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# Health Care Provider Program on the Management of Obesity

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2021

Abstract

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MS, Hawaii Pacific University, 2008

BS, Perpetual Help College of Manila, 1990

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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## Abstract

Research has shown that educational programs have led to developing the professional skills and behaviors of front-line health care providers who care for overweight or at-risk obese patients. The purpose of this project was to provide an educational program on best practices for weight management to health care providers at a large military clinic. The project question was developed to assess whether the educational program increased the knowledge and confidence of health care providers in the management of obesity. Utilizing Pender's health promotion model, a quasi-experimental study was conducted in which 15 health care providers, including licensed and unlicensed personnel at a large military clinic, voluntarily participated. Participants attended three one-hour group training or one-on-one trainings as well as one hour of training on health provider education on the management of obesity. To measure the participants confidence and agreement in obesity management, a 20-item pre-/posttest intervention survey was administered. A *t* test did not show a significant increase in confidence scores. Agreement scores about how to manage obesity changed differently from pre to post for the groups; decreased from 89.5 to 86.3 for primary care practitioners and declined from 74.0 to 72.6 for registered nurses but increased from 64.8 to 86.3 for military medics. ANOVA was conducted to test if there is any difference in their confidence level among the participants groups. The results of ANOVA were not significant ($F = 2.48$, $p = .125$), likely due to the small sample size. The implications for positive social change include the potential for training military nurses to promote nonpharmacological initiatives, such as weight management, and helping patients prevent other related diseases.

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# Dedication

I dedicate this doctoral project to the memory of my late grandmother, Rosita de Peralta. To my mother Adelaida Peralta Morales, who is my rock and always reminds me that with passion and determination, anything is impossible. Thank you so much to my daughter Shilpa and son Shreyas for bringing so much joy into my life. My siblings, brother-in-law, and sister-in-law, thank you so much for your unwavering support. Isaac Franklin Moore, Jr., Chief Master Sergeant (Retired), United States Air Force, I appreciate your faith in me and your assistance in making my dream a reality. I know that my journey would have taken a different path if it had not been for your love, prayers, and encouragement; therefore, I will be eternally grateful to each of you.

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## Section 1: Nature of the Project

Obesity is a chronic disease defined as excessive body fat buildup and is a leading global health problem (Egom et al., 2018). The World Health Organization (WHO; 2021) reported that as many as half of the adult global population is currently obese. The most frequently used metric to quantify obesity is the body mass index (BMI), which is measured as body weight (in kilograms) above the squared height (in meters). This metric has long been used to classify different body weights, with weight being classified into four categories: underweight (< 18.5 $kg/m^2$), average weight (18.5–24.9 $kg/m^2$), overweight (25–29.9 $kg/m^2$), and obese (> 30 $kg/m^2$) (Egom et al., 2018). Different cutting points have been used for the Asian population, particularly defining adults with a BMI > 23 kg/m2 as overweight and adults with a BMI > 27.5 kg/m2 as obese. It is estimated that more than two thirds of the U.S. population have a BMI greater than 25.

Obesity among adults, adolescents, and children is now recognized as an epidemic, affecting almost all racial and socio-economic groups globally (Egom et al., 2018). Obesity has been historically seen as an underlying risk factor in developing a range of conditions, such as cancers, cardiovascular disease, hypertension, kidney disease, and Type 2 diabetes, among others (Egom et al., 2018). Several epidemiological studies have shown that high BMIs increase morbidity and mortality rates (Egom et al., 2018).

In the 1950s, obesity was considered by the medical profession to be an addictive condition caused by compulsive overeating due to an oral fixation (Ramussen, 2014). Labeling obesity as a psychiatric condition or addiction has posed a stigma that has

adversely affected employment prospects and other sources of self-esteem. The concept of obesity as an addiction is dangerous to individual and the public health. According to recent research, obesity is caused by a genetic resetting with adipose tissue dysfunction and is, therefore, biological (Ciro & Marco, 2018).

Over the last decade, obesity has increased dramatically in the United States. Recent reports from the Centers for Disease Control and Prevention (CDC) have shown that since 2007, the obesity rate has been hovering around 34%, while 2 out of every 3 Americans are considered overweight (Gagnon & Stephens, 2015). Rates for excess weight and obesity are similar for children. In 2007, 1 in 6 children under 18 years of age were overweight, and this number is nearly triple from figures reported by the CDC from 1960–1962. By 2030, the CDC (2019) projected that over 50% of the U.S. population will be obese.

## Problem Statement

Being obese substantially adds to the severity of health problems and causes significant increases in medical spending for both the individual and the U.S. health care system (Healthy People, 2020). The epidemic of obesity effects the general population but also profoundly affects active members of the U.S. military and U.S. military veterans. *The Military Times* recently reported that 1 in 5 active-duty members are severely overweight or obese (Simkins, 2018). It is imperative that health care professionals who treat active U.S. military officers, veterans, and their dependents be educated on addressing the hazards and risks of untreated excessive weight or obesity.

According to Healthy People 2020 (2011), regulating diet and weight have a significant impact on overall health. Obesity increases the risk of not only developing physical medical comorbidities but can also be associated with a host of mental health concerns such as anxiety, depression, and eating disorders (Beck, 2016). I conducted this project to help improve the evidence-based knowledge and capacity of health care personnel to provide counseling and support to overweight and obese military officers, veterans, and their dependents. Health care providers play a significant role in sharing knowledge with patients and helping them achieve better weight control and quality of life (Healthy People 2020, 2011).

In this project, I developed an educational program and offered it to a small, purposive sample of 15 military clinical staff to enhance their awareness and ability to provide obesity management counseling. The sample included nurse practitioners (NPs), physician assistants (PAs), registered nurses (RNs), and military medics, all of whom provide direct patient care.

