Answers to the open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…" were compiled and analyzed through traditional analysis methods and NVivo8. The following themes emerged: Task-oriented, sense of awareness, client assessment mode, and judgmental. A comparison within these themes from the first-time respondents completed the open-ended question: "When you first enter your patient's room and realize your patient is obese you think…" and responses after viewing the Obesity Sensitivity Education PowerPoint showed a significant change in the references within the task-oriented theme from 65% to 35 % and in sense of awareness, jumping from 32% to 68%. A slight change was seen in client assessment mode climbing from 43% to 57% and being judgmental dropping slightly from 53% to 47%.

CHAPTER V: DISCUSSION AND SUMMARY

This chapter will discuss the purpose of this study, research design, interpretation of results, correlation to the literature, correlation to theoretical context, implications for education, and future research.

The purpose of this study was to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people. The design for this study was mixed method quasi-experimental. The target population was nurses, nursing students, and nursing instructors from seven area Midwest nursing schools. Nursing directors of participating nursing schools were provided an invitation flyer with a link to this study's website for email distribution to students and faculty (Appendix J). The website provided instructions for respondents (Appendix K). Step one included a link to SurveyMonkey.com where the respondent first viewed a voluntary consent to participate (Appendix G), answered nine demographic questions (Appendix A), answered the pre-Attitudes Toward Obese People questionnaire, answered the pre-Beliefs About Obese People questionnaire, and completed the open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…." The last page of the survey linked the participant back to this study's website where the second step instructed the participant to click on the link to view Obesity Sensitivity Education PowerPoint (Appendix L). After viewing the PowerPoint, the participant was then asked to take the first post-Attitudes About Obese People, first post-Beliefs About Obese People questionnaire, and answer the open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…" immediately or within three days. The final step on the study's website asked the participant to take the second post-Attitudes Toward Obese People, second post-Beliefs About Obese People

questionnaire, and answer the open-ended question: “When you first enter your patient’s room and realize your patient is obese, you think…” thirty days after viewing the Obesity Sensitivity PowerPoint.

The respondents were primarily Caucasian (92), female (100), had family or friends that were obese (87%), had not received obesity training (70%), and did not work in a designated obesity facility. The age groups of 19-29 and 50-and-older comprised 60% of respondents. The age groups 30-39 and 40-49 comprised 40% of the respondents. Statistical Package for the Social Sciences (SPSS) was used for analysis of scores from the Attitudes Toward Obese People and Beliefs About Obese People questionnaires. NVivo8 and traditional analysis methods were used for qualitative analysis of responses to the open-ended question: “When you first enter your patient’s room and realize your patient is obese you think….”

Research Questions and Interpretation

The research question of this study was: “Do nurses and nursing students score higher on Attitudes Toward Obese People (ATOP) and Beliefs About Obese People (BAOP) scales after an obesity sensitivity education PowerPoint than before the education PowerPoint?”

Nurses and nursing students’ attitudes toward obese people did not change after the education PowerPoint. Results from Statistical Package for the Social Sciences (SPSS) showed no change in the first or second post-Attitudes Toward Obese People questionnaire scores after viewing the Obesity Sensitivity Education PowerPoint. The higher the score would have shown a more positive attitude toward obese people. Nurses’ and nursing students’ beliefs about obese people did change after the education PowerPoint. Results from SPSS did show significance in pre-Beliefs About Obese People

questionnaire scores, or scores before viewing the obesity education PowerPoint, by graduate nursing students. The higher the participant scored the stronger the belief that obesity is not under the obese person's control. There was also significance found in scores by respondents who were not obese and first post-Beliefs About Obese People questionnaire scores after viewing an obesity sensitivity education PowerPoint than before the education PowerPoint. This may suggest that those who are not obese realized obesity is not under the obese person's control as they have previously thought. Respondents employed at a designated obesity facility and their first post-Beliefs About Obese People questionnaire scores may signify that those who have work experience with obese patients have a stronger belief that obesity is not under the obese person's control. Significance was determined with respondents' first scores after viewing the education PowerPoint and their pre-beliefs scores signifying a response to the Obesity Sensitivity Education.

Qualitative analysis using traditional analysis methods and NVivo8 were used to examine responses to the open-ended question: "When you first enter your patient's room and realize your patient is obese, you think…" Four themes emerged: Task-oriented was defined as: respondents who emit thoughts about how to perform nursing care to meet the needs and care of the patient; sense of awareness was defined as: respondents who answered with words that emit a sense of understanding and knowledge of the multifaceted difficulties that an obese patient may incur; client assessment mode was defined as: respondents whose first thoughts were concerned about the physiological state and needs of the patient; and judgmental was defined as: respondents whose answers were of opinion and/or statements that were not fact based. A comparison was done within each theme. The first time responses that completed the open-ended question,

"When you first enter your patient's room and realize your patient is obese you think…" were compared with the responses after viewing the Obesity Sensitivity Education PowerPoint. There was a significant reduction in phrases which were task-oriented in nature (65% to 35 %). A sense of awareness more than doubled from 32% to 68% after viewing the PowerPoint. Client assessment mode increased slightly as seen in respondents' answers climbing from 43% to 57% and judgmental remarks decreased slightly from 47% to 53%. Support between the quantitative and qualitative data is evident when analyzing the significant data results from Beliefs About Obese People questionnaires and the emerged themes. The changes which occurred after viewing the Obesity Sensitivity Education PowerPoint from the open-ended question showed a dramatic increase by participants in sense of awareness and responding less judgmentally, just as changes identified respondents' beliefs about obesity not being under the obese person's control.

Attitudes may not have changed but beliefs by respondents that *obesity is not under the obese person's control* had been altered.

Further Questions

Further questions investigated were whether there was a difference in attitudes and beliefs about obese people among nurses, nursing instructors, undergraduate nurses, or student nurses?

This study did not identify any significant difference in the type of respondents and their attitudes toward obese people. From the data there was no change in attitudes regardless of being a registered nurse, nursing instructor, or graduate nurse in relation to scores from the Attitudes Toward Obese People questionnaires before viewing the Obesity Sensitivity Education PowerPoint and the two times responding to the

questionnaire after. There was, however, an identified, significant difference in beliefs about obese people by graduate nursing students before viewing the Obesity Sensitivity Education PowerPoint in comparison to after viewing the PowerPoint.

Further questions investigated whether there was a difference in attitudes and beliefs about obese people based on age. There was no significant change in the Attitudes Toward Obese People and Beliefs About Obese People questionnaires. Analysis did not identify any significant difference in attitudes or beliefs about obese people and the age groups of 19-29, 30-39, 40-49, and 50-and-over. No scores were impacted by the respondent being younger or older.

Further questions investigated whether there was a difference in attitudes and beliefs about obese people based on ethnicity. This question could not be answered due to the lack of diversity among respondents. Unfortunately, from the 101 respondents only 4 were Hispanic, 1 African-American, and 1 Asian. The vast majority were Caucasian.

Further questions investigated whether there was a difference in attitudes and beliefs about obese people based on being obese or prior being obese.

The analyzed data showed no significant change in attitudes toward obese people by respondents who, in their opinion, are or were obese and scores on the Attitudes Toward Obese People questionnaire scores and viewing the Obesity Sensitivity Education PowerPoint. In the analyzed data there was identified significance in those respondents who, in their opinion, did not consider themselves to be or have been obese and scores from the first post-Beliefs About Obese People questionnaire. This may indicate that a change occurred by respondents who have not experienced being obese. By viewing the Obesity Sensitivity Education PowerPoint non-obese participants may have gained a better understanding about obese people that they did not have before

viewing the PowerPoint.

Further questions investigated whether there was a difference in attitudes and beliefs by respondents who have a close friend or family member who is obese. The analyzed data did not produce any significant difference in attitude and belief scores with having a close friend or family member who is obese.

Further questions investigated whether there was a difference in attitudes and beliefs about obese people based on having prior obesity sensitivity training. According to the analyzed data, there was no significance in those who had taken obesity sensitivity training in the past and viewing the Obesity Sensitivity Education PowerPoint.

Further questions investigated whether there is a difference in attitudes and beliefs about obese people based on working in a designated obesity facility? There was no significant change in attitudes toward obese people by respondents who work in a designated obesity facility based on analysis of scores from this study. However, through analysis of the data, there was a significant difference found between those who work in a designated facility and scores from taking the Beliefs About Obese People questionnaire after viewing the Obesity Sensitivity Education PowerPoint. This may indicate education of staff brings change in beliefs about their obese patients.

Hypotheses

Based on the analyzed data from this study's research questions, hypotheses on attitudes toward obese people and beliefs about obese people are as follows:

1. A. There will be a difference in attitudes about obese people among nurses, nursing instructors, undergraduate nurses, and graduate student nurses after viewing an obesity sensitivity education PowerPoint than before the education PowerPoint.

The hypothesis was rejected and the null hypothesis accepted. There was no statistical difference in scores from any Attitudes Toward Obese People questionnaire scores and nurses, nursing instructors, undergraduate nursing students, and graduate nursing students. (Pre-Attitudes Toward Obese People, F=.760, df=4, p=.554; First post-Attitudes Toward Obese People, F=1.097, df=4, p=.364; Second post-Attitudes Toward Obese People, F=.753, df=4, p=.563).

1. B. There will be a difference in beliefs about obese people among nurses, nursing instructors, undergraduate nurses, and graduate student nurses after viewing an obesity sensitivity education PowerPoint than before the education PowerPoint.

The hypothesis was accepted and the null hypothesis rejected. There was a statistical difference in scores from the Beliefs About Obese People questionnaire scores and graduate nursing students. Significance was found in scores from the pre-Beliefs About Obese People questionnaire (F=3.437, df=4, p=.011).

2. A. Older registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students will score more negatively on Attitudes Toward Obese People questionnaires than younger participants.

The hypothesis was rejected and the null hypothesis accepted. There was no difference found among or between age groups 19-29, 30-39, 40-49, and 50-and-over and scores from the Attitudes Toward Obese People questionnaire scores (Pre-Attitudes Toward Obese People, F=.1.046, df=3, p=.376; First post-Attitudes Toward Obese People, F=1.427, df=3, p=.241; Second post-Attitudes Toward Obese People, F=.400, df=3, p=.754).

2. B. Older registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students will score more negatively on Beliefs About Obese People questionnaires than younger participants.

The hypothesis was rejected and the null hypothesis accepted. There was no difference found among or between age groups. 19-29, 30-39, 40-49, and 50-and-over and scores from the Beliefs About Obese People questionnaire scores (Pre-Beliefs About Obese People, F=.837, df=3, p=.476; First post- Beliefs About Obese People, F=1.117, df=3, p=.347; Second post- Beliefs About Obese People, F=1.036, df=3, p=.390).

3. A. There is no difference in attitudes about obese people based on registered nurses', nursing instructors', undergraduate nursing students', and graduate nursing students' ethnicity. Attitudes about obese people based on the respondents' ethnicity could not be determined due to the lack of participation. Of the 101 respondents, 95 were Caucasian, 4 Hispanic, 1 African-American, and 1 Asian.

3. B. There is no difference in beliefs about obese people based on registered nurses', nursing instructors', undergraduate nursing students', and graduate nursing students' ethnicity.

Beliefs about obese people could not be determined due to the lack of participation. Of the 101 respondents, 95 were Caucasian, 4 Hispanic, 1 African-American, and 1 Asian.

4. A. Registered nurses, nursing instructors, undergraduate nursing students, graduate nursing students who are obese or have been obese have more positive beliefs about obese people than those who have never been obese.

The hypothesis was rejected and the null hypothesis accepted. There was no difference found in respondents who are or have been obese and scores from the Beliefs About Obese People questionnaire scores (Pre-Beliefs About Obese People, F=1.841, df=1, p=.178; First post- Beliefs About Obese People, F=.013, df=1, p=.911; Second post- Beliefs About Obese People, F=.050, df=1, p=.825).

4. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who are obese or have been obese have more positive belief about obese people than those who have never been obese.

The hypothesis was accepted and the null hypothesis rejected. There was a significant difference found in respondents who have never been obese and scores from the first post-Beliefs About Obese People questionnaire scores (F=4.039, df=1, p=.048).

5. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with obese close friends or family, will have more positive attitudes toward obesity than those without obese close friends and family.

The hypothesis was rejected and the null accepted. There was no difference in attitudes based on respondents' relationships with obese friends or family found and scores from the Attitudes Toward Obese People questionnaire scores (Pre-Attitudes Toward Obese People, F=.000, df=1, p=.992; First post-Attitudes Toward Obese People, F=.306, df=1, p=.582; Second post-Attitudes Toward Obese People, F=.353, df=1, p=.556).

5. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with obese close friends or family, will have more positive beliefs about obesity than those without obese close friends and family.

The hypothesis was rejected and the null accepted. There was no difference in beliefs based on respondents' relationships with obese friends or family found and scores from the Beliefs About Obese People questionnaire scores (Pre-Beliefs About Obese People Obese People, F=2.157, df=1, p=.145; First post-Beliefs About Obese People, F=.663, df=1, p=.418; Second post-Beliefs About Obese People, F=.260, df=1, p=.614).

6. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with prior obesity sensitivity training will have more positive attitudes toward obesity than those without obesity sensitivity training.

The hypothesis was rejected and the null hypothesis accepted. There was no difference in attitudes based on respondents having or not having had prior obesity sensitivity training and scores from the Attitudes Toward Obese People questionnaire scores (Pre-Attitudes Toward Obese People, F=.344, df=1, p=.559; Attitudes Toward Obese People, F=.066, df=1, p=.797; Second post-Attitudes Toward Obese People, F=.744, df=1, p=.394).

6. B. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students with prior obesity sensitivity training will have more positive beliefs toward obesity than those without obesity sensitivity training.

The hypothesis was rejected and the null hypothesis accepted.

7. A. Registered nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who work in designated obesity facilities will have more positive attitudes about obese people than those who do not work in designated obesity facilities.

The hypothesis was rejected and the null hypothesis accepted. There was no difference in attitudes based on respondents working or not working in a designated obesity sensitivity facility and scores from the Attitudes Toward Obese People questionnaire scores (Pre-Attitudes Toward Obese People, F=1.395, df=2, p=.253; Attitudes Toward Obese People, F=.458, df=2, p=.634; Second post-Attitudes Toward Obese People, F=.011, df=1, p=.916).

7. B. Registered Nurses, nursing instructors, undergraduate nursing students, and graduate nursing students who work in designated obesity facilities will have more positive beliefs about obese people than those who do not work in designated obesity facilities.

The hypothesis was accepted and the null hypothesis rejected. There was a significant difference in beliefs based on respondents who work in an obesity sensitivity facility and scores from the Beliefs About Obese People questionnaire scores (first post-Beliefs About Obese People Obese People-F=3.762, df=1, p=.027).

Correlation to the Literature

The Obesity Sensitivity Education PowerPoint (Appendix L) was well received by several respondents who replied by email with positive comments. Participants had found it very informative and had not thought or realized the complexity of obesity and

the widespread discrimination. This agreed with the literature which identified how obesity is multifaceted. Obesity is not simply the result of overeating but rather "a result of a complex variety of social, behavioral, cultural, environmental, physiological, and genetic factors" (Healthy People 2010, 2009). It is not only a behavioral condition as stated by the Endocrine Society (Obesity by the Numbers, 2008).

Literature had also shown that educators and healthcare workers discriminated against obese people. Views of overweight included assumptions of laziness, less conscientiousness, incompetence, sloppiness, disagreeability, lack of self-discipline, and emotional instability (Puhl & Brownell, 2001). This was noted in this study by comments made to the open-ended question: "When you first enter your patient's room and realize your patient is obese you think…" One respondent finished the sentence by saying "ugh." Another said, "How have they done this to themselves?" And another respondent wrote: "I wonder what has led them to this point." These could be included in the range of negative beliefs and attitudes toward obesity and obese patients which were documented in a study by Brown, Stride, Psarou, Brewins, and Thompson (2007) who discovered obese patients were evaluated more negatively than normal weight patients.

Reto (2003), who used a 1989 questionnaire, revealed that obese patients were evaluated more negatively than normal patients. She further added that Registered Nurse (RN) graduate students who cared for obese patients were found to be repulsed by obese patients and students preferred not to touch obese patients. Results from this study showed significance on scores from graduate nursing students and the pre-Beliefs About Obese People and as shown in Table 8 but not after viewing the Obesity Sensitivity education PowerPoint. There also was no change in attitudes toward obese people by the graduate students. Another result of the Reto questionnaire was that older nurses had less

favorable attitudes toward obese patients than younger nurses. Results from this study were inconclusive in determining if age was a factor. This study could also not corroborate with the research by Teachman, Gregg, and Woody (2001) who found bias to be lower in healthcare workers than in the general public.

In a study by Brown and Thompson (2007), it was determined even though many nurses were sensitive to obese clients, some slim nurses believed they might come off as insensitive and some obese nurses felt that they were poor role models. The scores from Tables 11 and 12 show significance in scores by respondents who believe they are not obese with the first post-Beliefs About Obese People questionnaire.

Brown, Stride, Psarou, Brewins, and Thompson (2007) stated that considerable development and training were needed to create programs to address beliefs and attitudes about obesity. They further added that very few healthcare workers reported having any training in obesity management. This was evident by 70% of respondents who did not have any obesity training. Hoppe and Ogden (1997) agreed that nurses could play a key role in educating people about weight loss if their knowledge and skills were not lacking.

Zuzelo and Seminara (2006) found that when nurses were aware of their biases they generally worked hard to bracket them. Although the attitudes toward obese people were not changed according to the data, beliefs about obese people had improved after viewing the obesity education PowerPoint as shown in the paired T-Test (Table 21). Although most data were inconclusive, there was a sense of awareness about obesity by the respondents as determined by the participants' remarks to the open-ended question: "When you first enter your patient's room and realize your patient is obese you think…" One respondent finished the sentence by saying, "I think we need to be caring and not see the person as obese, the client needs our help with whatever reason they are in the

hospital." Another stated, "They are human and have feelings just as anyone else does."

Correlation to the Theoretical Context

According to Knowles, Holton, and Swanson, 2005, cognitivism is a primary building block for educating the adult learner. Cognitive theorists "stress the importance of psychological climate of orderliness, clearly defined goals, careful explanation of expectations and opportunities, openness of the system to inspection and questioning, and hones an objective feedback" (p. 120). Respondents were provided a self-directed webpage (Appendix K) with clearly defined instructions and links to the attitudes and beliefs questionnaires and open-ended question. Several respondents emailed positive comments about the Obesity Sensitivity Education PowerPoint. In Adult Learning Theory, Knowles, Holton, and Swanson (2005) defined learning as "the process of gaining knowledge and/or expertise" (p. 17). Although most scores were not indicative to a more positive attitude toward obese people or belief about obese people, there was knowledge gained by the 101 respondents who actively participated in this study. According to Knowles, learning adults want to know why, want to have responsibility for their own decisions, and want to have the information be life-centered. Respondents chose to voluntarily participate, watch the Obesity Sensitivity Education PowerPoint, and then retake the attitudes and beliefs questionnaire, not once but for 37, twice. This demonstrated an internal motivator rather than external motivator. The respondents were autonomous and self-directed in their online participation.

Learning about obesity, and attaining a sense of awareness about obesity, was relevant in participants' jobs and personal life. "In phenomenology, the researcher transcends or suspends past knowledge and experience to understand a phenomenon at a deeper level (Merleau-Ponty, 1956, as cited in Creswell, 2007). The learners placed value

on the information and were motivated as demonstrated by their voluntary participation, completion, and submission of the online questionnaire.

Limitations of Study

This study was limited to Midwest area nursing schools. There were only 4 Hispanic participants, 1 African American and 1 Asian. This limited the study in looking at how ethnicity may affect attitudes, beliefs, and influences about obesity. Individuals who were not nurses or nursing students were not represented as demonstrated by three participants who marked “other” in type of respondent. The nursing directors sent out the letter of invitation (Appendix F) at their discretion which limited communication to participants. The study also limited respondents who had access to a computer and email. There was confusion by a few respondents who did not realize the post-questionnaires were the same as the pre-questionnaires. The limited participation (37) responding to the second post-questionnaires may be due in part to the time in the academic calendar when participants were asked to complete the questionnaires a second time (thirty days after viewing the Obesity Sensitivity Education PowerPoint).

Implications/recommendations for Education

The first step in changing nurses’ care and perception of obese people is bringing awareness to attitudes and beliefs through education. Further obesity education and training is necessary for nurses and nursing students as supported by evidence in the literature and lack of significant change in attitudes toward obese people and beliefs about obese people scores from this study. The only 30 participants had prior training related to obesity. This signifies that not only is there a deficit in the healthcare setting but also in nursing schools. In order for learning to take place, there must be information provided. Hoppe and Ogden (1997) agreed that nurses could play a key role in educating

people about weight loss if their knowledge and skills were not lacking. The majority of nurses gave advice more than once per week but only spent 10 minutes or less discussing weight loss with patients.

Future Research

Further research needs to be done in the area of obesity. There need to be more studies on the effects of education in relation to obesity. There is supporting evidence that educators and healthcare workers discriminate against obese people and are lacking in the area of education and training with the obese. This study showed significance in areas of respondents with prior obesity sensitivity training and those who work in a designated obesity facility after viewing the Obesity Sensitivity Education PowerPoint. This may demonstrate the need to further address obesity education in the classroom setting. Should obesity sensitivity education be included in nursing schools? Would this type of education improve patient care or mutual respect for one another? Would an annual obesity sensitivity training be more effective than a one-time course? Reinforcement is known to help learning but would it be enough to bring change toward or about obese people?

This study was done at the beginning of the academic calendar. This study could be replicated to identify if certain times of the school year would yield more participation. Also this study was web-based in delivery. What, if any changes, would occur in scores of respondents if given the education and questionnaires were supplied in a traditional setting?

Expanding this study to larger groups of nurses, nursing students, and nursing instructors outside the Midwestern nursing schools may provide further data for determination of the effectiveness of obesity sensitivity education.

Many healthcare facilities are lacking in being able to provide adequate care for the obese patients including educating staff and patients. Does this impact obese people from seeking care and advice? Have obese patients noticed a difference in care within a healthcare setting and a designated obesity facility?

Unfortunately, this study was unable to determine the need for obesity education in changing attitudes and beliefs about obese people. There was limited research in the attitudes and beliefs about obesity in other races as well as the impact of obesity sensitivity education. This may possibly be another area which needs further study. Are certain ethnicities more susceptible to obesity and what are their attitudes and beliefs about obese people?

Summary

This study set out to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people. The 101 participants were primarily Caucasian, female, had family or friends that were obese, had not received obesity training, and did not work in a designated obesity facility. Slightly over half were in the age ranges of 19-29 and 50-and-over.

Through statistical analysis it became evident that obesity education was not effective in emitting a change in attitudes among nurses and nursing students toward obese people. It did become apparent that there were some changes in beliefs about obese people by the nurses and nursing students who participated. These changes were significant for respondents who had prior obesity training, worked in a designated hospital, or nurses and nursing students who were not obese.

What was even more evident was the change in the completed open-ended questions by the respondents after viewing the Obesity Sensitivity Education PowerPoint.

Through qualitative analysis four themes emerged from the nurses and nursing students. These were task-oriented, sense of awareness, client assessment mode, and judgmental. There was a significant reduction in phrases by respondents which were task-oriented in nature as a sense of awareness more than doubled after viewing the PowerPoint. There was a slight increase seen in client assessment mode as judgmental remarks dropped slightly. This qualitative information further supports the quantified changes in beliefs that obesity sensitive education may have emitted.

This study suggests that attitudes of nurses and nursing students may not have changed but beliefs about obesity had.

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Zuzelo, P., & Seminara, P. (2006). Influence of registered nurses' attitudes toward bariatric patients on educational programming effectiveness. *The Journal of Continuing Education in Nursing, 37*(2).

Appendix A

Demographic Questionnaire

Please take a moment and fill out the following information:

1. Are you currently an/a: (Check all that apply)

   RN_____?

   Nursing Instructor_____?

   Undergraduate Nursing Student _____?

   Graduate Nursing Student _____?

   Other_____?

3. What is your age?_____

4. What is your race?_____

5. Are you male_____ or female_____?

6. In your opinion, are you currently, or have you ever been, obese? Y___ N___

7. In your opinion, do you have a close friend or family member who is obese? Y___ N___

8. Have you ever taken or participated in obesity sensitivity training? Y___ N___

9. Do you work in a designated obesity facility? Y___ N___

Thank you

Appendix B

Attitudes Toward Obese Persons (ATOP)

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. _____ 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 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 to become obese.

Allison, D B., Basile, V. C., & Yuker, H. E. (1991). The Measurement of Attitudes Toward and Beliefs About Obese Persons. *International Journal of Eating Disorders, 10*, 599-607.

Appendix C

Beliefs About Obese Persons (BAOP)

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. _____ Obesity often occurs when eating is used as a form of compensation for lack of love or attention.
2. _____ In many cases, obesity is the result of a biological disorder.
3. _____ Obesity is usually caused by overeating.
4. _____ Most obese people cause their problem by not getting enough exercise.
5. _____ Most obese people eat more than non-obese people.
6. _____ The majority of obese people have poor eating habits that lead to their obesity.
7. _____ Obesity is rarely caused by a lack of willpower.
8. _____ People can be addicted to food, just as others are addicted to drugs, and these people usually become obese.

Allison, D. B., Basile, V. C., & Yuker, H. E. (1991). The Measurement of Attitudes Toward and Beliefs About Obese Persons. *International Journal of Eating Disorders, 10*, 599-607.

Appendix D

Scoring Instructions for ATOP and BAOP

Scoring instructions for ATOP

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 is the ATOP score. Higher numbers indicate more positive attitudes.

Scoring instructions for BAOP

Step 1: Multiply the response to the following items by -1 (i.e., reverse the direction of scoring): Item1, Item 3 through item 6, Item 8

Step 2: Sum the responses to all items.

