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Decreasing Weight Bias Among APRNs, APRN Students, and RN Nursing Students

Through Educational Seminars

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Abstract

Introduction: The purpose of this evidence-based practice Doctor of Nursing Practice (DNP) project was to systematically review research-based evidence and best practice guidelines brought forth by other researchers, experts and organizations. The goal was to implement an enlightening and educational intervention via seminar to Pre-licensure RN students, APRN students and APRNs on the topics of the non-controllable causes of obesity, weight bias in healthcare and patient centered approaches to ultimately improve the delivery and quality of care provided to patients living with obesity.

Background: The prevalence of overweight and obesity has been steadily increasing over the past three decades with up to 42% of American adults experiencing obesity. Weight bias, stigma and discrimination has been found in physicians, nurses and other healthcare disciplines and is as prevalent in healthcare as it is in the general population which is estimated to be as prevalent as racial bias. Weight bias in healthcare has been shown to actually perpetuate obesity, causing negative physical, psychological, and social consequences. Individuals who feel weight stigmatized by their healthcare providers have reported decreased treatment adherence, reduced preventative health participation, diminished trust in their provider and avoidance of follow up care which can delay treatment and worsen health further.

Methods: A one-hour educational seminar was provided via zoom and in-person to participants that consisted of education on implicit/explicit weight bias, the consequences of weight bias, the non-controllable factors of obesity (biogenetic, environmental and social factors) and weight stigma reduction strategies which are evidenced based interventions used to decrease weight bias in healthcare professionals. Attendees were required to complete two pre-seminar activities anonymously. The first was the Harvard Weight 'Fat - Thin' Implicit Association Test (IAT) to

measure implicit bias. The second activity was the Attitudes Towards Obese Persons Scale (ATOP) which is an explicit bias measuring tool. Four weeks post intervention attendees were asked to take the ATOP via survey link again

Results: The Harvard Weight IAT results showed that the majority of students showed slight to moderate automatic preference towards thin people compared to fat people. Pre and post intervention ATOP scores showed almost no differences. However, there was one important change regarding ATOP question #17, where more participants agreed that obese people were just as healthy as nonobese people. All attendees agreed that this education was relevant to their nursing practice. At one month post seminar, 100% participants reported that they had been able to implement weight bias reduction strategies to their personal nursing practice in the care of patients living with obesity.

Evaluation: Future projects on weight bias in healthcare should include re-exposure to interventions that include the non-controllable factors of obesity, the effects of weight bias to individual health and education on ways to reduce weight bias, stigma, and discrimination in healthcare

Introduction

The prevalence of overweight and obesity has been steadily increasing over the past three decades and is considered a public health crisis. Up to 44% of adults are persons living with obesity (PLWO) and nearly one in three are overweight. Almost one in five children and adolescents aged two to nineteen are living with obesity (Bryan et al., 2021). Estimates suggest that up to 80% of adults will be living with overweight or obesity by 2030 (Lawrence et al., 2021). The American Medical Association (AMA) has categorized obesity as a chronic condition that is caused by a variety of factors (Bryan et al., 2021). Healthcare professionals working in the medical field may be surprised to hear that weight bias, stigma and discrimination are pervasive in healthcare, similar to the general population which is as prevalent as racial bias (Puhl et al., 2017). Many healthcare providers do not realize that some of the weight loss strategies taught and widely used actually perpetuate obesity. Weight stigma poses more of a threat to patients health than increasing BMI (Lawrence et al., 2021). Stigma reducing interventions like educating on the causal/non-controllable factors, educating on weight bias and the negative consequences to individual health has shown to decrease weight stigma and controllability beliefs. Research and best practice guidelines recommend education on weight bias reducing strategies to all healthcare personnel and trainees as a way to mitigate unhelpful interventions and replace these with evidence based practice strategies that have proven to be effective.

Background and Significance of Problem

Obesity is defined as a systemic disease where excessive and abnormal accumulation of body fat occurs resulting in a weight that is higher than what is considered healthy for given height (Center for Disease Control and Prevention [CDC], 2022). The prevalence of overweight and obesity has been steadily increasing and presents as a significant public health challenge that

has been deemed an “epidemic”. Overweight and obesity together and their consequences are the second leading cause of preventable death in the United States (U.S.), just behind tobacco use (CDC, 2022). These are chronic health conditions caused by a variety of factors including; unhealthy eating patterns, lower socioeconomic status, food deserts, lack of physical activity, poor sleeping, medications, medical illnesses, and genetics (Bryan et al., 2021). In the U.S. 41.9% of adults 20 and older are experiencing obesity. More specifically, if divided by age group 39.8% aged 20 to 39 years, 44.3% aged 40 to 59 years, and 41.5% aged 60 and older are living with obesity (Bryan et al., 2021). Among children and adolescents aged 2–19 years, the prevalence of obesity is 19.7%. (Bryan et al., 2021). This is increasingly becoming a global problem with an estimated 1.9 billion people experiencing overweight and 600 million living with obesity worldwide. In 2017, a global study projected that by the year 2022, “the number of overweight children and adolescents will exceed that of underweight children and adolescents worldwide for the first times which highlights the enormity of the challenge to treating obesity” (Nickel et al., 2019, p. 2083). Sadly, this depressing projection has come to fruition.

Consequences of Obesity

According to Abdelaal et al. (2017) there are many physical, psychological, financial and social consequences to being overweight and/or obese. There are numerous health conditions these individuals are at risk for including; cardiovascular disease, dyslipidemia, hypertension, certain cancers, infertility, polycystic ovary system, gastroesophageal reflux, chronic kidney disease, liver disease, Type 2 diabetes mellites, pulmonary issues such as asthma, sleep apnea, musculoskeletal issues such as osteoarthritis and joint pain, and gall bladder stones/disease. Essentially, it can affect every major body system and organ as well as impede physical functioning in activities of daily living and movement.

Psychological effects of weight bias such as self-esteem, body dissatisfaction and body image can occur leading to social isolation, discrimination and shame. Psychiatric disorders occur frequently. Evidence has shown a complex interrelationship between obesity and mental health disorders with an increased risk for depression, anxiety, personality disorders and eating disorders. Some estimates suggest up to 80% of people living with obesity have mental health issues. Around 50% of patients with obesity report a lifetime history of depression and there is a positive relationship between obesity and anxiety with estimates up to 40% increased risk for anxiety disorders (Abiri et al., 2022; Rajan, et al., 2017; Sarwer et al., 2016). Obesity is also associated with poorer quality of life where evidence has found a clear inverse relationship between increasing weight status and decreasing health related quality of life (Stephenson et al., 2021).

There are economic and financial implications associated with obesity consisting of direct and indirect costs. PLWO face disadvantages in employment settings such as earning less wages, are less likely to be hired and more likely to be unemployed than thinner applicants. PLWO are more likely to experience decreased productivity and more absenteeism in their jobs. (Lee et al., 2019).

According to the CDC (2022) obesity related healthcare has steadily increased and the estimated annual medical costs of obesity totaled \$173 billion dollars in 2019. Worse, risk of death is increased and life expectancy can be reduced by 5-20 years. This highlights the severity of the epidemic facing health care providers in providing care to individuals experiencing obesity.

There are also social consequences to individuals living in larger bodies that lead to feelings of rejection, feeling hated and ostracized by family, friends and society at large. These

come in the form of negative attitudes towards people with obesity and are widely prevalent in society. These negative attitudes and stereotypical beliefs stem from obesity prejudice (also known as weight bias, weight stigma and anti-fat prejudice). This type of prejudice towards people living with obesity can lead to discrimination of these individuals. Because obesity bias is reinforced by society and the media, these unhelpful narratives continue to perpetuate anti-fat bias beliefs and attitudes (Lawrence et al., 2021; Puhl et al., 2016).