## Purpose Statement

The purpose of the project was to provide an educational program on best practices for weight management to health care providers at a large military base. The gap in practice was a lack of awareness of obesity management guidelines among health care providers in a military environment. Obesity management includes lifestyle changes, medication, and bariatric surgery. The educational intervention focused on the causes of being overweight and lifestyle changes that can help achieve a healthy weight.

There is a pattern of being overweight or obese in the United States today. This increase is possibly the result of a combination of lifestyle influences, including too much time spent sitting, unhealthy eating habits, lack of exercise, and individuals not making healthy choices (Betancourt, 2020). A survey over a 2-decade period showed the number of obese people doubled, from about 1.3 million to about 2.6 million from unhealthy habits related to food and physical inactivity (Betancourt, 2020). Obesity is a significant cause of morbidity and mortality in the United States and is associated with stroke, Type 2 diabetes, cardiovascular disease, high blood pressure, osteoarthritis, sleep apnea, and more (Betancourt, 2020).

To enhance their patients' long-term health and reduce health care costs, health care providers must make extra efforts to reduce obesity. A screening test for all adults is recommended. Patients with abdominal obesity (i.e., BMI > 30) should be referred to behavior therapy (Hanna, 2018). Primary care providers are mindful of the importance of treating obesity in their patient population but do not always advise patients (Hanna, 2018). Multiple barriers to proper management of obesity include the lack of practice resources, lack of experience in behavior management techniques, and limited time (Hanna, 2018).

The importance of this project lies in bringing awareness to health care providers that obesity is a complex disease. To better diagnose patients, it is crucial to identify other factors involved in weight gain and incorporate therapeutic approaches that are both effective and can benefit the patient.

## Project Question

The project question was: Will an education program increase the knowledge and confidence of health care providers in the management of obesity?

## Nature of the Doctoral Project

The nature of this project was educational. I conducted the project at a large U.S. military base in the southwest United States. The family health clinic project site is staffed by 21 providers (i.e., physicians, NPs, and PAs), 12 RNs, and 32 military medics. Each provider has empanelments of between 850 to 1,200 patients, one dedicated RN, and one or two medics. I assessed the educational program, which consisted of a group learning experience, pre- and posttest to determine its effectiveness. It was designed as an educational PowerPoint presentation and handout that was evaluated by clinical stakeholders in the organization before being presented. The educational program was implemented for all NPs, PAs, RNs, and medics to ensure that it was accessible to staff between group discussions and one-on-one training. The evidence presented in this project was developed based on the literature review, assessment by the knowledgeable panel, the site leadership, and data to determine staff proficiency gathered from pre-/posttest intervention survey.

## Significance

Obesity is a leading cause of chronic disease, such as cardiovascular disease, diabetes, stroke, and multiple cancers (Jensen & Ryan, 2014). The effort to help obese people lose weight and improve their quality of life can be highly challenging. Few U.S. health care providers obtain in-depth training on the etiology, pathophysiology, and

treatment of obesity (Jensen & Ryan, 2014). In addition, treatment options are often not covered by insurance policies, and electronic health records fail to appropriately document successful weight loss treatments (Jensen & Ryan, 2014). Educational interventions play a vital role in encouraging and inspiring primary care providers to manage weight loss efforts (Jensen & Ryan, 2014).

Recognizing that obesity is a condition that requires overall health enhancement and not only losing weight becomes vital when delivering a successful obesity management plan. This change in perspective will contribute to a successful formative evaluation of the patient, compassionate and caring awareness, and greater patient engagement in the treatment plan, all of which are essential interventions in this study as part of the assessment plan (Fruh et al., 2019). Providers educated in evidence-based weight management strategies can help active-duty personnel, patients, and families improve their quality of life.

## Implications for Social Change

The practice improvement project involved developing and providing practitioners with an educational intervention on the importance of managing obesity in active-duty military personnel, reservists, veterans, and dependent family members. Medical professionals have identified lack of sufficient time and inadequate skills in counseling about weight loss as barriers to providing obesity management services, and the advice they do provide is often unsuccessful (Perkins et al., 2016). It is anticipated that increasing the knowledge and ability of health care providers to provide weight management counseling will have a significant impact on promoting general health and

improving patients' quality of life (Healthy People 2020, 2011). This has significant implications for caring for a community for which good health is critical to performing to the best of their abilities.

## Summary

Obesity is a major epidemic in the country, currently affecting approximately 1 in 3 Americans and 1 in 5 people in the military services (CDC, 2019; Simkins, 2018). Knowledgeable health care providers can assist obese patients in improving their diet, weight, and quality of life. In Section 1, I introduced the project question: Will an education program increase the knowledge of obesity and the ability to provide obesity management services? The nature of the problem at a large military base was also discussed. The purposive sample of health care workers were identified, and the importance of weight management to improve quality of life of active-duty officers was established. In Section 2, I will introduce the Pender's health promotion model (HPM). Pender's HPM, which is used to plan for and change unhealthy behaviors and promote health, provided the basis for informing this educational intervention (see McEwen & Mills, 2019).

## Section 2: Background and Context

The obesity epidemic increases the risk of developing comorbidities, such as diabetes, hypertension, kidney disease, cancers, and other chronic conditions (Sims, 2018). Obesity has been observed as a critical health problem among active military personnel, reservists, veterans, and dependent family members (Simkins, 2018). In this quality improvement project, I provided an educational intervention to a multidisciplinary stakeholder group composed of primary care providers, RNs, and military medics all who provided direct care. The practice question was: Will an education program increase the knowledge of health care providers in the management of obesity?

### Theoretical Framework

I selected Pender's HPM to guide this practice improvement project. In the mid-1970s, Nola Pender began to research health promotion and implemented the HPM in 1982 (McEwen & Mills, 2019). The HPM was developed from the principal value theory and social cognitive theory and intended to combine the role of nursing and behavioral science on health-related issues.