Step 3: Add 24 to the value obtained in Step 2. This value is the BAOP score. Higher numbers indicate a stronger belief that obesity is not under the obese person's control.

From Allison, D B.(1995). *Handbook of assessment methods for eating behaviors and weight-related problems. Measures, theory, and research*. Sage Publications: Thousand Oaks, CA.

Appendix E

The Open-ended Question:

"When you first enter your patient's room and realize your patient is obese, you think…"

Appendix F

Letter of Invitation

Dear Nurse, Nursing Student, and Nursing Faculty:

I am a doctoral student at College of Saint Mary. You have the opportunity to participate in a study looking at obesity sensitivity. The results of the research should be of great interest to you, your colleagues, and rising young professionals. I am conducting research on the Effectiveness of Obesity Sensitivity Education on Changing the Attitudes and Beliefs of Nurses and Nursing Students.

I want to identify and examine current attitudes and beliefs about obese people, and examine the effectiveness of obesity education toward change. The population I am studying is nursing students and nurses. Your participation in this research is voluntary and confidential. Your anonymity is assured. An online consent form is uploaded at SurveyMonkey.com for your review. If you choose to continue, this will be your agreement to participate, although you may exit at anytime. Respondents will be asked to participate in an online questionnaire and education PowerPoint through SurveyMonkey.com.

The responses are limited to this research, as authorized and monitored by College of Saint Mary. All responses will be tallied through SurveyMonkey.com. The results of the research may be presented at conferences or published as a journal article; confidentiality and anonymity of participants will be maintained through the use of SurveyMonkey.com.

You have the right to express concerns to me (402-250-9721) or the Institutional Review Board (IRB) at College of Saint Mary, 7000 Mercy Rd Omaha, NE 68106 (402-399-2400).

I greatly appreciate your participation in this research. The questionnaire will take about 7 minutes. The education PowerPoint will take about 25 minutes.

Thank you for your consideration and participation.

Sincerely,

Linda Marcum
Doctoral Candidate
College of Saint Mary

Appendix G

Consent to Participate in Research

IRB#: CSM#08-90

Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students

You are invited to take part in this study because you are a nurse and/or nursing student at a Midwest nursing college or university. The purpose of this study is to determine whether obesity sensitivity education is an effective intervention in changing attitudes and beliefs about obese people. As part of a Doctorate in Education degree, the research study describing the Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students is being investigated. The information obtained from this study can be shared with you. However, you may not get any benefit from being in this research study. The information obtained from this study is intended to provide a better understanding of obesity and related attitudes and beliefs of nurses and nursing students.

Should you decide to participate you are being asked to complete the following online questionnaire which should take approximately 10 minutes to complete and view an online obesity education PowerPoint which should take approximately 25 minutes to complete. You will be asked to complete a post-test after 3 days and a second post-test after 30 days of completing the PowerPoint. Your participation is strictly voluntary. Furthermore, your response or decision not to respond will not affect your relationship with College of Saint Mary or any other entity. Please note that your responses will be used for research purposes only and will be strictly confidential. No one at College of Saint Mary will ever associate your individual responses with your name. The information from this study may be published in journals and presented at professional meetings.

Your completion and submission of the questionnaire indicates your consent to participate in the study. You may withdraw at any time by exiting the questionnaires. This study does not cost the participant in any way, except the time spent completing the questionnaire. There is no compensation or known risk associated with participation.

Please read the Rights of Research Participants below. If you have questions about your rights as a research participant, you may contact College of Saint Mary Institutional Review Board, 7000 Mercy Road, Omaha, NE 68144 (402) 399-2400.

Thank you sincerely for participating in this important research study. If you have comments or questions about the questionnaire, please contact me, Linda Marcum, RN, MSN at (402) 896-9726/ marcuml@aol, or my advisor Dr. Peggy Hawkins, PhD, RN at College of Saint Mary (402) 399-2400.

If you are 19 years of age or older and agree to the above please proceed to SurveyMonkey.com_____

Sincerely,

Linda Marcum, MSN, CNOR

Appendix H

May 12, 2009

College of Saint Mary
7000 Mercy Road
Omaha, NE 68106

Dear Ms. Marcum:

The Institutional Review Board at College of Saint Mary has reviewed the revisions of your IRB application and Consent Form for your study *Effectiveness of Obesity Sensitivity Education on Changing the Attitudes and Beliefs of Nurses and Nursing Students*. It was also noted that a copy of your email invitation was included, as requested. The IRB has granted full approval of your study.

Since you are using an online consent form, the date stamp does not have to appear on that document. You will be ready to use the online consent form with *The Rights of Research Participants* included as submitted. I have attached a date stamped copy for your records and I will file a date stamped copy for IRB files.

The IRB number assigned to your study is IRB # CSM 08-90 and the expiration date is May 12, 2010.

If you have questions, please feel free to contact me.

Sincerely,

Dr. Melanie K. Felton

Melanie K. Felton, Ph.D.
Associate Professor
Chair, Institutional Review Board
WK: (402) 399-2625
mfelton@csm.edu

Appendix H

The Rights of Research Participants*

As a Research Participant associated with College of Saint Mary, you have the right:

1. To be told everything you need to know about the research before you are asked to decide whether or not to take part in the research study. The research will be explained to you in a way that assures you understand enough to decide whether or not to take part.

2. To decide not to be in the research or to stop participating in the research at any time. This will not affect your relationship with the investigator or College of Saint Mary.

3. To ask questions about the research at any time. The investigator will answer your questions honestly and completely.

4. To know that your safety and welfare will always come first. The investigator will display the highest possible degree of skill and care throughout this research. Any risks or discomforts will be minimized as much as possible.

5. To privacy and confidentiality. The investigator will treat information about you carefully and will respect your privacy.

6. To keep all the legal rights that you have now. You are not giving up any of your legal rights by taking part in this research study.

7. To be treated with dignity and respect at all times.

The Institutional Review Board is responsible for assuring that your rights and welfare are protected. If you have any questions about your rights, contact the Institutional Review Board chair at (402) 399-2400.

*adapted from the University of Nebraska Medical Center IRB, with permission.

Appendix I

University of Nebraska Medical Center

NEBRASKA'S HEALTH SCIENCE CENTER

Institutional Review Board (IRB)
Office of Regulatory Affairs (ORA)

July 1, 2009

Linda Marcum, RN
14954 Orchard Plaza
Omaha NE 68137

IRB#: 277-09-EX

TITLE OF PROTOCOL: Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students

Dear Ms. Marcum:

The IRB has reviewed your IRB Application for *1) Exempt Educational, Behavioral, and Social Science Research* on the above-titled research project. According to the information provided, this project is exempt under 45 CFR 46:101b, category 2. You are therefore authorized to begin the research.

It is understood this project will be conducted in full accordance with all applicable sections of the IRB Guidelines. It is also understood that the IRB will be immediately notified of any proposed changes that may affect the exempt status of your research project.

Please be advised that the IRB has a maximum protocol **approval period of 5 years** from the original date of approval and release. If this study continues beyond the five year approval period, the project must be resubmitted in order to maintain an active approval status.

Sincerely,

Ernest Prentice, PhD / GDK

Ernest D. Prentice, Ph.D.
Executive Chair, IRB

EDP/gdk

Academic and Research Services Building 3000 / 987830 Nebraska Medical Center / Omaha, NE 68198-7830
402-559-6463 / FAX: 402-559-3300 / Email: irbora@unmc.edu / http://www.unmc.edu/irb

Appendix J

Invitation Flyer & Email

IRB# CSM 08-90

Effectiveness of Obesity Sensitivity Education on Changing Attitudes and Beliefs of Nurses and Nursing Students

Dear Nurse, Nursing Faculty, or Nursing Student:

You are invited to participate in a research study to determine whether obesity sensitivity education is an effective intervention in changing nurses' attitudes and beliefs about obese people. You are being asked to be in this study because you are a nurse or nursing student. As a Doctoral Candidate in Education at the College of Saint Mary, this information will be used as the basis of my dissertation. I believe it is important to examine the attitudes and beliefs of nurses and nursing students toward obese people and identify whether obesity education is effective.

I would appreciate your cooperation by going online to http://lindamarcum.webs.com/ where there will be a link to SurveyMonkey.com. I am asking that you complete numbers 1-4 no later than **August 14, 2009**. I will send out a reminder for number 5.☺

1. Complete a brief demographic section (1 minute)
2. Take an attitude and belief questionnaire (5-7 minutes)
3. Watch the PowerPoint on obesity education (30 minutes)
4. Immediately after, or within 3 days, retake the demographic, attitude, and belief questionnaire (6-8 minutes)
5. In one month, retake the demographic, attitude and belief questionnaire. (6-8 minutes)

The questions concern your honest feelings about obese people. All responses will be coded and your name will in no way be mentioned. The data will be used for purposes

of this research investigation. Nonparticipation in this study will in no way affect the status as a nurse or a nursing student.

If you have any questions during the study, do not hesitate to contact me at (402) 896-9726 or at marcuml@aol.com or you can call my advisor, Dr. Peggy Hawkins, at College of Saint Mary telephone (402) 399-2400.

Thank you for giving this matter your attention.

Sincerely,

Linda Marcum RN, MSN, CNOR
Principal Investigator

Appendix K

Web Page: http://lindamarcum.webs.com/

Obesity Sensitivity Education

Administered By: Linda Marcum RN, MSN, CNOR

Questionnaire Monkey Questionnaire: Part 1
This questionnaire is to be completed prior to viewing the PowerPoint below. Click Here to Complete >>>

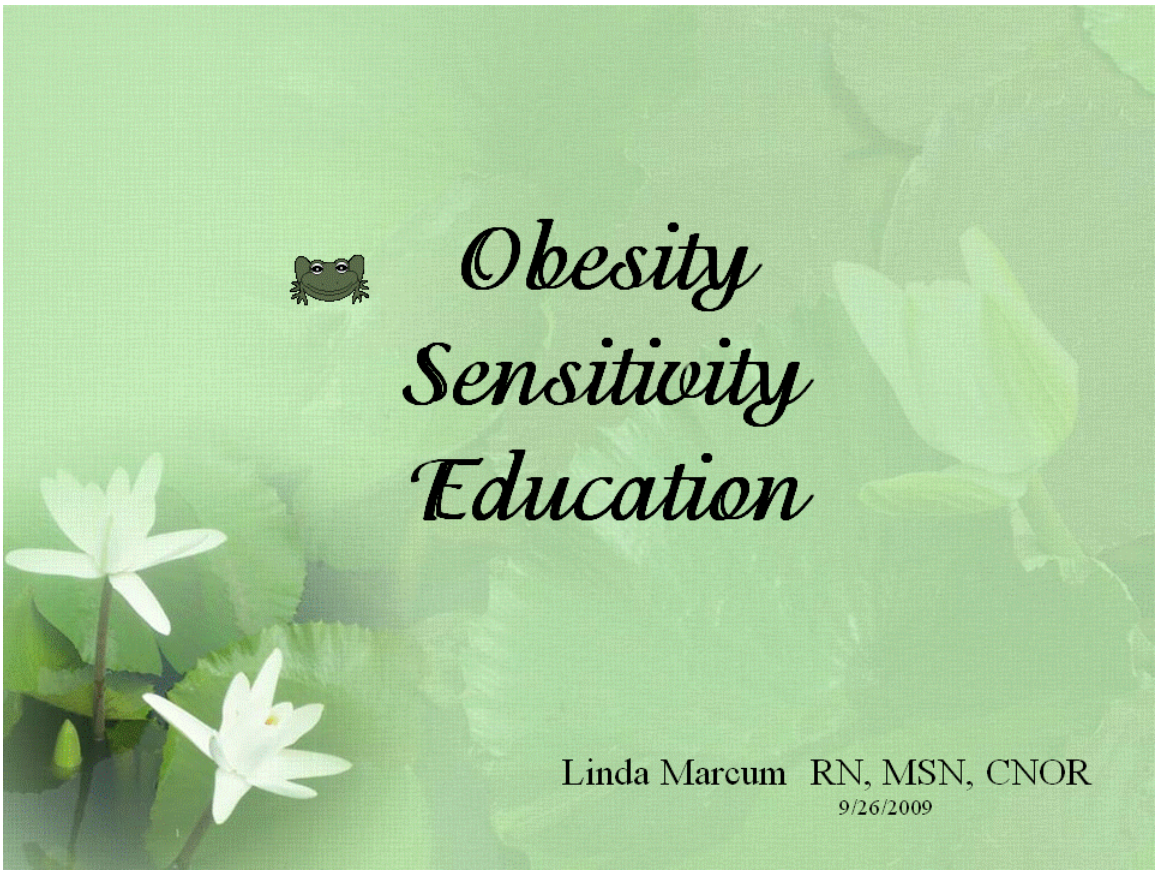
PowerPoint Presentation:
This presentation is to be viewed after completing Questionnaire Monkey Questionnaire Part 1 Click Here to View>>>

Questionnaire Monkey Questionnaire: Part 2
This questionnaire is to be completed **immediately or up to 3 days** after viewing the PowerPoint and included video link. Click Here to Complete >>>

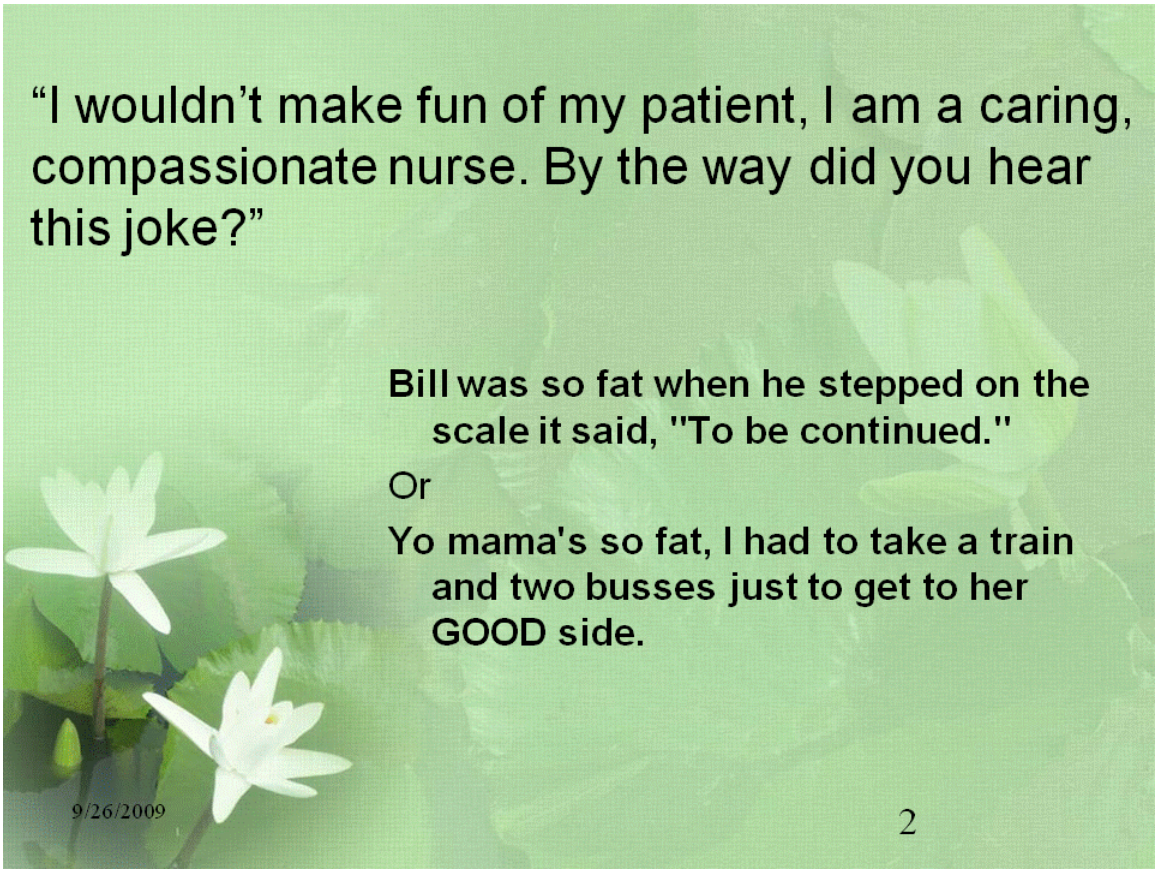
Questionnaire Monkey Questionnaire: Part 3
This questionnaire is to be completed **30 days** after viewing the PowerPoint and included video link. Click Here to Complete >>>

Questions/Comments: Contact Linda Marcum

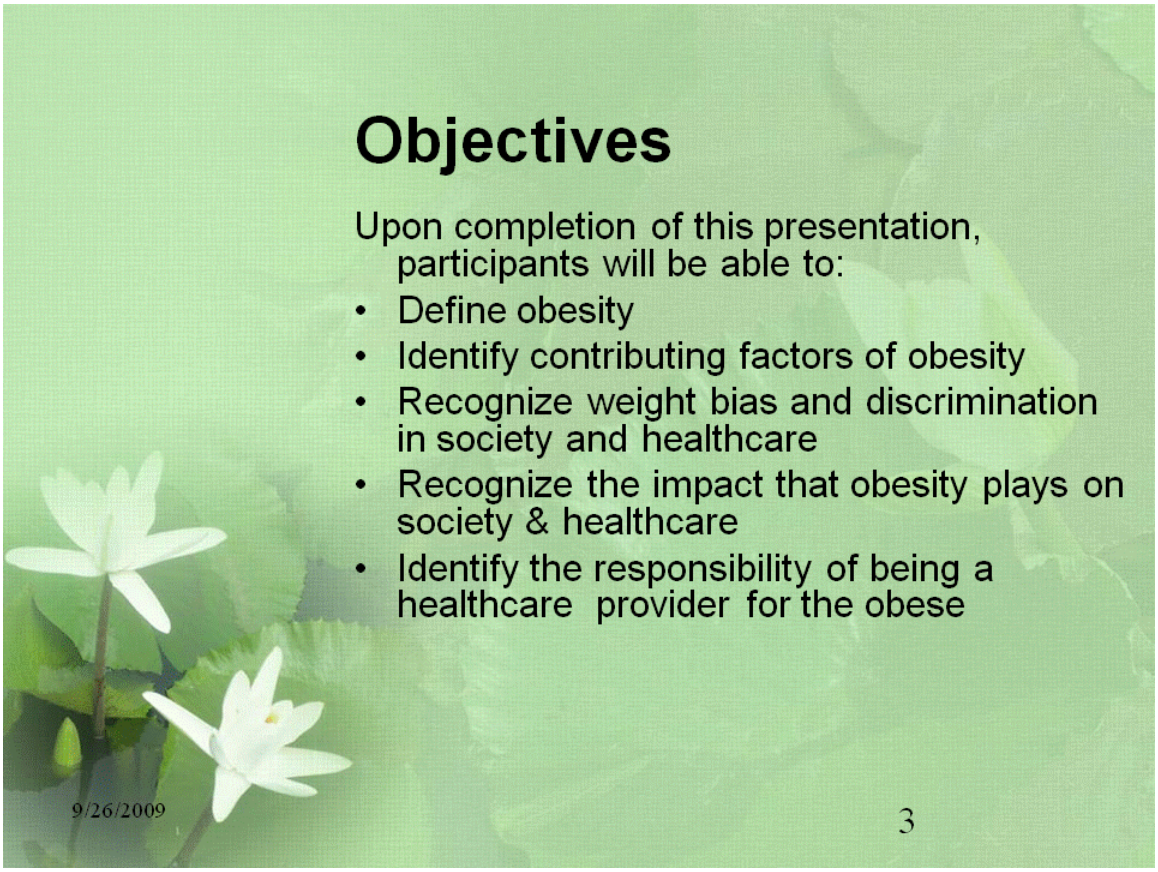
Appendix L


Obesity
Sensitivity
Education
Linda Marcum RN, MSN, CNOR
9/26/2009

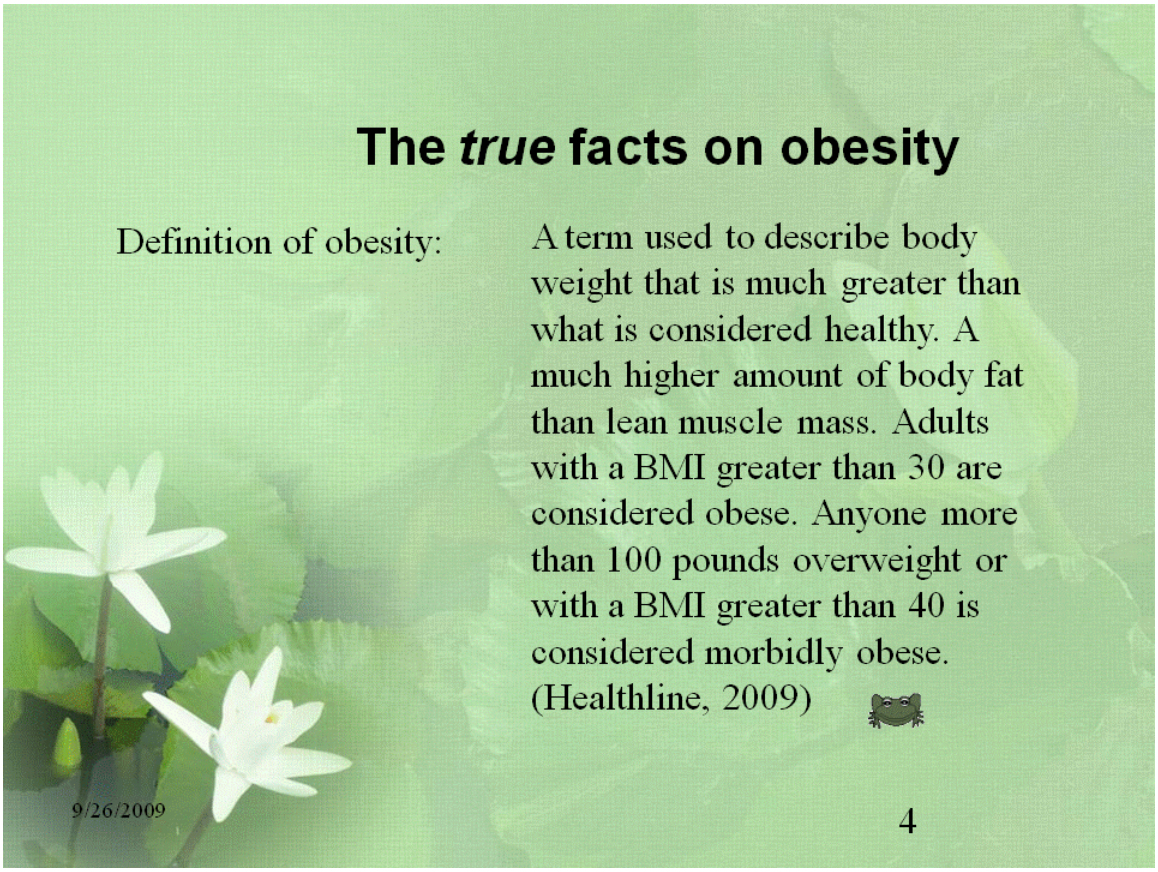
Appendix L


"I wouldn't make fun of my patient, I am a caring, compassionate nurse. By the way did you hear this joke?"
Bill was so fat when he stepped on the scale it said, "To be continued."
Or
Yo mama's so fat, I had to take a train and two busses just to get to her GOOD side.
9/26/2009
2

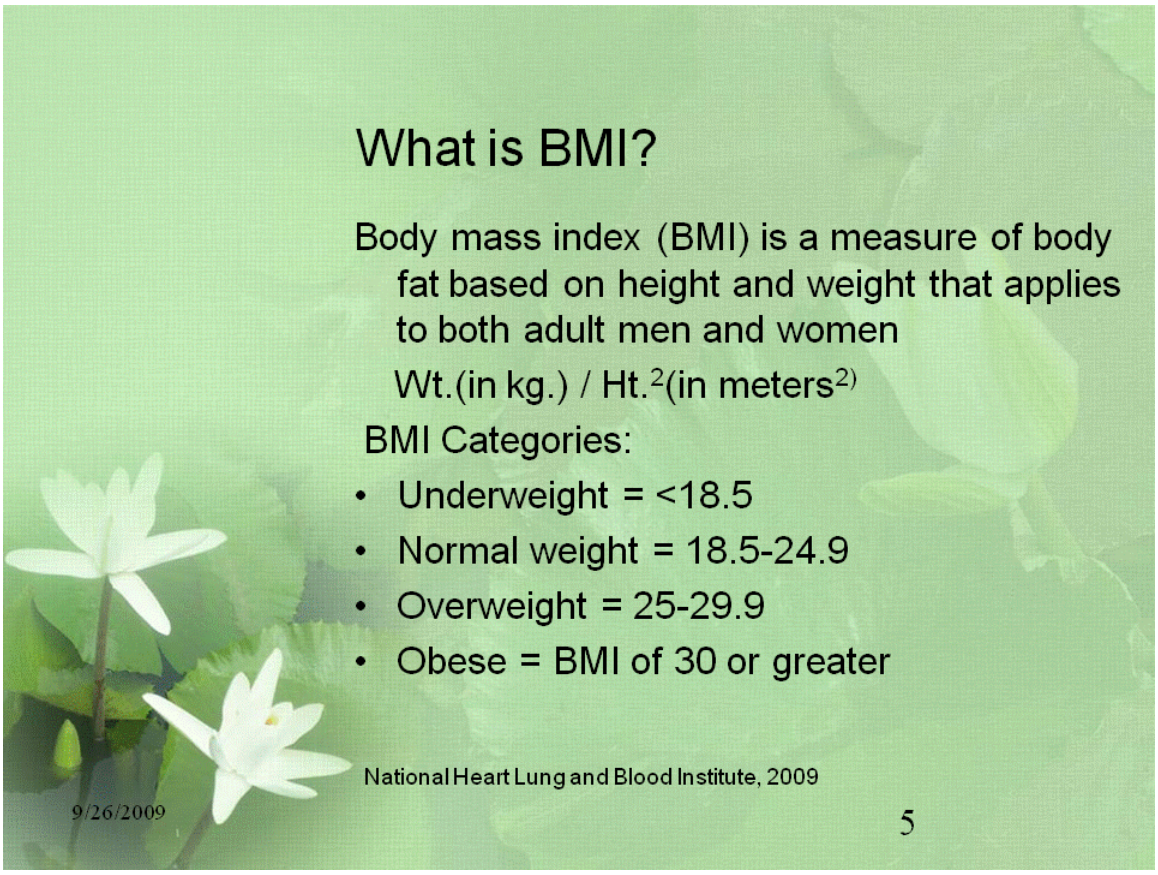
Appendix L


Objectives
Upon completion of this presentation, participants will be able to:
• Define obesity
• Identify contributing factors of obesity
• Recognize weight bias and discrimination in society and healthcare
• Recognize the impact that obesity plays on society & healthcare
• Identify the responsibility of being a healthcare provider for the obese
9/26/2009
3

