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Stop the Stigma! Eliminating Implicit and Explicit Bias Toward Adult Obese Women

Receiving Gynecological Care: A Quality Improvement Project
to Cultivate Empathy and Increase Knowledge of Best Practices.

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Abstract

Background: Increased weight carries significant health risks, yet obese individuals face stigma, implicit and explicit bias by health care providers that affects quality of care and increases health care avoidance. Obese women may delay or avoid gynecological care due to fear of stigma, inadequate equipment and embarrassment about their weight. *Review of Literature:* In the United States, 70.7% of adults, almost three quarters of the adult population are overweight or obese. *Purpose:* The purpose of this quality improvement project was to improve the quality of care and empathy toward obese women by health care providers in an OB/GYN practice through education about the experiences of obese women who receive healthcare and provision of resources within OB/GYN practices. *Methods:* A quality improvement project with an educational design was implemented using a Plan, Do, Check, Act framework. The plan was implemented at an OB/GYN practice in Western Massachusetts using a team approach consisting of the DNP student, providers and staff. The Thin-Fat Implicit Bias Test and Anti-Fat Attitudes test were administered pre-and post-educational program to assess change in provider bias toward obese women. *Results:* A decrease in explicit bias was shown both immediately and 3 months after the intervention. There was minimal decrease and some increase in implicit bias after the intervention which may be related to confounding factors such as increased familiarity with the testing procedure. At 3 months some participants were avoidant at follow-up suggesting possible shame, embarrassment, or deeper feelings which merit future exploration. *Conclusions:* Continued education and awareness is needed to sustain and decrease stigma toward obese women in the health care setting.

Keywords: obesity, women, stigma, health care providers, health care avoidance, gynecologic care

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Introduction

Both implicit or unconscious bias and explicit or expressed bias toward obese patients is highly prevalent across health care disciplines (Budd, Mariotti, Graff & Falkenstein, 2011; Khandalavla, Rojanala, Geske, Koran-Scholl & Guck, 2014; Mold & Forbes, 2011; Phelan, Dovidio, Puhl, et al, 2014) and may result in adverse effects on patient interactions, health outcomes, quality of care and health care avoidance by obese women due to actual and perceived bias and feelings of discomfort in the primary health care setting (Change, Asch & Werner, 2010; Ma, Xiao & Stafford, 2009; Mold and Forbes, 2011).

Background

Obese women experience stigma, which has a significant impact on their lives and interactions in the health care system. This stigma manifests as bias, which can be implicit, explicit, or both. Implicit bias is an unexpressed, unconscious, and automatic preference for one thing over another (Ahern and Hetherington, 2006). A person may be partly or totally unaware of their level of implicit bias and may be surprised to learn of their unconscious bias. Explicit bias is outwardly expressed beliefs, values and preferences for one thing over another (Phelan et al, 2014). Explicit bias can be influenced by socially accepted beliefs or patterns of behavior. For example, a person may state that they treat all patients equally and do not have bias toward one type of patient over another. This is the socially and professionally sanctioned value system taught to most health care professionals. It is considered unprofessional to express a bias or

prejudice against a particular group of patients and so, the person outwardly expresses the socially acceptable point of view.

Obesity is a chronic health condition that impacts 600 million adults worldwide and 78 million adults in the United States. Fifty-two percent of the world's adult population and 70.7% of the adult population of the United States is overweight or obese. (Centers for Disease Control and Prevention, 2016; Johnson, Hayes, Brown, Hoo &Ethiak, 2014; World Health Organization, 2016). Obesity is commonly described as a Body Mass Index (BMI) of 30 or greater. Overweight is described as a BMI of 25-30. Ogden, Carroll, Fryar & Flegal (2015) found a 36.5% rate of obesity in adults in the United States between 2011-2014. This prevalence is higher in women (38.3%) than in men (34.3%). The highest rates of obesity were seen among adults ages 40-59. Forty percent of all adults in the United States in this age group are classified as obese. Women in this age group continue to have a greater rate of obesity (42.1%) than men (38.3%) (Ogden et al, 2015).

Ogden et al. (2015) stated a significant disparity in the rates of obesity across racial demographics as well as gender. Among women, non-Hispanic black women had the highest rates of obesity (56.9%) followed by Hispanic women (45.7%). Both rates are significantly higher than the obesity rate for non-Hispanic white women (33.6%). Despite differences across demographics, one third of a population with a chronic condition that increases the risk for multiple health problems represents an urgent unmet need by the medical community. When the rate of obesity is combined with the rate of adults who are overweight (37.9%) the prevalence of adults who are not at a healthy weight is over 70%, alarmingly higher than the Healthy People 2020 goal of 33.9% of all adults at a healthy weight (Ogden et al, 2015; U.S. Dept. of Health and Human Services, 2017).

Obese patients are at higher risk for multiple health conditions such as cardiac disease, Type II diabetes, arthritis or various cancers. Increased risk for gynecological problems among obese women include endometrial and breast cancer, polycystic ovary disease, menstrual and fertility problems (Kimmel, Gerguson, Zerwas, Bulik & Meltzer-Brody, 2016). It is important that obese patients receive high quality preventative care, health teaching and good follow-up to prevent illness, decrease risk factors and diagnose health problems promptly for effective treatment.

Unfortunately, the negative attitude and bias of health care providers may affect not only the quality of care but has been shown to cause patients to avoid healthcare altogether due to feelings of embarrassment and stigma (Drury & Louis, 2002; Gudzone, Beach, Roter & Cooper, 2013; Mold & Forbes, 2011; Pier, Chinn, Pier & Tobles, 2013; Richard, Ferguson, Lara, Leonard & Youns, 2014). Communication, which is a key component of quality care may be reduced in content, time allotment and respect for what the patient says when they are obese. (Richard et al., 2014). Tannenberg & Ciupitu-Plath (2017) investigated nurse's attitudes toward obese patients and found a high degree of holding the obese person solely responsible for their condition correlated with attitudes of disapproval and disgust in addition to expressed frustration with lacking needed resources and equipment to care for these patients safely and appropriately. Assisting health care providers to reflect on how their attitudes affect their patients and providing education and resources to make the practice environment more welcoming to obese patients may help to bridge the gap in practice, increase quality of care and improve health outcomes for these patients.

Problem Statement

Adult obese women may delay or avoid gynecological care due to stigma, secondary to implicit or explicit bias of health care providers. This stigma results in decreased empathy caused by lack of knowledge and training about the care of obese women.

Organizational Gap Analysis of Project Site

The community of interest for this project was obese adult women seeking obstetrical/gynecological care. Barriers related to stigma, provider attitudes, lack of treatment and counseling and inadequate resources in practice settings have created a gap in practice for providing the high quality gynecological care to obese women. The American College of Obstetricians and Gynecologists (2014) stated that obesity should be treated as a medical condition and the provider has an obligation to provide non-judgmental treatment and assistance. Pier and Pier (2013) found that 70% of healthcare providers in a medical practice stated that the identification and treatment of overweight and obesity was important. However, in a retrospective chart review of 1,145 encounters with patients considered overweight (BMI>25) only 77 (6.7%) of those encounters documented overweight or obesity and only 70 (6.1%) documented any interventions or counseling related to overweight or obesity. Obese women have described barriers to essential screening tests such as mammography and pap smear which are related to insensitive attitudes of staff and providers, gowns that are too small and pain and discomfort from speculum exams and narrow exam tables (Friedman, Hemler, Rossetti, Celmo & Ferrante (2012). A systematic review and meta-analysis of the association between obesity and cancer screening (Maruthier, Bolen, Brancati & Clark, 2009) identified an inverse relationship between risk of death for obese white women and obesity, although they did not find

this correlation for black obese women. This risk of death increased with the level of obesity and was found to be related to decreased screening. White women with class III obesity (BMI >40) were found to be 40% less likely to receive appropriate cervical cancer screening due to health care avoidance. Considering the rate of obese women in the United States is 38.3% (Ogden, Carol Freyer, & Flegal, 2015) this represents a significant national practice gap.

The rate of obesity in Western Massachusetts is 23.3%, an increase from 14.3% in 1995. This is higher than the state average of 20.7% (Massachusetts, Dept. of Public Health, 2007). The rate of death from heart disease and diabetes as well as the diabetes mortality rate is higher in Western Massachusetts than the state average (Institute of Health Metrics & Evaluation, 2016).

This quality improvement project took place at an OB/GYN practice in Western Massachusetts that serves women from Franklin and adjacent Massachusetts counties. The rate of obesity among patients at this practice mirrors that of the region (Personal communication, M. Paterno, Dec. 2, 2016). This practice maintains a database of resources to assist patients with various health and psychosocial needs but stated a limited number of resources and best practice policies to address the needs of obese women in their practice and expressed a desire to obtain resources and education to improve practice in caring for obese women (Personal communication, M. Paterno, Dec. 2, 2016).

Facilitating factors for this project included the practice's interest and commitment to promote a welcoming environment to diverse populations (Personal communication, M. Paterno, Dec. 2, 2016). The practice has a collaborative relationship among both practitioners within the practice and the local hospital where they admit patients. This was a strength in the implementation of interventions to improve practice which, hopefully, will be extended past the outpatient and into the local hospital setting.

Barriers to successful implementation included limits of practitioner time and financial barriers related to the amount of time available to spend with patients. The initial pre and post testing and intervention needed to be implemented during the lunch hour of the providers and staff, limiting the total amount of time to implement the intervention. This limited time period also made it more difficult to give detailed directions in how to complete the surveys and tests and how many were to be done. The three-month follow-up survey proved the most challenging. Initially, a group e-mail was sent out to all of those participants who indicated that they would be willing to be contacted in 3 months for follow-up testing. After a second inquiry was made a response from one of the office managers stated that a date was acceptable and arrangements were made to visit the site. The day of the site visit, only one person, a physician in the practice showed up for the post-testing. Other participants did not wish to complete the survey that day even with the encouragement of the staff physician. After that date, an e-mail was sent to each individual person on the list who indicated they would be willing to participate in a 3-month follow-up survey. Two of the eight participants who initially indicated they would follow up replied that they no longer wished to participate. Eventually, one midwife and two RNs indicated that they would be willing to do a follow up survey/testing and the tests were administered at the practice site 3 months after the initial intervention and surveys. The day of the survey one additional medical assistant also decided to participate in the follow-up survey but no other staff wished to participate. A total of 5 health care professionals participated in the 3 months follow up survey. Another potential barrier to implementation of the intervention were provider's personal perceptions of themselves and their patients. A provider's body image and cultural views on body size appears to have a potential effect on the outcome of the intervention or may be a barrier which may vary between providers. During the implicit bias testing some of

the participants expressed frustration with the difficulty of the test in that the structure of the test did not allow them to always answer in a way that showed decreased bias due to the speed of the implementation as dictated by the directions of the test.