Pender's HPM is routinely used as a research framework to promote a healthy lifestyle and has been applied in various communities and locations (Darawwad & Aqtam, 2018). The core principle of Pender's HPM lies in the cognitive-behavioral effects of an individual's experiences (McEwen & Mills, 2019). The HPM was predominantly designed to target individuals; however, the framework may be used to target families, groups, or communities. This involves a mechanism of transition, including clarification of the action plan and consideration of conflicting demands. In the

context of this quality improvement project, the HPM provided me with a model for disseminating adequate information to clinicians and staff for managing obesity within the military community (Valek et al., 2015).

## Relevance to Nursing Practice

American College of Cardiology (ACC)/American Heart Association (AHA)/The Obesity Society (TOS) released guidelines for the management of overweight and obese adults in 2013 to address the need for education of clinicians about practice guidelines (Jensen & Ryan,2014). Primary care practitioners and other stakeholders should be well versed in guidelines for improving access to evidence-based approaches to the management of obesity (Jensen & Ryan, 2014).

In 2013, the National Heart, Lung, and Blood Institute (NHLBI) agreed to work with the AHA and the ACC to support and distribute the guidelines for the management of overweight and obese adults. Obesity 2 makes the following recommendations: (a) identify patients who need to lose weight using BMI; the higher the BMI and higher the circumference of waist, the greater the risk of cardiovascular disease, Type 2 diabetes, and mortality from all causes; (b) promote lifestyle changes; even modest, sustained weight loss produces clinically significant health benefits; (c) prescribe a diet as part of a comprehensive lifestyle plan to achieve reduced calorie consumption for obese or overweight people who would benefit from weight loss; (d) provide high-intensity counseling for about 14 individual or group sessions, and (e) primary care practitioners should inform adult patients with obese-related comorbid conditions that bariatric surgery may be an appropriate option to improve health if indicated (Jensen et al., 2014).

The 1991 National Health Institutes Guidelines recommended that extreme comorbidity-related patients with a BMI of 40 or higher consider bariatric surgery (Arterburn et al., 2020). Evidence-based bariatric surgery is an approved technique to induce weight loss for extreme obesity for whom pharmacotherapy and lifestyle therapy has not been successful (Garvey et al., 2016). Approximately 252,000 bariatric procedures are performed annually (Garvey et al., 2016).

The theory of planned behavior (TPB) is a theoretical framework used to inform health care providers about how policy and practice mechanisms can impact attitudes about health performance (Bowen et al., 2014). The TPB was first used in 1980 as a theory to predict an individual's intention to exert self-control in terms of smoking, drinking, substance use, and other negative behaviors. According to the TPB, behavioral achievement depends on both motivation (i.e., intention) and ability (i.e., behavioral control) and is comprised of six constructs that collectively predict control over the behavior: attitudes, behavioral intention, subjective norms, social norms, perceived power, and perceived behavioral control (Bowen et al., 2014).

The Patient Safety and Affordable Care Act was signed in 2010 by President Obama to provide affordable health care coverage to more Americans; however, conditions such as obesity or diabetes mellitus were not adequately addressed, although both the Affordable Care ACT and the American Medical Association show obesity as a condition that will greatly impact Medicare and Medicaid spending (Bowen et al., 2014).

Overall, obesity counseling in primary care continues to be insufficient. Doctor of Nursing Practice-degreed nurses are in a unique position to provide leadership in the

planning of national policies that can lead to positive social change. General practitioners are typically challenged by heavy workloads and tightly constrained time (Barnes et a., 2015).

BMI is the conventional criteria for quantifying overweight and obese status. The National Institutes of Health (2013) recommended that a BMI greater than or equal to 25 be the cut off for overweight, and a BMI greater than or equal to 30 be the cut off for obesity. Appropriate treatment of overweight or obese patients may dramatically reduce the detrimental effects of being overweight (Barnes et al., 2015).

The National Health and Nutrition Survey found that between 2015–2016, 18.5% of U.S. children and adolescents were obese and an additional 16.6% were overweight (Hales et al., 2018). Pediatric primary care services have a significant effect on promoting healthy lifetime habits for children and families (Hales et al., 2018). The high rate of excess weight and obesity in children makes it necessary for health care professionals to improve their efforts to reduce obesity and promote healthy weight in the pediatric age group (Healthy People 2020, 2011; Reyes, 2015).

The U.S. Preventive Services Task Force and the U.S. Academy of Pediatrics encourage providers to test for and treat childhood obesity using evidence-based intervention recommendations (Kolko, 2017). The National Association of Pediatric Nurses recommends that clinicians emphasize early detection and provide parents, family, and caregivers with age-specific advice on healthy behaviors and provide consistency in treating overweight or obese adolescents (Kolko, 2017).

Obesity is a common condition that health care practitioners face. Health care providers have many chances to discuss overweight, obesity, weight control, and especially health promotion; however, they do not always have these conversations because obesity and being overweight are not viewed as other health conditions (Banerjee et al., 2013). Health care practitioners frequently experience dietary problems and often do not have confidence in resolving these issues (Hanson et al., 2016)

Family-based behavioral therapy incorporates these guidelines and exercise the highest standard practices for addressing childhood obesity (Banerjee et al., 2013). The increasing rate of obesity in the United States makes it critical that Health care providers be actively involved in the timely recognition of overweight and obesity. Health care providers are ideal for recognizing overweight and obese patients and motivating them to meet and sustain a healthy weight.

## Local Background and Context

The setting for this doctoral project was a family health clinic at a large military facility in the southwest United States. The facility serves approximately 25,000 active military personnel, veterans, and their dependents each year. The clinical staff includes primary care providers, RNs, and military medics. The education program was also presented to the medics because they have the initial screening interaction with the patients. Obesity affects approximately 20% of active-duty military personnel (Sims, 2018). In the project, I provided an educational intervention on best practices for weight management for active military personnel, veterans, and their dependents.