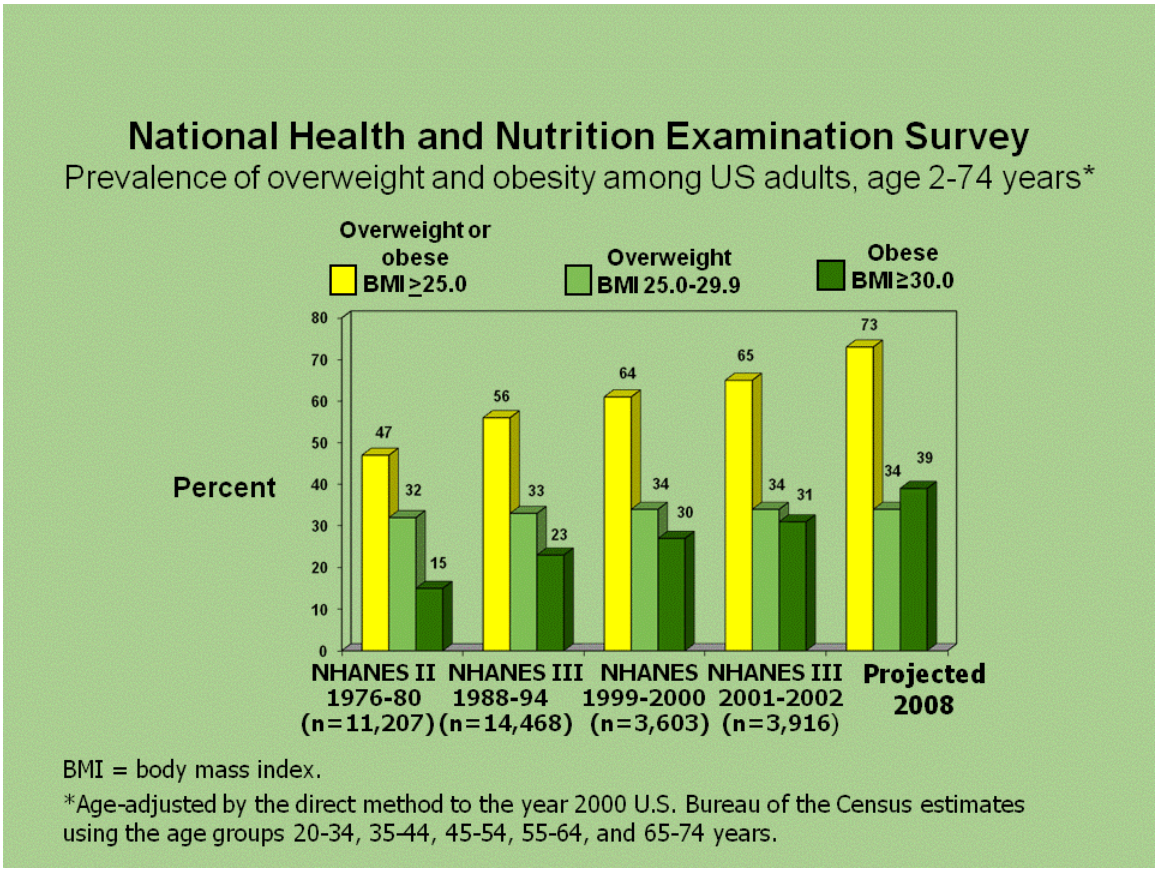
Appendix L


The *true* facts on obesity
Definition of obesity:
A term used to describe body weight that is much greater than what is considered healthy. A much higher amount of body fat than lean muscle mass. Adults with a BMI greater than 30 are considered obese. Anyone more than 100 pounds overweight or with a BMI greater than 40 is considered morbidly obese. (Healthline, 2009)
9/26/2009
4

Appendix L


What is BMI?
Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women
Wt.(in kg.) / Ht.2(in meters2)
BMI Categories:
• Underweight = <18.5
• Normal weight = 18.5-24.9
• Overweight = 25-29.9
• Obese = BMI of 30 or greater
National Heart Lung and Blood Institute, 2009
9/26/2009
5

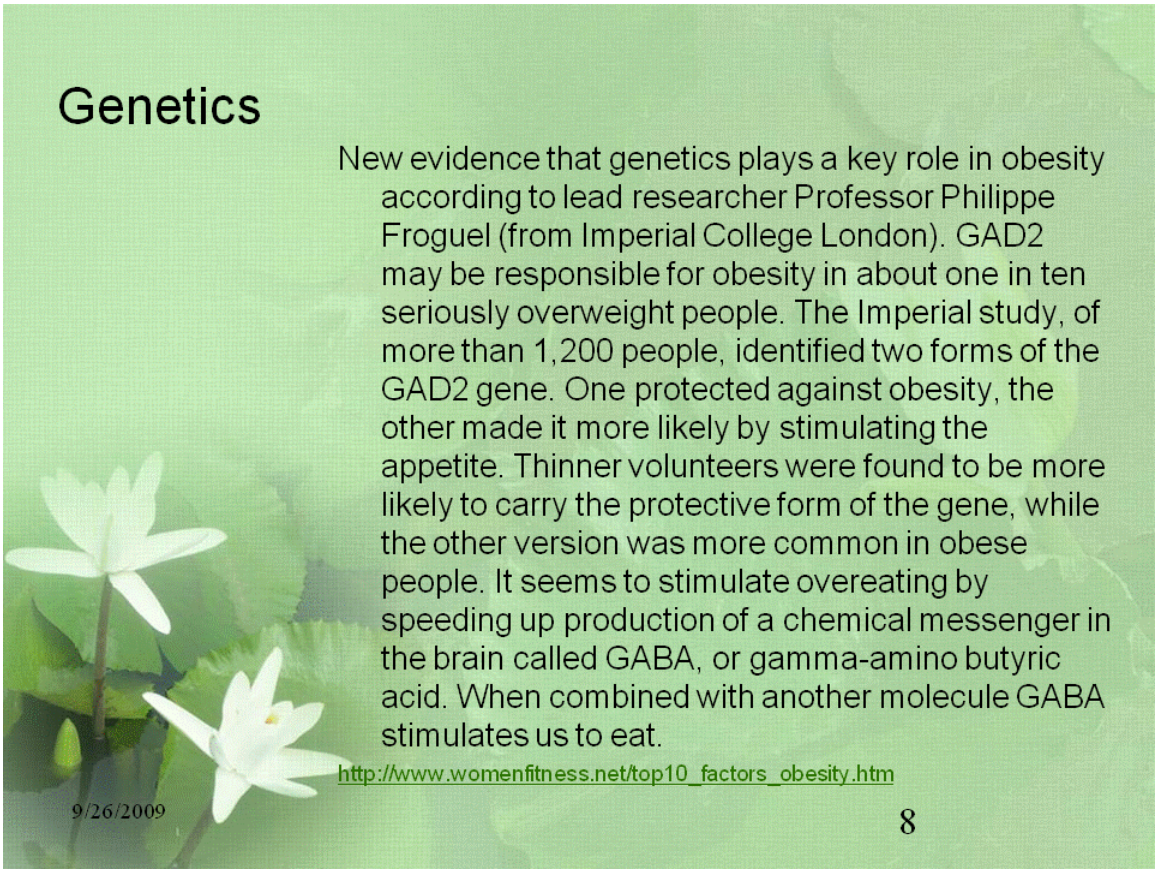
Appendix L


National Health and Nutrition Examination Survey
Prevalence of overweight and obesity among US adults, age 2-74 years*
Overweight or obese BMI ≥25.0
Overweight BMI 25.0-29.9
Obese BMI ≥30.0
Percent
0
10
20
30
40
50
60
70
80
47
32
15
56
33
23
64
34
30
65
34
31
73
34
39
NHANES II 1976-80 (n=11,207)
NHANES III 1988-94 (n=14,468)
NHANES 1999-2000 (n=3,603)
NHANES III 2001-2002 (n=3,916)
Projected 2008
BMI = body mass index.
*Age-adjusted by the direct method to the year 2000 U.S. Bureau of the Census estimates using the age groups 20-34, 35-44, 45-54, 55-64, and 65-74 years.

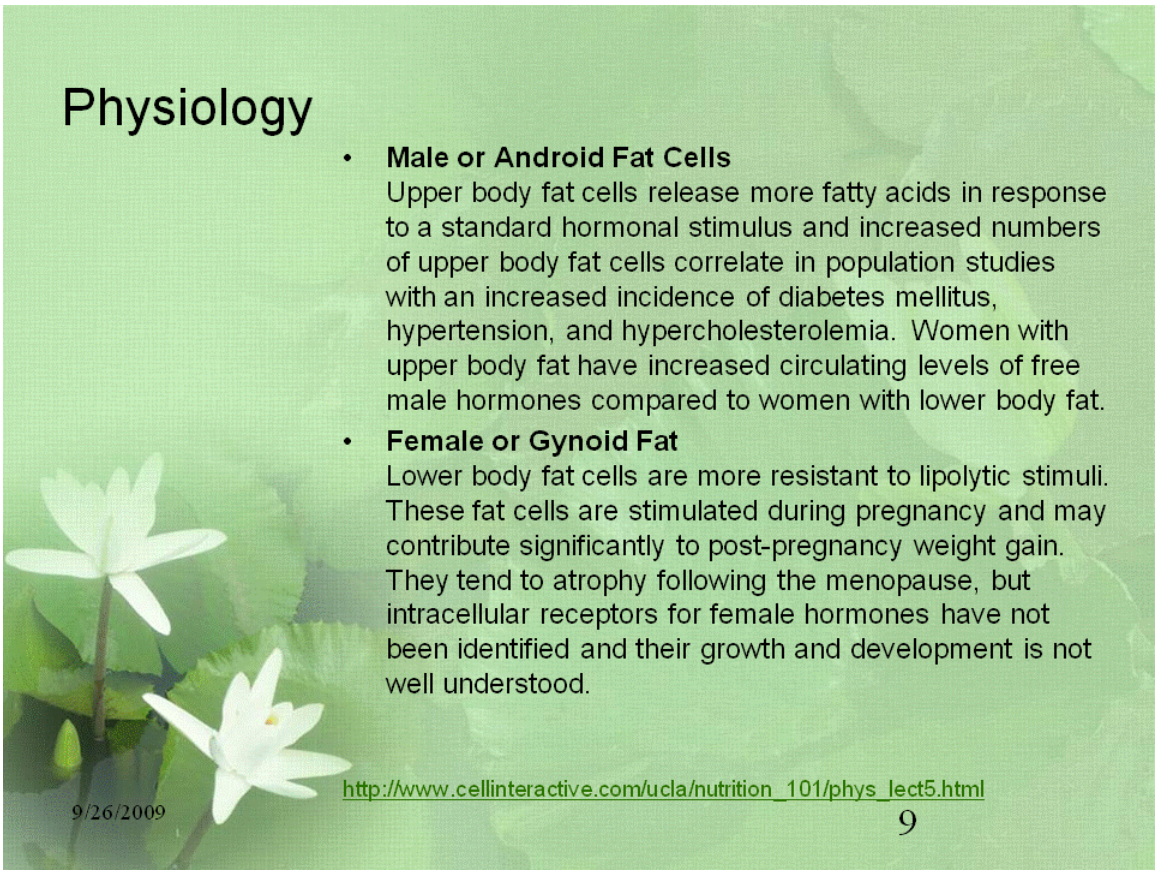
Appendix L


Weight management is a complex problem
Contributing factors include
–Genetics
–Physiology
–Culture
–Social
–Behavioral
9/26/2009
7

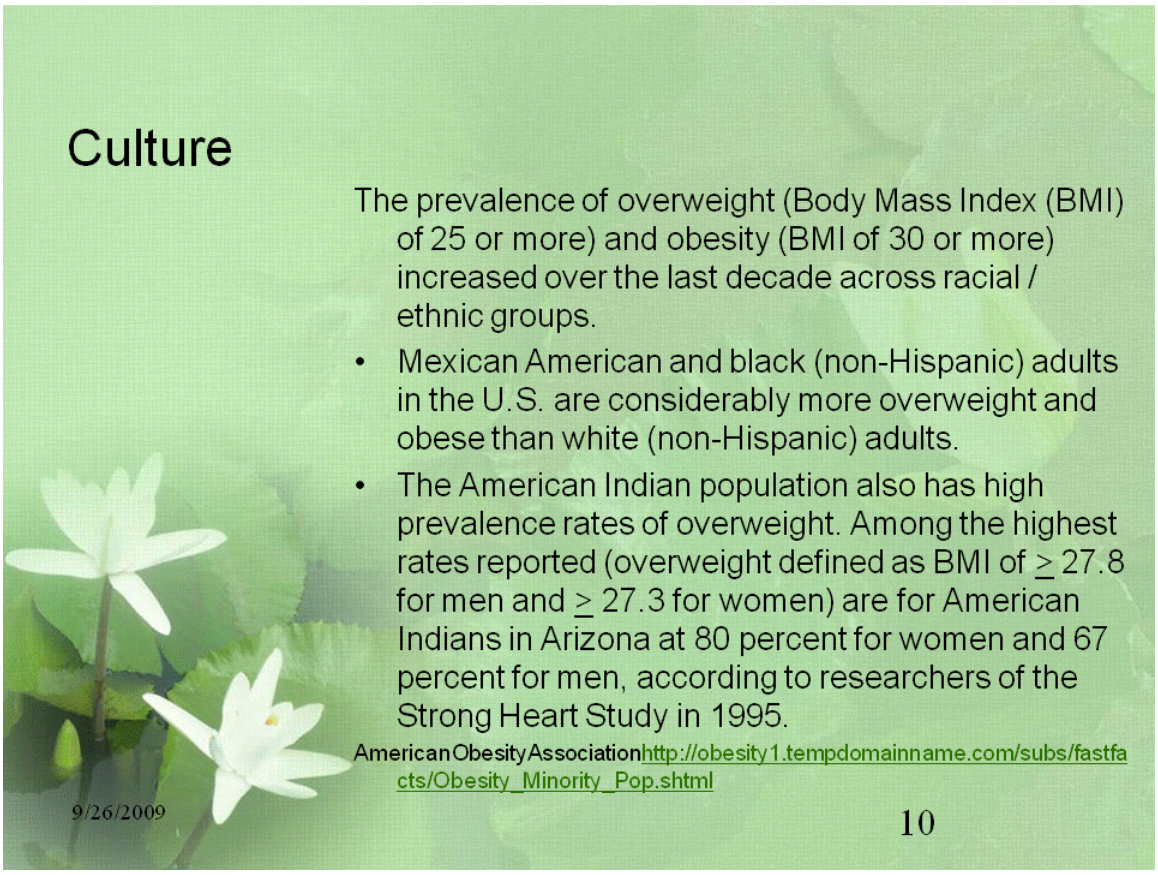
Appendix L


Genetics
New evidence that genetics plays a key role in obesity according to lead researcher Professor Philippe Froguel (from Imperial College London). GAD2 may be responsible for obesity in about one in ten seriously overweight people. The Imperial study, of more than 1,200 people, identified two forms of the GAD2 gene. One protected against obesity, the other made it more likely by stimulating the appetite. Thinner volunteers were found to be more likely to carry the protective form of the gene, while the other version was more common in obese people. It seems to stimulate overeating by speeding up production of a chemical messenger in the brain called GABA, or gamma-amino butyric acid. When combined with another molecule GABA stimulates us to eat.
http://www.womenfitness.net/top10_factors_obesity.htm
9/26/2009
8

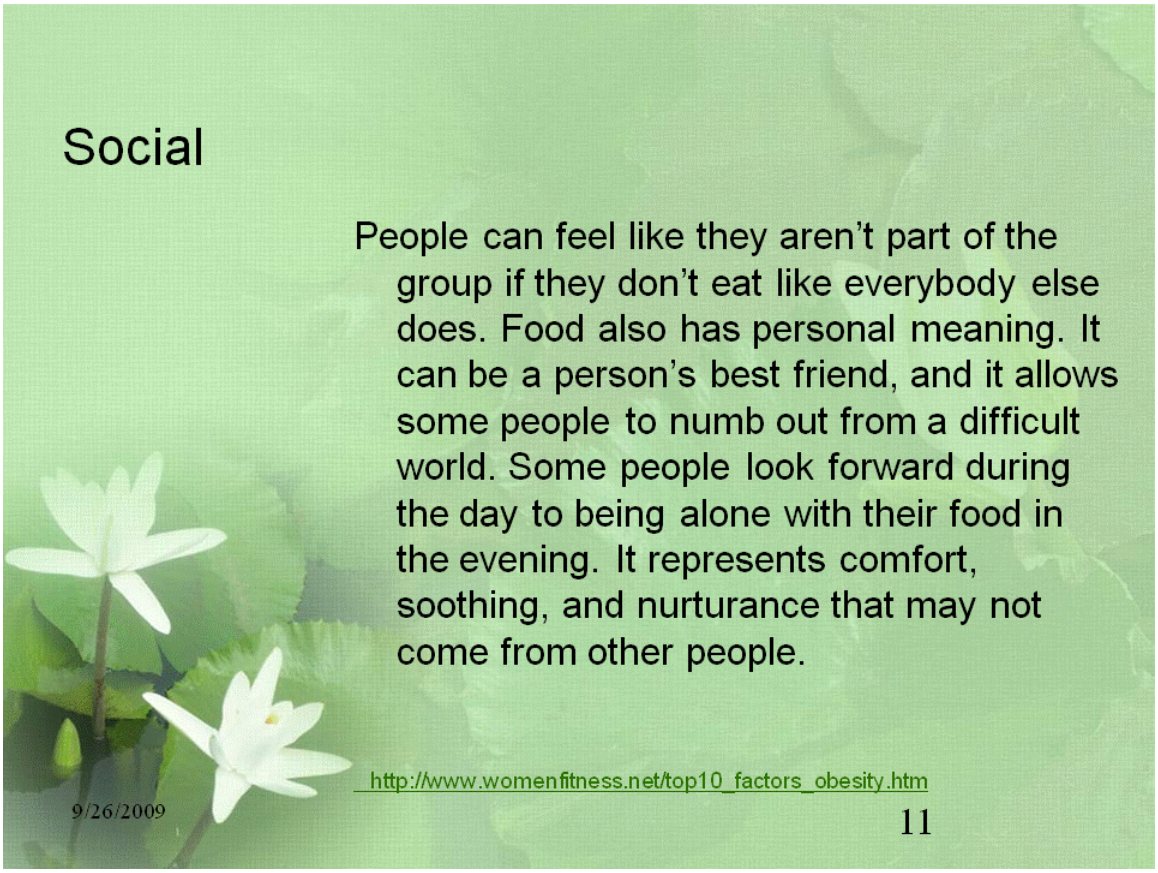
Appendix L


Physiology
• Male or Android Fat Cells
Upper body fat cells release more fatty acids in response to a standard hormonal stimulus and increased numbers of upper body fat cells correlate in population studies with an increased incidence of diabetes mellitus, hypertension, and hypercholesterolemia. Women with upper body fat have increased circulating levels of free male hormones compared to women with lower body fat.
• Female or Gynoid Fat
Lower body fat cells are more resistant to lipolytic stimuli. These fat cells are stimulated during pregnancy and may contribute significantly to post-pregnancy weight gain. They tend to atrophy following the menopause, but intracellular receptors for female hormones have not been identified and their growth and development is not well understood.
http://www.cellinteractive.com/ucla/nutrition_101/phys_lect5.html
9/26/2009
9

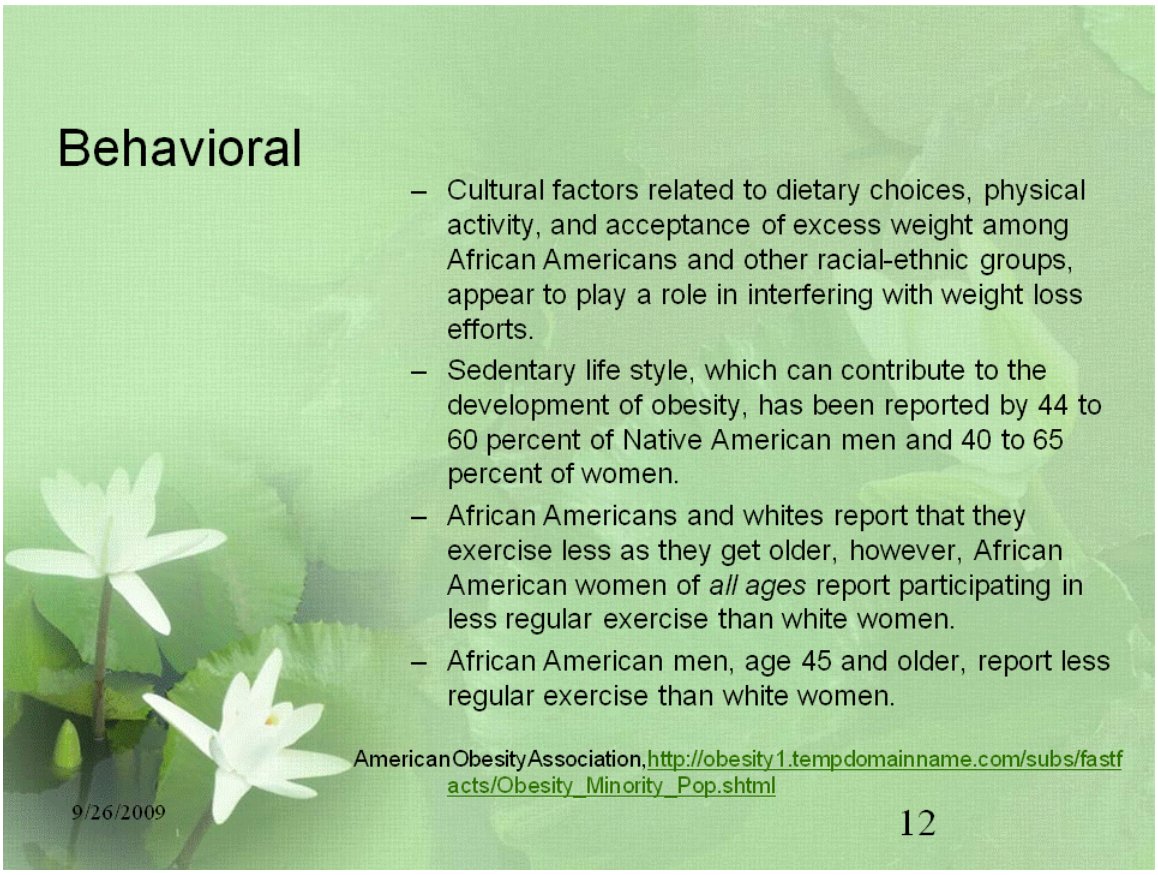
Appendix L


Culture
The prevalence of overweight (Body Mass Index (BMI) of 25 or more) and obesity (BMI of 30 or more) increased over the last decade across racial / ethnic groups.
• Mexican American and black (non-Hispanic) adults in the U.S. are considerably more overweight and obese than white (non-Hispanic) adults.
• The American Indian population also has high prevalence rates of overweight. Among the highest rates reported (overweight defined as BMI of ≥ 27.8 for men and ≥ 27.3 for women) are for American Indians in Arizona at 80 percent for women and 67 percent for men, according to researchers of the Strong Heart Study in 1995.
American Obesity Association http://obesity1.tempdomainname.com/subs/fastfacts/Obesity_Minority_Pop.shtml
9/26/2009
10