Weight Bias and Stigma in Healthcare Providers

Weight discrimination is still rampant and one of the most common forms of discrimination found in America, comparable to racial discrimination, especially among women (Puhl et al., 2017). One cause of weight bias is that obesity is a strongly stigmatized characteristic and evidence has shown that people with obesity elicit negative feelings in others such as irritation, disgust, blame and strong feelings of dislike. When people living with obesity attend healthcare appointments, many face weight bias and stigma, even from well-intentioned healthcare professionals (HCP). Given that healthcare providers are usually compassionate and empathetic and healthcare settings are usually seen as safe, it is surprising that over the past several decades as obesity rates have risen, so has the evidence of rising weight bias, stigma and discrimination. There is substantial evidence that physicians and healthcare professionals hold strong negative opinions about people with obesity (Lawrence et al., 2021; Phelan et al., 2015; Puhl et al., 2016, Puhl et al., 2017; Talumaa et al., 2022).

This presents a significant problem because weight bias can cause discriminatory actions that impair care, reducing the quality and quantity of patient centered care and create unequitable healthcare delivery. There are several reasons which healthcare professional attitudes can affect the quality of or potential for patient centered care. Many providers hold stereotypes that patients

with obesity are lazy, undisciplined and lack willpower therefore feel they are less likely to be adherent to treatment and medical recommendations. HCPs have been shown to have less respect for patients with obesity and low respect has been shown to predict less positive affective communication. There is evidence that HCPs spend less time with obese patients leading to less time educating on health behaviors. Another concerning pattern is that providers may misattribute or ignore symptoms and problems to obesity and fail to order appropriate tests, provide treatment or give appropriate recommendations which can worsen patient outcomes. (Lawrence et al., 2021; Phelan et al., 2015; Puhl et al., 2016, Puhl et al., 2017; Talumaa et al., 2022).

Weight stigma and discrimination has a myriad of negative consequences on the physical, psychological and social level. When a patient with obesity feels stigma or bias from their provider, it can cause them to feel disrespected and inadequate which can negatively affect their treatment adherence, preventative health participation, trust in their provider, avoidance of follow up care and can delay treatment. This can lead to more advanced and difficult medical conditions as a result of avoidance and/or postponement of medical care. Stigma by healthcare professionals can cause patients with obesity to feel judged which can make them less likely to seek or achieve successful weight loss. Because of this stigma, patients with obesity place lower value on health (Lawrence et al., 2021; Phelan et al., 2015; Puhl et al., 2016, Talumaa et al., 2022). It can also cause distress in the individual in the form of depression, anxiety, lower self-esteem, poor body image, substance abuse and even suicidality. Longitudinal evidence shows that irrespective of baseline BMI, adults who experienced weight discrimination have a 60% increased risk for death (Lawrence et al., 2021). Weight bias also increases long term risks of cardiometabolic health issues (Phelan et al., 2015). There is proof of physiological reactivity

with increased levels of cortisol, C-reactive Protein, A1, and blood pressure. Feeling judged by their weight by providers has shown to increase disordered eating behaviors like binge eating and fad diets. It also can cause lower motivation for exercise and less physical activity making it less likely to achieve successful weight loss (Puhl et al., 2017).

Puhl et al. (2017) aimed to understand perspectives of stigmatized people with obesity and how they view the importance and impact of stigma reduction strategies in diverse settings. Healthcare was one of these settings. The sample consisted of 461 women with overweight/obesity from the Obesity Action Coalition (87% of membership is women). All women reported experiencing some level of weight bias including being teased (88.4%), treated unfairly (78.3%) or discrimination (65.1%) because of their weight. In regards to healthcare, 93.9% reported “healthcare providers should be educated about weight stigma and its harmful impact on people who have obesity” (p. 29). Ninety-four percent reported “healthcare providers should receive training to provide more respectful, compassionate care to patients with obesity” (p. 29). Ninety percent reported “obesity treatment and intervention programs should avoid using approaches that stigmatize or blame people affected by obesity” (p. 29). Seventy-nine percent of participants reported healthcare professionals play a major role to help reduce weight based bullying and/or stigma and discrimination. This study concluded that there are several specific strategies perceived to be high in impact and achievability that should be prioritized in stigma reduction research and advocacy. In regards to healthcare one suggested top five successful strategies is “providing training for healthcare providers on respectful and compassionate care to patients with obesity” (p.29). Additionally, there has been a global call to action from many organizations, influential leaders and researchers that all point to the need to eliminate weight

bias in healthcare because it is imperative to do so to be able to treat the worldwide obesity crisis (Puhl et al., 2017).

Literature Review

Measurement Scales of Weight Bias

There are over 40 weight bias questionnaires available and LaCroix et al. (2017) inventoried the psychometric quality of most of these. This was done by listing if the criteria was fulfilled or not fulfilled and consisted of the following eight criteria; internal consistency, test-retest reliability, theoretical clarity, content validity, structural validity, convergent validity, discriminant validity, and sensitivity to change. They were totaled with max score of 8 (one point for fulfilled criteria, no points for unfulfilled). La Croix indicated that there were several scales designed to measure weight bias specifically in healthcare professionals. These are listed with their criteria score. These were the Obesity Perception Survey (OPS) rated 1/8, Nursing Management Scale rated 3/8, Nutrition, Exercise, and Weight Management (NEW) Attitudes Scale rated 6/8, Kushner's Unnamed Questionnaire, rated 2/8, Attitudes Toward Obese Patient Questionnaire 4/8, Perceptions of Treatment Compliance and Success (2/8), Nurses' Attitudes toward Obesity and Obese Patients (NATOOPS) Scale, rated 5/8. Twenty three of these Scales were created for the general population. Listed are the most used; Anti-Fat Attitudes Questionnaire, rated 7/8; Fat Phobia Scale (short form) rated 5/8; Attitudes Toward Obese Persons Scale (ATOP) rated 6/8; Obese Person Trait Survey, rated 5/7.

Lawrence et al. (2021) is a systemic review and meta-analysis regarding weight bias amongst health care professionals. They reviewed 41 studies and meta-analyzed 17, the population of the studies included a wide range of healthcare workers including physicians, nurses, psychologists, occupational/physical therapists, physiotherapists. These studies measured

implicit and explicit bias using rating scales. The utilized scales to measure explicit bias were the Fat Phobia Scale, The Antifat Attitudes Questionnaire (AFA), the Attitudes Towards Obese Persons (ATOP) scale and the Nurses Attitudes Towards overweight and obese scale. The Harvard Weight (Thin-Fat) Implicit Association Test was the only test used to measure implicit bias. (Lawrence, et al., 2021).

These two articles were reviewed and determined that the Thin-Fat Implicit Association Test (IAT) and The Attitudes Towards Obese Persons Scale (ATOP) would be the best measures to utilize for the project. To measure implicit bias, the Thin-Fat Implicit Association Test (IAT) from Harvard Project Implicit found that weight related attitudes and beliefs were significantly correlated with implicit anti-fat bias. This is a validated test that measures the strength of associations between obese and thin people and provides a person's unconscious preference for obese and thin people (George et al., 2019; Vianello & Bar-Anan, 2021). The IAT is considered the best available option for measuring automatic judgment at the person level (Vianello & Bar-Anan, 2021). It has been used in over 300 published studies, cited in 800 articles and over 66,000 volunteers have taken the IAT on the Harvard Project Implicit website (George et al., 2019).