## Role of the DNP Student

The DNP-prepared nurse is ready to use the skills and abilities developed in their scholarly training. The DNP Essential II encompasses directing treatment to accomplish new measures (American Association of Colleges of Nursing, 2006). The purpose of this DNP project was to establish and measure the efficacy of a staff education program.

Evaluation of a weight problem starts with a detailed history, taking note of past medical history regarding nutrition and physical activity, such as participation in sports and other exercise activities. A complete physical examination including height and weight measurements and assessment of BMI at every office visit is critical. Laboratory testing includes a complete blood count, a comprehensive metabolic panel, Hemoglobin A1C, lipid panel, and thyroid studies. All possible causes of obesity, risks, and complications, including chronic illnesses such as hypertension, hyperlipidemia, diabetes mellitus, coronary artery disease, and various types of cancers must be discussed.

I developed the educational workshop project using the implementation of the 5As for obesity management and current guidelines. The 5As is a mnemonic acronym for: (a) assess health history and weight gain goals, (b) advise the choices for treatment, (c) agree on goals of weight loss and treatment of care, (d) assist the patient in the continuous weight loss process, and (e) arrange a specific plan for the patient to follow (Wetzel et al., 2018). The 5Ass can also be used to educate the provider on the importance of incorporating the current guidelines for pediatric, adolescent, and adult weight management (Jensen & Ryan, 2014).

I also integrated the AACE/ACE guidelines into the curriculum (Garvey et al., 2016). These guidelines were published in 2013 for managing overweight and obesity in adults and improving the quality of care (Jensen & Ryan, 2014) and the ability to decipher scientific evidence in a clinical setting to improve the value of health care (McEwen & Mills, 2019).

Bischoff et al. (2012) studied the effectiveness of a structured, multidisciplinary, nonsurgical, obesity therapy program consisting of a 12-week, temporary, low-calorie diet with nutritional education, improvements in eating habits, and lifestyle modification such as increasing routine physical activity. They found that the nonsurgical intervention program is a highly effective treatment of obesity Grades I–III and obesity-related diseases. The evidence-based prevention programs initiative has been applied effectively in a concrete world that is aligned with various stakeholders' support (Kozica, 2016). The education program I developed for this project followed the guidelines of the Walden University *Manual for Staff Education Projects*.

## Role of the Project Team

The DNP nurse is prepared to apply the knowledge and skills acquired during training to carry out a practice assessment. This DNP project offers training to increase HCP awareness of overweight and obesity, aiming to improve their behaviors and practices, which are vital to the evaluation of each patient (see AACN, 2006). I evaluate sources of evidence, including BMI and other anthropometric measures, on a routine basis. A range of physical and psychosocial characteristics of obesity and their potential impact on the health of the patient are also regularly identified. Local health professionals

are frequently engaged and consulted in order to develop a comprehensive care plan through collaborative decision-making within the patient's scope.

Behavioral strategies, such as motivational interviewing, are essential for the care of patients with obesity for whom obstacles to care are a real and persistent reality. Providing evidence-based care for those affected by obese comorbidities aligns with DNP Essential V1: Interprofessional Collaboration for Improving Patient and Population Health Outcomes (see AACN, 2006).

## Summary

The purpose of this project was to provide an educational program to Health care providers on best practices for weight management at a large military base. Obesity is a complex health condition that can be complicated by multidimensional, chronic conditions as well as environmental, economic, emotional, genetic, and metabolic factors (Gagnon & Stephens, 2015). Obesity affects the cost, efficiency, and effectiveness of health care offered in military health facilities; obesity and other comorbidities are significant contributors to military health care expenditures of about $150 billion a year (Gagnon & Stephens, 2015).

In this project, I sought to develop an evidence-based education workshop to increase HCP knowledge of obesity and the capacity to provide obesity management services. Studies have demonstrated that interprofessional education programs have a profound influence on the skills, attitudes, and perceived obstacles to the treatment of obesity by primary health care professionals (Sanchez-Ramirez, 2018). I used the Pender HPM to guide the project designed to demonstrate that training activities can lead to

improvements in health care delivered to obese patients in the military community. In section 3, I will be discussing planning, implementing, and assessing the efficacy of the obesity management education program project—the analysis and synthesis of relevant literature on the topic.

## Section 3: Collection and Analysis of Evidence

As identified in Section 1, the purpose of the project was to provide an educational program on best practices for weight management to Health care providers at a large military base. The gap in practice was a lack of awareness of current guidelines for pediatric, adolescent, and adult overweight and obesity management that recommends treatment methods in five areas (i.e., risk assessment, weight loss advantages, weight reduction diets, comprehensive lifestyle change interventions, and bariatric surgery if indicated).

In this project, I examined the effect of the interprofessional education program on primary health care professionals' skills, behaviors, and perceived barriers to the management of obesity. Earlier studies have shown that educational programs have led to the development of professional skills and behaviors among front-line Health care providers who take care of overweight or at risk of being obese patients (Sanchez-Ramirez et al., 2018). Improvements in professional education mirrored the training needs reported by health providers in previous studies and are especially useful in developing future training programs for overweight and obese individuals (Sanchez-Ramirez et al., 2018).

## Practice-Focused Question

The practice question for this project was: Will an education program increase the knowledge of Health care providers in the management of obesity?

## Evidence Generated for the Doctoral Project

### Participants

The participants included licensed and unlicensed health care personnel. The criteria for inclusion required that the respondent be a licensed primary care provider (i.e., a NP or PA), RN, or certified military medic. Respondents were also required to work full time at the project site, which is a family practice clinic at a military facility in the southwest United States. The participants were required to read and write in the English language. I also required respondents to sign an informed consent form before participating in the project.