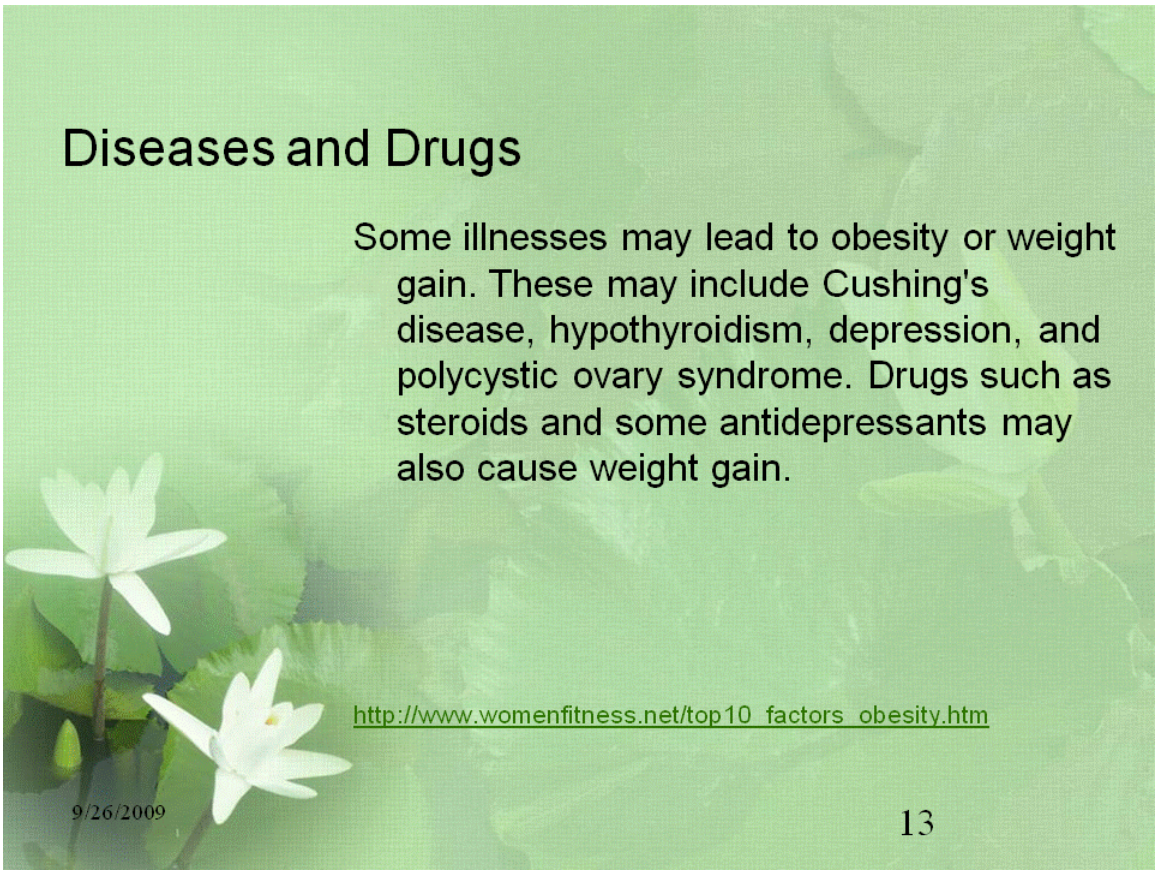
Appendix L


Social
People can feel like they aren't part of the group if they don't eat like everybody else does. Food also has personal meaning. It can be a person's best friend, and it allows some people to numb out from a difficult world. Some people look forward during the day to being alone with their food in the evening. It represents comfort, soothing, and nurturance that may not come from other people.
http://www.womenfitness.net/top10_factors_obesity.htm
9/26/2009
11

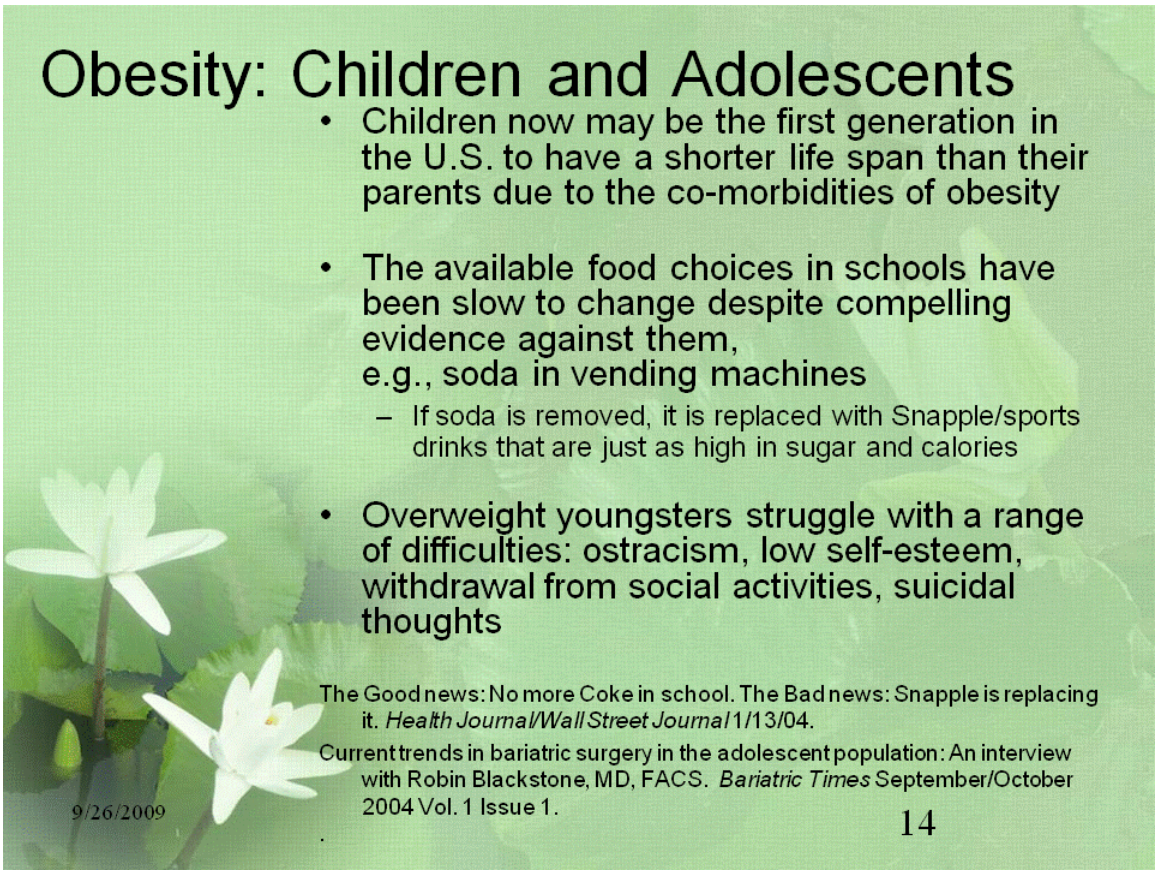
Appendix L


Behavioral
– Cultural factors related to dietary choices, physical activity, and acceptance of excess weight among African Americans and other racial-ethnic groups, appear to play a role in interfering with weight loss efforts.
– Sedentary life style, which can contribute to the development of obesity, has been reported by 44 to 60 percent of Native American men and 40 to 65 percent of women.
– African Americans and whites report that they exercise less as they get older, however, African American women of *all ages* report participating in less regular exercise than white women.
– African American men, age 45 and older, report less regular exercise than white women.
American Obesity Association, http://obesity1.tempdomainname.com/subs/fastfacts/Obesity_Minority_Pop.shtml
9/26/2009
12

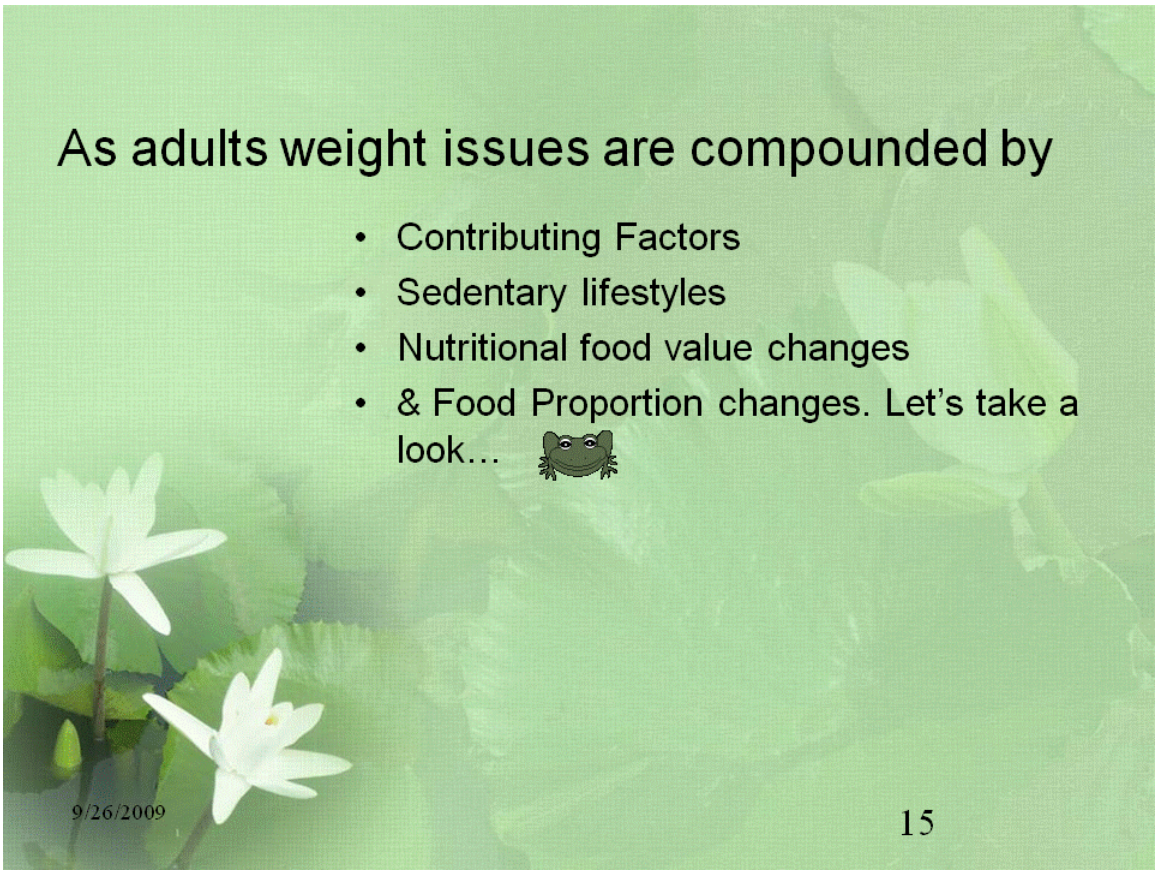
Appendix L


Diseases and Drugs
Some illnesses may lead to obesity or weight gain. These may include Cushing's disease, hypothyroidism, depression, and polycystic ovary syndrome. Drugs such as steroids and some antidepressants may also cause weight gain.
http://www.womenfitness.net/top10_factors_obesity.htm
9/26/2009
13

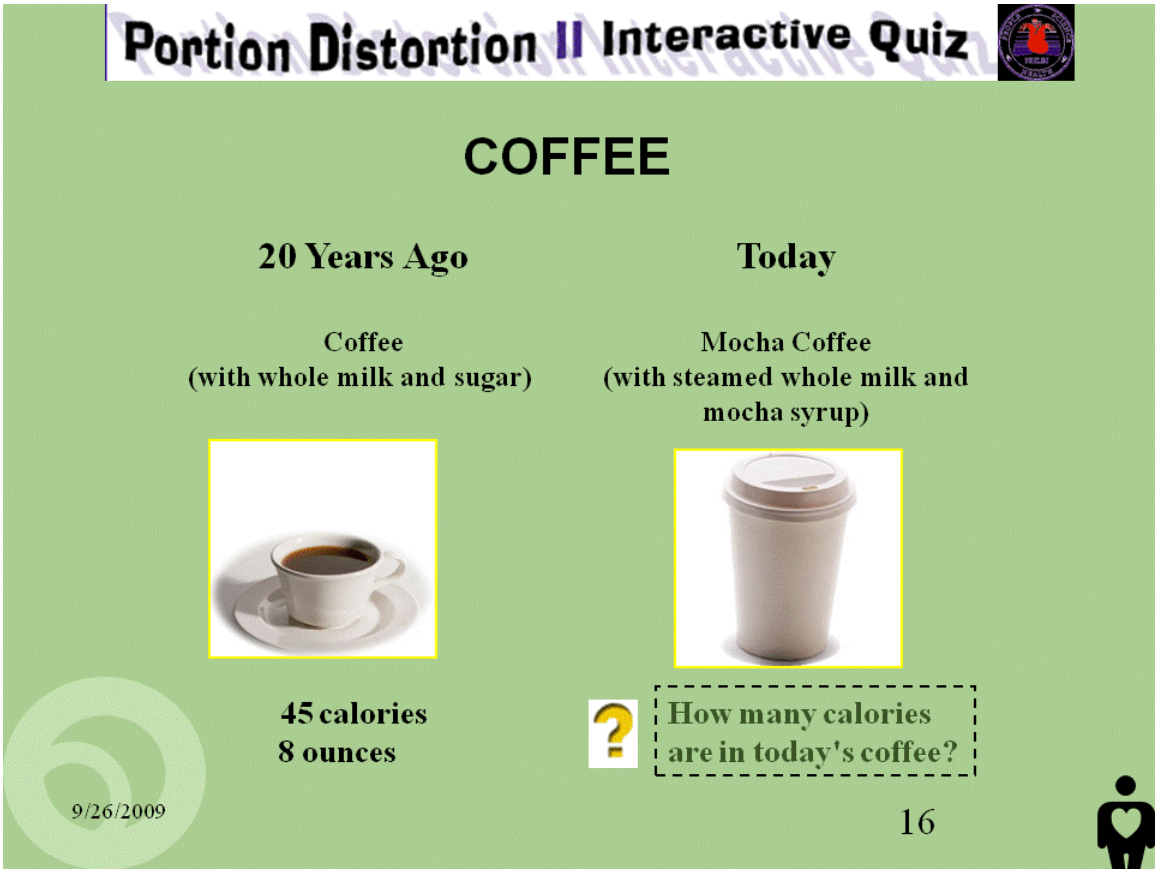
Appendix L


Obesity: Children and Adolescents
• Children now may be the first generation in the U.S. to have a shorter life span than their parents due to the co-morbidities of obesity
• The available food choices in schools have been slow to change despite compelling evidence against them, e.g., soda in vending machines
– If soda is removed, it is replaced with Snapple/sports drinks that are just as high in sugar and calories
• Overweight youngsters struggle with a range of difficulties: ostracism, low self-esteem, withdrawal from social activities, suicidal thoughts
The Good news: No more Coke in school. The Bad news: Snapple is replacing it. Health Journal/Wall Street Journal 1/13/04.
Current trends in bariatric surgery in the adolescent population: An interview with Robin Blackstone, MD, FACS. Bariatric Times September/October 2004 Vol. 1 Issue 1.
9/26/2009
14

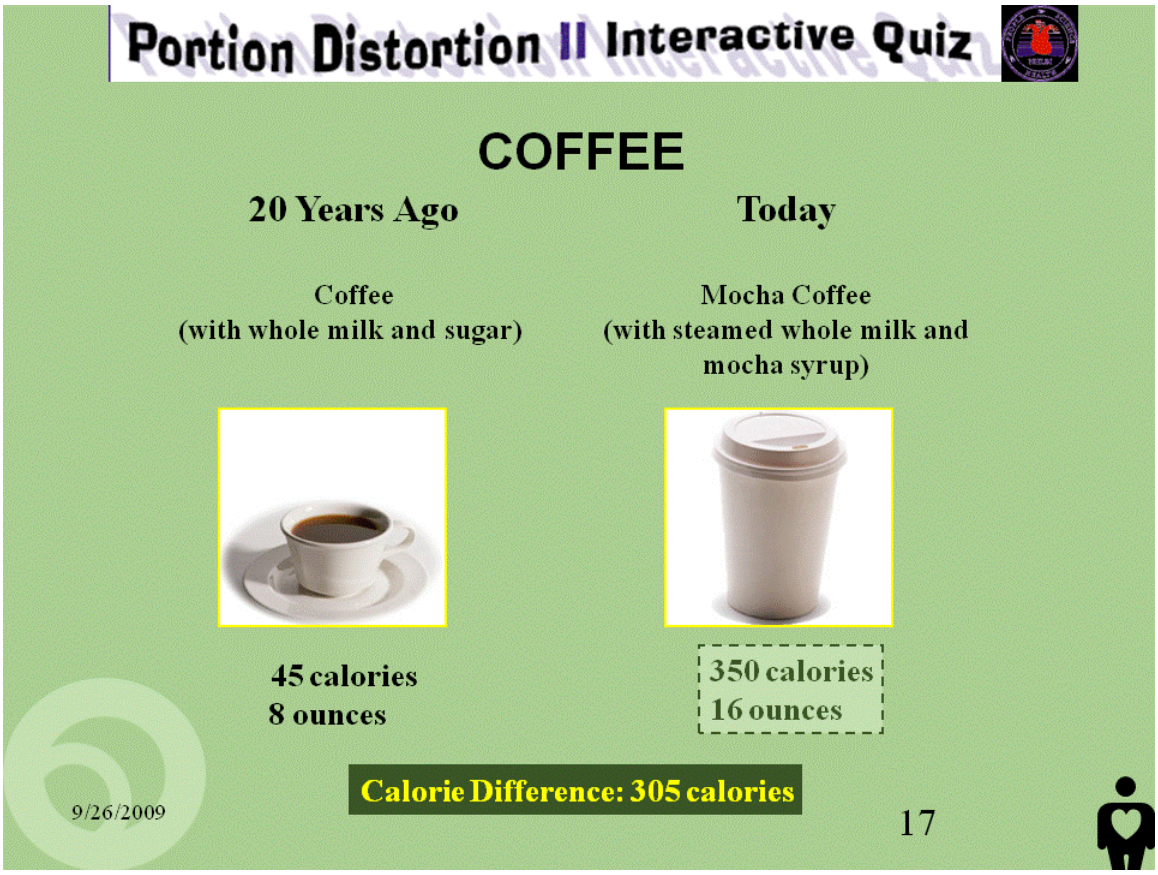
Appendix L


As adults weight issues are compounded by
• Contributing Factors
• Sedentary lifestyles
• Nutritional food value changes
• & Food Proportion changes. Let's take a look…
9/26/2009
15

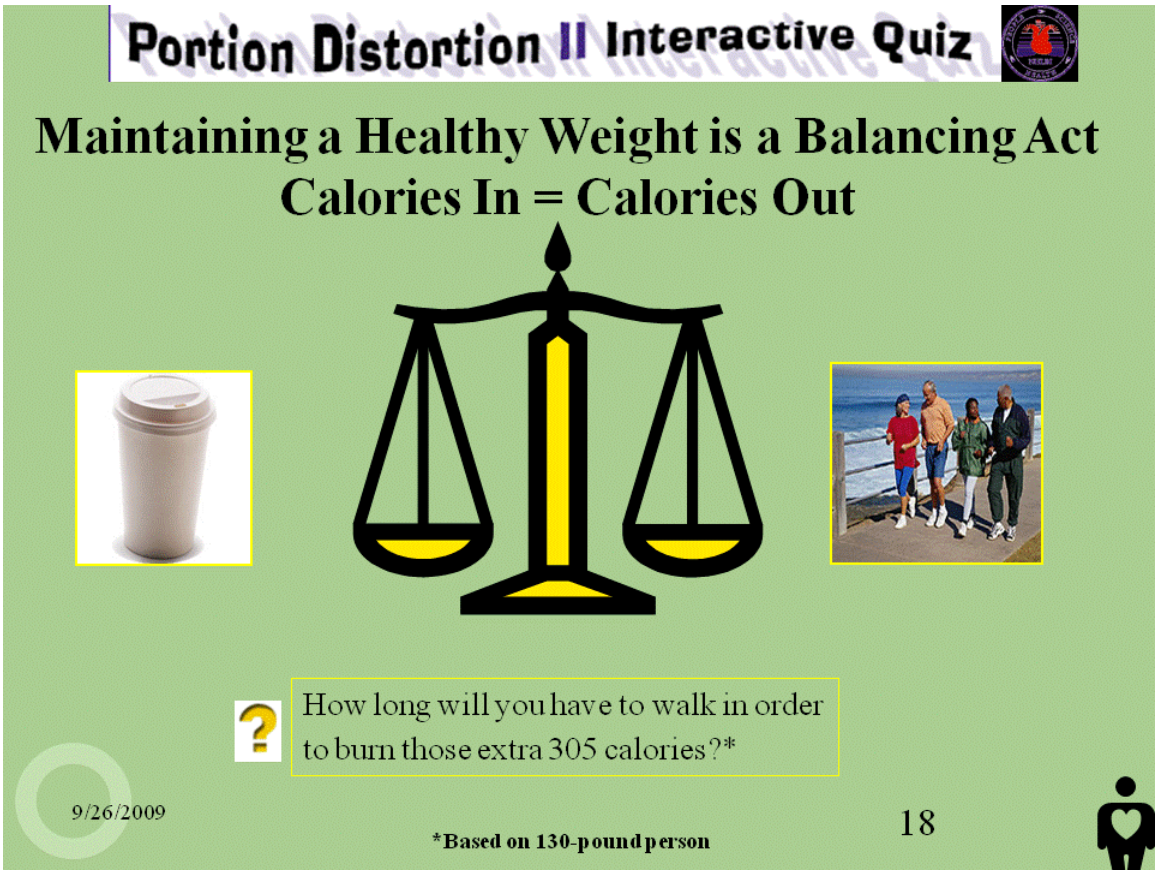
Appendix L


Portion Distortion II Interactive Quiz
COFFEE
20 Years Ago
Today
Coffee
(with whole milk and sugar)
Mocha Coffee
(with steamed whole milk and mocha syrup)
45 calories
8 ounces
How many calories are in today's coffee?
9/26/2009
16

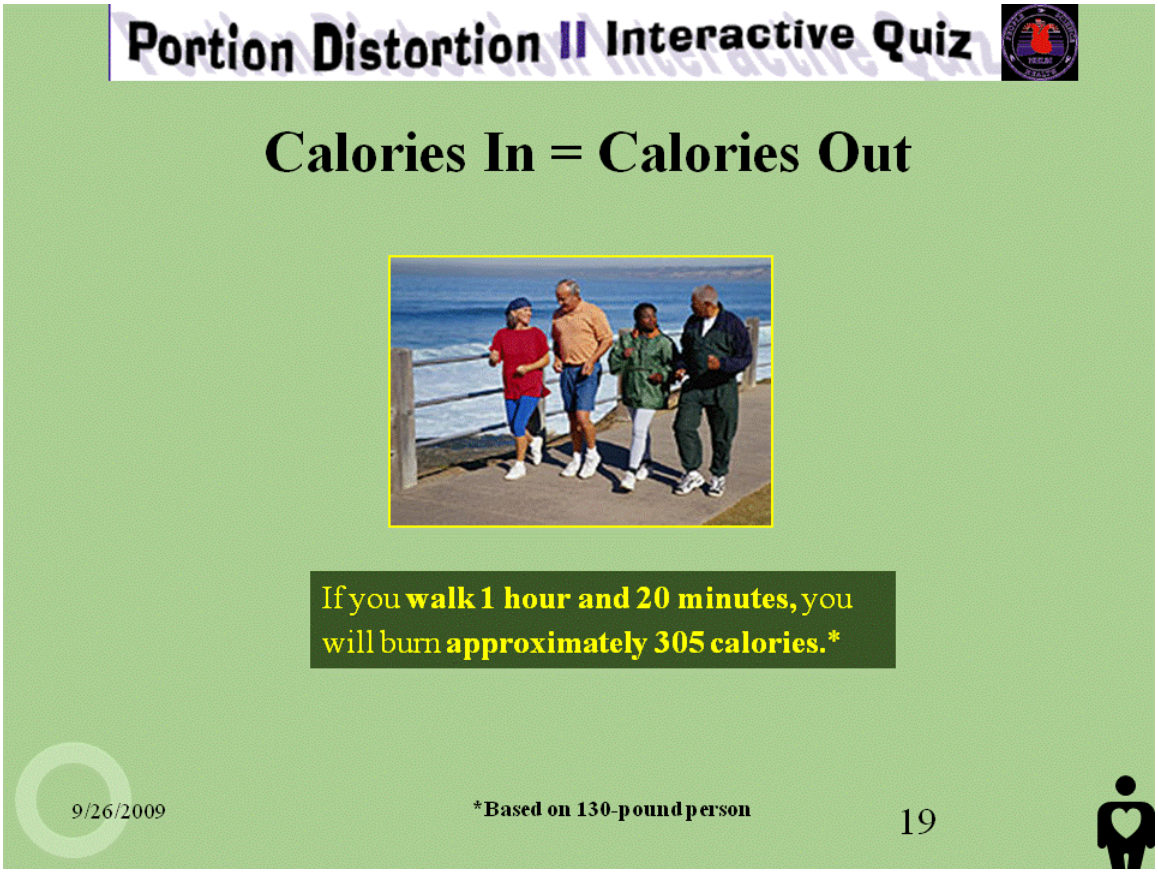
Appendix L


Portion Distortion II Interactive Quiz
COFFEE
20 Years Ago
Today
Coffee
(with whole milk and sugar)
Mocha Coffee
(with steamed whole milk and mocha syrup)
45 calories
8 ounces
350 calories
16 ounces
Calorie Difference: 305 calories
9/26/2009
17