The AFAT test uses the word “fat” instead of obese or other more acceptable terms and may have been upsetting or offensive to some of the participants.

Review of the Literature

Description of Search Method

A comprehensive review of literature related to the subject of obesity bias in healthcare as well as outcomes of bias and interventions to decrease bias and improve outcomes was performed. The key words used in database searches were: obesity, women, stigma, health care provider, health care avoidance, gynecological care and primary care. A review of the literature was also conducted to obtain practice guidelines and interventions to decrease bias. Key words included: obesity, implicit bias, explicit bias, interventions and behavioral interventions.

Databases searched include PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science and Psychosocial Instruments. The search terms returned 133 results. Inclusion criteria included articles that were related to adult obese women and women receiving primary or gynecological care. Articles about health care providers bias included all disciplines of health care providers, both actively practicing and health care students. Articles were limited to the English language and seminal articles that were highly relevant. Seventy-five references were selected for review, and 52 were deemed relevant for this review of literature. The strength of evidence for the chosen articles was evaluated using the Johns Hopkins Nursing Evidence-based Practice Rating Scale (Newhouse, Dearholt, Poe, Pugh, & White, 2005) and almost exclusively Level III, non-experimental, qualitative or meta-synthesis research. Most

were convenience samples, large surveys or secondary data that were non-randomized without control groups. There were three practice guidelines/national opinions chosen that were Level IV evidence. Articles were chosen for the literature review with a strength of evidence of A (High) or B (Good).

Overview of Findings

In this review of the literature, the DNP student will outline the results of the effect of weight discrimination in the general population and more specifically among health care providers to women in a primary care setting with particular focus on reproductive/gynecological care (Friedman, Hemler, Rosetti, Clemow & Ferrante, 2012; Maruther, Bolen, Brancati, & Clark, 2009; DiPierre & Puhl, 2012; Palmiera, Cunha, Pinto-Goveia, Carvahlo & Lillis, 2016). The root cause of bias toward obese women is based in societal stigma towards obese persons whose physical appearance is associated with negative stereotypes (Brewis & Wurtich, 2012; Dutton et al., 2014). This stigma is more prevalent toward women and has a negative impact on their interactions with healthcare providers (Amy, Alborg, Lyons & Keranen, 2006; Chang, Asch & Werner, 2010; Dutton et al., 2014; Gudzone, Beach, Roter & Cooper, 2013). This negative impact affects the quality of care both from the bias of the healthcare provider toward the obese patient and the resulting health care avoidance by the patients due to feelings of shame, embarrassment or discomfort in receiving healthcare (Friedman et al, 2012; Maruther et al. 2009).

Evidence-Based Interventions

Interventions to aid in decreasing bias begin with the health care provider's awareness of the level of both implicit and explicit bias. Interventions which have shown to be effective in increasing empathy and decreasing bias include the use of videos of the lived experience of the obese patient in the health care setting, education about the multifactorial causes of obesity and

implementation of evidence-based practice guidelines and strategies for providing more welcoming and more respectful care to obese women.

Weight discrimination.

Weight discrimination in the general population.

Despite the fact that the 70.7% of American adults are overweight or obese, weight bias and discrimination is prevalent and has some general acceptance in society (Center for Disease Control and Prevention, 2016; Khandalavala et al., 2016). Obese women face greater actual and perceived discrimination than men (Dutton et al., 2016). This discrimination varied by ethnicity in that non-Hispanic white women both perceived and had greater anti-fat bias than African American women (Dutton et al., 2016; Hart, Sbrocco & Carter, 2016). African American women report less anti-fat bias and perceived discrimination, but their bias and perceived discrimination decreased in relation to increased ethnic identity, where non-Hispanic white women's bias increased in relationship to increased ethnic identity (Hart et al., 2016). Obese women reported feeling the most discrimination in public places of any setting while obese white males reported the least amount of discrimination (Dutton et al., 2016). The rationalization for bias against overweight and obese persons is a concern for the resulting health risks and cost to the healthcare system for what are perceived as unhealthy behaviors that are completely within control of the patient (Budd, Mariotti, Graff & Falkenstein, 2011). Additional biases are related to preference for a particular ideal body type that represents health and youth. There is also additional psychosocial stress as a result of the stigma related to obesity that may increase the patient's allopathic load, making them even more susceptible to both physical and mental health problems (Brewis & Wutich, 2012).

Weight bias among health care providers.

Weight bias and discrimination toward obese patients from health care providers has been found across multiple health care disciplines including those specializing in the treatment of obesity (Khandalavala et al., 2014; Phelan et al., 2014; Tanneberger & Ciupitu-Plath, 2017). Health care providers that had more direct contact with obese patients on a frequent basis reported greater bias than those who had less contact (Khandalavala et al., 2014; Tannenberger & Ciupitu-Plath, 2017; Tomiyama, et al., 2015). Increased levels of bias in health care providers were associated with lower BMI, male gender, and non-black race (Phelan et al., 2014). Explicit negative bias was more negative toward obese patients than toward racial minorities, gays, lesbians and poor people (Phelan et al., 2014). Nurses and physicians with higher BMIs may exhibit less bias and more empathy toward obese patients but may also be less likely to discuss obesity and treatment recommendations because of their own feelings of lack of credibility or personal emotions related to their own feelings about their weight (Aranda & McGreevy, 2014; Tomiyama et al., 2015). Both implicit and explicit bias continue to reflect negative societal attitudes toward obesity as being within the complete control of the patient who is unwilling to change their lifestyle to be healthier, rather than a chronic condition that also has cultural, economic, psychosocial, psychological, endocrinological and genetic components that contribute to a person carrying excess weight (Khandalavala et al., 2014; Tannenberger & Ciupitu-Plath, 2017; Tomiyama et al., 2015).

Quality of care

There are key differences in the way that health care providers interact with obese patients versus normal weight patients and this has been shown to have a negative effect in multiple aspects of quality care including interactions, communication, health teaching, patient trust and

compliance with health screening, although, sometimes providers who were overweight or obese themselves demonstrated increased empathy, but also avoided the topic of obesity more often.

(Amy et al., 2006; Aranda & McGreevy, 2014; Budd et al., 2011; Chang et al., 2010; Friedman et al., 2012; Gudzone, Beach, Roter & Cooper, 2013; Khandalavala et al., 2016; Ma et al., 2009; Maruther, et al., 2009; Mold & Forbes, 2011; Pier, Chinn, Pier, & Tobler, 2013; Richard et al., 2014, Tannenberger and Ciupitu-Plath, 2017). The most notable difference is the style, length, type and quality of communication between health care providers and obese patients.

Investigations of provider's communication patterns demonstrate that they develop less rapport and focus more exclusively on medical issues than with their non-obese patients. This difference in communication may demonstrate an increased level of disinterest and may be less likely to develop into a patient-provider relationship that has a high level of trust (Richard et al., 2013, Gudzone et al., 2013). Ma, Xiao & Stafford (2009) found that quality indicators for standards of care for obese patients were found to be no higher than 50% compliance for the treatment of chronic illness even in patients with co-morbidities. Some of these indicators included the use of beta blockers in the treatment of cardiac disease, the use of diuretics to control hypertension, the prescribing of inhaled corticosteroids for control of asthma and adequate treatment for depression. In addition, 46-54% of obese patients in this investigation lacked complete height and weight data, 70% received no diagnosis of obesity and 54-63% received no counseling related to diet, exercise or lifestyle modifications even those obese patients with co-morbidities. These numbers point to a potentially staggering and serious health disparity in the care of obese patients and more research is needed.

Obese patients are aware of the stigma and stereotyping related to their body size and have increased rates of health care avoidance due to actual or perceived incidences of discrimination

or bias in the health care setting (Friedman et al., 2012; Maruther et al., 2009; Palmiera et al., 2016). Feelings of self-consciousness increase stress hormones that may be enhanced in feelings of discomfort or shame during the medical visit. This may cause the patient to further withdraw during the provider encounter and creates a two-way impaired communication. Impaired communication has been demonstrated to lead to a 19% higher risk of patient non-adherence to the treatment plan and further puts the patient's health at risk for a negative outcome (Phelan et al., 2015).

Interventions to Decrease Stigma, Increase Empathy and Improve Care

Storytelling of experiences to increase empathy and change attitudes.

Video clips which show obese patients telling their stories of the pain of discrimination by health care providers and others have found to be an effective intervention to increase empathy and decrease implicit and explicit bias of health care providers and other individuals (Bumeister et al., 2016; Poutchi, Saks, Piaseck, Hahn & Ferrante, 2013; Swift et al., 2013). The Thin-Fat Implicit Bias Test and the Anti-Fat Attitudes Test (AFAT) were the most frequently administered assessments of bias pre and post intervention. Both of these tests have been widely used and have confirmed reliability and validity (Ahern & Hetherington, 2006; Lewis, Cash, Jacobi & Bubb-Lewis, 1997).

Storytelling to increase empathy and decrease stigma was employed with the use of multiple media including videos, narrative stories, simulation, and narrative education (Bumeister et al., 2013; Pouschi et al., 2013; Swift et al., 2013). An example of a video intervention included having one group watch a video segment of the HBO documentary, *Weight of a Nation* that addresses stigma in obesity through a first-person narrative by an obese person of what it feels like to be stigmatized. The control groups did not receive the intervention. Pre-and Post-test

measures of implicit and/or explicit bias reported statistically significant changes and decrease in stigma. Results also included a decrease in explicit bias after the intervention with no change in implicit bias (Swift et al., 2013). The explicit bias decrease may be related to the subjects giving the expected answers to demonstrate lack of bias but implicitly their attitudes did not change. Despite significant changes in bias immediately post-test through storytelling, these changes have not been demonstrated to remain over time and re-testing of bias in a longer time period has indicated that people return to their baseline level of bias (Griffith, Griffith, Mallnese & Oge, 2016; Matharu, Shapiro, Hammer, Kravitz & Wilson, 2016).

Educational interventions and use of simulation is another form of storytelling and the conveyance of information used to decrease obesity bias (Hilbert, 2016; Kushner, Zeiss, Feinglass & Yellen, 2014; O'Brien, Puhl, Latner, Mir & Hunter, 2010). All studies except one used the Thin-Fat Implicit Bias Test and the Anti-Fat Attitudes Test (AFAT) as a measure of bias of subjects toward obese persons. Kushner, et al. (2014) employed simulation using a standardized patient with medical students to increase their empathy and communication skills and decrease their stereotyped attitudes toward obese patients. Medical students were given a researcher designed questionnaire immediately after the encounter and again one year later. The results compare to previous research that indicates that there is a challenge in long-term retention of decreased bias after an intervention. Initially, students reported increased confidence in communication, increased empathy and decreased stereotyping of obese patients. However, one year follow up of these students with the same questionnaire determined that their level of stereotyping had returned to pre-test baseline levels but that their confidence in communicating with obese patients had remained increased.