### Procedures

The project included the planning, implementation, and evaluation of an education program on the management of obesity. Using current evidence, I developed an educational program on obesity for primary care providers, RNs, and military medics at a family health clinic in a Southwest military facility. The 20-question pre-/posttest knowledge questionnaire was based on the content of the education program. After receiving Walden University Institutional Review Board approval (Approval # 08-13-20-0998578), I had three content experts review the educational materials and pre-/posttest

for relevance. Any requests for content revisions were made before distribution. I used descriptive statistics and a paired-samples *t* test to analyze the data and draw inferences.

### Protections

In this DNP project, I followed the required guidelines set out in the Walden University *DNP Staff Training Manual*. The facility signed the partner site approval form for the staff education project, which I then submitted to the Walden University Institutional Review Board. The participants signed the consent form before any data were collected for the project.

## Sources of Evidence

I conducted a literature review by searching multiple databases accessed through the Walden University Library, including CINAHL, MEDLINE, and Cochrane as well as the CDC website. Keywords used for the search included *obesity, overweight, morbidly obese, intervention, management, military,* and *providers*. The literature review included peer-reviewed evidence published in or after 2015, written in English, no repeated content, and relevant to the project topic. After the inclusion criteria were applied, I included a total of 39 published, peer-reviewed articles and recommended guidelines from professional organizations such as the CDC in this review.

I developed a pre- and posttest knowledge survey as part of the education program project. Inferential statistics (i.e., ANOVA and *t* tests) were used to analyze if pre- and posttest scores measuring knowledge of obesity management were significantly different after participating in the educational intervention.

## Analysis and Synthesis

I entered data into a Microsoft Excel spreadsheet and transferred them to SPSS Version 24 software package for analysis. Descriptive statistics were used to describe the sample and inferential statistics. I used *t* tests and ANOVA to draw inferences about the pre- and posttest results.

## Summary

The results of this study show that educational programs have led to developing the professional skills and behaviors of front-line Health care providers who take care of overweight or at-risk obese patients. Improvements in professional education mirrored the training needs reported by health providers in previous studies and are extremely useful in developing future training programs for overweight and obese individuals (Sanchez-Ramirez et al., 2018). Section 3 of the project included a discussion of the planning, implementation, and assessment of the efficacy of the obesity management education program project. The analysis and synthesis of relevant literature on the topic were also provided. In Section 4, I will present the findings, implications, and recommendations from the education program.

## Section 4: Findings and Recommendations

Between 1995 and 2008, the number of combined obese and overweight active U.S. servicemembers grew over 60%, predominantly due to the upsurge in obesity (Reyes-Guzman et al., 2015). The increasing rates of overweight and obesity demand attention and impact Department of Defense programs intended at improving the health, fitness, readiness, health, and well-being of active U.S servicemembers (Reyes-Guzman et al., 2015). The increased obesity rates in the United States have had a dramatic effect on the pool of potential applicants. If present trends continue in the rise in obesity rates, the United States will come to a point wherein the number of younger adults in the armed forces may not meet the physical requirements (Gagnon & Stephens, 2015). Nine million Americans between the ages of 17 and 24 years old who want to join the military service are not qualified on the basis of height and weight requirements, in particular due to being overweight or obesity (Tanofsky-Kraft et al, 2013).Health care providers need to identify the fundamentals of the management of obesity and design specific processes to address individual patient needs (Winik & Bonham, 2018).

For the obese patients who are just not prepared for or encounter weight loss barriers, clinical practice recommendations suggest guidance from providers to avoid further weight gain as a first-line treatment strategy (Berger et al., 2019). However, evidence-based weight gain prevention strategies are still not consistently available in the primary care setting (Berger et al., 2019).

Military personnel are not exempt from the obesity epidemic. In fact, a recent study by the Department of Defense estimated that 22% of active military personnel

qualify as obese (Simkins, 2018). In this project, I provided an educational program on obesity and best practices for weight management to a purposive sample of health care staff at a large military base to increase their awareness of the obesity epidemic and obesity management guidelines. The analysis of the findings included a combination of descriptive and inferential statistics (i.e., *t*-test and ANOVA) to measure the impact of the training on improving both the Health care providers' awareness of obesity and confidence with providing obesity management to patients.

## Findings and Implications

I invited a total of 20 Health care providers from to the project site were invited to participate in this project, including physicians (i.e., two medical doctors) , two NPs, two PAs, seven RNs, and seven military medics. All the clinical staff members, both civilians and active duty, were currently stationed and working at the large military base, attended three 1-hour group training or one-on-one trainings as well as 1 hour of training on health provider education on the management of obesity however, only 15 completed the pre- and posttests.

The data analysis in this project was based only on responses completed by the attendees. Of the sample included in the analysis, the majority (60%) were female, with 40% of participants being male. The ages of participants ranged from 21 to 68 years old for an average of 41.3 years old. I evenly split the age categories into three groups of 29 years old and under (33.3%), 30–49 years old (33.3%), and over 50 years old (33.3%). The largest response group were medics (40.0%), followed by RNs (33.3%) and primary care practitioners (26.6%). The highest degrees earned included technical-vocational

certificate (26.6%), undergraduate degree (40%), and postgraduate degree (33.3%). Years working in the health field ranged between 1 and 39 years for an average of 13.5 years. Nearly half (46.7%) of the respondents had fewer than five years working in the clinical field, while the other half (53.3%) had 10 or more years of experience. The demographic data suggests that the sample was highly diverse by gender, age, profession, education, and years of experience working in their field. A description of the sample is provided in Table 1.