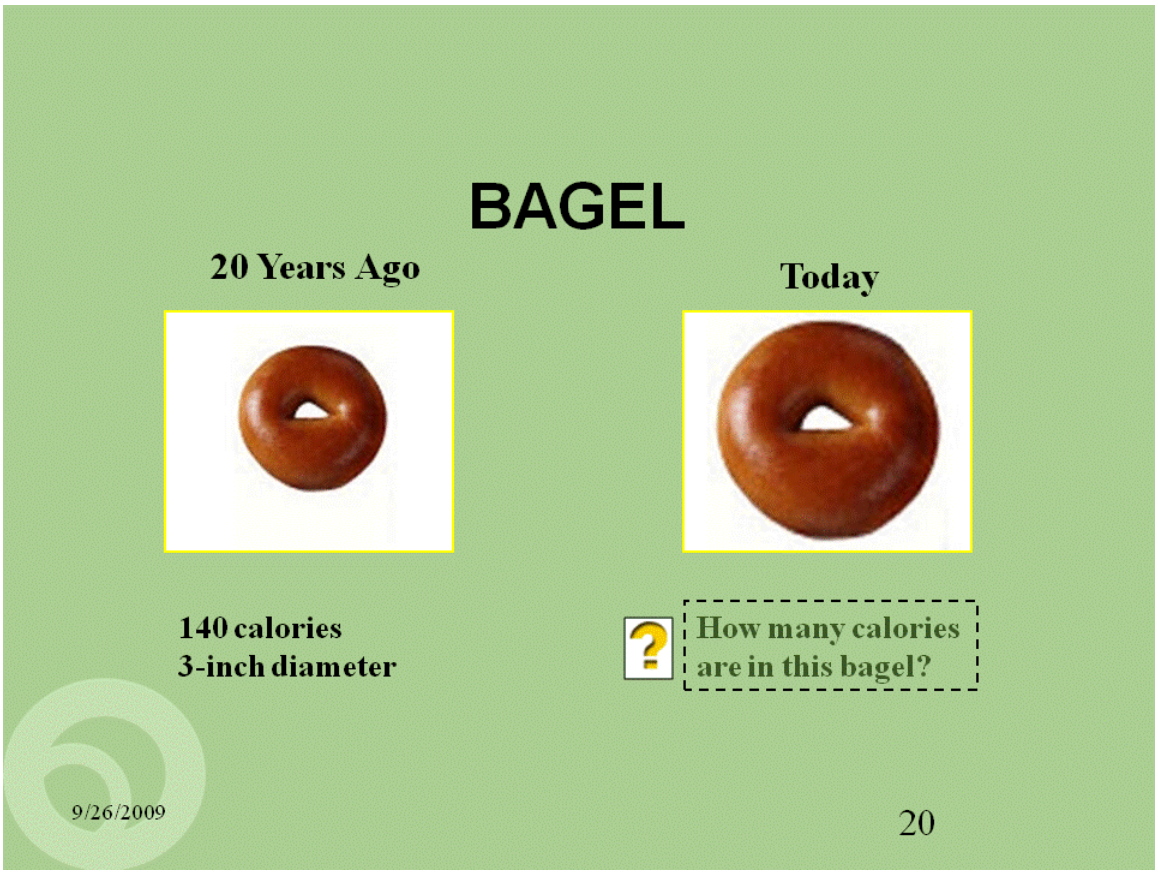
Appendix L


Portion Distortion II Interactive Quiz
Maintaining a Healthy Weight is a Balancing Act
Calories In = Calories Out
How long will you have to walk in order to burn those extra 305 calories?*
9/26/2009
*Based on 130-pound person
18

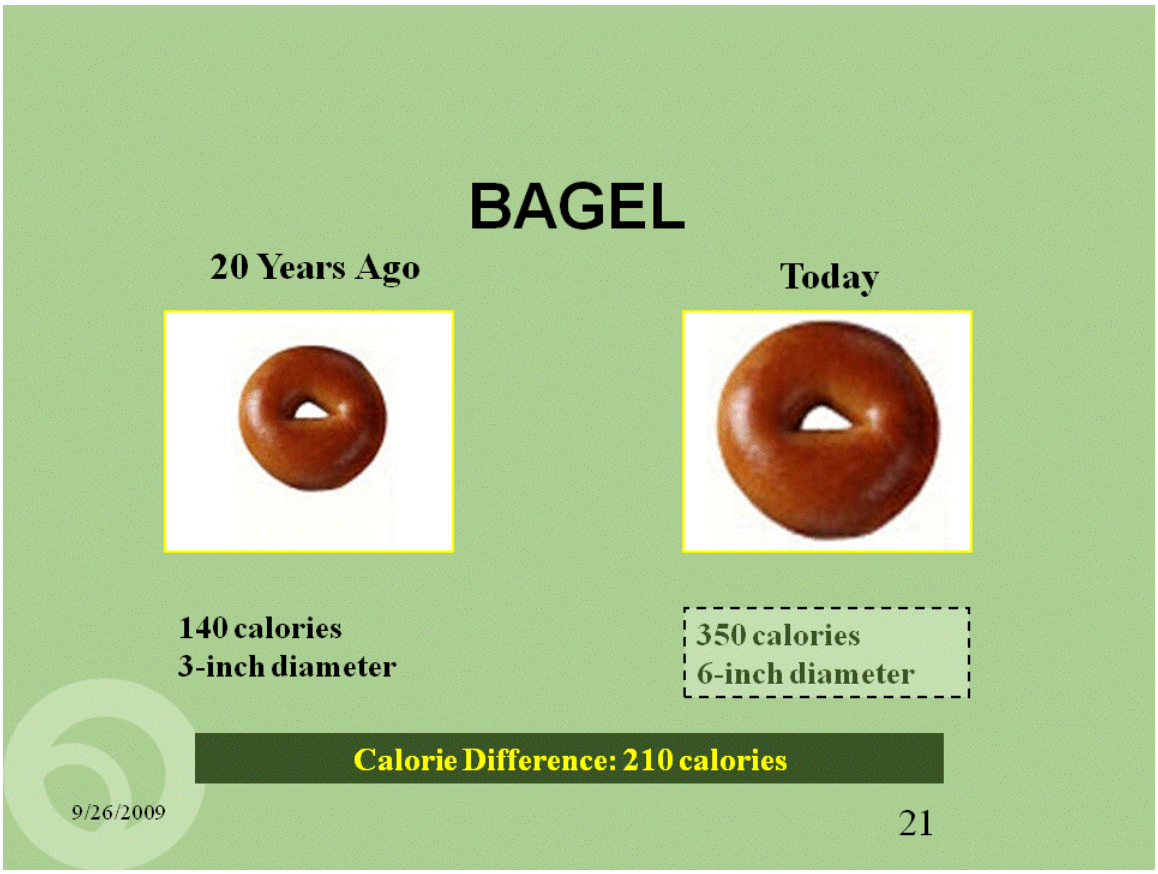
Appendix L


Portion Distortion II Interactive Quiz
Calories In = Calories Out
If you walk 1 hour and 20 minutes, you will burn approximately 305 calories.*
9/26/2009
*Based on 130-pound person
19

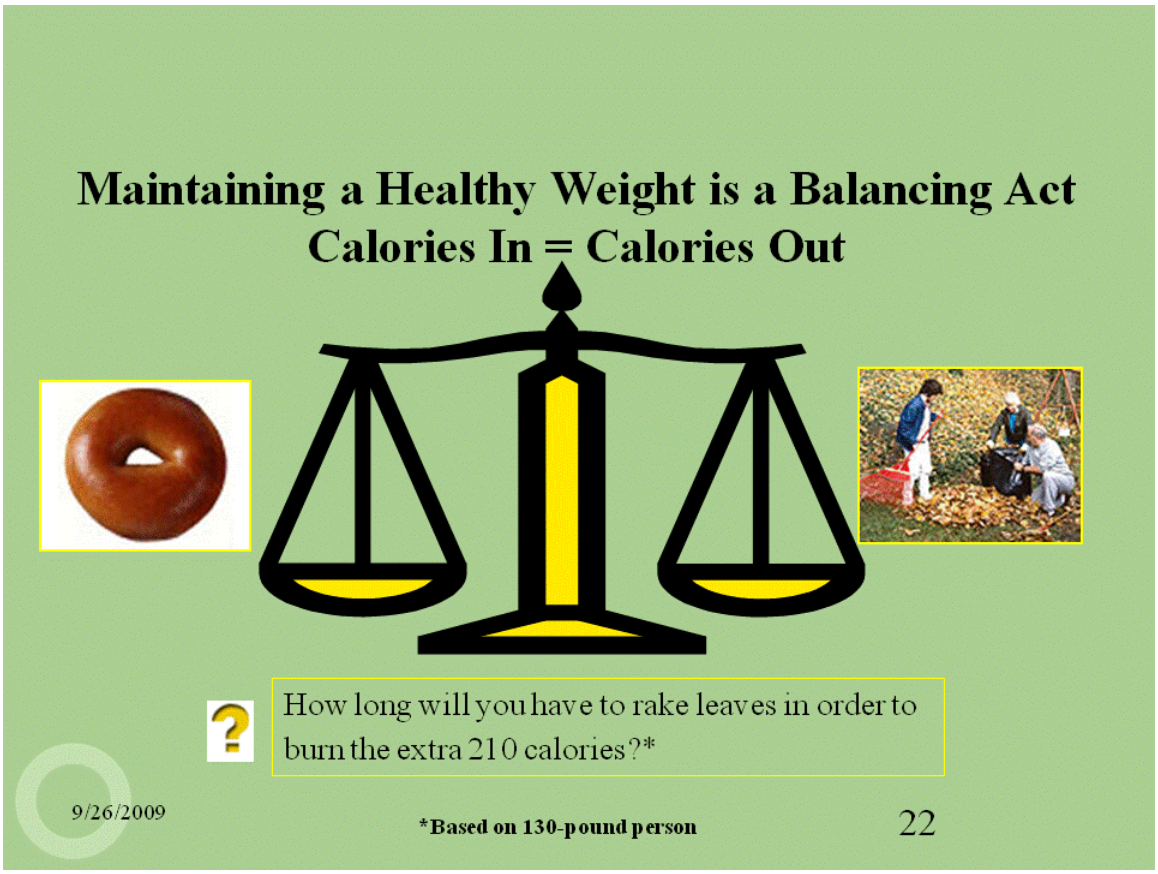
Appendix L


BAGEL
20 Years Ago
Today
140 calories
3-inch diameter
How many calories are in this bagel?
9/26/2009
20

Appendix L


BAGEL
20 Years Ago
Today
140 calories
3-inch diameter
350 calories
6-inch diameter
Calorie Difference: 210 calories
9/26/2009
21

Appendix L


Maintaining a Healthy Weight is a Balancing Act
Calories In = Calories Out
How long will you have to rake leaves in order to burn the extra 210 calories?*
9/26/2009
*Based on 130-pound person
22

Appendix L

Calories In = Calories Out

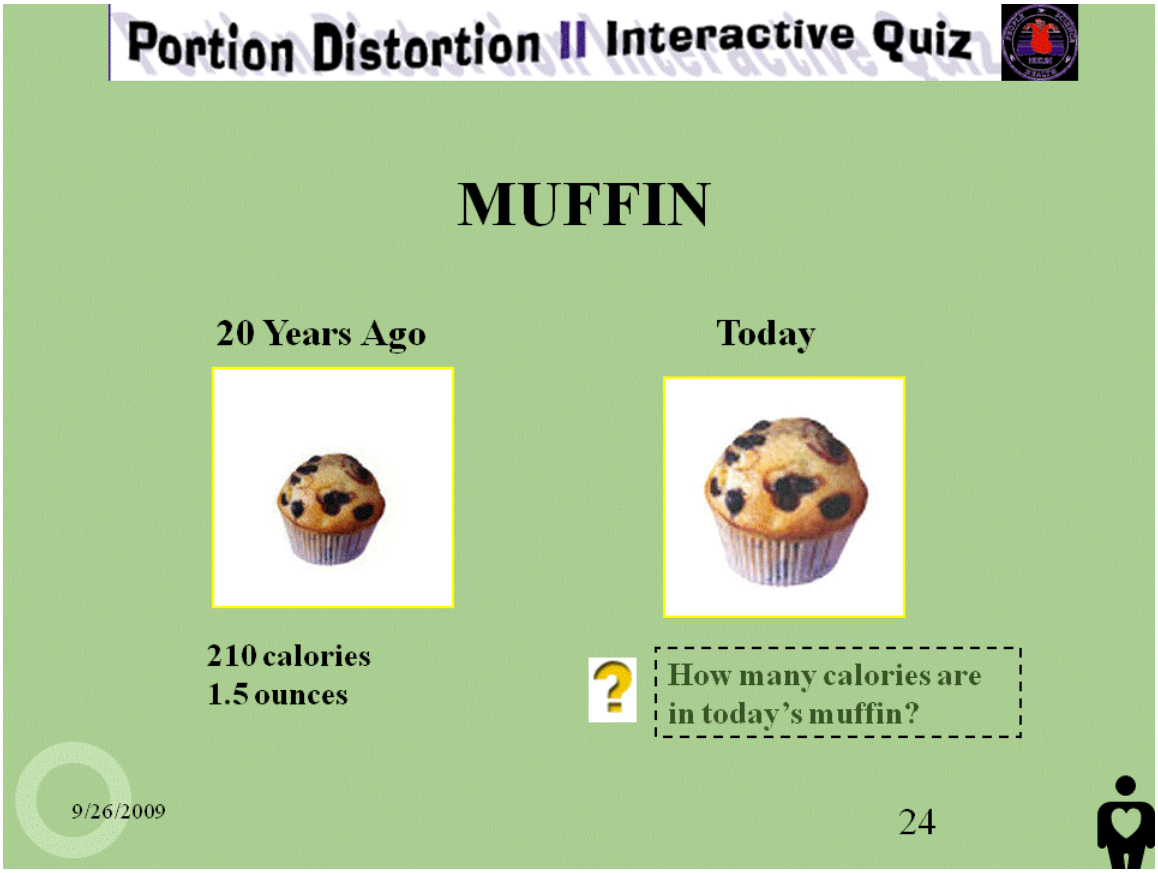
If you rake the leaves for **50 minutes** you will burn the extra **210 calories.***

*Based on 130-pound person

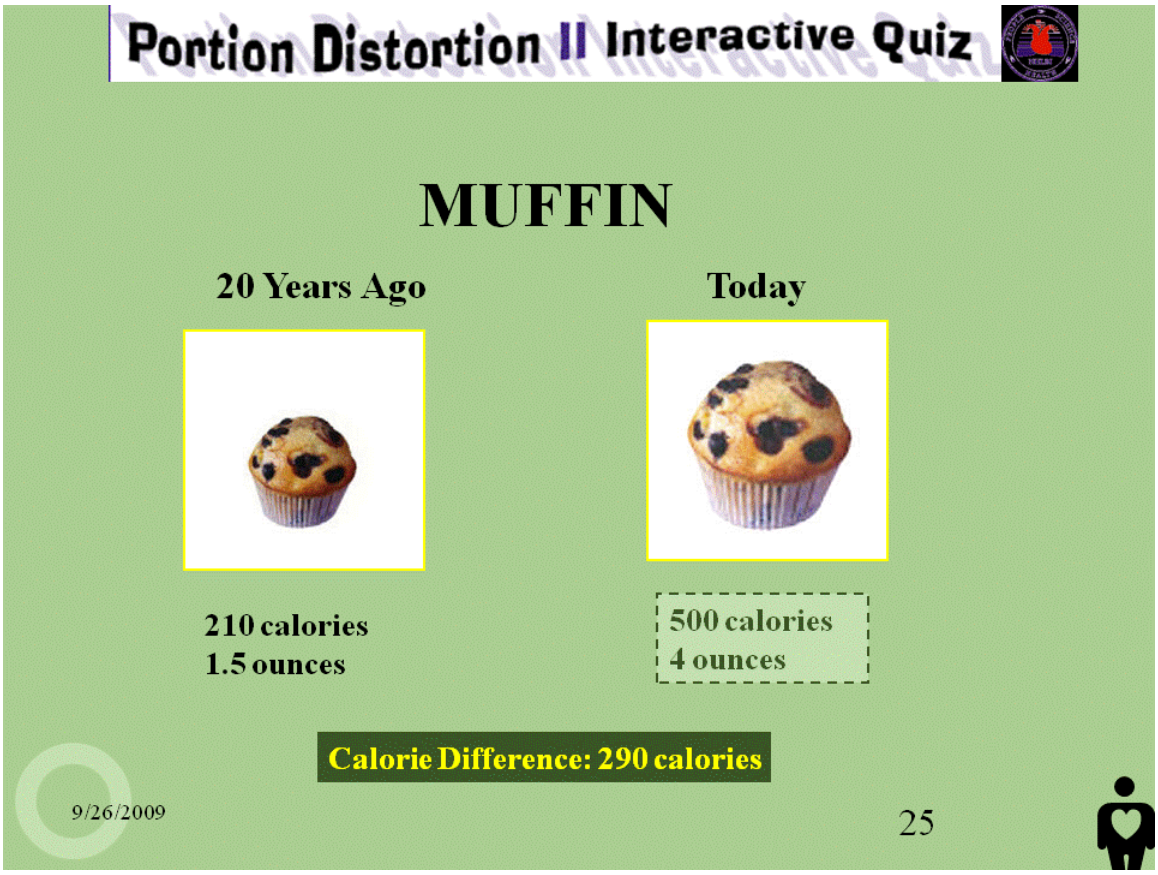
9/26/2009

23

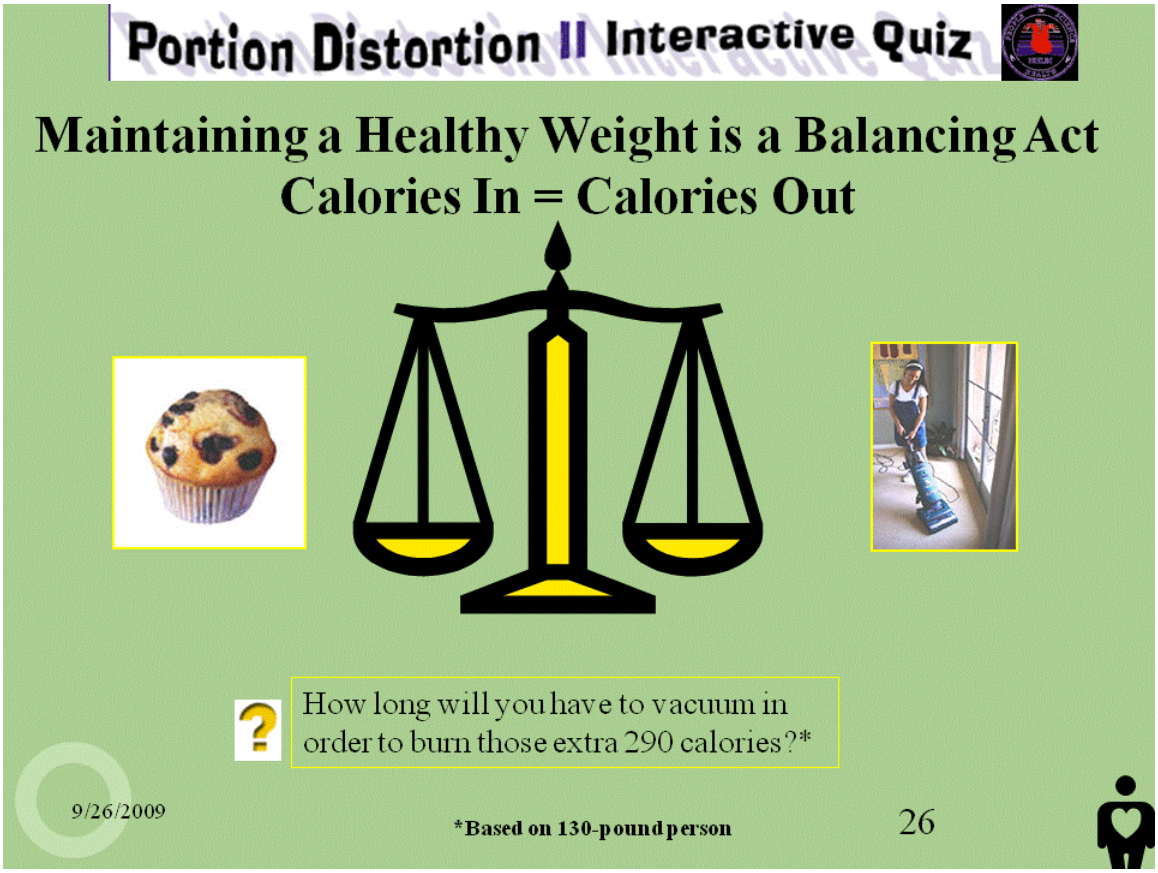
Appendix L


Portion Distortion II Interactive Quiz
MUFFIN
20 Years Ago
Today
210 calories
1.5 ounces
How many calories are in today's muffin?
9/26/2009
24

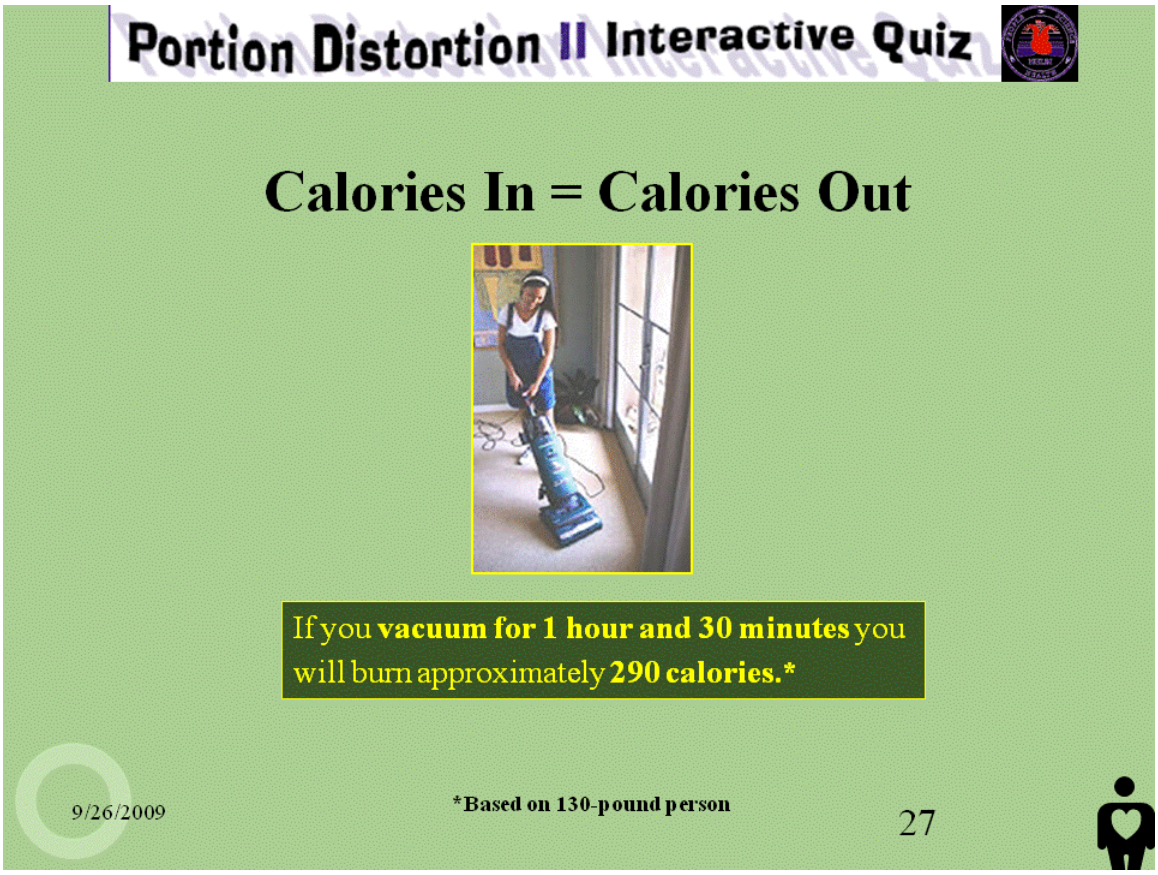
Appendix L


Portion Distortion II Interactive Quiz
MUFFIN
20 Years Ago
Today
210 calories
1.5 ounces
500 calories
4 ounces
Calorie Difference: 290 calories
9/26/2009
25

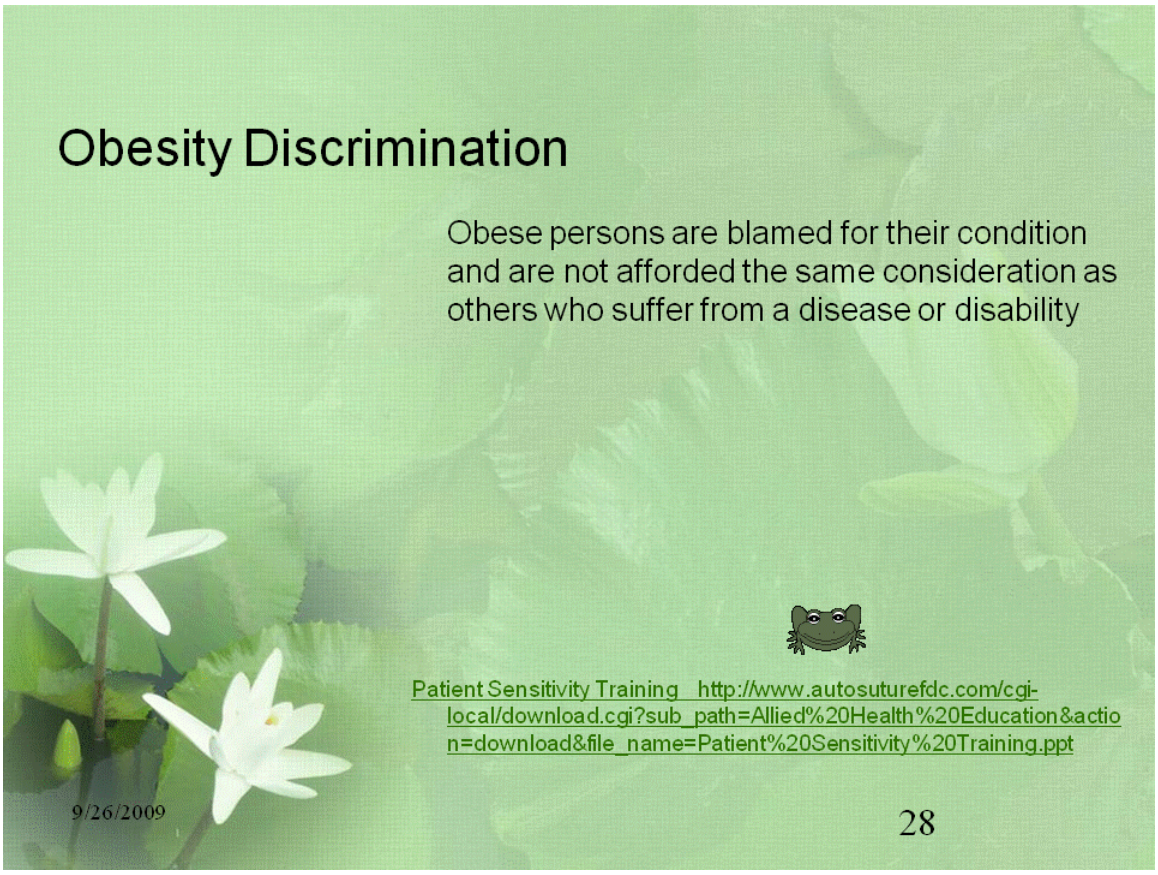
Appendix L


Portion Distortion II Interactive Quiz
Maintaining a Healthy Weight is a Balancing Act
Calories In = Calories Out
How long will you have to vacuum in order to burn those extra 290 calories?*
9/26/2009
*Based on 130-pound person
26