To measure explicit bias, the Attitudes Towards Obese Persons Scale (ATOP) assesses stereotypical and discriminatory perceptions toward obese persons and consists of 20 Likert-type 20-item Likert rating scale, responses to questions are rated from strongly agree (+3) to strongly disagree (-3) and higher scores reflecting more positive attitudes toward obese people. The ATOP has an alpha reliability range of .80 to .84. and showed good psychometric strength with evidence of internal consistency, theoretical clarity, content validity, structural validity, convergent validity and sensitivity to change. It is a widely used measuring tool and has been used many studies (Allison et al., 1994; Lacroix et al., 2017).

Weight Bias Interventions

Many studies have employed different methods to decrease weight bias, including attributions of weight controllability by providing knowledge of the complex etiology of obesity, empathy provocation, debunking weight based stereotypes, education, and even using celebrities or influential people to sway opinions. Here is a review of the most widely used.

Increased Education

Barra and Singh (2018) consisted of a sample of 103 nursing students who participated in a 15 week obesity sensitivity training added on to their medical surgical clinical practicum. The obesity sensitivity training consisted of education to increase awareness of weight bias and discrimination and its detrimental effects of weight bias on patients living with obesity. This intervention included; weekly meetings for discussion, obesity education, and administration of pre/post questionnaires using Attitudes Toward Obese Persons Scale. This followed Lewin's Three Step Change Theory including the first step in recognizing undesirable attitudes toward people living with obesity and the consequences of weight bias. Second step, was to implement plans to change behaviors that may be aligned with negative attitudes toward patient who are obese. Next step, was practicing these changes to become automatic actions that align with changed attitudes. The pre-intervention ATOP indicated more than half of the students had negative attitudes. The results of this study showed a significant positive change in weight prejudices and students expressed remorse of their biased attitudes.

Nickel et al. (2019) conducted a randomized study regarding attitudes towards obesity compared to other chronic illnesses. The sample size was 949 individuals consisting of 150 nurses, 202 nursing students, 148 physicians and 208 medical students and the rest were non-medical individuals. The intervention consisted of a short video regarding obesity and treatment.

A Modified Fat Phobia Scale (FPS), which is an explicit bias measuring tool was used to measure pre/post intervention. Diseases were rated in descending order; bowel cancer, dementia, depression, heart failure, alcoholism, arthrosis, diabetes, hypertension, obesity, smoking and caries. The burden of obesity was rated ninth out of the eleven diseases listed, just above caries and smoking. Even the medical trainees and professionals rated obesity lower than other diseases. All groups had negative attitudes toward obesity with the top two groups being medical students and the general population. Obesity was rated by participants to be within an individual's responsibility compared to the other diseases. This study concluded that medical training should consist of more educational information that may increase sensitivity and understanding that obesity is a serious medical disease that requires treatment and not lifestyle disease.

Causal/Controllability

O'Brien et al. (2010) is a randomized controlled trial to reduce implicit and explicit anti-fat prejudice in preservice health students. The sample consisted of 159 health promotion and public health students. The groups of students were assigned to three groups consisting of 12 (one hour) lectures. Group One consisted of the controllable reasons for obesity (diet/exercise). Group two learned about the uncontrollable reasons for obesity (genes/environment). The control group focused on alcohol use in young people. There were four measures used. The Implicit Association Test was used to measure implicit weight bias. The Anti-Fat Attitudes Questionnaire was used to measure explicit weight bias. The Beliefs About Obese People scale was used to measure weight controllability beliefs and the Dieting Beliefs Scale was used to assess beliefs about the role of willpower and personal control in dieting. These measures were taken at baseline and post-intervention. The results of the implicit bias measure showed that anti-fat

prejudice was present across all groups at baseline. Post-intervention, the genes/environment group showed significant decrease in two types of anti-fat prejudice. There was no difference between the diet/exercise and control group. There was increase in the “motivated/lazy” implicit weight bias in the diet/exercise group and the genetic/environment group showed no significant difference between pre/post intervention. The AFAT test showed significant increase in willpower scores for the alcohol and genetic/environment conditions and significant reduction in scores for the genetic/environment group. There was no significant changes in dieting control beliefs or beliefs about obese persons across all three groups. O’Brien et al. (2010) concluded that “anti-fat prejudice can be reduced or exacerbated depending on the causal information provided about obesity. These results have implications for the training of healthcare workers and shows that implicit and explicit anti-fat prejudice can be modified in health professionals” (p. 2141).

Diedrich and Barlow (2011) conducted a controlled trial of 85 preservice health students. The students were divided into three groups consisting of 30 in an intervention group, 35 in a control group and 20 in a comparison group. The intervention group was given a one-time lecture on weight bias, obesity and its consequences. The control group received no lecture and the comparison group were lectured on the behavioral detriments of weight and obesity. The Anti-fat Attitudes Test (AFAT) were used before, after and at three weeks post intervention. In the pre-intervention time period, there were no significant changes between the groups regarding overall anti-fat attitudes, beliefs about controllability or unattractiveness ratings. There were higher levels of social disparagement in the control group vs. the other two groups at pre-intervention. Participants in the intervention group were found to have less anti-fat attitudes right after and three weeks post intervention, these attitudes didn’t revert and were maintained. For

people in the comparison and control group, there was no changes in their anti-fat attitudes. Similarly, the intervention group showed decreased beliefs about controllability right after the lecture and three weeks out but no change between the post intervention scores. The comparison and control group showed no changes across all times the AFAT was taken. Intervention group rated people with obesity as less unattractive after the lecture that maintained at the three week retest. The other two groups showed no changes across all times they were tested. Neither intervention and comparison groups showed changes in scoring in social disparagement but the control group showed less. This study found that the intervention was successful in changing beliefs about controllability and a decrease in weight stigma related attitudes. They concluded that providing a brief educational based intervention shows some success in provoking weight bias controllability beliefs and attitudes. They recommend that further research be conducted and complimented with policy, laws and social action (Diedrich & Barlow, 2011).

In Brochu (2019) sixty clinical psychology trainees underwent a weight bias seminar informed by the attribution value model of prejudice. A three-hour in person weight bias seminar was presented to participants that included myths regarding weight and health, prevalence and harm of weight bias, and recommendations in shifting focus of weight and weight loss to health and wellbeing. Forty-five participants completed both pretest and one week post intervention posttest called the Anti-Fat Attitudes Test (AFAT) measuring weight controllability beliefs, anti-fat attitudes and attitudes toward obese clients. The results showed beneficial effects on the attendees on weight controllability beliefs, anti-fat attitudes and negative attitudes toward people with obesity. This research also identified weight controllability beliefs as an important mechanism underlying weight bias reduction interventions. One limitation was that there was no control group and a small sample size which limits the generalizability of these results. The

existing research on weight bias interventions in health related training settings show limited long lasting change and regression to mean also occurred. Without a control group for comparison purposes, it also remains unclear to what extent the weight bias reduction observed in this study was from the weight bias seminar (Brochu, 2019).

In Hilbert (2016) one hundred twenty-eight university students were randomly assigned equally to an experimental group and control group. The Anti-fat Attitudes Test (AFAT) was used to assess explicit weight biased attitudes. The Beliefs About Obese Persons Scale (BAOP) was used to measure personal beliefs about the controllability of obesity. The Harvard Weight ‘Thin-Fat’ Implicit Association Test (IAT) was used to measure implicit weight bias. They also constructed a test of their own making to examine obesity, weight stigma and weight loss knowledge. The intervention was a 60 minute interactive pre-recorded slide deck consisting of the following information; obesity risk factors, genetic factors and their interaction with environmental factors, weight stigma, prejudice and discrimination and the consequences of these. The post intervention measures were collected ten to sixteen days later. In the experimental group, the AFAT scores showed less explicit bias stigmatizing attitudes and the BAOP score showed less controllability beliefs. The IAT showed no significant changes post-intervention from pre-intervention. The experimental group all showed significant increases to knowledge. In the control group, all measures remained unchanged. Their conclusion was that a brief multicomponent intervention for weight stigma reduction has the potential to reduce both weight bias and controllability beliefs. It was recommended that more reproducible studies of larger sample sizes should be researched further. They concluded that a “brief, interactive intervention educating on gene x environment interactions in the etiology of obesity was found to

be useful to decrease weight stigma, at least in the short term and in individuals with higher educational level” (Hillbert, 2016, p. 11).