**Table 1**

*Demographic Description of Respondents*

| | *n* | Percent |
|---|---|---|
| Gender | | |
| Male | 6 | 40.0 |
| Female | 9 | 60.0 |
| Age group | | |
| Under 29 years old | 5 | 33.3 |
| 30–49 years old | 5 | 33.3 |
| Over 50 years old | 5 | 33.3 |
| Clinical role | | |
| Nurse practitioner | 2 | 13.3 |
| Physician assistant | 2 | 13.3 |
| Registered nurse | 5 | 33.3 |
| Military medic | 6 | 40.0 |
| Highest degree | | |
| Technical-vocational | 4 | 26.6 |
| Undergraduate | 6 | 40.0 |
| Graduate | 5 | 33.3 |
| Years in field | | |
| Less than 5 years | 7 | 46.7 |
| Over 10 years | 8 | 53.3 |

*Note. N* =15.

**Confidence With Obesity Management**

Based on a 10-point scale, participant confidence appeared to increase for all 10 items after the education program. While changes in the confidence scores were not dramatic for most items, the largest changes were noted for utilizing the 5As (i.e., assess, advise, agree, assist, and arrange) as a counseling strategy for weight loss management (+1.2) and prescribing a plan for weight management for patient (+1.4). Therefore, it can be assumed that the training was effective with improving some aspect of the confidence needed to deliver weight management counseling services (see Table 2).

**Table 2**

*Average Pre-, Post-, and Change in Confidence Scores*

| Question | Pre | Post | △ |
|---|---|---|---|
| How confident are you with using motivational interviewing to help a patient to lose weight? | 7.73 | 8.20 | .47 |
| How confident are you in utilizing the 5As (assess, advise, agree, assist, arrange) as a counseling strategy for weight loss management? | 6.67 | 7.87 | 1.2 |
| How confident are you in implementing Evidence-Base Practice (EBP) in managing your patient? | 7.00 | 8.0 | 1.0 |
| How confident are you that you can ascertain a patient's readiness and ability to work on weight loss based on stage of readiness for change? | 7.33 | 7.87 | .54 |
| How confident are you that you can provide a brief counseling intervention to help a patient to lose weight? | 7.20 | 8.2 | 1.0 |
| How confident are you that you can prescribe a plan for weight management for your patient? | 6.87 | 8.27 | 1.4 |
| How confident are you that you can obtain a diet history and assess for unhealthy behaviors in your patient? | 8.0 | 8.4 | .4 |
| How confident are you that you can respond to a patient's questions regarding weight management? | 7.8 | 8.4 | ,6 |
| How confident are you that you can assist a patient in setting realistic goals and making lifestyle changes for weight loss? | 8.07 | 8.4 | .33 |
| How confident are you that you can collaborate and refer patients to other providers, such as dieticians when appropriate? | 7.73 | 8.4 | .67 |

*Note.* $N = 15$.

The average confidence score in the ability to provide obesity management services increased from 74.47 before exposure to the training to 82.73 after attending the training session. While this 7.27-point increase holds clinical importance, it did not reach statistical significance ($t = 1.26$, $p = .227$), likely due to the small sample size (see Table 3).

**Table 3**

t *Test for Comparing Participant Confidence in Providing Obesity Management Before and After Exposure to the Training Session*

| Arm | *N* | *M* | *SD* | *df* | *t* statistic | *p* |
|---|---|---|---|---|---|---|
| Pre | 15 | 74.47 | 19.74 | 14 | 1.26. | .227 |
| Post | 15 | 82.73 | 12.25 | | | |

*Note.* $N = 15$.

I conducted an ANOVA to determine if scores were significantly different between clinical roles. The pre- and posttest confidence scores were quite variable between professions. The average pretest scores were highest for primary care practitioners, followed by nurses, and lowest for medics. By contrast, posttest confidence scores were highest for PCPs and medics and lowest for RNs. The measured change for the three groups suggests that the level of confidence decreased very slightly for PCPs and nurses but increased substantially for medics. These scores imply that the training

was extremely effective for increasing confidence in military medics but was not effective with improving confidence levels reported by PCPs or nurses (see Table 4).

**Table 4**

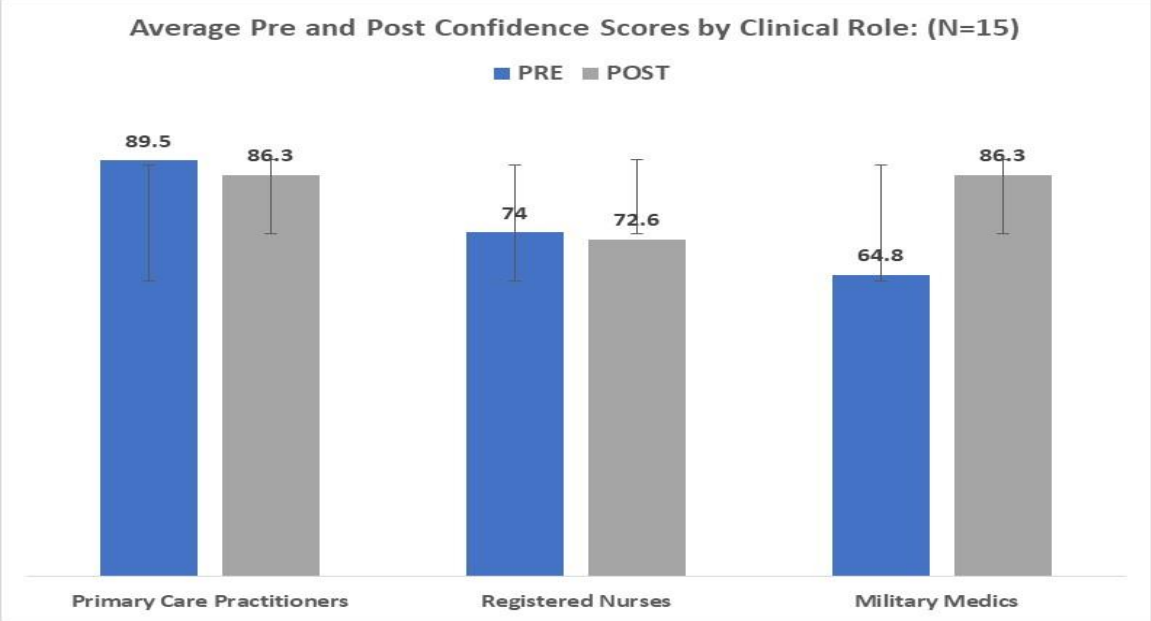
*One-Way ANOVA Table for Illustrating Pre-, Post-, and Change in Confidence for Providing Obesity Management by Health Care Vocation*