Appendix L


Portion Distortion II Interactive Quiz
Calories In = Calories Out
If you vacuum for 1 hour and 30 minutes you will burn approximately 290 calories.*
9/26/2009
*Based on 130-pound person
27

Appendix L


Obesity Discrimination
Obese persons are blamed for their condition and are not afforded the same consideration as others who suffer from a disease or disability
Patient Sensitivity Training http://www.autosuturefdc.com/cgi-local/download.cgi?sub_path=Allied%20Health%20Education&action=download&file_name=Patient%20Sensitivity%20Training.ppt
9/26/2009
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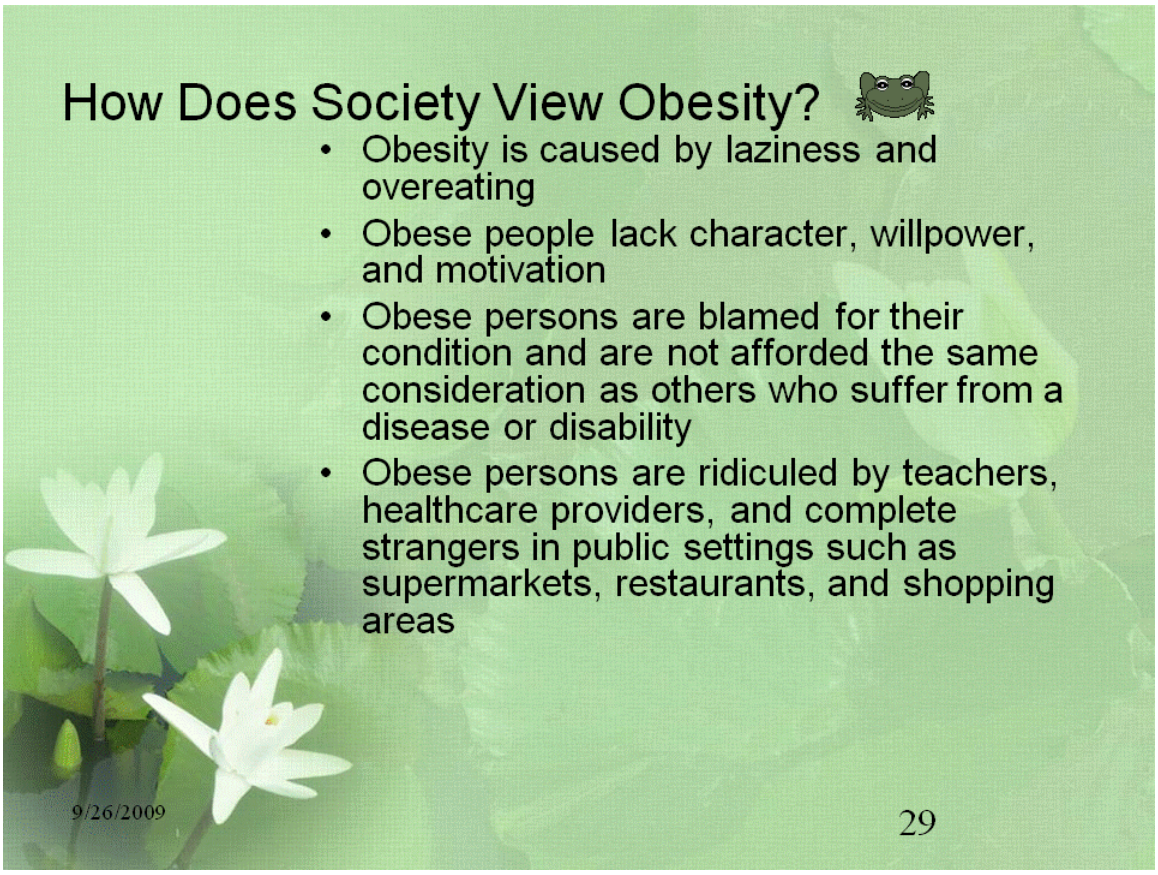
Appendix L


How Does Society View Obesity?
• Obesity is caused by laziness and overeating
• Obese people lack character, willpower, and motivation
• Obese persons are blamed for their condition and are not afforded the same consideration as others who suffer from a disease or disability
• Obese persons are ridiculed by teachers, healthcare providers, and complete strangers in public settings such as supermarkets, restaurants, and shopping areas
9/26/2009
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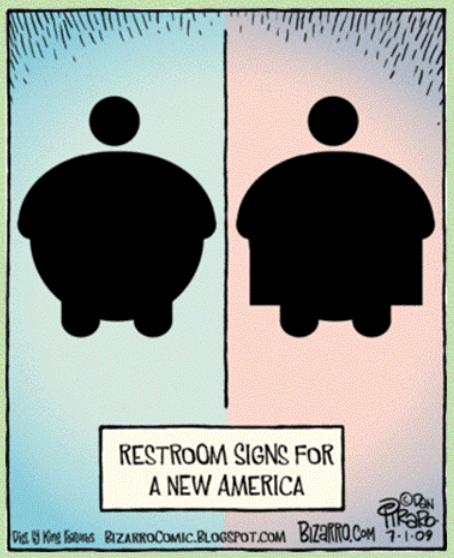
Appendix L

In a May 2009 & July 2009 Arizona Newspaper



9/26/2009

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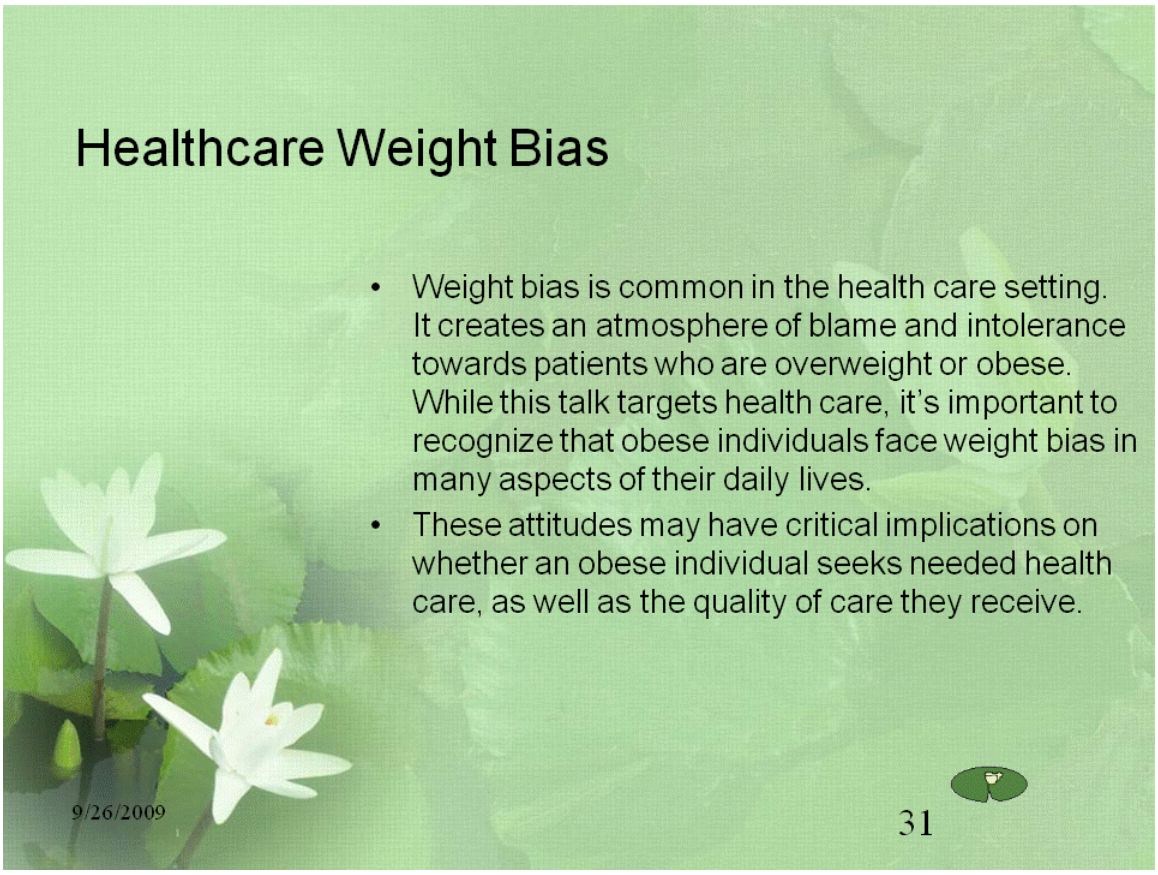
Appendix L


Healthcare Weight Bias
• Weight bias is common in the health care setting. It creates an atmosphere of blame and intolerance towards patients who are overweight or obese. While this talk targets health care, it's important to recognize that obese individuals face weight bias in many aspects of their daily lives.
• These attitudes may have critical implications on whether an obese individual seeks needed health care, as well as the quality of care they receive.
9/26/2009
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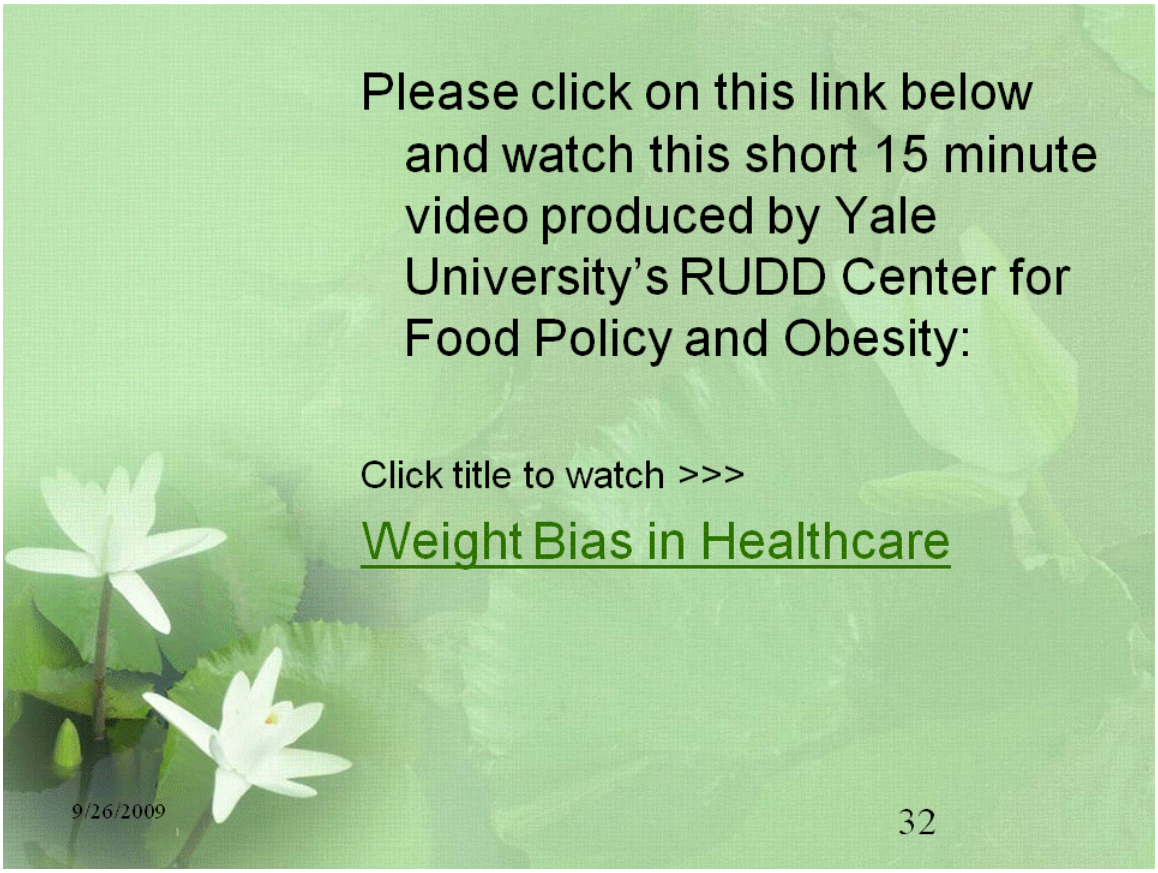
Appendix L


Please click on this link below and watch this short 15 minute video produced by Yale University's RUDD Center for Food Policy and Obesity:
Click title to watch >>>
Weight Bias in Healthcare
9/26/2009
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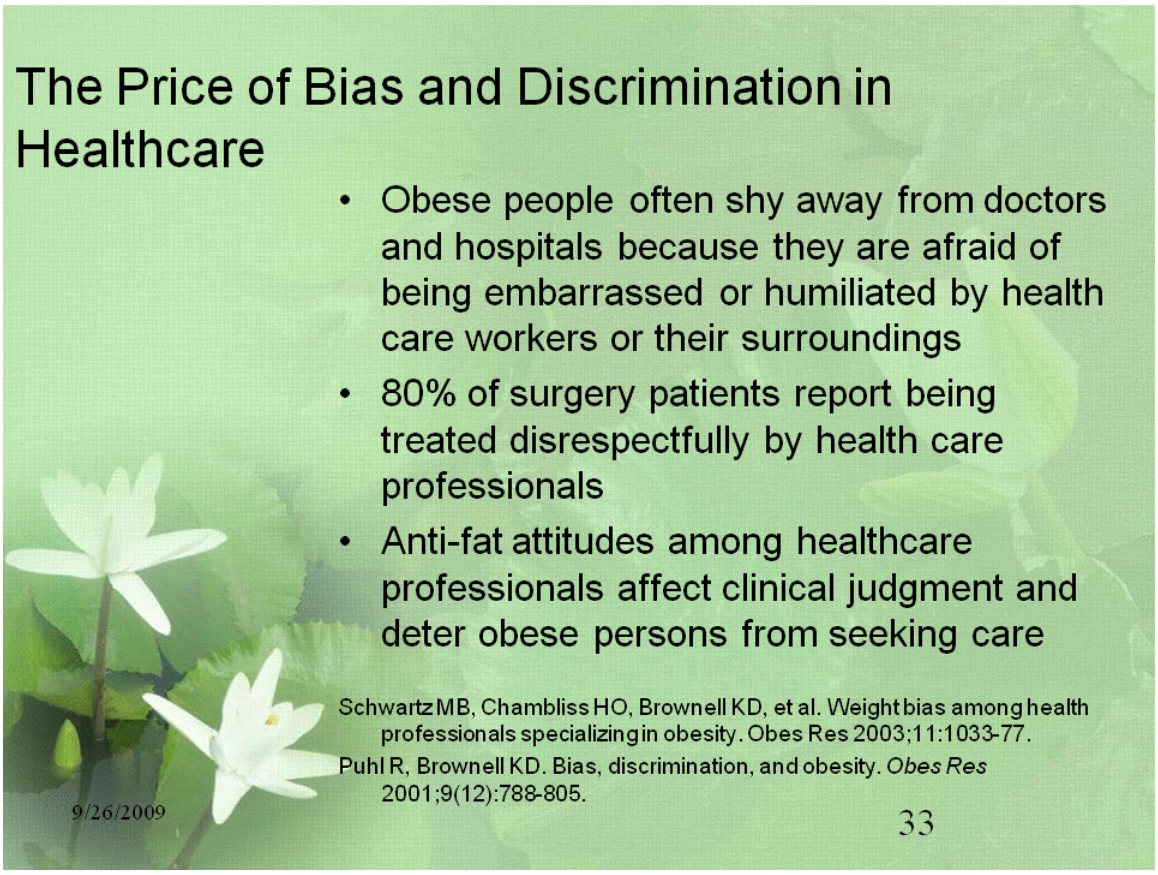
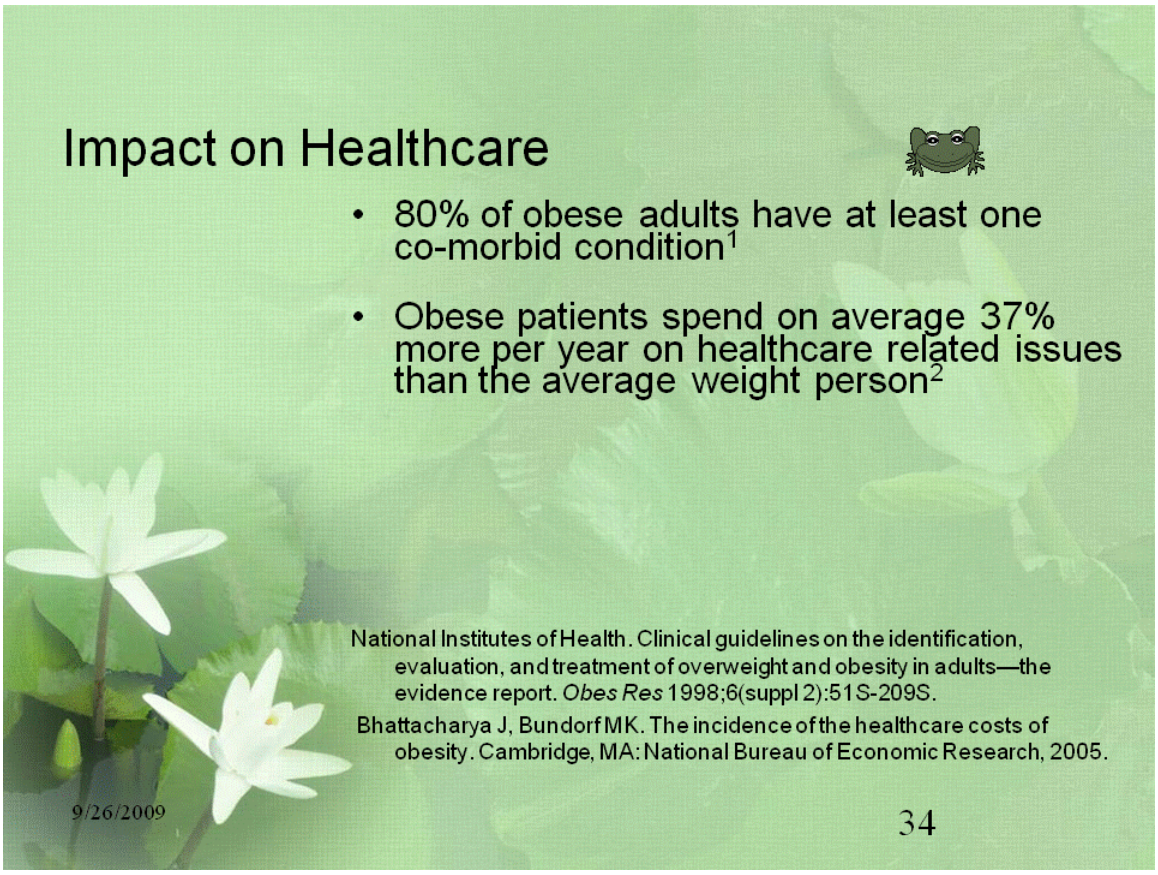
Appendix L


The Price of Bias and Discrimination in Healthcare
• Obese people often shy away from doctors and hospitals because they are afraid of being embarrassed or humiliated by health care workers or their surroundings
• 80% of surgery patients report being treated disrespectfully by health care professionals
• Anti-fat attitudes among healthcare professionals affect clinical judgment and deter obese persons from seeking care
Schwartz MB, Chambliss HO, Brownell KD, et al. Weight bias among health professionals specializing in obesity. Obes Res 2003;11:1033-77.
Puhl R, Brownell KD. Bias, discrimination, and obesity. Obes Res 2001;9(12):788-805.
9/26/2009
33

Appendix L


Impact on Healthcare
• 80% of obese adults have at least one co-morbid condition[1]
• Obese patients spend on average 37% more per year on healthcare related issues than the average weight person[2]
National Institutes of Health. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults—the evidence report. Obes Res 1998;6(suppl 2):51S-209S.
Bhattacharya J, Bundorf MK. The incidence of the healthcare costs of obesity. Cambridge, MA: National Bureau of Economic Research, 2005.
9/26/2009
34

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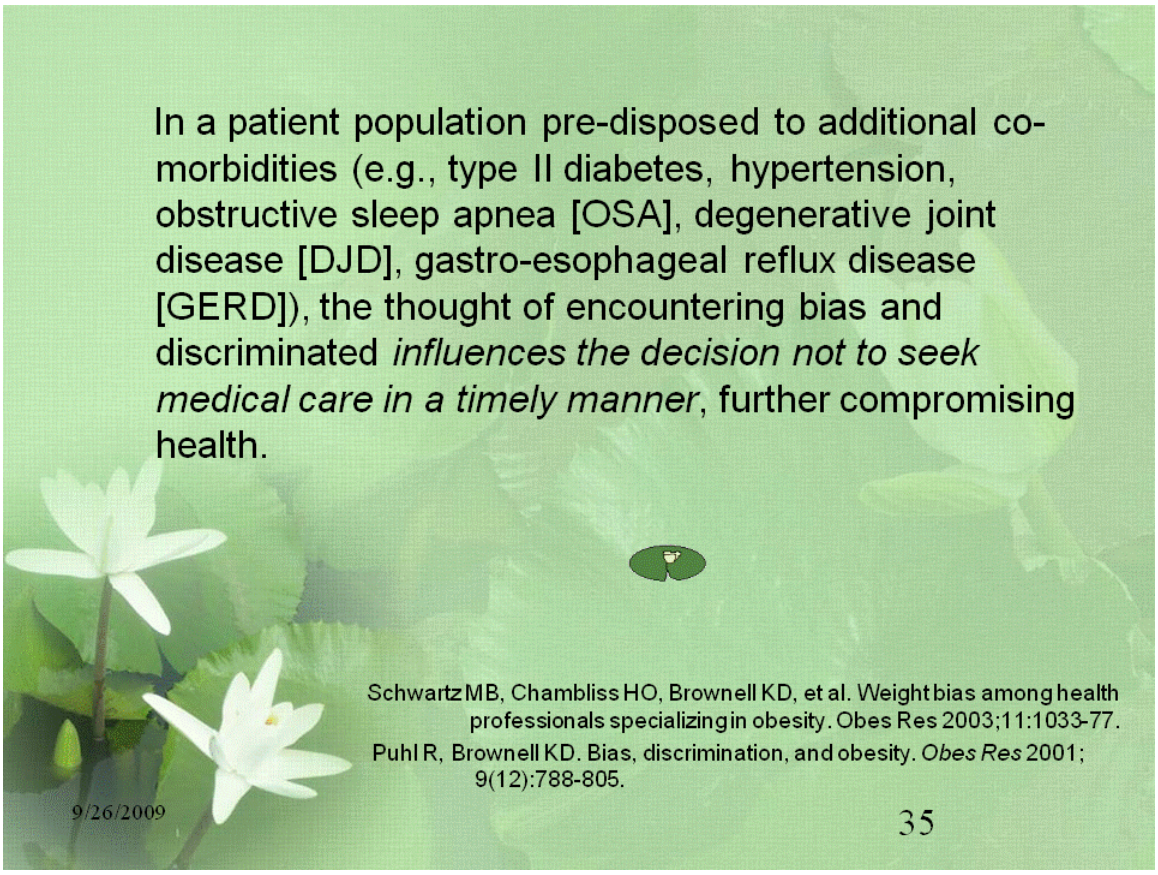
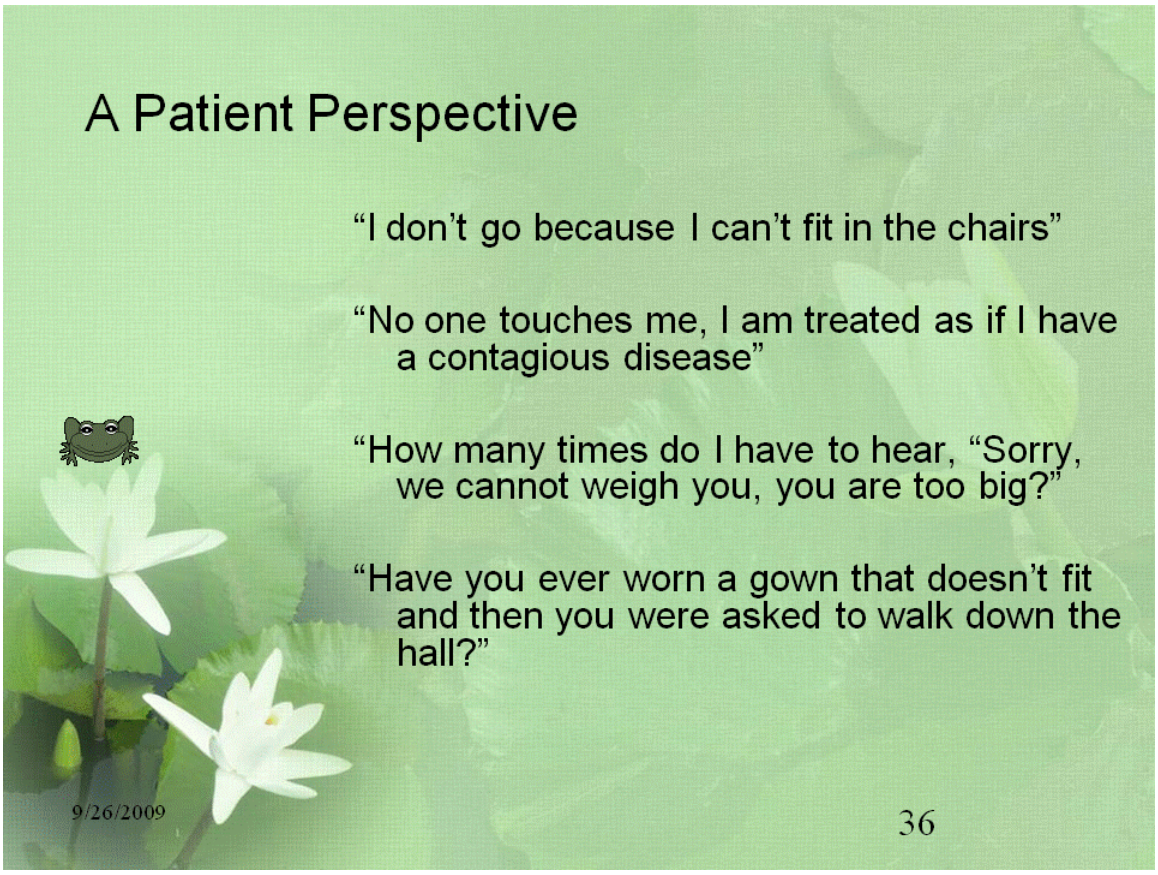