Empathy Evoking

Molloy et al. (2016) created a bariatric sensitivity intervention consisting of six trigger films. Trigger films are short, two-four minute, educational films that focus on vignettes of simulated ethically challenging scenarios that end before a conclusion to engage learners in stimulated reflection and discussion to receive immediate feedback from both peers and facilitators. These films showed an interaction between actors posing as nursing staff members in a clinical setting. This intervention was delivered to a convenience sample of 70 first semester nursing students. The total intervention was one hour long and included four steps. Step one was introduction and pre-brief of the experience. Step two was the watching of the trigger films. Step three was debriefing the simulated film. Step four was a wrap up of the experience. There were two surveys used for measurement of weight bias attitudes and beliefs. The Nurses’ Attitudes Toward Obesity and Obese Patients (NATOOPS) and The Beliefs About Obese People Scale (BAOP) were administered three times, immediately before the intervention, directly after the intervention and 30 days after intervention. Results showed improvements (decreased scores) on three subscales of the NATOOPS immediately after the intervention on characteristics of obese individuals, stereotypic characteristics and controllable factors contributing to obesity. The other two subscales of the NATOOPS were found to be statistically insignificant. Thirty days post-intervention showed improvements only on two subscales stereotypic characteristics and controllable factors contributing to obesity. The BOAP mean total score indicated an improvement in student beliefs about patients living with obesity immediately after the intervention but declined slightly between the immediate and 30 day post intervention but still

remained significantly higher than pre intervention scores. One limitation was that these were first year nursing students with very little clinical experience (Molloy et al., 2016).

Gajewski (2023) investigated the effects of weight bias training on student nurses empathy. Their sample included 121 undergraduate nursing students who completed learning activities that included watching a video and reading an article about weight bias, then discussing and reflecting on these, they found that pre/post intervention showed no significant differences in the scores of the Jefferson Scale of Empathy-HPS. They concluded that there is an increased need for weight bias learning activities that help eliminate weight bias and teach communication skills and behaviors that are nondiscriminatory (Gajewski, 2023).

Mixed Methodology

In Poustchi et al. (2013) sixty-four, second and third year medical students watched a 17 minute video “Weight Bias in Healthcare” and participated in a discussion totaling 1hr regarding their professional involvements with patients living with obesity. Measures used at pre/post intervention were the Attitudes Toward Obese Persons (ATOP) for explicit weight bias beliefs, Beliefs About Obese Persons (BAOP) to measure beliefs about the underlying reasons for obesity and the Fat Phobia Scale (FPS) to measure weight stereotypes. The video consisted of weight bias, stigma and discrimination information and dramatized vignettes of discriminatory situations. The results of this study found that the BAOP scores showed that participants held more beliefs that obesity is driven by genetic/environmental causes vs. a lack of personal control. There was no change in the ATOP mean scores and FPS showed a decrease in negative stereotypes. This study concluded that “the intervention increased the belief that genetic and environmental factors play an important role in the cause of obesity and decreased negative stereotypes about obese patients” (Poustchi, 2013, p. 347). This study confirmed previous

research that shows that changing beliefs regarding the causality and controllability of weight can improve beliefs and stereotypes. Limitations were the small sample size.

In Swift, et al. (2013) designed a pilot randomized controlled trial (RCT) to decrease weight bias for dieticians and medical trainees. The control group (n = 21) did not have an intervention. The intervention group (n=22) watched two 17 minute anti-bias films developed by Rudd Center for food Policy and Obesity at Yale University. These two films used a celebrity spokesperson to discuss her own personal story of being discriminated for her weight by healthcare providers. It also included education on the consequences of weight bias, addressed common myths about the cause of obesity and stereotypes towards people living with obesity. The outcome measures used were the Fat Phobia Scale (FPS) and the Beliefs About Obese People Scale (BAOP), and the dislike and willpower portions of the Anti-Fat Attitudes Scale (AFAT) to measure explicit bias and controllability beliefs. They also used the Bad/Good and Lazy/Motivated Implicit Association Test. Pre-Intervention, all participants showed both implicit and explicit bias on the scales. Post intervention, and six weeks after the intervention, the FPS scores were significantly reduced, indicating decreased weight bias. The BOAP scale score changed from pre to post intervention showing less beliefs that obesity was under a person's control, this result was maintained six weeks post intervention. The AFA 'willpower' and 'dislike' subscale scores also showed improvement after watching the videos. The IAT results showed lack of improvement which the researchers thought was related to the small sample size to detect a significant differences. Another limitation, was the scales were given one minute after the film without more time for participants to respond. Their conclusion was that brief educational films may be a reasonable method of improving healthcare professional beliefs about attitudes toward obese people. They recommended that more research needs to be conducted.

They also believe that “interventions that combine multiple strategies are needed to tackle the complexities of obesity stigma to translate into less biased attitudes and behaviors” (Swift et al., 2013, p.100).

Pilot Program

In the Moto et al. (2020) pilot study, their purpose was to raise healthcare providers awareness of weight bias and help improve their care of patients living with obesity. The method used was a web based training tool from the Rudd Centre for Food Policy and Obesity that included four modules for participants to complete over the course of eight weeks. Module one, was titled “increasing self-awareness of weight bias” where participants identify their own attitudes of implicit and explicit bias using Harvard weight IAT to measure implicit bias and a choice of using ATOP, BAOP, AFAT or FBS. Module two, “improving provider-patient interactions” consists of information on strategies of patient centered communication, motivational interviewing. Module three, “overview of weight bias in healthcare settings” consists of an overview on weight bias, consequences of weight bias. Module four, “office environment strategies to reduce weight bias” which consists of education on promoting a positive physical space and environment, weighing procedures and size appropriate medical equipment. The researchers used the ATOP scale before and after the intervention. There were ten participants who completed the training modules. The results showed that the post ATOP scores were higher, indicating improved attitudes toward obese persons. This study acknowledged the limits of their small sample size and recommended that this type of training be completed yearly. They also highlighted that because it is imperative that providers build relationships built on trust and open communication that the strategies discussed in these modules should embrace and implement these strategies to help patients meet their health goals.

DNP Projects

EBP projects for reducing weight bias has been implemented by DNP students. Strauss (2022) used an online self-paced course that educated on obesity, weight bias and ways to reduce weight bias in multi-disciplined healthcare professionals. It also utilized the ATOP and BAOP scales for pre/post intervention which showed both an improvement in both the ATOP and BAOP indicating an improvement in attitudes. The participants all agreed that this module encouraged them to make changes to their personal practice. Balentine (2022), used an asynchronous online narrated module in a sample size of 30 participants to educate on obesity. The measures used pre/post intervention found significant improvement in implicit bias and moderate improvement in explicit bias. They concluded that using an educational module was effective in reducing bias in healthcare professionals.

Systematic Review

Talumaa et al. (2022) identified and reviewed a total of 25 interventional studies, seven were randomized controlled trails, four were controlled trials and 14 were pre/post interventional. There were different populations used; three included healthcare professionals (HCPs), two were healthcare trainees, 19 included students, and one trial included professionals, trainees and students. Studies length ranged from one day to three years and included a total of 3,557 participants. Five approaches were identified in the review of the stigma reducing strategies in healthcare students, trainees and professionals. These five approaches included increased education, causal information and controllability, empathy evoking, weight inclusive approach and mixed methodology.