Storytelling through educational reframing changed the narrative about the causes of obesity to expose students to more of the uncontrollable causes such as genetics and environment (Hilbert, 2016; O'Brien et al., 2010). The results demonstrate a statistically significant decrease in bias in the groups that were exposed to the less controllable aspects of obesity. In one study implicit and explicit bias toward obese patients decreased by 27% and 12% respectively in the uncontrollable causes intervention but implicit and explicit bias rose by 27% in the group exposed to an emphasis on the diet and exercise controllable causes for obesity ($p=0.000006$). (O'Brien et al., 2010). This finding supports the hypothesis that obesity bias is increased in providers who feel that obesity is caused solely by a lack of control and discipline in their obese patients.

Although levels of bias initially decreased, but then returned to baseline levels over time, confidence in communication with obese patients, feelings of powerlessness and reported improved responses to obese patients seen in practice remained over a longer time period (Kushner et al., 2014; Monson et al., 2014). Improvement in communication and empowerment may show to be the first step in improving care and eventually changing attitudes of health care providers caring for obese patients.

Education/practice guidelines.

The American Medical Association recognized obesity as a disease in 2013 based on their definition of disease as the impairment of normal functioning with specific signs and symptoms that cause harm or morbidity (AMA House of Delegates, 2013). Primary care physicians vary widely in the standard of care given to obese patients, and many do not receive any care or counseling regarding obesity or receive inadequate treatment that does not recognize the multifactorial causes and multi-system effects of obesity on all body systems. The AHRQ

National Guideline Clearinghouse provides evidence-based clinical guidelines for the treatment of obese adults. The guidelines are based on the premise that obesity is a complex, chronic lifelong disease that requires a team approach to treatment with an ongoing therapeutic relationship and follow-up (Fitch et al., 2013).

Environment of care.

The physical environment of the outpatient setting may cause an obese patient to feel uncomfortable, embarrassed and unwelcome (Amy et al., 2006; Khandalavala et al., Ma et al., 2009; 2014; Phelan et al., 2015). An initial and easy to implement intervention to aid in making obese patients feel more comfortable during a primary care or gynecological visit is to assess the practice environment and modify it to make it welcoming for the obese client. For example, having sturdy waiting room chairs without armrests along with artwork and reading material that respects the diversity of size make the patient feel more welcomed and helps the patient to avoid potential embarrassment. Scales should be in a private area and should be able to accommodate higher weight limits. Equipment such as large blood pressure cuffs, large examination gowns and appropriate pelvic exam instruments should be readily available along with average size equipment and should not be stored separately so the provider has to “go and find the extra-large....” which contributes to feelings of stigma and shame for the obese patient (Phelan et al., 2015).

Summary

Improving care for a stigmatized group such as obese patient remains a challenge as it involves creating a shift in personal beliefs and involves creating a change in attitudes about social identity (Hunger, Major, Blodorn & Miller, 2015). Health care providers have an ethical obligation to provide unbiased care to all persons regardless of appearance or condition, yet

health disparities exist for those groups who are in the greatest need of medical care. The interventions employed in research to decrease the bias toward obese persons have focused on education as a method to change attitudes and increase empathy with some positive results but also indicate some significant changes back to baseline levels of bias. Education has proved an effective path to change beliefs but it takes time, repetition and attention to all three domains: cognitive, psycho-motor and affective. Providers should be given accurate information about the complicated etiology of obesity that goes beyond blame. It is hoped that implementing a quality improvement project to medical providers that focuses on the three aspects of education with repeated exposure will have a long-term positive effect on the care they provide to obese patients.

Evidence-Based Practice: Verification of Chosen Option

A quality improvement project was implemented to decrease bias and improve the practice environment in an Obstetrical and Gynecological Practice in Western Massachusetts. Implicit bias using the Thin-Fat Implicit Bias Test and explicit bias using the Anti-Fat Attitudes Test was measured in health care providers of the practice before and after an intervention to increase empathy and provide resources to improve the care environment as well as best practices for providing gynecological primary care for obese women in the practice. The educational intervention consisted of showing a video clip of an obese patient experiencing stigma and embarrassment in a medical visit, an overview of the multifactorial causes of obesity with an emphasis on uncontrollable causes as a factor in addition to controllable causes and information on best practices to modify the environment to make obese patients feel more welcome and comfortable.

Theoretical Framework/Evidence Based Practice Model

The conceptual framework for this quality improvement project is based on Goffman's theory of stigma (See Appendix A) that affects a person's social identity based on physical characteristics (Goffman, 1963; Hunger et al., 2015; Phelan et al., 2015). Goffman defined stigma as the relationship between an attribute that an individual possesses and a negative stereotype related to that attribute. He identified three types of stigma: character traits such as being dishonest, weak-willed, lazy, etc., physical stigma which is outwardly noticeable physical characteristics and stigma of group identity which is stigma related to belonging to a particular group such as an ethnic group, religion or race. The stigma is based on societal and historical perspectives of the society in which the stigmatized person resides. The non-stigmatized group, which Goffman refers to as "*normals*" may keep a distance and control of contact with the stigmatized group. He refers to stigma symbols that identify the stigmatized person as being different.

For the obese patient, some of these stigma symbols are the extra-large blood pressure cuff that has to be taken out of storage to be used or a special scale for weighing patients with higher weights. The stigmatized person tries to *pass* or *cover* by using coping mechanisms to appear more normal. Goffman refers to some of these coping mechanisms as *disidentifiers*. Some examples of an obese person's *disidentifiers* may include wearing shape wear and slimming clothing, such as all black to appear slimmer, covering up the body as much as possible, or not eating in front of others. This self-conscious behavior can cause depression and self-contempt. The obese patient may have perceptions of actual or feared bias from the provider and the care environment may appear threatening (DiPierre & Puhl, 2012; Dutton et al., 2014; Mold & Forbes, 2011). The obese patient response may be avoidance of care, increased stress and mistrust of the

provider (Hunger et al., 2015). This leads to poor communication and poor adherence to care leading to potentially adverse patient outcomes.

When the obese woman presents for gynecological care, the provider may have stereotyped viewpoints that are influenced both by their personal experience and societal views of obesity (Hunger et al., 2015). In modern society, obesity is seen as both a physical and character stigma as the belief of some is that obese people are, for example, lazy and that has contributed to their obesity. If the attitude of the provider is based on stereotypes that discredit the patient, it will lead to biased decision making and impaired communication which also have an adverse effect on patient outcomes (Goffman, 1963; Phelan et al., 2015). A diagram of the relationship between the conceptual model in relation to care of the obese patient is presented in the appendices.

Vandiveloo & Mattei (2017) looked at how stigmatization leads to adverse health outcomes. Looking at obese adults between the ages of 25-75 in the U.S. Biomarker Study that identified as having experienced weight discrimination, the investigators found that over a 10-year period the allostatic load or dysregulated biomarkers risk is doubled for obese patients reporting weight discrimination vs. those that did not report discrimination. The most significant biomarkers affected included lipid profile, glucose and inflammation. This implies that not only do obese patients have more health risks, the attitudes of others increase those risks, while at the same time encourage patients to avoid health care for fear of discrimination or embarrassment.

Goals, Objectives and Expected Outcomes

The overall goal of this quality improvement project was to improve comfort and quality of care to obese women in an OB/GYN practice. The specific aims of this project were to learn about existing biases toward obese women by OB/GYN health care providers and implement

best practices to achieve higher quality of health care for this patient population. Table 1 below summarizes the goals and outcomes of this project.

Table 1. *Goals and Expected Outcomes of Quality Improvement Project*

Goal 1: Assess levels of implicit and explicit bias of health care providers.		Goal 2: Provide an educational in-service on the experience of the obese patient, care of the obese woman and providing a welcoming inclusive environment for obese patients.		Goal 3: Healthcare providers and staff will decrease their implicit and explicit obesity bias scores by 95-100% immediately after the presentation and at 3 months after the presentation	
Objectives	Outcomes	Objectives	Outcomes	Objectives	Outcomes
Administer Thin-Fat Implicit Bias test to participants at Pioneer Women's Health in Fall 2017.	12 participants were recruited and took the Thin-Fat Implicit Bias Test on Nov. 30, 2017.	Show the video, <i>Weight Bias in Healthcare</i> (UConn Rudd Center for food policy and obesity, 2017)	100% of participants had the opportunity to view the video. 33% stated that the video was what they liked most about the presentation in their written comments.	Administer the implicit and explicit bias tests to participants before and immediately after the educational intervention.	There was an increase in implicit bias immediate post-intervention and a further increase 3 months later.
Administer the Anti-Fat Attitudes test to participants in Fall 2017.	12 participants took the Anti-Fat Attitudes Test on Nov. 30, 2017.	Conduct a brief discussion after the video for participants to share perspectives and feedback.	100% of the participants completed the evaluation form for feedback.	Administer the implicit and explicit bias tests to participants 1-3 months after the educational intervention.	Explicit bias decreased after the intervention both immediately and at 3 months.
		Give a presentation outlining obesity bias in healthcare, multifactorial causes of obesity and best practices.	100% of the participants attended the presentation. 91.6% of participants strongly agreed or agreed that the presentation was effective in presenting issues of weight bias and best practices to decrease weight bias.		
		Provide handouts of the presentation and resources for use by the practice.	100% of participants stated they intent to use and implement some or all of the resources.		

Project Design

This DNP Project had a Quality Improvement (QI) plan framework that includes the Plan-Do-Check-Act (PDCA) management model and an educational evaluation design. The QI project plan included creating a QI team led by the DNP student. The QI team approach allowed for all key stakeholders including providers and staff to share participation and governance of the project and maintain and active involvement in the project. This QI team approach allowed for emphasis on improved work processes to achieve improved outcomes in the care of obese women attending and OB/GYN practice. A pre-and post-intervention assessment of providers' implicit and explicit bias toward obese patients was done in person. There are both descriptive and explanatory methods used to analyze and interpret the outcomes of the project.

The purpose of this QI project was to reduce bias and improve the practice environment in the gynecological care of obese women in the practice with the effect of ultimately increasing patient satisfaction and improving health outcomes and compliance with care. This QI project followed the Plan-Do-Check-Act (PDCA) management model.

Plan

The components of the PDCA model are as follows:

Reviewed literature on negative bias and stigma of obesity related to health care provider attitudes, and adverse health outcomes. Identified evidence-based interventions to improve health care provider attitudes and empathy for obese patients, best practices for gynecological and primary care of the obese woman and creating a welcoming and accessible practice environment.