In a patient population pre-disposed to additional co-morbidities (e.g., type II diabetes, hypertension, obstructive sleep apnea [OSA], degenerative joint disease [DJD], gastro-esophageal reflux disease [GERD]), the thought of encountering bias and discriminated *influences the decision not to seek medical care in a timely manner*, further compromising health.
Schwartz MB, Chambliss HO, Brownell KD, et al. Weight bias among health professionals specializing in obesity. Obes Res 2003;11:1033-77.
Puhl R, Brownell KD. Bias, discrimination, and obesity. *Obes Res* 2001; 9(12):788-805.
9/26/2009
35

Appendix L


A Patient Perspective
"I don't go because I can't fit in the chairs"
"No one touches me, I am treated as if I have a contagious disease"
"How many times do I have to hear, "Sorry, we cannot weigh you, you are too big?"
"Have you ever worn a gown that doesn't fit and then you were asked to walk down the hall?"
9/26/2009
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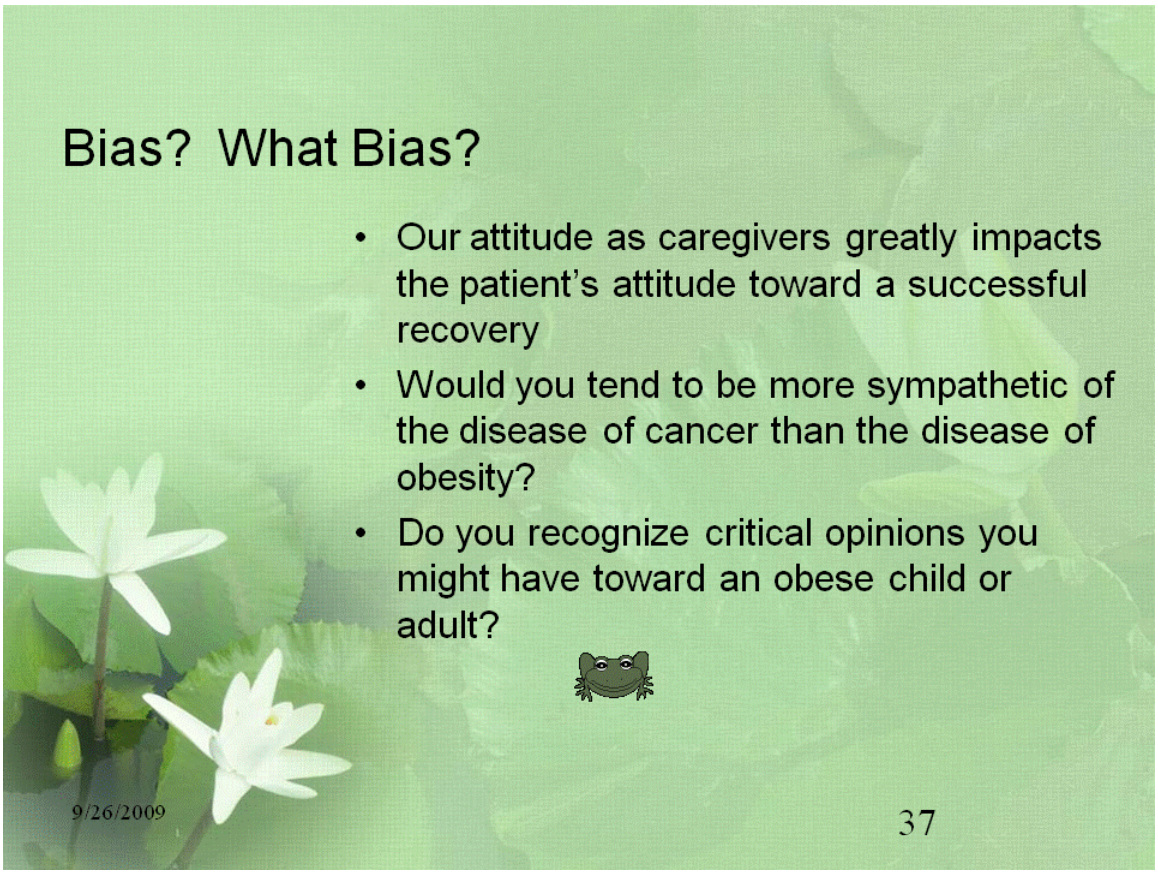
Appendix L


Bias? What Bias?
• Our attitude as caregivers greatly impacts the patient's attitude toward a successful recovery
• Would you tend to be more sympathetic of the disease of cancer than the disease of obesity?
• Do you recognize critical opinions you might have toward an obese child or adult?
9/26/2009
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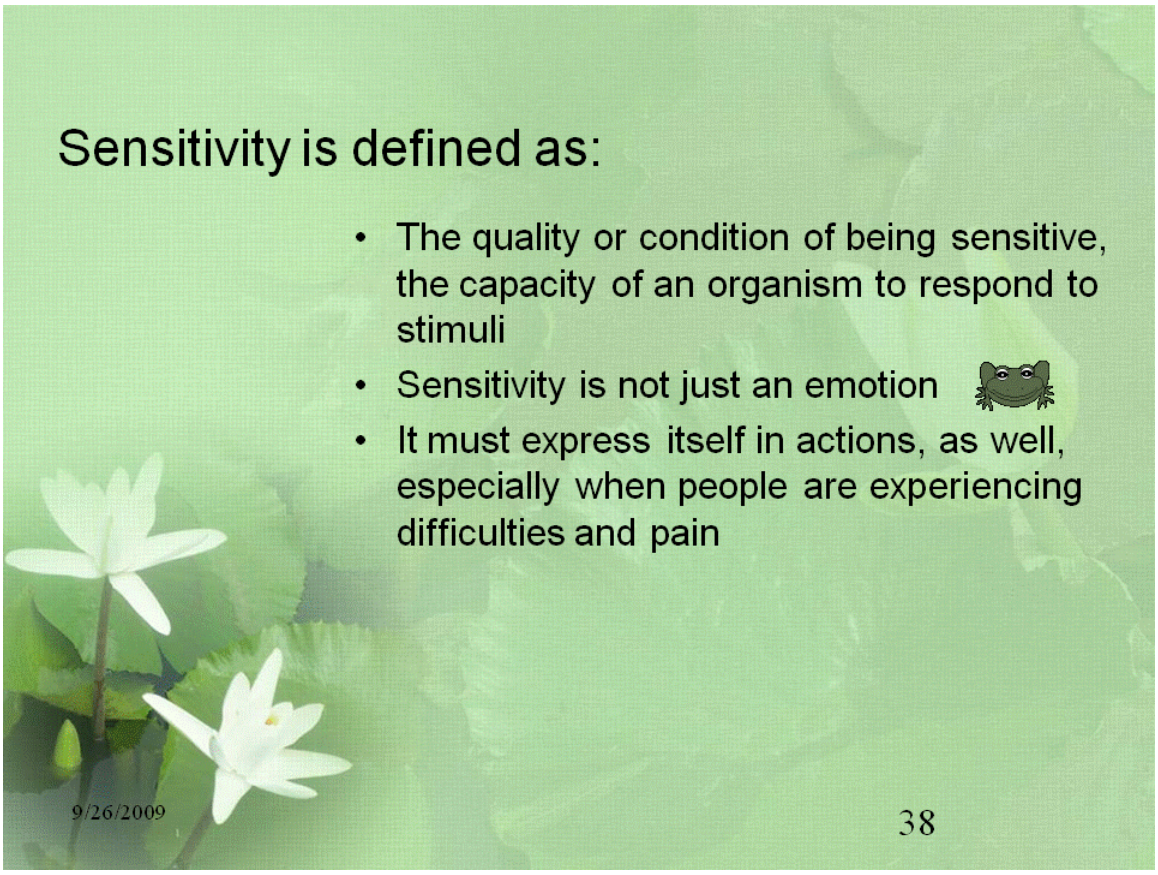
Appendix L


Sensitivity is defined as:
• The quality or condition of being sensitive, the capacity of an organism to respond to stimuli
• Sensitivity is not just an emotion
• It must express itself in actions, as well, especially when people are experiencing difficulties and pain
9/26/2009
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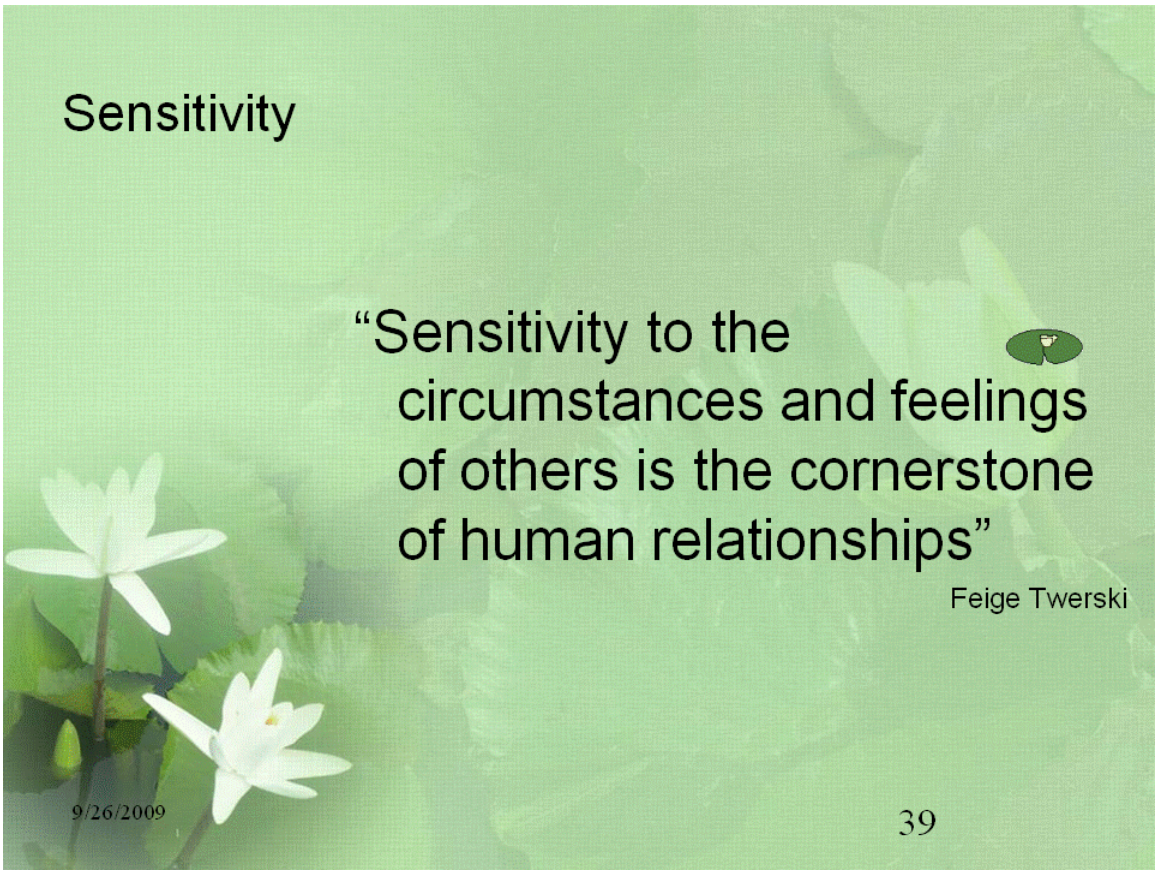
Appendix L


Sensitivity
"Sensitivity to the circumstances and feelings of others is the cornerstone of human relationships"
Feige Twerski
9/26/2009
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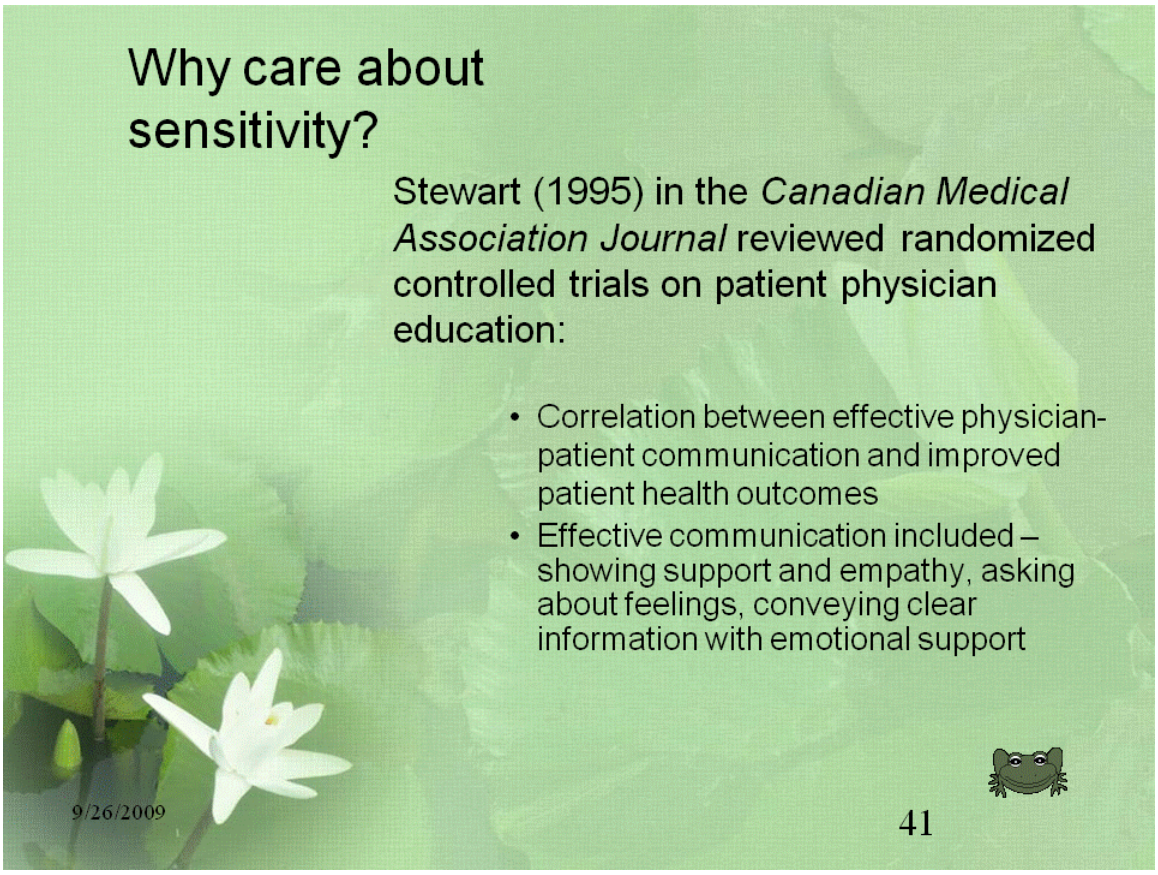
Appendix L


Consequences of Insensitivity
•Feelings of isolation and loss of hope
•Fear of entering a critical or "hostile" outside environment
•Fear of being a prisoner of obesity
•Family members love and care for them, but are hopeless to provide solutions and are afraid of causing them more emotional pain
Gallagher S. Promoting compassion, sensitivity and understanding among obese patients. *Bariatric Times.* September/October 2004 Vol. 1 Issue 1.
9/26/2009
40

Appendix L


Why care about sensitivity?
Stewart (1995) in the *Canadian Medical Association Journal* reviewed randomized controlled trials on patient physician education:
• Correlation between effective physician-patient communication and improved patient health outcomes
• Effective communication included – showing support and empathy, asking about feelings, conveying clear information with emotional support
9/26/2009
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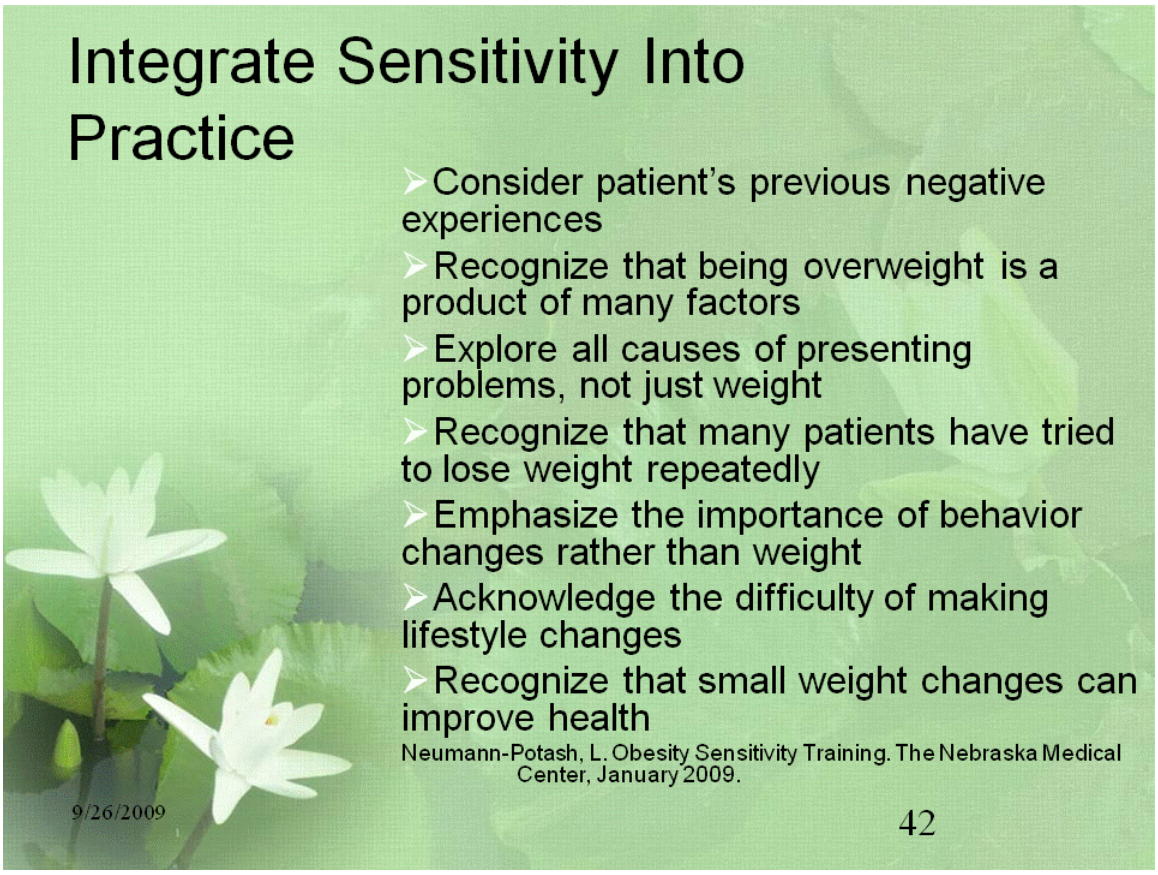
Appendix L


Integrate Sensitivity Into Practice
Consider patient's previous negative experiences
Recognize that being overweight is a product of many factors
Explore all causes of presenting problems, not just weight
Recognize that many patients have tried to lose weight repeatedly
Emphasize the importance of behavior changes rather than weight
Acknowledge the difficulty of making lifestyle changes
Recognize that small weight changes can improve health
Neumann-Potash, L. Obesity Sensitivity Training. The Nebraska Medical Center, January 2009.
9/26/2009
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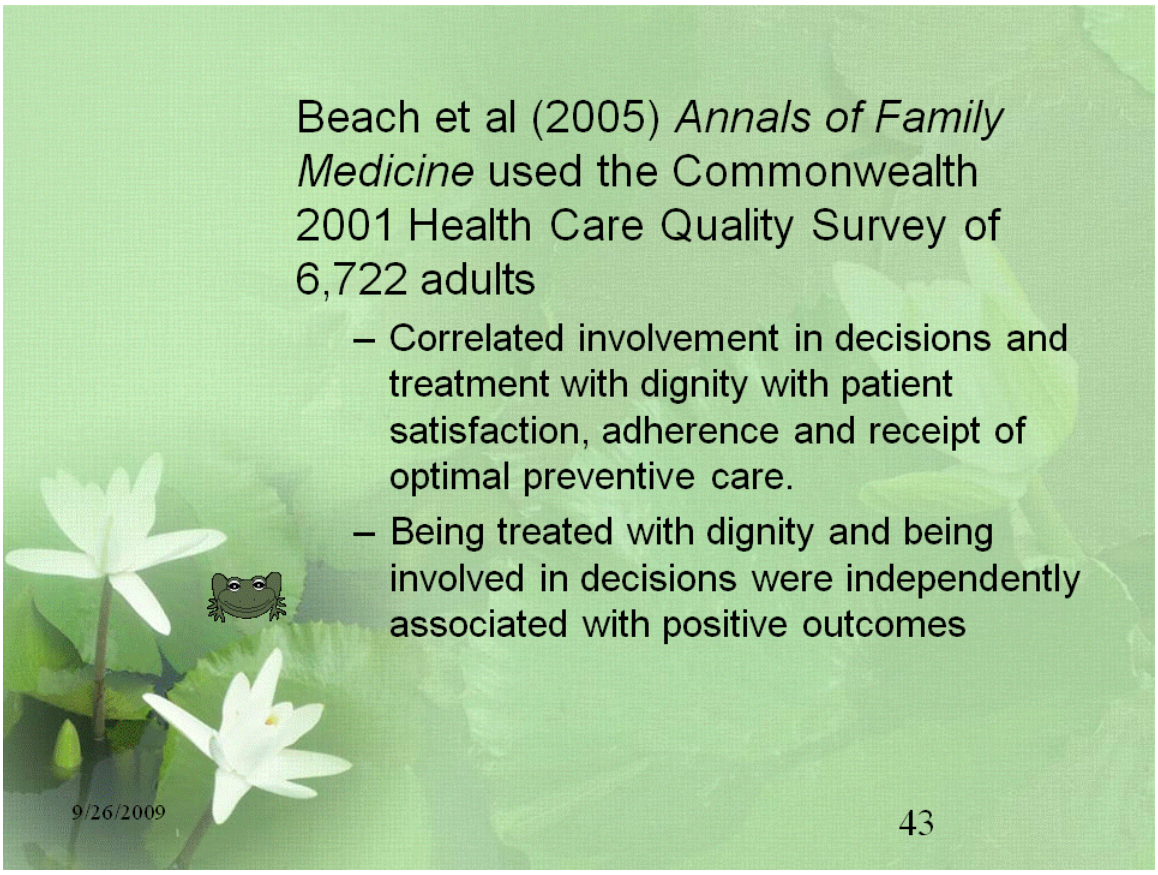
Appendix L


Beach et al (2005) *Annals of Family Medicine* used the Commonwealth 2001 Health Care Quality Survey of 6,722 adults
– Correlated involvement in decisions and treatment with dignity with patient satisfaction, adherence and receipt of optimal preventive care.
– Being treated with dignity and being involved in decisions were independently associated with positive outcomes
9/26/2009
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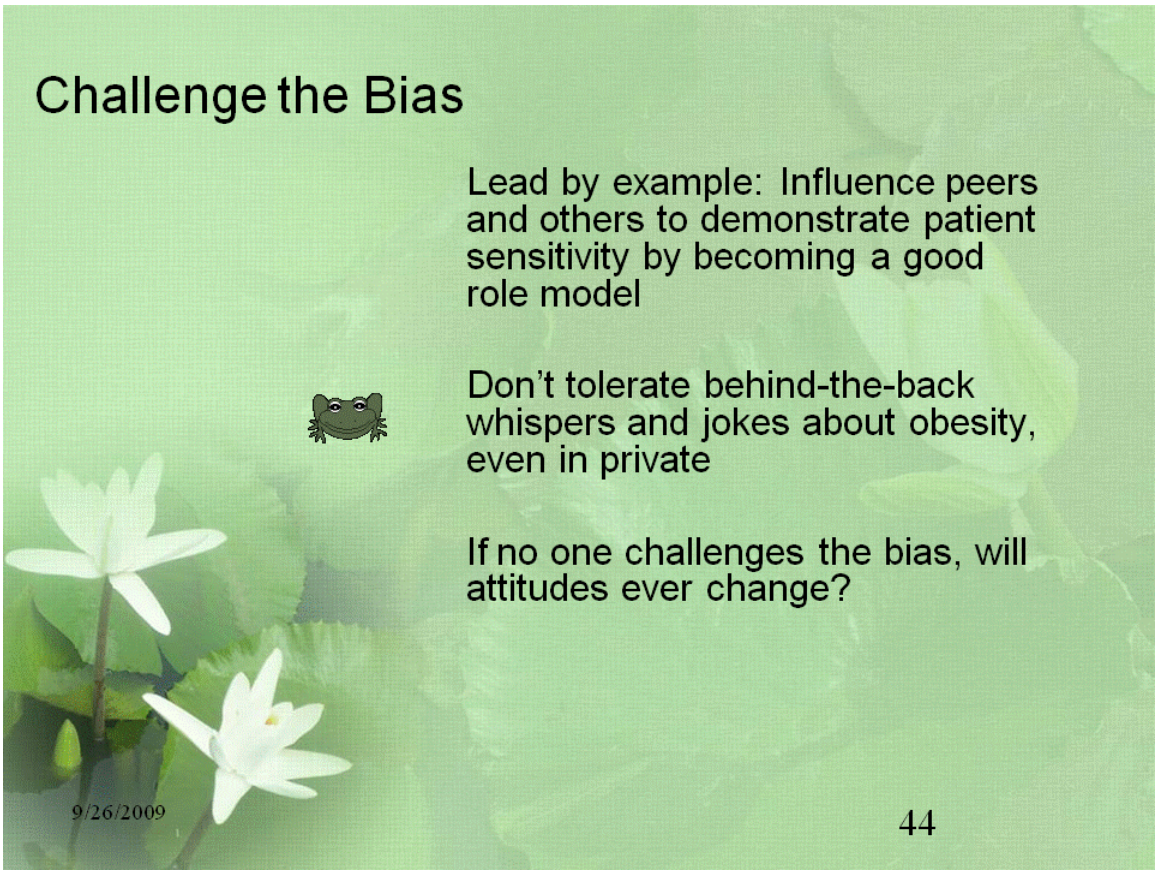
Appendix L