| Role | *n* | Pre *M* (*SD*) | Post *M* (*SD*) | △ | *F* | *p* value |
|---|---|---|---|---|---|---|
| Primary care practitioners | 4 | 89.5 | 86.3 | -3.2 | 2.48 | .125 |
| Registered nurses | 5 | 74.0 | 72.6 | -1.4 | | |
| Military medics | 6 | 64.8 | 86.3 | +21.5 | | |

A bar chart graphic (Figure 1) provides a visual illustration of the pre- and posttest confidence scores achieved by the respondents by professional role. Improvements in confidence were not measured for PCPs and RNs but showed greatest increases for military medics.

**Figure 1**

*Average Pre- and Postconfidence Scores by Clinical Role*




## Agreement With Obesity Management Statements

I asked respondents to list their level of agreement with nine statements. The responses were categorical and nominal; therefore, the greater the level of agreement on the 5-point scale, the higher the numerical value assigned to the response (see Table 4).

**Table 4**

*Pre-, Post-, and Change in Agreement Scores*

| Statement | Pre | Post | △ |
|---|---|---|---|
| Weight loss counseling and management is difficult. | 2.67 | 2.88 | .21 |
| It is difficult to find the time to address weight management with my patients while in clinic. | 3.2 | 3.0 | -.20 |
| I have a thorough knowledge of weight loss management and feel qualified to treat overweight/obese patients. | 3.27 | 3.63 | .36 |
| I am usually successful in helping overweight/obese patients lose weight. | 3.47 | 3.22 | -.25 |
| Patients are likely to benefit from weight loss counseling while being seen in primary care. | 3.67 | 3.89 | .22 |
| Obesity is a condition that is treatable. | 4.27 | 4.00 | -.27 |
| Most obese patients will not lose a significant amount of weight. | 2.87 | 2.67 | -.20 |
| I feel uncomfortable addressing weight loss with patients. | 2.73 | 2.44 | -.29 |
| Changing patient behavior is futile. | 2.60 | 2.11 | -.49 |

*Note.* $N = 15$.

The participants' agreement with the nine listed statements did not appear to change greatly; however, their agreement declined slightly on six items and increased for three items. The greatest increase was noted for agreement that the respondent has a thorough knowledge of weight loss management and feels qualified to treat overweight/obese patients (+.36), while the greatest decrease in agreement was noted for feeling that changing patient behavior is futile. While changes in pre- and postagreement scores were only slight, it did appear as though the training increased the respondents' sensitivity to the needs of obesity management counseling and comfort with providing obesity management support when appropriate (see Table 5).

**Table 5**

*Average Pre- and Posttest Scores for Agreement*

| Study Arm | *N* | *M* | *SD* | *df* | *t* statistic | *p* |
|---|---|---|---|---|---|---|
| Pre | 15 | 28.07 | 5.35 | 14 | .560 | .584 |
| Post | 15 | 28.73 | 3.73 | | | |

*Note.* $N = 15$.

I conducted a *t* test to determine that the cumulative agreement scores before the training session was 28.07 and was 28.73 after attending the educational workshop. This .66 change was not statistically significant ($t = .560$, $p = .594$) and suggests that agreement is largely based on attitudes that remain unchanged after exposure to the training on obesity management.

An analysis of variance was conducted to observe if agreement scores were significantly different between clinical roles. The pre- and posttest agreement scores were about equal between professional groups. The measured change for the three groups suggests that the level of agreement declined for all three groups, however the training did not bring about any significant changes in agreement for any one group (*f*=.550, *p*=.591). confidence levels reported by PCPs or nurses (see Table 6).

**Table 6**

*One-Way ANOVA Table for Increase in Agreement With Obesity Management by Health Care Vocation*