Regarding the increased education intervention, the researchers concluded that biomedical education tends to discuss weight from a medicalized perspective and it alone does

not reduced stigma. Education on the causal factors outside of individual control helps the learner decrease weight bias due to believing that weight is outside of the individuals control, which aims to decrease blame. Talumaa et al. (2022) concluded that these type of interventions in healthcare populations show encouraging results. Empathy evoking interventions aim to change weight stigmatizing attitudes by increasing acceptance and liking of people living with obesity. Talumaa et al. (2022) concluded that empathy invoking interventions showed unclear utility in healthcare populations for decreasing weight stigma. The assessment of the weight inclusive approach interventions found these interventions encouraging because of the reframing obesity as a medical issue as well as a human rights issue. Talumaa et al. (2022) reported that these studies were promising but concluded that due to the limited amount of studies and the absence of controlled studies, this method could not be recommended. In the mixed methodology group, there were eight studies reviewed. Talumaa et al. (2022) concluded that most mixed method interventions were “successful in changing participant beliefs about the uncontrollable causes of obesity and in reducing blame but changing attitudes and bias showed some mixed results” (p. 13).

How search conducted

Searched over the past 30 years as weight bias is a newer phenomenon that has occurred with rising obesity rates over the same time period to fully address and appraise all known about this clinical issue. Felt important to search newer and older research to understand what has changed in this field. Utilized search strategy inducing key word searching, title searching and subject heading searching as all have strengths and weaknesses and should be used in combination to provide high levels of certainty that best evidence is not missed. In an effort to ensure the same search method was conducted to ensure uniformity and consistency throughout

each database utilized. Searches consisted of population (healthcare professionals or nurses) problem (weight bias in healthcare, synonyms used anti-fat bias, obesity bias, obesity stigma, obesity discrimination) intervention (education, non-controllable factors of obesity, self-reflection, empathy evoking) generated from the PICO Question. Used Boolean connector OR between synonyms and used AND between synonyms and searches including the population, problem or intervention. Searches were conducted using CINAHL, Pubmed and Google Scholar. Subject heading searches were conducted as well using Medical Subject Headings (MeSH) terms weight bias, weight stigma, weight discrimination, healthcare, nurses, educational intervention. Using subject heading systems like PubMed is helpful in that it creates a hierarchical structure by retrieving every term listed. Lastly, a title search was conducted using problem (weight bias in healthcare), intervention (educational intervention) and outcome terms of (decreased weight bias). Used limiter of English only, 5-20 years, full articles (Melnik, 2016).

Critical Appraisal of Evidence

Even short interventions have shown positive benefits in the negative attitudes of healthcare professionals. Nickel et al., 2019 utilized a short 2.5 minute video providing facts about obesity as a disease, the non-controllable factors outside individual control and ways to communicate effectively with patients living with obesity and the study concluded that this teaching showed positive effects. In the Diedrich and Barlow (2011) RCT, they provided a single lecture to intervention group on weight bias, obesity and obesity consequences. They found that the intervention was successful in changing beliefs about the controllability of obesity and some decrease in weight stigma related attitudes. This study concluded that providing a brief educational based intervention showed some success in provoking weight bias controllability beliefs and attitudes (Talumaa et al., 2022). Brochu (2020), gave one in person seminar

educating on the myths of weight and health and the prevalence and harm of weight bias. Their results showed beneficial effects on the attendees on weight controllability beliefs, anti-fat attitudes and negative attitudes toward larger clients. In Swift, et al. (2013) they designed a pilot randomized controlled trial to decrease weight bias for dieticians and medical trainees. The intervention group watched two 17 minute antibias films. Their conclusion was that brief educational films may provide a feasible method of improving healthcare professional beliefs about attitudes toward obese people. These studies show that even a brief intervention can be impactful, decrease anti-fat attitudes and increase education and knowledge about obesity.

Studies that provided education on obesity and obesity sensitivity training showed some improvements. In Barra and Singh (2018), Moto (2020) and Geller et al. (2018) all showed some attitudinal improvement on explicit bias measures. In all studies that provided education of causal information and non-controllable factors showed improved controllability beliefs and decreased stereotype and anti-fat attitudes on explicit weight bias measures (AFA and AFAT). Brochu (2020), Diedrichs and Barlow (2011) O'Brien et al. (2010) all showed improvement on the Harvard IAT implicit weight bias measure as well.

In Empathy evoking interventions, these too had some good results. In Cotugna et al. (2010), they had 40 dietetics students follow a calorie restricted diet (1200-1500 kcals) for 7 days to simulate and understand how difficult it is to lose weight on low calorie diets to bring about empathy toward overweight and obese patients who are tasked to do this for their health by providers. These participants had decreased stereotyping on the FPS. In Molloy (2016), where trigger films were used as part of bariatric sensitivity training showed decreased obesity beliefs and attitudes on the BAOP and .

In reviewing the mixed methodology studies, Poustchi (2013) had participants watch two videos and debriefed with an interactive discussion showed improved obesity viewpoints and improved explicit/implicit weight bias attitudes/beliefs on the BAOP, AFA, FPS and IAT. In Swift et al. (2013), a RCT, their intervention was two videos that discussed weight prejudice, myths and facts along with the effects in healthcare, this produced a decrease in obesity beliefs regarding willpower and causality (via BAOP) and stereotypical attitudinal beliefs (via AFA, FPS) but found no improvement in implicit bias via the IAT. In another study Wjayatunga et al. (2019) they did an intervention that evoked empathy, provided education and entailed a reflective writing exercise. They found that beliefs about controllability improved (via AFAT) even at 4 weeks post intervention. Implicit bias (via IAT) did not change significantly pre and post intervention.

These articles informed this project in several ways. The reviewing of the articles has led to the conclusion on which strategies have consistently shown the best evidence and efficacy in reducing weight bias in healthcare professionals. First, an intervention should have a self-reflection component. Utilizing the Harvard IAT and ATOP can bring about self awareness which gives the individual the ability to self-reflect on any implicit or explicit bias combined with understanding how bias effects patient care. Being aware of bias can motivate a person to change. Second, the intervention should include education on weight bias, the consequences of weight bias, and the causal factors of obesity that are outside a person's control can help to decrease explicit bias because it can change the attitude that people living with obesity are not lazy, lack willpower etc. Talumaa et al. (2022) reported that this type of intervention showed promising results. Both Talumaa et al (2022) and Brochu (2020) concluded that interventions that combine multiple strategies are needed to challenge the complexities of obesity stigma to

translate into less biased attitudes and behaviors. These studies also showed that even a brief intervention can be impactful in decreasing anti-fat attitudes and increase knowledge about obesity in healthcare professionals (Talumaa, 2022)

Two other type of interventions were not used for this project. Empathy exercises because they have not shown unclear efficacy overall in healthcare professionals (Talumaa et al., 2022). Regarding the increased education intervention, the researchers concluded that biomedical education tends to discuss weight from a medicalized perspective and it alone does not reduced stigma (Talumaa et al., 2022). Due to limits in the scope of practice of the Psychiatric Mental Health Nurse Practitioner conducting this evidenced based doctoral project, these were not appropriate to implement and therefore not reviewed in this manuscript but did use the weight inclusive approach techniques which were applicable to all healthcare professionals regardless of specialty or license.