Challenge the Bias
Lead by example: Influence peers and others to demonstrate patient sensitivity by becoming a good role model
Don't tolerate behind-the-back whispers and jokes about obesity, even in private
If no one challenges the bias, will attitudes ever change?
9/26/2009
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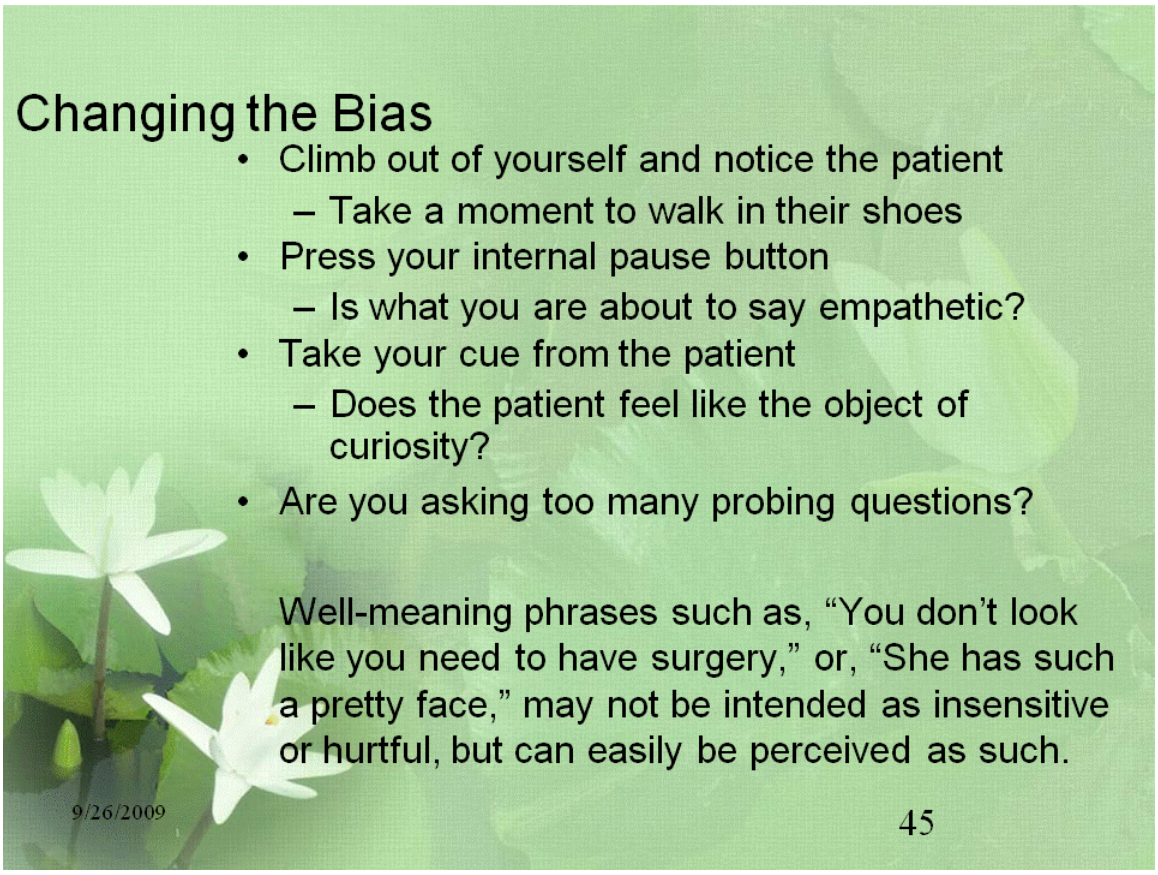
Appendix L


Changing the Bias
• Climb out of yourself and notice the patient
– Take a moment to walk in their shoes
• Press your internal pause button
– Is what you are about to say empathetic?
• Take your cue from the patient
– Does the patient feel like the object of curiosity?
• Are you asking too many probing questions?
Well-meaning phrases such as, “You don’t look like you need to have surgery,” or, “She has such a pretty face,” may not be intended as insensitive or hurtful, but can easily be perceived as such.
9/26/2009
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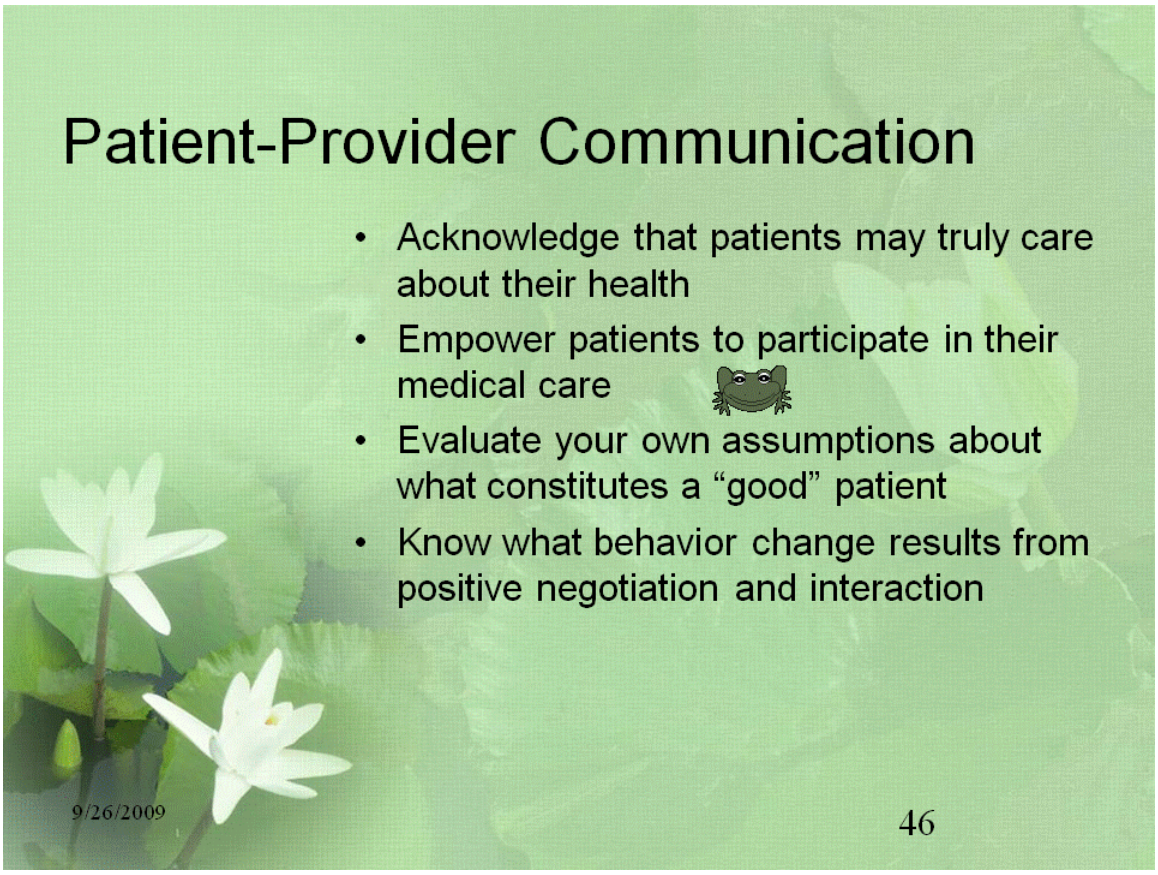
Appendix L


Patient-Provider Communication
• Acknowledge that patients may truly care about their health
• Empower patients to participate in their medical care
• Evaluate your own assumptions about what constitutes a "good" patient
• Know what behavior change results from positive negotiation and interaction
9/26/2009
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Appendix L


Supportive Language
OLD
Overweight, obese
Willpower
Preach
Compliance
Should, must
Limit, restrict
Prescribe
Approval
Expectations
Good/Bad
Diet
Exercise regimen
Ideal Weight
NEW
Person/patient of size
Commitment
Enable
Exploration
Consider
Choose, experience
Negotiate
Self-esteem
Discoveries
What works for you
Eating Style
Activity Style/Physical activity
Healthy weight
From Centers for Obesity Research and Education (CORE)
9/26/2009
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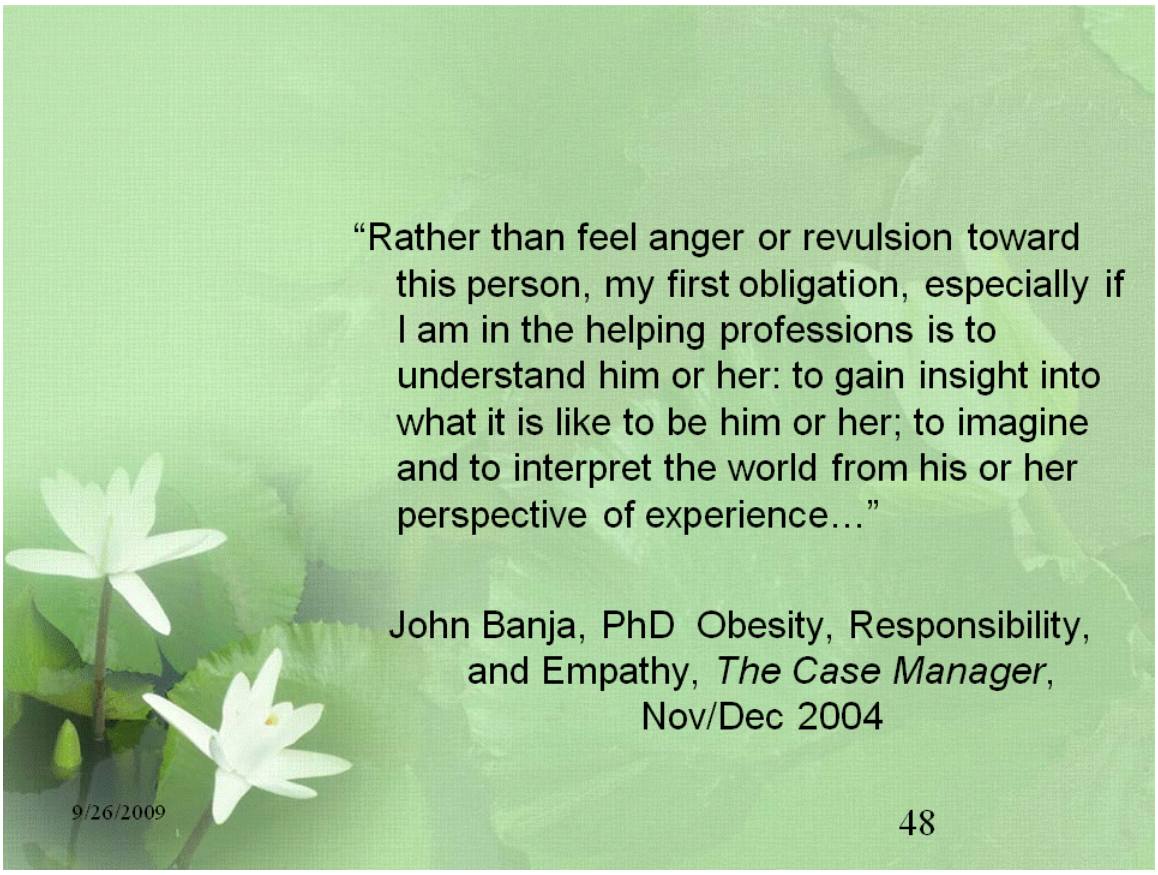
Appendix L


"Rather than feel anger or revulsion toward this person, my first obligation, especially if I am in the helping professions is to understand him or her: to gain insight into what it is like to be him or her; to imagine and to interpret the world from his or her perspective of experience…"
John Banja, PhD Obesity, Responsibility, and Empathy, The Case Manager, Nov/Dec 2004
9/26/2009
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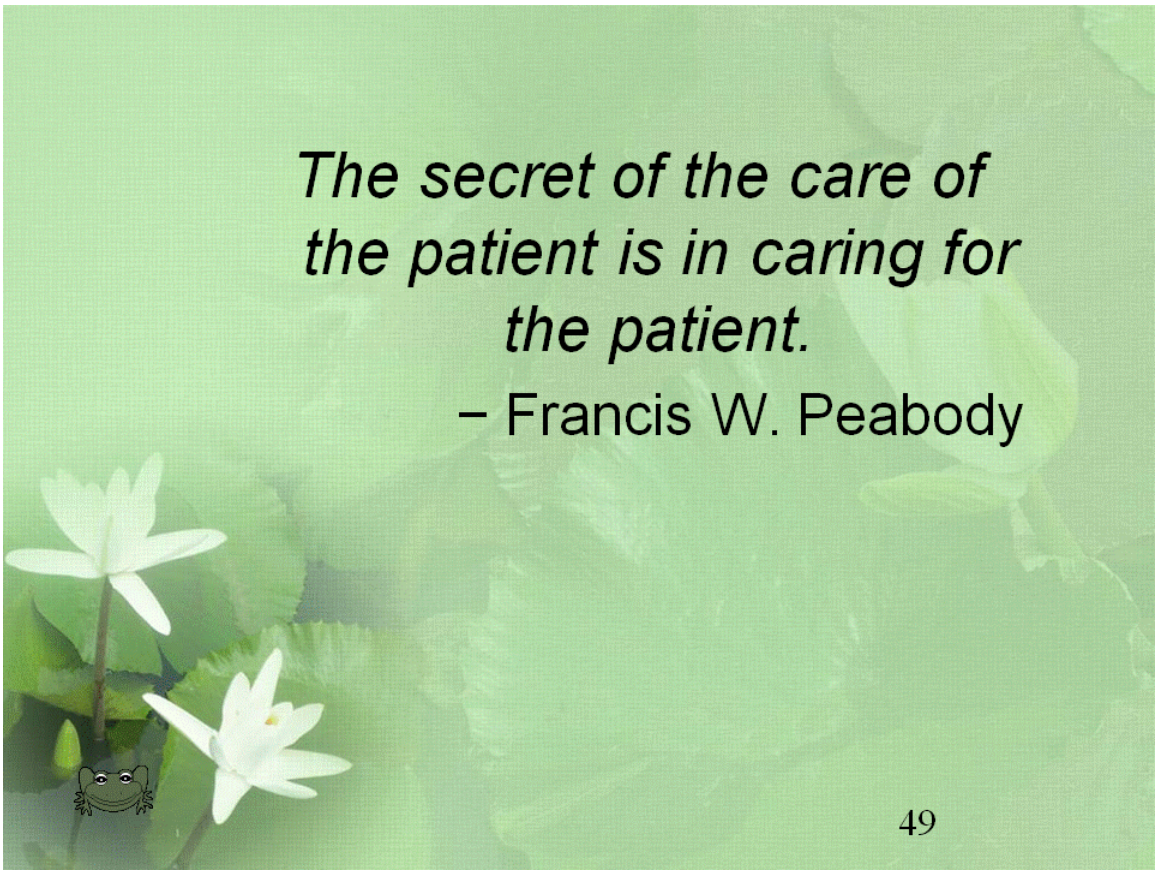
Appendix L


The secret of the care of the patient is in caring for the patient.
– Francis W. Peabody
49

Appendix M

Reminder 1

Hi,

Thank you for participating in my research study! Your input is invaluable. This is just a friendly reminder to please return to my web site at http://lindamarcum.webs.com/ and complete step 2. It will ***only*** take approximately 5 minutes to complete!

Sincerely,

Linda Marcum RN MSN

Reminder 2

Hi,

Thank you for participating in my research study! Your input is invaluable. This is just a friendly reminder to please return to my web site at http://lindamarcum.webs.com/ and complete step 3. It will ***only*** take approximately 5 minutes to complete!

Sincerely,

Linda Marcum RN MSN

Appendix N

Pre-Attitudes Toward Obese People questionnaire total scores (scoreprea), frequency, and percent from 101 respondents before viewing the Obesity Sensitivity Education PowerPoint

Score prea		Frequency	Valid Percent
Valid	30	1	1.0
	31	1	1.0
	33	1	1.0
	47	3	3.0
	50	1	1.0
	52	1	1.0
	53	2	2.0
	54	1	1.0
	55	1	1.0
	56	2	2.0
	57	1	1.0
	58	4	4.0
	59	1	1.0
	61	1	1.0
	62	3	3.0
	63	4	4.0
	64	5	5.0
	65	1	1.0
	66	3	3.0
	67	3	3.0
	68	3	3.0
	69	1	1.0
	70	2	2.0
	71	3	3.0
	72	3	3.0
	73	1	1.0

74	2	2.0
75	3	3.0
76	4	4.0
77	4	4.0
78	2	2.0
79	3	3.0
80	3	3.0
81	1	1.0
83	1	1.0
84	4	4.0
85	4	4.0
86	4	4.0
87	5	5.0
89	2	2.0
92	1	1.0
94	1	1.0
95	1	1.0
99	1	1.0
100	1	1.0
101	1	1.0
Total	101	100.0

Appendix O

First post-Attitudes Toward Obese People questionnaire total scores (scoreposta1), frequency, and percent from 85 respondents after viewing the Obesity Sensitivity Education PowerPoint.

scoreposta1		Frequency	Valid Percent
Valid	44	1	1.2
	49	2	2.4
	52	2	2.4
	53	2	2.4
	54	1	1.2
	55	1	1.2
	56	1	1.2
	57	2	2.4
	59	5	5.9
	60	3	3.5
	61	2	2.4
	62	1	1.2
	63	3	3.5
	64	1	1.2
	65	1	1.2
	66	4	4.7
	67	3	3.5
	68	1	1.2
	69	3	3.5
	70	3	3.5
	71	1	1.2
	72	6	7.1
	73	2	2.4
	74	2	2.4
	75	4	4.7
	76	2	2.4
	77	4	4.7

	78	1	1.2
	80	1	1.2
	81	3	3.5
	82	1	1.2
	84	1	1.2
	85	3	3.5
	86	1	1.2
	87	1	1.2
	88	1	1.2
	89	1	1.2
	92	1	1.2
	93	2	2.4
	95	2	2.4
	96	1	1.2
	99	1	1.2
	106	1	1.2
	Total	85	100.0
Missing	System	16	
Total		101	

Appendix P

Second post-Attitudes Toward Obese People questionnaire total scores (scoreposta2), frequency, and percent from 37 respondents after viewing the Obesity Sensitivity Education PowerPoint.

scoreposta2		Frequency	Valid Percent
Valid	24	1	2.7
	50	1	2.7
	54	2	5.4
	55	1	2.7
	56	1	2.7
	58	2	5.4
	61	1	2.7
	63	1	2.7
	65	1	2.7
	66	3	8.1
	67	1	2.7
	68	3	8.1
	69	1	2.7
	70	1	2.7
	71	1	2.7
	73	2	5.4
	74	1	2.7
	77	2	5.4
	80	1	2.7
	83	2	5.4
	84	1	2.7
	89	1	2.7
	94	1	2.7
	96	1	2.7
	97	1	2.7
	100	2	5.4
	102	1	2.7

	Total	37	100.0
Missing	System	64	
Total		101	

Appendix Q

Pre-Beliefs About Obese People questionnaire total scores (scorepreb), frequency, and percent from 101 respondents before viewing the Obesity Sensitivity Education PowerPoint.

Score preb		Frequency	Valid Percent
Valid	4	1	1.0
	6	1	1.0
	8	1	1.0
	9	6	5.9
	10	2	2.0
	11	4	4.0
	12	2	2.0
	13	5	5.0
	14	5	5.0
	15	3	3.0
	16	5	5.0
	17	7	6.9
	18	7	6.9
	19	3	3.0
	20	6	5.9
	21	7	6.9
	22	4	4.0
	23	4	4.0
	24	5	5.0
	25	1	1.0
	26	6	5.9
	27	2	2.0
	28	3	3.0
	30	1	1.0
	31	1	1.0
	32	2	2.0
	33	2	2.0

36	2	2.0
37	1	1.0
45	1	1.0
85	1	1.0
Total	101	100.0

Appendix R

First post-Beliefs About Obese People questionnaire total scores (scorepostb1), frequency, and percent from 85 respondents after viewing the Obesity Sensitivity Education PowerPoint.

Score postb1		Frequency	Valid Percent
Valid	9	2	2.4
	11	2	2.4
	12	5	5.9
	14	4	4.7
	15	2	2.4
	16	4	4.7
	17	7	8.2
	18	5	5.9
	19	6	7.1
	20	8	9.4
	21	5	5.9
	22	3	3.5
	23	2	2.4
	24	1	1.2
	25	5	5.9
	26	3	3.5
	27	3	3.5
	28	4	4.7
	29	1	1.2
	31	2	2.4
	32	2	2.4
	33	1	1.2
	34	5	5.9
	35	1	1.2
	36	1	1.2
	44	1	1.2

	Total	85	100.0
Missing	System	16	
Total		101	

Appendix S

Second post-Beliefs About Obese People questionnaire total scores (scorepostb2), frequency, and percent from 37 respondents after viewing the Obesity Sensitivity Education PowerPoint.

Score postb2		Frequency	Valid Percent
Valid	8	1	2.7
	11	3	8.1
	12	1	2.7
	13	1	2.7
	15	3	8.1
	16	3	8.1
	17	2	5.4
	18	2	5.4
	19	2	5.4
	20	5	13.5
	22	1	2.7
	23	1	2.7
	26	4	10.8
	27	1	2.7
	29	2	5.4
	31	1	2.7
	32	2	5.4
	33	1	2.7
	35	1	2.7
	Total	37	100.0
Missing	System	64	
Total		101	

Appendix T

Descriptive Statistics

		Type of respondent	Age	Have you ever been obese	Family or friends obese	Ever had obesity training	Work in a designated obesity facility	scoreprea	scoreposta1	scoreposta2	scorepreb	scorepostb1	scorepostb2
N	Valid	101	101	100	101	101	101	101	85	37	101	85	37
	Missing	0	0	1	0	0	0	0	16	64	0	16	64
	Mean	2.5347	2.5050	1.5100	1.1287	1.7030	1.8119	71.3465	71.2471	71.8649	20.1782	21.6824	20.6486
	Median	3.0000	3.0000	2.0000	1.0000	2.0000	2.0000	72.0000	71.0000	69.0000	19.0000	20.0000	20.0000
	Mode	3.00	1.00[a]	2.00	1.00	2.00	2.00	64.00[a]	72.00	66.00[a]	17.00[a]	20.00	20.00
	Std. Deviation	1.16245	1.22167	.50242	.33655	.45923	.39276	14.27966	12.87477	16.47079	9.90595	7.18333	7.08369
	Skewness	.090	-.012	-.041	2.251	-.902	-1.620	-.464	.351	-.169	3.003	.592	.341
	Std. Error of Skewness	.240	.240	.241	.240	.240	.240	.240	.261	.388	.240	.261	.388
	Kurtosis	-1.054	-1.584	-2.040	3.129	-1.211	.637	.401	-.217	.803	17.518	.024	-.783
	Std. Error of Kurtosis	.476	.476	.478	.476	.476	.476	.476	.517	.759	.476	.517	.759

Range	4.00	3.00	1.00	1.00	1.00	1.00	71.00	62.00	78.00	81.00	35.00	27.00
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	30.00	44.00	24.00	4.00	9.00	8.00
Maximum	5.00	4.00	2.00	2.00	2.00	2.00	101.00	106.00	102.00	85.00	44.00	35.00

a. Multiple modes exist. The smallest value is shown

Appendix U

Node	Name	Sources	References	Before Viewing PowerPoint	After Viewing PowerPoint
	Task Oriented			34	18
Assistance 1		1	5		
Assistance 2		1	2		
Mobility 1		1	7		
Mobility 2		1	5		
Moving them 1		1	9		
Moving them 2		1	4		
Help 1		1	13		
Help 2		1	7		
	Awareness			19	41
concern1		1	11		
concern2		1	25		
empathy1		1	5		
empathy2		1	4		
feel1		1	2		
feel2		1	1		
Sensitivity 1		1	0		
Sensitivity 2		1	7		
Need 1		1	1		
Need 2		1	4		
	Client Assessment Mode			15	20
Medical condition1		1	14		
Medical condition 2		1	19		
Holistic 1		1	1		
Holistic 2		1	1		
Size 1		1	4		
Size 2		1	2		
	Judgmental			33	29
Hard 1		1	10		
Hard 2		1	8		
Adequate care 1		1	4		
Adequate care 2		1	1		
Nothing 1		1	7		
Nothing 2		1	3		
Same 1		1	7		
Same 2		1	14		
Too bad 1		1	5		
Too bad 2		1	3		