Do

Administered a demographic survey (See Appendix B). Administered the Thin-Fat Implicit Association Test (Waller, Lampman & Lupfer-Johnson, 2012) and the Anti-Fat Attitudes Test (Lewis et al., 1997) to assess implicit and explicit attitudes of health care providers toward obese patient pre and post intervention (See Appendices C and D).

Presented health care providers at the practice and staff with a video and discussion regarding weight stigma in health care, followed by a presentation of an overview of weight stigma, best practices in providing care for obese women and providing a welcoming environment for care. A packet of resources for the practice with the presentation, guidelines and additional resources was given to the practice.

Check

Assessed post-intervention implicit and explicit attitudes of health care providers with the Thin-Fat Implicit Association Test and the Anti-Fat Attitudes Test (Lewis et al., 1997, Waller, et al., 2012). These tests were administered immediately after the educational presentation and 3 months later. An evaluation of the educational presentation was also collected. (Study). The DNP student noted observations of change in attitudes and perceived bias with intervention immediately and over time through discussion and feedback.

Act

Shared observations, outcomes and interventions with health care providers. (Act) Elicited feedback from healthcare providers about the intervention and suggested improvements to the intervention program to decrease bias and improve health outcomes of obese patients. (Act).

Project Site and Population

This quality improvement project took place at an obstetrical and gynecological practice in western, Massachusetts. The practice consists of physicians, nurse-midwives, RNs, medical assistants and office staff. It serves a large population of women from the surrounding area which consists mainly of small towns, cities and rural areas. The providers attend births and gynecological surgeries at small community hospital. Most births are primarily attended by midwives in the practice with physicians attending for surgical deliveries, high risk births, or at the patient's request. The practice website lists the following services offered: Diagnosis and treatment of gynecological cancers, genetic counseling and testing, gynecologic surgery, labor and delivery, menopause care, midwifery, treatment of pelvic pain, reproductive medicine and infertility treatment, urogynecology, routine and specialty gynecology (Baystate Health, 2017).

The community of interest for this project was obstetrical and gynecologic health care providers and support staff for obese adult women. The project took place at an OB/GYN practice in western Massachusetts that serves women from the Franklin and adjacent Massachusetts counties. The rate of obesity in western Massachusetts is 23.3%, an increase from 14.3% in 1995. This is higher than the state average rate of obesity of 20.7% (Massachusetts Dept. of Public Health, 2007). The rate of death from heart disease and diabetes as well as the diabetes mortality rate is higher in western Massachusetts than the state average (Institute of Health Metrics, 2011). The rate of obesity among patients at Pioneer Women's Health mirrors that of the region (Personal Communication, M. Paterno, Dec. 2, 2016). Key stakeholders included members of the practice who are nurse-midwives, physicians, registered nurses, medical assistants and office staff. The DNP student led the QI team which included the

providers and staff to share participation, governance and active involvement in the project.

Overview, progress and results of the project were shared and made available on a regular basis and practice members were encouraged to ask questions and engage in the progress of the project.

For this project, in-person meetings were set up with the practice partners and office manager in advance of the project to discuss the project and answer questions. The practice was given contact information to call and e-mail with questions, concerns and follow-up as well as feedback during the course of the project and after the project's conclusion. A thank you note was sent to the practice at the conclusion of the project with an offer of continued consultation and follow-up as requested.

Provider Participants were recruited via the in-person meeting, contact information and binder of resources left with the practice, e-mail communication and collaboration with the medical office manager and one of the midwives who works with the practice and is also a faculty colleague. The potential participants include 13 health care providers which consist of four medical doctors (MDs), one doctor of osteopathy (DO), and eight certified nurse-midwives (CNMs). Additional office staff of RNs, medical assistants and office assistants were also invited to participate in the project. The implicit and explicit bias asked demographic information including occupational title, age, years of experience and the providers' self-perception of their body size. A factor that may have influenced this sample is that the practice consists of primarily female providers. There is only one male provider in the practice, an MD. This practice also includes certified nurse-midwives and the philosophy of midwifery care influences the overall practice philosophy. The only exclusion criteria were those staff members that did not have any direct contact with patients. To decrease obesity bias, the patient

experience and standards of welcoming and respect need to be communicated to all staff that have patient contact.

Resources needed included computer equipment and screen to present the educational slides and video. Individual paper packets consisting of copies of the Anti-Fat Attitudes test, Thin-Fat Implicit Bias Test, demographic information page and evaluation of the presentation were given to each of the participants who were present. Presentation equipment was needed to present the educational intervention to the providers and staff as well as adequate space and a convenient time for providers and staff to attend the presentation. Copies of handouts, a binder of resources and an electronic folder of resources as well as the presentation for providers and staff were created for review and to aid in the continued implementation of the suggested interventions to improve the care environment for obese patient. A sign-in sheet asking participants if they would be willing to be contacted in 3 months for follow up was distributed and collected the day of the project implementation.

Setting facilitators and barriers.

Table 2 outlines facilitators and barriers to this project and strategies for overcoming barriers.

Table 2

Facilitators, Barriers and Strategies to Decrease Obesity Bias

Facilitators/Strengths	Barriers/Weaknesses	Strategies
The practice was open to the project and was enthusiastic about improving care for obese clients.	A busy practice and time limitations as well as varying schedule were a challenge to administer the pre-and post-tests.	Administered the tests in person during convenient times, immediately after the educational offering.
Visual, first-hand accounts were powerful in creating feelings and empathy.	Providers lacked the time to view the video in a group which would be most effective for discussion and reflection.	Showed a pre-selected video or video segment of an obese person discussing the stigma of obesity by health care providers. Copy of resources left with practice.
Demonstrated practice commitment to diversity and evidence-based practice.	No specific measures in place to improve care for obese patients.	Educated providers about the practice guidelines, <i>Prevention and management of obesity for adults</i> . Left behind a copy of guidelines and resources.

Facilitators/Strengths	Barriers/Weaknesses	Strategies
Practice is welcoming of evidence-based improvements to care that can be implemented in a time-efficient manner.	Lack of uniformity of implementation. Time restraints of care providers. Some participants were avoidant of 3-month follow-up.	Provided a copy of guidelines with an algorithm for providers to follow in the implementation of guidelines. Corresponded with reluctant participants to address concerns and encourage follow-up.
Practice already had some environmental supports in place for obese women such as private areas for weighing patients.	Potentially limited financial means if substantial modification of the environment is needed.	Presented and provided hand-outs of suggested environmental modifications to help make the practice more welcoming to obese patients.

Implementation

This quality improvement plan was implemented using a Plan-Do-Check-Act management model and educational design. A pre-assessment of implicit and explicit bias toward obese persons was administered to participants. This was followed by an educational program that included a short video of the lived experience of obese women utilizing health care, a presentation on obesity stigma and a review of practice guidelines and environmental modifications to decrease obesity stigma and bias in the practice environment. Discussion and feedback about the program was followed by a post-assessment of implicit and explicit bias immediately following the educational intervention and again at 3 months after the intervention to determine long-term effectiveness of the intervention. A binder of useful resources and articles was left with the practice.

Measurement Instruments

In order to measure the outcomes of this DNP project, the following instruments were used: The Thin-Fat Implicit Association Test and the Anti-Fat Attitudes test (See Appendices C and D). Both tests have been used widely to measure obesity bias in research and have been validated. The intervention for this project included a pre- and post-assessment of attitudes toward obese

persons using an Implicit Association Test (Waller, Lampman, and Lupfer-Johnson, 2012) and the Anti-Fat Attitudes Test. The Thin-Fat Implicit Association Test uses word association presented in rapid sequence with a particular trait in order to measure unconscious bias in individuals for many traits including gender, race, and also body size. This measure has been validated by multiple methods, including a multi-trait, multimethod validation that has found the instrument to be a credible measure of implicit attitudes (Nosek and Smyth, 2007). The Anti-Fat Attitudes Test is a 47-item pencil and paper test that asks participants to describe their attitudes and beliefs about overweight and obese persons. The test has been confirmed for validity and has shown to be a credible measure of explicit attitudes toward obese persons (Lewis, et al., 1997). The test was administered in-person and the tests were de-identified to maintain anonymity. Each survey was given a number so that they were completed and analyzed without identifying the participants. Baseline scores for implicit and explicit bias were recorded along with the mean, median and standard deviation of scores for the sample.

Data Collection Procedures

There were both descriptive and explanatory methods used to analyze and interpret the outcomes of the project. Descriptive and illustrative approaches were used to analyze on-site discussions of best practices, participant feedback, and DNP student journal notes of the experiences during project implementation. Descriptive methods included pre-and post-test scores from the Thin-Fat Implicit Association Test and the Anti-Fat Attitudes Test. Explanatory methods included documentation of participant feedback, discussion after the educational intervention and journaling about the qualitative experience of the project implementation.

Pre-implementation.

The implementation of this project began with an in-person meeting with representatives from the practice to present the outline of the project, the goals, timeline and time commitment from the participants. Consent to participate was obtained from the IRB and providers and staff. Participants were given ongoing opportunities to ask questions and have potential concerns addressed. Contact information was made available to the practice to contact the DNP student at any time with questions or concerns.

Pre-assessment of implicit and explicit bias.

The pre-assessment of implicit and explicit bias toward obese patients was done in person. The Thin-Fat Implicit Bias Association Test and the Anti-Fat Attitudes Test were administered to 12 providers and staff that have contact with patients in the practice who agreed to participate in the project. Baseline scores for implicit and explicit bias were recorded along with the mean, median and standard deviation of scores for this group.

Educational intervention to decrease bias and increase empathy.

The next step of the project was the educational intervention (See Appendix E). An appropriate time and place for the educational program was scheduled according to the convenience of the participants. The program needed to be completed in one session during the participants lunch hour so the presentation was organized to last approximately 20 minutes with time before and after for testing, further discussion and feedback.

The educational program began with the viewing of a short video on stigma in health care (<https://youtu.be/lZLzHFgE0AQ>) followed by a brief discussion adapted from discussion guide provided by the producers of the video. The DNP student made notes of comments made during

the discussion. After the video, a presentation was given that explains an overview of obesity stigma in healthcare, best practices in providing care to obese women in the gynecological setting and strategies for creating a more welcoming practice environment. Time was given for questions and discussion and a paper and pencil evaluation of the presentation was handed out and collected at the end of the presentation. Participants were asked to sign an attendance sheet which asked for their contact information and whether or not they would be willing to be contacted for follow-up testing in 1-3 months. Eight out of 12 participants consented to be contacted for follow-up.

Post-intervention assessment of implicit and explicit bias.

Immediately after the presentation the participants were asked to complete the implicit and explicit bias tests a second time and the scores were recorded and analyzed. The DNP student elicited feedback and discussion about the program and noted participants feedback for qualitative analysis. A journal of QI project implementation was maintained and included as part of the explanatory analysis. The participants who consented to follow-up were asked to take the tests a third and final time 3 months, after which the results were assessed and compared to the pre-intervention results and results immediately after the educational intervention. The results were assessed for evidence that the intervention was successful in decrease implicit and explicit bias to a significant degree and if there was change in the level of bias over time between immediately after the educational intervention and 3 months later.