PICO Question

The population in this project is Pre-Licensure Nursing Students, APRN Students and APRNs. The intervention is the implementation of an educational seminar consisting of the genetic, biological, environmental, and social (non-controllable) factors/causes of obesity, weight bias and its consequences, weight inclusive approach and weight stigma reducing strategies. The comparison is no seminar. The outcome is decreased weight bias, stigma and discrimination in healthcare persons due to increased understanding that obesity is not always in the patient's control. The time is one month.

Evidenced Based Intervention

The evidence based intervention included the following elements. Provided a one-hour educational seminar via zoom and in-person to APRNs, APRN students and Pre-Licensure RN

students from the University of San Diego. Attendees were required to complete two pre-seminar activities anonymously. The first is the Harvard Thin/Fat Implicit Association Test (IAT) online at Project Implicit Website to measure implicit bias to invoke awareness. The second activity was completing the Attitudes Towards Obese People Scale (ATOP) which is an explicit bias measuring tool. Four weeks post intervention attendees were to take the ATOP via survey link again.

The one-hour seminar consisted of education on implicit/explicit weight bias, the consequences of weight bias to individual health and healthcare outcomes, and the causal, non-controllable factors of obesity (biologic, genetic environmental and social factors). Education was also provided on weight stigma reduction strategies which are evidenced based communication techniques used to decrease weight stigmatization by adoption of weight neutral terminology (Lawrence et al., 2021). Weight inclusive approaches were also discussed which create a sensitive and supportive office environment that is size inclusive which aims to decrease embarrassment and shame (Fruh et al., 2016).

Evidenced Based Practice Model

The Iowa Model, was used for guidance of this evidenced Based Project (EBP) due to its purpose listed as evidenced based practice to promote excellence in healthcare. This is applicable to the goal of this project which is to improve healthcare delivery in a sensitive manner. The Iowa model is a “pragmatic multiphase change process with feedback loops” (Melnik et al., 2016, p. 389). The first step in this process is to identify a problem or question whether there is opportunity to improve a current practice, this is called a trigger. In the case of this EBP, the trigger or patient identified problem was that people living with obesity were reporting stigmatizing experiences at the hands of healthcare workers. A literature search was conducted of

the problem and interventions. The PMHNP assembled, appraised and synthesized all available evidence and the best evidence was selected. Next, the issue was identified as an organizational priority to the University of San Diego, Hahn School of Nursing. Next, support was garnered from leadership and discussing this clinical issue created stakeholders. This helped form a team (PMHNP, Faculty Advisor, Assistant Dean of DNP program) who were committed to addressing the topic. Once IRB approval was obtained, discussed this project with the Graduate Nursing Student Association (GNSA) President who also became a stakeholder. This educational seminar was presented at GNSA where implicit/explicit bias was measured. The feedback from students was overwhelmingly positive. The data from the IAT and ATOP was evaluated and synthesized. Was able to disseminate the results at DNP present day and at Western Institute of Nursing conference. Lastly, discussed the results with stakeholders.

Project Implementation/ Practice Change Process

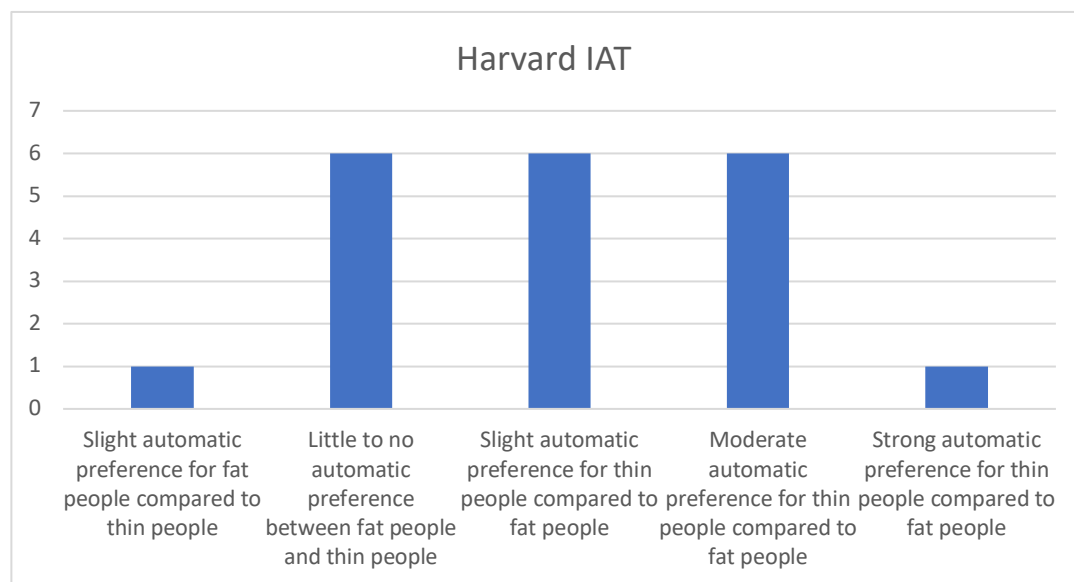
This project was conducted as an evidence based project as part of the post-MSN to DNP program. In Summer 2022, the third semester of the program, the PMHNP began looking for a phenomenon of interest. Due to working in the psychiatry field and with individuals of different types of body habitus in the eating disorder field, the topic of weight bias became increasingly interesting. Specifically, how different body shapes are misperceived as healthy by healthcare providers and how often thinner patients are commended for their physique and passed as healthy vs. larger patients who felt stigmatized by their weight and their physique is ruled as unhealthy. Over the next few weeks, this PMHNP read about the prevalence of weight bias in healthcare and effective evidenced based interventions. In early Fall Semester 2022, this PMHNP reviewed the literature, found evidenced based interventions and a targeted population that was proposed to the faculty advisor, which was given approval to apply to the Institutional

Review Board (IRB). In September 2022 the IRB approved the proposal and on November 14th, 2022 provided an educational seminar at the Graduate Nursing Student Association. In December 1st 2022, held an educational seminar for NP students and NP Alumni. On December 14th 2022, the post educational seminar surveys were emailed out to all participants who attended the first seminar. In Spring 2023, the data was analyzed and project poster presented at DNP presentation day at USD and results disseminated at the Western Institute of Nursing Conference via poster presentation. The manuscript detailing the project was finalized last.

Data Analysis and Evaluation Plan

Presentation of Outcomes

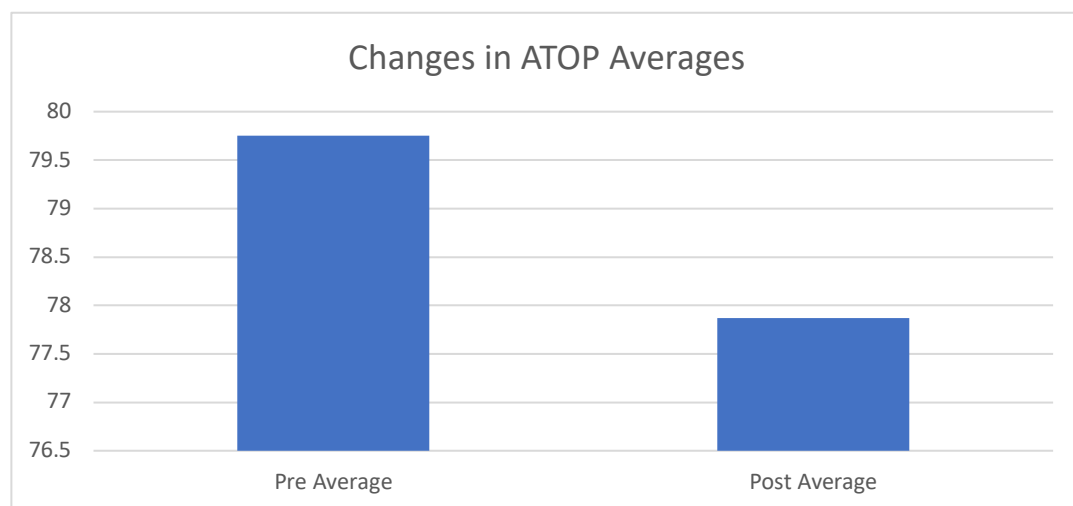
Implicit Bias Analysis



The Harvard IAT yields seven possible results. These are strength associated into strong, moderate and slight automatic preference toward thin people compared to fat people. There is a neutral response result, little to no automatic preference between fat people and thin people. There is also strong, moderate and slight automatic preference toward fat people compared to thin people. Twenty pre-licensure RN students participated in the seminar. There was a total of