Data Analysis

The DNP student administered the Thin-Fat implicit bias test and Anti-Fat Attitudes test before, immediately after and three months after the educational intervention. The test was offered and administered to 12 healthcare providers and staff in the practice that have patient

contact who consented to participate in the project. Only five of the original participants consented to follow-up testing at 3 months.

Each survey was given a random number so that they may be completed and analyzed without identifying the subjects. The descriptive information was analyzed with descriptive statistics of the mean and median scores with a standard deviation and range.

A discussion and feedback session were facilitated immediately after the educational intervention. Comments and feedback from participants were noted and analyzed for commonalities and differences of perspective. Additionally, the DNP student maintained a journal of the experience of project implementation which was analyzed for common themes. Facilitators and barriers to the implementation of the project were compared to the predicted facilitators and barriers.

Outcomes and Results

Pre-Intervention

Before implementing the surveys and intervention, a meeting was held with stakeholders at the practice to present the project, the methods of surveying and to answer any questions and to establish collaboration between the DNP student and the project. The office manager and medical director were present at the meeting and a plan to implement the project was developed. The practice was left with information about the project with a plan to follow up in the near future for an implementation date. After an implementation date and time had been arranged, the practice determined that the intervention would need to take place during an hour in which the practice was closed for lunch. This was a very narrow time window in which to complete most of the project but was necessary due to the time constraints of the practice. The plan was modified to make sure that all of the elements of the project could be successfully completed

within the time frame. A collection of resources was put together to leave behind with the practice for follow up information after the presentation.

The day of the presentation, the DNP student provided lunch to the members of the practice in appreciation of their participation. A total of 12 various health care providers and staff attended the presentation and completed the surveys although not all participants completed all of the surveys. The pre-intervention surveys included demographic data, administration of the Anti-Fat Attitudes Test (AFAT) and the Thin-Fat Implicit Bias Test (IAT) which was administered in the paper/pencil version. Tables 3 outline the demographic

Table 3. *Demographic Information of Participants*

Characteristic	N	Percent	Mean
Gender			
Female	12	100	
Male	0		
Type of Provider			
CNM	1	8.3	
RN	2	16.6	
Physician	1	8.3	
Medical Assistant	6	50	
Office Staff	1	8.3	
Age (years)			
26-30	3	25	39.7 years
31-40	3	25	
41-50	3	25	
>50	2	16.6	
Age not given	1	8.0	
Years in Practice			
1-5 year	2	16.4	
5-10 years	2	16.6	
10-15 years	3	25	
15-20 years	1	8.3	
Over 20 years	4	33.3	
Weight Perception			
Optimal Healthy Weight	2	16.6	
Not at Optimal Healthy Weight	10	83.5	

Table 4. *Pre-Intervention AFAT and IAT scores*

Assessment	N	Minimum	Maximum	Mean	SD
AFAT total	8	55.00	107.00	80.75	20.01
AFAT Subscale 1: Social/Character Disparagement	8	11.00	36.00	21.62	8.92
AFAT Subscale 2: Physical/Romantic Attractiveness	8	13.00	31.00	21.87	6.03
AFAT Subscale 3: Weight Control/Blame	8	12.00	27.00	17.87	5.16
IAT Total	12	-4.00	31.00	13.41	10.10
IAT Stupid/Smart	12	-4.00	15.00	7.16	5.82
IAT Motivated/Lazy	12	0.00	17.00	6.75	5.44

All of the participants in the project were female and ranged in age from late twenties to mid-fifties. There were a variety of types of health care providers represented, although the majority at the intervention were medical office assistants. The range of experience was also varied from 1 year to more than 20 years. Participants were asked to check one of two selections on the questionnaire to describe their body size. They selected either, “I am at optimal healthy weight” or “I am not at optimal healthy weight”. This question was worded to be respectful about a highly sensitive topic regarding body weight and also provided some insight about the participants’ self-perception of their body size which may or may not be accurate. Nearly all participants (83.3%) selected that they were not at their optimal healthy weight. This result may be a reflection of the current rate of obesity and overweight in the population and/or the participants self-perceptions.

The participants were first administered the Thin-Fat Implicit Association Test (IAT) using a pencil and paper version of the test. The DNP student gave instructions and had a brief practice

session before starting the test. The participants completed the (IAT items but the good/bad IAT items were not completed in the pre-test and were therefore not scored in the pre-or post-tests to ensure consistency. The scores in table 4 reflect the level of pre-test implicit bias. A score of zero indicates neutral bias, a negative score indicates bias towards obese persons and a positive score indicates the level of bias towards thin persons. The participants were then instructed to complete the Anti-Fat Attitudes Test and were assured that they would be confidential and also, that there were no right or wrong answers and that they should feel comfortable answering honestly. Four participants did not complete the AFAT pre-test for unknown reasons. There are 3 subscales for this test as well as the total score. The higher the score, the greater the level of implicit bias. The scores on both the IAT and AFAT showed a wide range of bias between participants and noted in the range of scores in Table 4.

Following the pre-testing the video about weight bias was shown followed by a slide presentation (See Appendix E) about controllable vs. non-controllable causes of obesity, best practices for creating a practice environment that is friendly to patients of size and reflective questions related to the weight bias video.

Immediate Post-Intervention

Immediately after the conclusion of the presentation, the participants were asked to again complete the IAT and Anti-Fat Attitudes Test. They were then asked to complete an evaluation of the program and allowed time for discussion, feedback and follow-up. A summary of the results of the immediate post-tests and evaluations are listed in Tables 5 and 6.

Table 5. *Immediate Post-Intervention AFAT and IAT Scores*

Assessment	N	Minimum	Maximum	Mean	SD
AFAT Total	8	47.00	141.00	70.75	29.82
AFAT Subscale 1: Social/Character Disparagement	8	14.00	42	18.00	9.75
AFAT Subscale2: Physical/Romantic Attractiveness	8	13.00	30	17.5	5.31
AFAT Subscale 3: Weight Control/Blame	8	16.00	24.00	14.12	5.59
IAT Total	12	0.00	32.00	15.08	11.43
IAT Stupid/Smart	12	-3.00	17.00	7.00	7.28
IAT Motivated/Lazy	12	0.00	12.00	6.09	4.57

Table 6. *Evaluation of Presentation and QI Intervention*

Question	Frequency	Percent
Familiar with weight bias		
Yes	11	91.7
No	1	8.3
Uses Strategies to decrease bias		
Yes	12	100
No	0	0
Will apply knowledge learned		
Strongly Agree	7	58.3
Agree	4	33.3
Neither Agree nor Disagree	1	8.3
Presentation was effective		
Strongly Agree	6	50
Agree	5	41.7
Neither Agree nor Disagree	1	8.3

The analysis of the post-intervention test scores reveal a decrease in explicit bias as measured by the AFAT. There was an overall 11.6% decrease in the total AFAT scores of participants immediately after the intervention. In the subscale measurements their overall score for physical/romantic attractiveness and weight control/blame decreased by 20% and the subscale measurement of social/character disparagement decreased by 17%. These results may indicate that the intervention had an effect on the participants and resulted in a decreased in biased attitudes towards obese patients immediately after the intervention.

The results of the IAT done immediately post-intervention tell a different story. The total IAT scores increased by 12% and the subscale for lazy/motivated increased by 3.6%. The subscale for smart/stupid decreased by 15%. These results are difficult to interpret as the limited time needed to teach the participants how to take the test may have been a confounding factor. The change in scores may reflect some change in attitude or it may reflect that the participants were becoming more proficient at taking the test with a second testing session. Having more time and a larger sample in future projects will help to clarify the reasons for this discrepancy.

Almost all participants said they were familiar with the issue of weight bias and 100% stated they used strategies to decrease bias in their practice, although they were not asked about what specific strategies were used. More than 90% agreed or strongly agreed that the presentation was effective (See Appendix F). Three participants noted in their comments that they liked the video segment as the best part of the presentation. One person said they liked taking the tests. During the tests, the DNP student noticed the frustration of the participants as it is very difficult to choose the socially accepted answer on the implicit bias test as the time is too fast to think about it. Some participants expressed surprise and frustration at their previously unknown unconscious bias.

At the end of the session, feedback and discussion were elicited from those who wished to talk about the experience. Providers stated that the most difficult part was often how to best bring up the subject of weight with the patients without making them feel ostracized or uncomfortable. It was explained that the evidence states that it shows respect to first ask the patient if they would like to talk about their weight during the visit and to collaborate with them in leading the conversation. If they choose not to talk about it, it gives them a greater sense of control without the provider choosing to avoid the topic. Another practitioner, a nurse-midwife confided that her son was significantly overweight and that she felt that she had failed as a mother in this aspect. Further discussion about the controllable vs. uncontrollable factors leading to weight gain and the complexity of obesity were discussed and contact information was left at the practice and with the practitioners for further follow-up or discussion as needed.

Three Month Follow-Up Testing

A follow-up assessment was planned for 1-3 months after the initial assessment and program. At the presentation a sign-in sheet was provided for asking if the DNP student could follow up with the participants in 1-3 months, and if so, to please provide contact information via e-mail. Ten participants initially indicated that they consented to a follow up survey. A group e-mail was sent to those participants and also the practice manager to set up a date for a follow-up survey. Initially, no responses were received so a second e-mail was sent. A replay was received by the medical director of the practice and also copied to one of the practice managers and a date was set for follow up surveys. On the date of the initial 3 month follow up there was only one participant, a physician. At the time, no other members of the practice would participate in the survey. The 3-month post-test was administered to the physician. After this encounter, individual e-mails were sent to every person on the list who had initially consented to

a follow up survey. Two of the ten participants stated that they no longer wished to participate but did not give a reason. Two other participants indicated they would participate and a second date was arranged to do a follow up survey. At the practice, two additional providers participated in the 3-month follow up survey for a total of 5 participants in the three months follow up. The results are summarized below in Table 7.

Table 7. *Three Month Post-Intervention AFAT and IAT Scores*

Assessment	N	Minimum	Maximum	Mean	SD
AFAT Total	5	59.00	97.00	74.2	15.64
AFAT Subscale 1: Social/Character Disparagement	5	14.00	24.00	16.60	4.21
AFAT Subscale 2: Physical Romantic Attractiveness	5	15.00	26.00	19.8	4.49
AFAT Subscale 3: Weight Control/ Blame	5	12.00	23.00	16.8	4.43
IAT Total	5	13.00	24.00	20.00	6.08
IAT Stupid/Smart	5	7.00	17.00	12.2	3.96
IAT Lazy/Motivated	5	1.00	10.00	6.75	4.03

The results of the three months follow up surveys indicate a continued decreased score in the Antifat-Attitudes test from the initial pre-test for those participants surveyed. The total mean AFAT score was 7.3% lower than the initial score, but 4.3% higher than the immediate post-test score. Scores for all three subscales were decreased both from the pre- intervention test and immediate post-test scores.