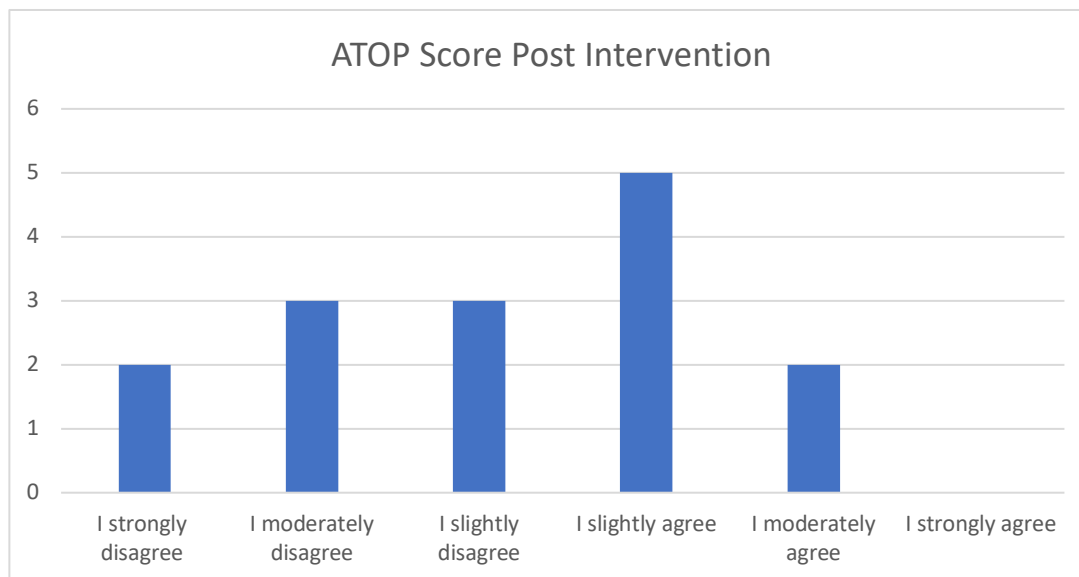
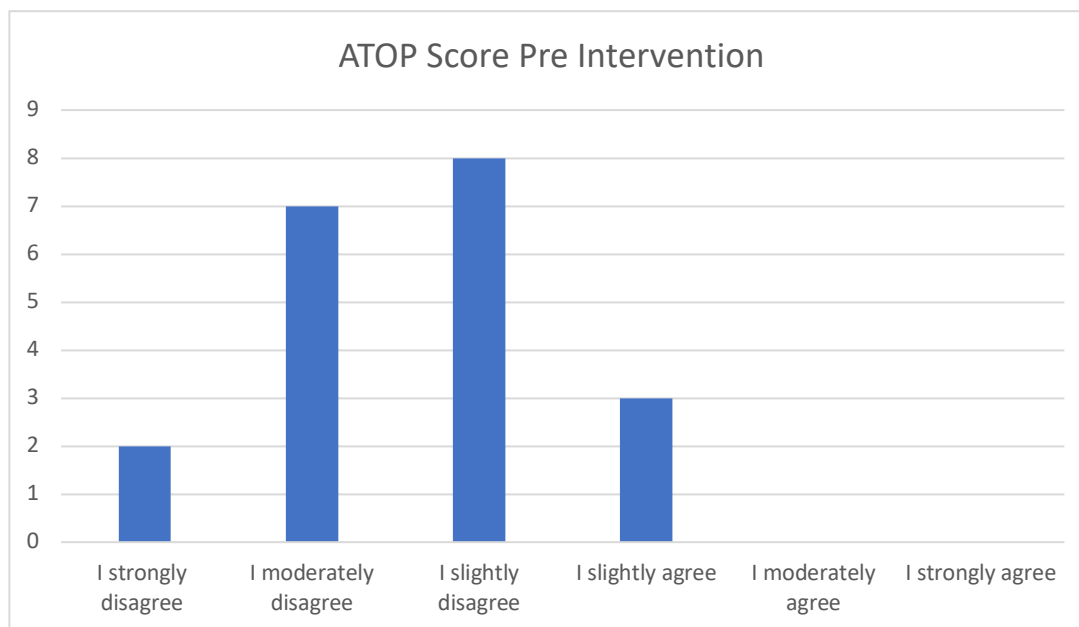
five available responses. One participant (5.3%) scored Strong automatic preference for thin people compared to fat people. Six (31.6%) participants scored moderate automatic preference for thin people compared to fat people. Six (31.6%) scored slight automatic preference for thin people compared to fat people. Six (31.6%) scored slight automatic preference for fat people compared to thin people. One (5.3%) participant scored slight automatic preference for fat people compared to thin people. No one scored moderate automatic preference for fat people compared to thin people or strong automatic preference for fat people compared to thin people.

Explicit Bias Analysis



The Attitudes Toward Obese Person (ATOP) scale is a 20 question Likert rating scale used to measure explicit weight bias. The responses to questions are rated from strongly agree (+3) to strongly disagree (-3) with higher scores (120 max total points) reflecting more positive attitudes toward obese people. Pre-intervention ATOP was completed by 20 participants (all RN students). The lowest score was 51 and highest score was 104 with mean score 79.75. Post intervention ATOP score was completed by 15 participants (all RN students). The lowest score was 46, the highest score was 104 and the mean score was 77.86. Pre and post intervention ATOP scores showed almost no changes and were statistically insignificant. One possible

explanation for the lack of change was that the participants were asked to retake the ATOP one month post intervention which fell upon finals week and could be experiencing test fatigue.



One notable finding and important change in the ATOP effected by the intervention was question 17 which asks if the survey taker believes that obese people are just as healthy as nonobese people. These results for pre-intervention were three (15%) slightly agreed, eight (40%) slightly disagreed, seven (35%) moderately disagreed, and two (10%) strongly disagreed.

The post intervention two (13%) moderately agreed, five (33.3%) slightly agreed, three (20%) slightly disagreed, three (20%) moderately disagreed and two (13%) strongly disagreed. There was shift in responses from pre to post intervention where more participants agreed that obese people were just as healthy as nonobese people which is a weight inclusive paradigm belief that was taught during the intervention. Another important finding was at one month post seminar where 100% participants reported that they had been able to implement weight bias reduction strategies to your personal nursing practice in the care of patients living with obesity.

Sustainability Plan

This evidenced based project has high sustainability if produced similarly in the future. This type of intervention uses a relatively simple, one time lecture that is easy to duplicate, and is widely accessible. This program is valuable, easy to replicate and implement by nursing educators. However, due to the nature of bias and complexity of obesity, this is a project that should be modified for the future to include repetition in exposure to this information. This same information could easily be contained in the curriculum of an assessment and diagnosis class.