The IAT scores were increased from both the pre-test scores and the immediate post test scores. The total IAT mean scores were 33% increased from pre-intervention test scores and the lazy/motivated subscale score was increased 45% from pre-intervention test scores. Only the

smart/stupid subscale of the IAT revealed a 5.8% decrease in the mean score for bias from the initial score. These results may indicate that the providers have increased awareness of their attitudes and how they should treat patients but have implicit bias that is possibly more pronounced on follow up testing as the participants become more proficient and familiar with the IAT test. Additionally, those participants that did not want to participate or talk about why they would not participate may have viewpoints that were not captured on follow-up because they did not take the survey. This was an unexpected finding as there was some indication of the discomfort some of the providers had with discussing this topic which needs further examination. It is unclear if the reluctant participants were concerned about the project interfering with their lunch hour, it brought up uncomfortable feelings or another factor which made them unwilling to participate further in the project.

Feedback and discussion was elicited after the follow up survey. One participant told me that since my presentation that the practice had moved their scale to the bathroom. She also stated that she had visited a medical practice that had chairs without arms in the waiting room and thought that the practice should purchase armless chairs.

A midwife who participated in the survey confided that she thought about the difficulties for the patients when she had to perform a challenging pelvic exam on an obese woman. She relayed that she felt terrible for making the woman uncomfortable and used a large, deep, speculum, but that another provider had to come in the room and hold back the vaginal walls with two tongue blades so that she could accurately visualize the cervix for a pap smear. The presentation brought increased awareness to the practice of the challenges in respectful care of obese patients and some measures had been taken to improve the environment.

Summary of Results

The educational presentation to health care providers appeared to increase awareness of obesity stigma and help with motivation to increase best practices in providing a more comfortable care environment. Explicit bias appears to have decreased as a result of the intervention and this effect was maintained to some degree over time, although the sample size is too small to make a definitive conclusion.

Serendipitous Results

Serendipitous findings are unexpected chance findings that can lead to unpredicted connections and conclusions (Nutefull & Ryder, 2010). There were several results both in testing and provider feedback and behavior that were very surprising and led to more questions.

Did participants experience shame or embarrassment at their exposed bias? The wording of the surveys used words like “fat” which can be an emotionally charged term? It may have brought up feelings of personal shame and body shame of the participants that was too painful to think about. How can providers give unbiased care unless they are willing to reflect on their own feelings of shame, embarrassment and bias?

The results of the implicit bias test revealed a disconnect between the level of expressed bias and unconscious bias of the health care providers surveyed. However, it did bring bias to their awareness which may have made some of the participants uncomfortable leading them to decline to participate in the follow up surveys at 3 months. Focused discussion with individual participants revealed a lack of knowledge of how to best treat obese patients and some sense of embarrassment or even shame at their biased feelings which many expressed a desire to overcome. Awareness and reflection on practice are an essential competency for health care

providers and it is hoped that this intervention will help them improve their care for their obese patients.

Cost-Benefit Analysis/Budget

Costs

The costs for this health care quality project included the costs of time of the providers to take the pre-and post-implicit and explicit association tests as well as to attend the educational intervention. There are no capital costs and all of the chosen instruments and interventions are Quality Improvement Project. The costs and time are outlined in Table 3.

Table 8. *Costs for Quality Improvement Project*

Item	Cost
1 CNMS x 2 hours (\$40/hour)	\$80 (in kind)
2 RN x 2 hours (\$28/hours)	\$112 (in kind)
1 Physicians x2 hours (\$72/hour)	\$144 (in kind)
6 Medical Assistants x2 hours (\$15/hour)	\$180 (in kind)
Educational Intervention	\$0
Implicit Association Test	\$0
Anti-Fat Attitudes Test	\$0
Weight Stigma Video	\$0
Refreshments for in-service and follow-up	\$133
Resources binder and electronic file of resources	\$30
Total Expenses	\$679

Estimated Cost Savings/Cost Effectiveness

The desired outcome for this project is improved care for obese women in the gynecological setting. This was to be achieved by using education to increase empathy and knowledge about obese patients to provide tools and resources for best practices. An improved practice environment and decreased bias should translate to better communication and better trust

between provider and patient which will lead to increased compliance and decreased health care avoidance. Timely and regular preventative health care can prevent illness and detect diseases such as cervical and breast cancer at an earlier stage for more successful and cost-effective treatment.

In 2013, 11,955 women in the United States were diagnosed with cervical cancer and 4,217 women died from cervical cancer. Cervical cancer used to be one of the leading causes of death for women in the United States (U.S. Cancer Statistics Working Group, 2016) but rates have fallen rapidly with the onset of regular screening through pap smears and increasingly sensitive screening combined with HPV testing which have led to earlier diagnosis and treatment in the pre-cancerous stages of the disease. Routine screening with a pap smear and HPV test ever 3 years until age 75 had an incremental cost-effectiveness ratio (ICER) of \$38,699 per quality of adjusted life years (QALY). In the United States, a cost-effectiveness ratio of less than \$50,000 per QALY is considered cost-effective (Esselen & Feldman, 2013). A meta-analysis of the relationship between obesity and cervical cancer screening found a significantly decreased rate of screening that was associated with increasing BMI (Maruther, Bolen, Brancati & Clark, 2009). The investigators stated that the reason for this increased risk was unknown and it was more pronounced in white women vs. black women but speculated that it was due to fear of embarrassment and health care avoidance related to obesity stigma.

Obesity is a risk factor for many illnesses including cancer. While some of this risk is physiologically based, it may also be related to health care avoidance by obese patients which leads to lack of preventative screening and late diagnosis of disease. Increased quality of care and good medical follow-up of obese patients may decrease overall health care costs both to the patient and to health insurers.

Timeline

The timeline (See Appendix G) for this DNP project was begun in the early Fall of 2017 with the requisite QI-type pre-project planning meeting with the practice partners and medical office manager at Pioneer Women's Health. This meeting took place in September 21, 2017. An outline of the project and timeline was presented and recruitment of participants took place September and October, 2017. Pre-intervention implicit and explicit bias testing and the presentation of the educational program was completed November 30, 2017. Post-intervention bias testing occurred immediately after the education intervention and 3-month post intervention bias testing occurred on February 22, and March 1, 2018. Analysis of the data and outcomes with a write-up of the final results of the project were completed on March 25, 2018. The results of the project will be presented to the providers and the DNP program between the end of April and first week of May 2018. A table of the timeline may be viewed in the appendices.

Ethics and Human Subjects Protection

The University of Massachusetts Amherst (UMass) Internal Review Board (IRB) approval was obtained prior to initiating the DNP project. The official IRB Determination Form was submitted as soon as the proposal was approved. This project is a quality improvement project and the participants of this project were health care providers and staff at an obstetrical and gynecological practice. The practice administrators fully endorse and have approved the project for actualization. There was no need for patient contact or reviewing of patient medical records. However, general demographic data about providers and staff was obtained. This data will be expressed only in the aggregate (See Appendix H).

Ethical considerations included the providers' feelings of inhibition in expressing high levels of bias toward obese people as it is considered professionally inappropriate. The DNP student

discussed these issues briefly with the providers before they take the implicit and explicit bias tests and reassured them that all people have some level of bias, there is no correct answer and to go with their honest feelings. It was important to reassure them that they will not be made to feel embarrassed or judged if their scores show a high level of bias.

All collected information from participants was kept confidential and non-identified and discussed only in the aggregate. Participants were identified by number only and information related to each participant is kept in a locked filing cabinet. Electronic files related to participant information are password protected. Only the DNP student has access to the key and file password.

Conclusion

There was good support for the implementation of this project from the leaders of the practice which included the medical director and nurse-midwives as well as the office manager. Many of the midwives and nurses were known to the DNP student through clinical teaching and this helped with the establishment of trust and credibility to the student and the project. The medical director of the practice has her own program of mindful nutrition that she offers patients and was interested in the topic of this project. She specifically requested local resources for weight management and nutrition which were provided in the binder of resources left behind after the conclusion of the project.

Another facilitator of the project was the encouragement by other practitioners to their colleagues to do a 3 month follow up survey. While 2 of the original participants said no, they did not wish to follow up, an effort was made by members of the practice to help recruit as many participants as possible.

The greatest delimiter for this project was related to time constraints of the practice. The pre-testing, program and immediate post-testing plus discussion was limited to the lunch hour for the practice. This limited the time needed to give instructions for testing as well as discussion afterward. Also, the timing at staff lunch break could be viewed as an intrusion into their personal time which may have played a role in some staff deciding they would not follow up the surveys even though they initially indicated that they would be willing to do a follow up survey. The DNP student supplied lunch the day of the program and snacks on the day of the follow up, which may have been beneficial, but the time constraints still remained.

The unexpected discovery was the feelings of discomfort that this topic seemed to have elicited from the participants. Some of the participants discussed this in their feedback, while others did not want to discuss even when asked. This feeling of potential shame is one that merits further investigation. It is unclear if the participants experienced discomfort and shame related to their exposed level of bias or due to their own personal body image shame. Shaughnessy (2018) found that some themes related to shame include feelings of paralysis, feeling seen or unseen in a dishonorable way and a need to conceal feelings of shame or not be seen has having a negative identity. Obesity is a common chronic health condition that providers encounter multiple times a day, and yet it appears to carry negative social connotations that transcend even the experienced health care practitioner. Participants reflected not only on patient experiences but also their own experience with body image and feelings towards friends and family members who are overweight or obese. This discomfort created an internal struggle with deeper feelings of participants own feelings of shame and personal body image that blocked deeper communication on this topic and may contribute to the lack of attention to obesity in some medical practices.

Health care providers are instrumental in helping patients achieve and maintain a maximum level of wellness. The foundation of that caring is trust and open communication which has proven problematic in the care of obese patients. More programs addressing obesity stigma and best practices for caring for these patients as well as open discussions that create a more reflective practice are necessary. Further investigation into successful measures for decreasing unconscious bias will improve the care for obese patients and other patient groups that suffer from health disparities that create social stigma. Providers must be willing to do the work of confronting their own uncomfortable feelings about their bodies and feelings about the bodies of others in order to bring it to consciousness as the first step of confronting stigma and bias toward patients.

As healthcare providers and nurses, there is an ethical imperative to provide high quality care to all that seek care and need assistance in achieving a maximum level of wellness. Bias and judgment toward patients creates a barrier between the provider and the patient, erodes trust and decreases the quality of care. As humans, we all have personal biases, but by becoming aware of them and consciously working to treat all patients with an equally high level of respect, care and dignity, we can create a more compassionate and high-quality health care system for all.

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Appendices

Appendix A

Goffman's Theory of Stigma Related to Obesity Bias

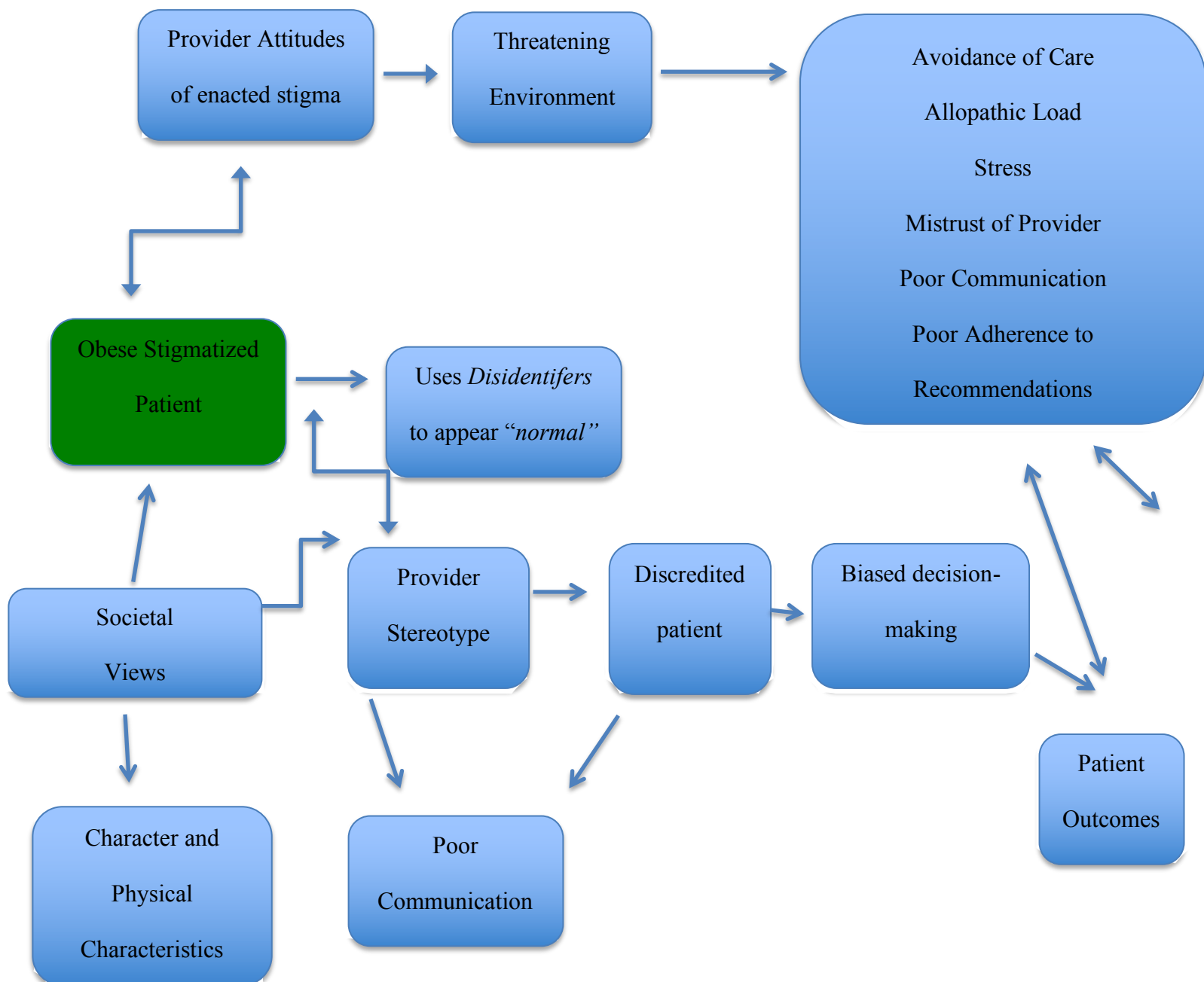


Figure 1. Conceptual model of Goffman's theory of stigma related to obesity bias adapted to obesity bias in health care providers (Goffman, 1963; Hunger et al., 2015).

*Appendix B**Demographic Survey*

Eliminating Implicit and Explicit Bias Toward Adult Obese Women
Receiving Gynecological Care: A Quality Improvement Project
to Cultivate Empathy and Increase Knowledge of Best Practices.
Quality Improvement Project

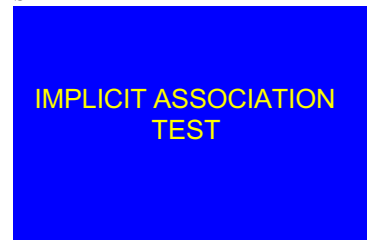
Directions: Please answer a few brief questions about yourself before completing the Thin-Fat Implicit Bias Test and Anti-Fat Attitudes Test. All answers will be kept strictly confidential.

1. Type of Health Care Provider: Nurse-Midwife _____ Registered Nurse _____
Physician _____ Nurse Practitioner _____ Physician's Assistant _____
Licensed Practical Nurse _____ Medical Assistant _____ Office Staff _____
Other _____ (please indicate position).
 2. How many years have you been practicing in your current position in total?
_____ < 1 year
_____ 1-5 years
_____ 5-10 years
_____ 10-15 years
_____ 15-20 years
_____ Over 20 years.
 3. How would you describe your body size?
_____ Optimal healthy weight
_____ Not at optimal healthy weight.
- Did you attend the Obesity Stigma Education Program? ____ Yes ____ No

Burke, M. (2018).©

Appendix C

Slide 1.



I am going to ask you to participate in a brief task that involves classifying words related to insects and flowers

Then I'll run you through the tasks that demonstrate particular attitudes and beliefs toward people who are overweight

It is our hope that by learning more about the nature and prevalence of the bias toward people who are overweight, we can start to understand how to intervene and reduce this bias

(add something like: so we really appreciate this opportunity to talk with a group of specialists, like yourselves, who are also trying to improve the lives of people who are overweight)

Slide 2.

A blue rectangular slide with the title "WORD CATEGORIZATION" in yellow, bold, sans-serif capital letters. Below the title is a table with two columns: "Flowers" and "Insects". Each column has a sub-column: "Bad" and "Good". The table contains a list of words with checkboxes next to them. The words are: wonderful, Roach, nasty, Daisy, joyful, Tulip, and terrible. The checkboxes for "wonderful", "Roach", "nasty", and "Daisy" are checked with a blue checkmark. The checkboxes for "joyful", "Tulip", and "terrible" are empty.

Flowers		Insects	
Bad		Good	
<input type="checkbox"/>	wonderful	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Roach	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	nasty	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Daisy	<input type="checkbox"/>	
<input type="checkbox"/>	joyful	<input type="checkbox"/>	
<input type="checkbox"/>	Tulip	<input type="checkbox"/>	
<input type="checkbox"/>	terrible	<input type="checkbox"/>	

We are interested in how people categorize words. For this task, when I say go, you will have 20 seconds to classify as many of the items you can running down the page into the categories they belong to at the top of the page.

For this first page you will notice that there are 2 categories on each side. For every item that is a flower (daffodil, daisy, or tulip) or a word that means 'bad' (nasty, terrible, or horrible) you will put a check in the left circle. In contrast, for every item that is an

Insects	Flowers
bugs	daffodil
mosquito	daisy
roach	tulip
Bad	Good
terrible	wonderful
nasty	joyful
horrible	excellent

Insects	Flowers
bugs	daffodil
mosquito	daisy
roach	tulip
Bad	Good
terrible	wonderful
nasty	joyful
horrible	excellent

Insects	Flowers
Bad	Good
<input type="radio"/>	mosquito
<input type="radio"/>	horrible
<input type="radio"/>	daffodil
<input type="radio"/>	excellent
<input type="radio"/>	roach
<input type="radio"/>	nasty
<input type="radio"/>	bugs
<input type="radio"/>	joyful
<input type="radio"/>	daisy
<input type="radio"/>	wonderful
<input type="radio"/>	tulip
<input type="radio"/>	terrible
<input type="radio"/>	mosquito
<input type="radio"/>	horrible
<input type="radio"/>	daffodil
<input type="radio"/>	joyful
<input type="radio"/>	daisy
<input type="radio"/>	terrible
<input type="radio"/>	tulip
<input type="radio"/>	excellent
<input type="radio"/>	roach
<input type="radio"/>	nasty
<input type="radio"/>	bugs
<input type="radio"/>	wonderful

Insects	Flowers
Bad	Good
<input type="radio"/>	terrible
<input type="radio"/>	daisy
<input type="radio"/>	wonderful
<input type="radio"/>	bugs
<input type="radio"/>	nasty
<input type="radio"/>	daffodil
<input type="radio"/>	excellent
<input type="radio"/>	roach
<input type="radio"/>	horrible
<input type="radio"/>	mosquito
<input type="radio"/>	joyful
<input type="radio"/>	tulip
<input type="radio"/>	horrible
<input type="radio"/>	bugs
<input type="radio"/>	joyful
<input type="radio"/>	daffodil
<input type="radio"/>	nasty
<input type="radio"/>	mosquito
<input type="radio"/>	wonderful
<input type="radio"/>	tulip
<input type="radio"/>	excellent
<input type="radio"/>	roach
<input type="radio"/>	terrible
<input type="radio"/>	daisy

Insects	Flowers
bugs	daffodil
mosquito	daisy
roach	tulip
Good	Bad
wonderful	terrible
joyful	nasty
excellent	horrible

Insects	Flowers
bugs	daffodil
mosquito	daisy
roach	tulip
Good	Bad
wonderful	terrible
joyful	nasty
excellent	horrible

Insects	Flowers
Good	Bad
<input type="radio"/> mosquito	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> daffodil	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> roach	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> bugs	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> daisy	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> tulip	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> mosquito	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> daffodil	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> daisy	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> tulip	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> roach	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> bugs	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>

Insects	Flowers
Good	Bad
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> daisy	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> bugs	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> daffodil	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> roach	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> mosquito	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> tulip	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> bugs	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> daffodil	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> mosquito	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> tulip	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> roach	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> daisy	<input type="radio"/>

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Stupid	Smart
dumb	intelligent
stupid	smart
dense	bright

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Stupid	Smart
dumb	intelligent
stupid	smart
dense	bright

Fat People	Thin People
Stupid	Smart
O	obese
O	dense
O	slim
O	bright
O	large
O	stupid
O	fat
O	smart
O	thin
O	intelligent
O	skinny
O	dumb
O	obese
O	dense
O	slim
O	smart
O	thin
O	dumb
O	skinny
O	bright
O	large
O	stupid
O	fat
O	intelligent