Cost Benefit Analysis

There are 236 diseases associated with obesity. The most common of these are stroke, diabetes, hypertension, heart disease and high cholesterol. The cost of treating just these 5 of 236 diseases incur \$9,000 to \$17,000 higher costs compared to normal weighted adult. The cost of medical claims for a person with obesity is double than those with obesity. As obesity severity increases, for example from BMI 35-39% to over 45%, the healthcare costs can triple or quadruple. Costs increase the longer that obesity is not addressed from a medical standpoint. Therefore, when someone with obesity is stigmatized, it can create delay in treatment of other disorders which incurs costs. It can also cause maladaptive eating and less exercise which can

worsen obesity and co-occurring disorders. Weight stigma can cause mental health illnesses which can increase healthcare related costs as well. It is more cost effective to institute curriculum into educational programs or into healthcare organization annual educational tasks, then to continue to treat obesity and its co-occurring disorders (CDC, 2022)

Discussion

There were several challenges with this project. One difficulty was getting APRN students and APRNs to attend this seminar. At the initial seminar only 20 MEPN students attended. A repeat seminar was scheduled for two weeks later and there were no attendees. Some reflection on the cause of nonattendance was the fact that it was held towards the end of semester around finals period. Another reason identified was that it was scheduled close to winter holidays which seems to be a busy time for students and professionals alike. Recommendation for future projects where attendance is optional is to be aware of academic and holiday calendars in planning of activities that are outside of current commitments.

The measures (ATOP and IAT) showed that the nursing students had some level of implicit and explicit bias pre intervention. On the Thin/Fat Implicit Association Test, 65% of students had some automatic preference for thin people compared to fat people. This is consistent with most studies that measured weight bias in healthcare professionals. Regarding the Attitudes Toward Obese Persons (ATOP), the mean score was 79.75 which shows more biased attitudes in relation to the highest score being 120. The ATOP post intervention scores showed no improvement to explicit bias which is an outcome consistent in several other studies reviewed in this paper. One explanation for the lack of improvement in weight bias was the post intervention was asked to be completed around finals/end of semester and could be as a result from exam fatigue. One student answered “slightly disagree” to all 20 questions which lead this

NP to believe that participants might have rushed through and therefore didn't read the questions clearly or completely. The questions do contain double negatives and would be a difficult questionnaire to accurately rush through. In retrospect, given that this seminar did educate on the causes of obesity, would have been appropriate to add the Beliefs About Obese Persons Scale (BAOP). Had initially decided not to use due to its low psychometric properties (Lacroix et al., 2017). However, it would have been a way to measure if/how beliefs changed in relation to the education on the non-controllable factors of obesity and could have helped in evaluating the effectiveness of the education.

Though there wasn't a huge change in pre/post intervention ATOP scores, there is still reason to believe that participants benefitted from this education. Biases are difficult to change for several reasons. First, biases can be formed through opinions based on stereotypes and emotions versus facts. Secondly, it can feel like an attack to personal identity and beliefs. In both of these instances, it takes time to change long held stereotypical and biased beliefs. Biases are formed at a very young age and societal messages play a huge component in the development and reinforcement of these. It is important to understand the connection between biases and discriminatory acts that can cause harm to the person living with obesity. Most people in the healthcare field are altruistic and understanding these biased beliefs can be detrimental to another's health can be enlightening and create motivation to change.

Overall, the students felt they did benefit from the educational seminar as evidenced by the enthusiastic feedback given after the education included several comments about the topic being relevant, important and applicable to their practice and course work. They also verbalized a strong commitment to help this stigmatized group of individuals by advocacy with the power of their positions as registered nurses. Some RN students reported that they had already come

across examples of weight bias in their clinicals and felt surprised over the interaction but also helpless to intervene. This brought up the discussion of where to report these types of occurrences. Logically, a charge nurse, the preceptor and clinical faculty could be options but upon further investigation, only one health system in this large metropolitan area had a dedicated department to report weight bias complaints for both patients and staff.

Since weight bias is still so prevalent and deeply rooted in society through unhelpful and biased narratives, media portrayals and messages, it cannot be expected that students change attitudes so quickly after a short intervention. It is the conclusion of this project that it takes repeated exposure at all levels of healthcare on the harm of weight bias and discrimination to an individual's psychological and physical health, and a move from weight-centric, that harmfully equates weight to health to the weight inclusive approach to improve the quality of care and obtain best health outcomes for patients living with obesity to effectively address the high prevalence of obesity in the US and globally.

Implications for Clinical Practice

There are several implications for clinical practice. Despite no evidence in changes to weight bias in this small sample size, this project does not reduce the case for employing widespread institutional changes at the academic and health system level. In fact, it strengthens the case that weight stigma needs to be addressed early and continuously throughout healthcare education. There is an ethical argument and evidence base for the need to eradicate weight bias and discrimination in healthcare settings to achieve better health outcomes. It is evident that a whole systems approach is necessary and include; identifying more stakeholders, enacting policy and laws that protect PLWO, creating change to media and societal messages, institutional approaches at the academic and health systems level and at the individual clinician level.

Currently, there are no clear laws against discrimination based upon weight. However, there are a few places in the US including; San Francisco, CA; Santa Cruz, CA; Binghamton, NY; District of Columbia; the state of Michigan; Madison, WI, and Urbana, IL that have banned weight discrimination and show promise, yet are woefully inadequate. There must be more laws enacted to extend weight-based antidiscrimination protection. The federal Americans with Disabilities Act (ADA) does prohibit discrimination based on physical impairments that limit key life activities but many judges have been hesitant to consider weight as a disability. This may stem from the misperception that weight is in personal control. If more laws could be established explicitly for weight discrimination, this would expand protections that could ensure better treatment. It could also change public perception because laws often become a representation of cultural norms.

In the media, internet culture and society at large, there is the reinforcement of the unrealistic beauty standard and stereotyped depiction of persons at higher weights. These messages tell the public that it is undesirable to have a larger body type. Even studies of weight loss found that repeated exposure to these types of TV shows (i.e. Biggest Loser) increases biased attitudes (Puhl and Diedrichs, 2017). There needs to be more stakeholders that continue to call for the eradication of explicit derogatory messages about people living with obesity in the media. Decreasing media messages on stereotypes seeks to decrease weight biased attitudes and if eradicated from the media, would eventually lead to future healthcare professionals already having decreased implicit and explicit bias, leading to the better treatment of obese patients..

Since the widespread view of obesity is seen as a personal failing on the individual due to lack of will power, poor self discipline and laziness, public health campaigns also need to change. Popular narratives around obesity and weight loss in the past have been very unhelpful

and shown to actually increase stigma. Campaigns like “eat less and move more” or “calories in vs. calories” are problematic to the public and people living with obesity because they tend to oversimplify the reasons for obesity, weight gain and personal control. Public health policy needs to change the narrative as well and portray a weight inclusive approach.

In academic and healthcare settings, early and frequent education on the causal/non-controllable causes of obesity as well as weight counseling approaches need to be taught and practiced in clinical training to become proficient in treating this sensitive topic. Educating nursing students on weight bias, stigma and discrimination should be included in nursing curriculum as part of patient centered care. Communication strategies, such as person first language, patient centered language and motivational interviewing that strive to destigmatize the individual needs to be imparted at the beginning of all health field training programs and reinforced repeatedly. Considering the high prevalence of obesity worldwide and the increasing evidence of weight stigma and discrimination in healthcare workers and the detrimental effects on patients, there is a urgent and dire need to address weight bias in healthcare.

In conclusion, there has been a call to action from many organizations, influential leaders and in research that all point to the need to eliminate weight bias in healthcare. The eradication of weight bias and discrimination is imperative to be able to treat the obesity crisis in this country. Future projects with nursing students on weight bias in healthcare should include reexposure to interventions that include the non-controllable factors of obesity, the effects on weight bias to individual health and education on ways to reduce weight bias, stigma, and discrimination in healthcare settings.

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