Fat People	Thin People
Stupid	Smart
O	dumb
O	thin
O	intelligent
O	fat
O	stupid
O	slim
O	bright
O	large
O	dense
O	obese
O	smart
O	skinny
O	dense
O	fat
O	smart
O	slim
O	stupid
O	obese
O	intelligent
O	skinny
O	bright
O	large
O	dumb
O	thin

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Smart	Stupid
intelligent	dumb
smart	stupid
bright	dense

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Smart	Stupid
intelligent	dumb
smart	stupid
bright	dense

Fat People	Thin People
Smart	Stupid
O	obese
O	dense
O	slim
O	bright
O	large
O	stupid
O	fat
O	smart
O	thin
O	intelligent
O	skinny
O	dumb
O	obese
O	dense
O	slim
O	smart
O	thin
O	dumb
O	skinny
O	bright
O	large
O	stupid
O	fat
O	intelligent

Fat People	Thin People
Smart	Stupid
O	dumb
O	thin
O	intelligent
O	fat
O	stupid
O	slim
O	bright
O	large
O	dense
O	obese
O	smart
O	skinny
O	dense
O	fat
O	smart
O	slim
O	stupid
O	obese
O	intelligent
O	skinny
O	bright
O	large
O	dumb
O	thin

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Lazy	Motivated
slow	determined
lazy	motivated
sluggish	eager

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Lazy	Motivated
slow	determined
lazy	motivated
sluggish	eager

Fat People	Thin People
Lazy	Motivated
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>

Fat People	Thin People
Lazy	Motivated
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Motivated	Lazy
determined	slow
motivated	lazy
eager	sluggish

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Motivated	Lazy
determined	slow
motivated	lazy
eager	sluggish

Fat People	Thin People
Motivated	Lazy
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>

Fat People	Thin People
Motivated	Lazy
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> sluggish	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> motivated	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> lazy	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> determined	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> eager	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> slow	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Bad	Good
terrible	wonderful
nasty	joyful
horrible	excellent

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Bad	Good
terrible	wonderful
nasty	joyful
horrible	excellent

Fat People	Thin People
Bad	Good
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>

Fat People	Thin People
Bad	Good
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Good	Bad
wonderful	terrible
joyful	nasty
excellent	horrible

Fat People	Thin People
fat	slim
obese	thin
large	skinny
Good	Bad
wonderful	terrible
joyful	nasty
excellent	horrible

Fat People	Thin People
Good	Bad
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>

Fat People	Thin People
Good	Bad
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> horrible	<input type="radio"/>
<input type="radio"/> fat	<input type="radio"/>
<input type="radio"/> joyful	<input type="radio"/>
<input type="radio"/> slim	<input type="radio"/>
<input type="radio"/> nasty	<input type="radio"/>
<input type="radio"/> obese	<input type="radio"/>
<input type="radio"/> wonderful	<input type="radio"/>
<input type="radio"/> skinny	<input type="radio"/>
<input type="radio"/> excellent	<input type="radio"/>
<input type="radio"/> large	<input type="radio"/>
<input type="radio"/> terrible	<input type="radio"/>
<input type="radio"/> thin	<input type="radio"/>

*Appendix D***Anti-Fat Attitudes Test*****INSTRUCTIONS - PLEASE READ CAREFULLY**

The following pages contain a series of statements or opinions about fat people. On this inventory, you are asked to indicate your own personal opinions. In other words, you should indicate honestly how much you agree or disagree with each of the opinion statements listed below. There are no right or wrong responses--only opinions and your responses will remain completely anonymous.

In order to complete this inventory, read each statement carefully and decide how much you personally disagree or agree. Then, using the Likert scale provided (Choices 1-5 below) in the columns to the right of each statement, indicate your response by placing an X in the column space most representative of your opinion (1=Definitely Disagree through 5= Definitely Agree). Please give a response for each of the items, leaving none blank, but mark only one response choice per item.

Statement	1 Definitely Disagree	2 Mostly Disagree	3 Neither Agree nor Disagree	4 Mostly Agree	5 Definitely Agree
1.. There's no excuse for being fat.					
2. If I were single, I would date a fat person.					
3. Jokes about fat people are funny.					
4. Most fat people buy too much junk food.					
5. Fat people are physically unattractive.					
6. Fat people shouldn't wear revealing clothing in public.					
7. If someone in my family were fat, I'd be ashamed of him or her.					
8. I can't stand to look at fat people.					
9. If fat people don't get hired, it's their own fault.					
10. Fat people are disgusting.					
11. If I have the choice, I'd rather not sit next to a fat person.					
12. Fat people don't care about anything else except eating.					
13. I'd lost respect for a friend who started getting fat.					
14. Most fat people are boring.					
15. I can't believe someone of average weight would marry a fat person.					
16. Society is too tolerant of fat people.					
17. When fat people exercise, they look ridiculous.					

Statement	1 Definitely Disagree	2 Mostly Disagree	3 Neither Agree nor Disagree	4 Mostly Agree	5 Definitely Agree
18. I hate it when fat people take up more room than they should in a theater or on a bus or plane.					
19. Most fat people are lazy.					
21. Fat people are just as competent in their work as anyone.					
22. If fat people really wanted to lose weight they could.					
23. Being fat is sinful.					
24. It's disgusting to see fat people eating.					
25. Fat people have no will power.					
26. I prefer not to associate with fat people.					
27. Fat people don't care about their appearance.					
28. Most fat people are moody and hard to get along with.					
29. If bad things happen to fat people, they deserve it.					
30. Most fat people don't keep their surroundings neat and clean.					
31. Society should respect the rights of fat people.					
32. It's hard not to stare at fat people because they are so unattractive.					
33. If I owned a business, I would not hire fat people because of the way they look.					
34. I'd feel self-conscious being seen in public with a fat person.					
35. The idea that genetics cause people to be fat is just an excuse.					
36. I would not want to continue in a romantic relationship if my partner became fat.					
37. The existence of organizations to lobby for the rights of fat people in our society is a good idea.					
38. I don't understand how someone could be sexually attracted to a fat person.					
39. If fat people knew how bad they looked, they would lose weight.					
40. People who are fat have as much physical coordination as anyone.					
41. Fat people are unclean.					
42. Fat people should be encouraged to accept themselves the way they are.					
43. Most fat people will latch onto almost any excuse for being fat.					
44. It's hard to take fat people seriously.					

Statement	1 Definitely Disagree	2 Mostly Disagree	3 Neither Agree nor Disagree	4 Mostly Agree	5 Definitely Agree
45. Fat people do not necessarily eat more than other people.					
46. Fat people obviously have a character flaw, otherwise they wouldn't become fat.					
47. It makes me angry to hear anybody say insulting things about people because they are fat.					

Adapted and used with permission from R.J. Lewis (2017).

Appendix E
Educational Intervention

1. Stop the Stigma! Eliminating Implicit and Explicit Bias Toward Adult Obese Women Receiving Gynecological Care: A Quality Improvement Project to Cultivate Empathy and Increase Knowledge of Best Practices.

Mary Ellen Burke, MSN, RN, CNM
University of Massachusetts
DNP Capstone Project

2. Think about these questions as you view this 20-minute video.
 - What are your current views about patients with obesity?
 - How comfortable are you working with patients of different sizes?
 - What kind of feedback do you give patients with obesity?
 - Are you sensitive to the needs and concerns of individuals with obesity?
3. Health Care Providers and Obesity Bias
4. Causes of Obesity
 - More Controllable
 - Excess Calories
 - Excess Fat/Sugars/Simple Carbohydrates
 - Lack of adequate exercise
 - Stress-Cortisol
 - Less Controllable
 - Unhealthy Environment
 - Genetics
 - Adverse Childhood Experiences
 - Disability
 - Poverty
 - Metabolic Adaptation after weight loss
5. Health Care Avoidance
 - Obese patients have increased health risks but may avoid health care due to fear or embarrassment.
 - This can lead to worse health outcomes and lack of preventative screening.

Appendix F

**Stop the Stigma! Eliminating implicit and explicit bias toward adult obese women
receiving gynecological care: A Quality improvement project to cultivate empathy and
increase knowledge of best practices.**

Evaluation of Interventional Program

1. Prior to this presentation, were you familiar with issues of weight bias? ____yes ____no
2. Do you already use strategies to reduce weight bias in your practice? ____yes ____no
2. If you answered no, do you now plan to incorporate strategies to reduce weight bias in your practice? ____yes ____no
3. I will apply the knowledge that I learned from this program to my practice.
 1. Strongly Agree
 2. Agree
 3. Neither Agree nor Disagree
 4. Disagree
 5. Strongly Disagree
2. The presentation was effective in presenting issues of weight bias and best practices to decrease weight bias.
 1. Strongly Agree
 2. Agree
 3. Neither Agree nor Disagree
 4. Disagree
 5. Strongly Disagree
3. Please list what you liked most about the presentation.
4. Please list suggestions for improvement for the presentation.
5. Please include any additional comments.

M. Burke (2018) ©

Table H1. *Timeline for Implementation of Quality Improvement project*

Task	Aug.				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Recruitment					x	X							
Pre-testing							x						
Intervention							x						
Post-testing							x						
3-month post-testing							X		X	X			
Data analysis									X	X			
Presentation of results.												X	X

Appendix H

University of Massachusetts Amherst
Human Research Protection Office
Mass Venture Center
100 Venture Way, Suite 116
Hadley, MA 01035

Office of Research Compliance
voice: (413) 545-3428
fax: (413) 577-1728

MEMORANDUM – Not Human Subject Research Determination

Date: September 18, 2017
To: Mary Ellen Burke, College of Nursing

Project Title: Stop the Stigma! Eliminating Implicit and Explicit Bias Toward Adult Obese Women Receiving Gynecological Care: A Quality Improvement Project to Cultivate Empathy and Increase Knowledge of Best Practices

IRB Number: 17-152

The Human Research Protection Office (HRPO) has evaluated the above named project and has made the following determination based on the information provided to our office:

- ☐ The proposed project does not involve research that obtains information about living individuals.
- ☐ The proposed project does not involve intervention or interaction with individuals OR does not use identifiable private information.
- ☒ The proposed project does not meet the definition of human subject research under federal regulations (45 CFR 46).

Submission of an IRB application to University of Massachusetts Amherst is not required.

Note: This determination applies only to the activities described in the submission. If there are changes to the activities described in this submission, please submit a new determination form to the HRPO.

Please do not hesitate to call us at 413-545-3428 or email humansubjects@ora.umass.edu if you have any questions.

A handwritten signature in cursive script that reads "Iris L. Jenkins".

Iris L. Jenkins, Assistant Director
Human Research Protection Office