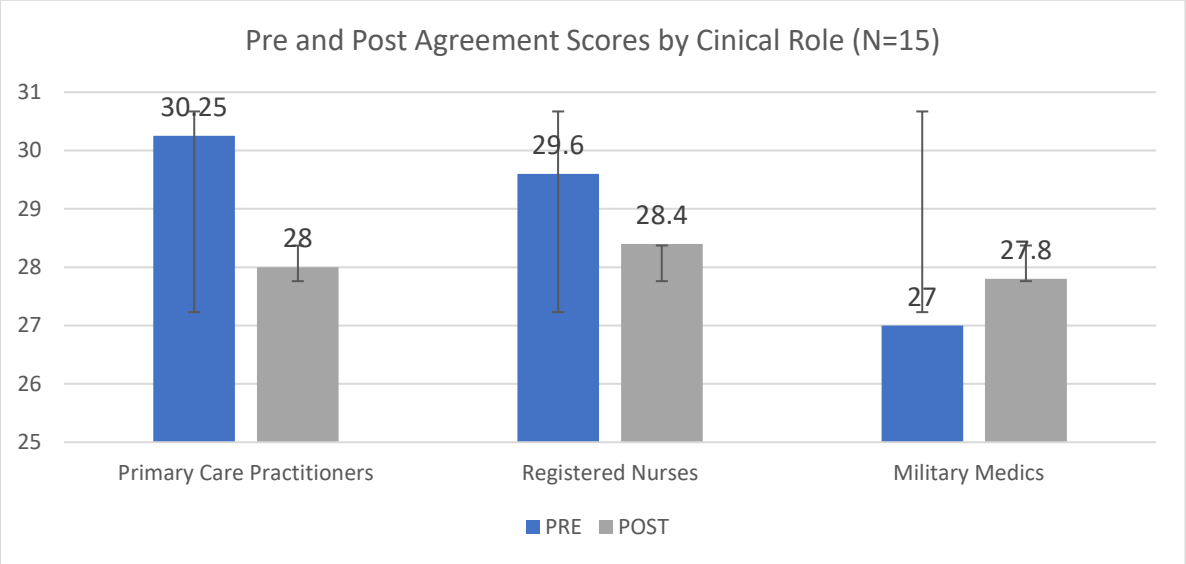
| Role | *N* | Pre *M* (*SD*) | Post *M* (*SD*) | △ | *F* | *p*value |
|---|---|---|---|---|---|---|
| Primary care practitioners | 4 | 30.35 | 28.0 | -2.25 | .550 | .591 |
| Registered nurses | 5 | 29.6 | 28.4 | -1.20 | | |
| Military medics | 6 | 27.83 | 27.8 | -.67 | | |

*Note.* $N = 15$.

Agreement was about equal among all professional groups and the lack of between group differences suggest that the training was not effective with changing perspectives or agreement about the delivery of obesity management services.

**Figure 2**

*Average Pre- and Postagreement by Clinical Role*




**Barriers to Discussing Weight Management**

Respondents were asked to list one or two barriers that were most likely to hinder discussing weight loss with patients. Repeated themes were identified and posted in order of frequency. The percentages reflect the percentage of respondents (N=15) that reported the listed cause of interference. Among this group of respondents, socioeconomic (40%), lack of motivation (33.3%), time limitations (26.6%) and resistance to lifestyle change (26.6%) were most frequently cited. Genetics, lack of knowledge, physical or mental health comorbidities, embarrassment, and previous failure to lose weight were also reported at a low frequency:

- socio-economics/limited resources (40%)
- motivation (33.3%)

- schedule/time limitations (26.6%)
- resistance to lifestyle change (33.3%)
- lack of knowledge (13.3%)
- genetics (13.3%
- chronic illness (6.6%
- failure on previous attempts (6.6%)
- physical limitations (6.6%)
- mental health (6.6%)
- embarrassment (6.6%)

**Key Findings**

- Confidence in providing obesity management appeared unchanged for PCPs and RNs after attending the educational training.
- Confidence in the ability to provide obesity management dramatically improved for military medics. However, confidence declined slightly for PCPs and nurses.
- Based on a 10-point scale, confidence appeared to increase for all ten items, but was most notable for utilizing the 5As counseling strategy for weight loss management (+1.2) and confidence in prescribing a weight management plan for patients (+1.4).
- Average pre- and post agreement levels remained relatively unchanged for the entire sample. Agreement levels between the professional groups were similar

before exposure to the educational session and were nearly identical after attending the training session.

- Respondents were most likely to list socio-economics/limited resources (40%), lack of motivation (33.3%), resistance to lifestyle change (33.3%), and schedule/time limitations (26.6%) as the leading barriers to providing obesity management services.

Based on the outcomes of the project, it was determined that the training session was not effective with changing the level of confidence in PCPs or nurses but was extremely effective with increasing confidence in military medics. Opinions regarding agreement with statements about obesity and management were moderate for all three professional groups and remained unchanged. The respondents were likely to agree on socio-economics/limited resources (40%), lack of motivation (33.3%), resistance to lifestyle change (33.3%), and schedule/time limitations (26.6%) as the leading barriers to providing obesity management services. Outcomes suggest that this educational session was most successful with training medics who had received little clinical training previously compared to PCPs and RNs. Using trainings such as this one in obesity management may prove to be a successful gateway for providing younger or less clinically prepared members of the military healthcare force an introduction to important healthcare topics that effect the military community.

## Recommendations

The evaluation of the findings has guided me to make the recommendations as follows. No significant improvements in confidence were measured with PCPs and RNs,

but significant improvements were observed with military medics. The difference in confidence improvements might be related to the extra efforts placed in attention to explain the 5 As assessment components in the management of obesity to the military medics. Therefore, I highly encourage and recommend improving education and training in enhanced use of EBP obesity management and emphasizing incorporating the 5 As assessment components as a protocol in managing obesity during each patient's routine clinic visits. Applying changes in practice strategies and teaching medics about recognizing the need for change is essential for improving patient outcomes. Fruh et al. (2019) noted obesity is an epidemic in the United States, with 70.7% of adults meeting the clinical requirements for a diagnosis. Fruh et al. proposed shifting the path of obesity, that have been escalating for the last 40 years, demands proper and secure therapeutic approaches that all health care providers can use. Effective treatment of obesity is the cornerstone to a healthy patient relationship and clinical expertise.

Additionally, I recommend educating and counseling military leadership and health care workers in raising senior leaders understanding and information about the effect of obesity on their careers. Health care providers may use the health promotion model to assess patients' status on the range and answer the 5 As by addressing and highlighting the value of obesity management.

There is a pandemic of obesity among individuals, and there is concern that providers are inadequately trained in treating this patient population. Researchers suggest that more education about obesity should be offered in undergraduate and graduate medical education (Mastrocola et al., 2020).

## Contribution of the Doctoral Project Team

The team had a vital part in performing the project under my leadership. One dedicated military medic and one RN contributed to delivering the fliers and the notification of the upcoming training dates. The nurse educator within the department of research, and our leadership reviewed the PowerPoint presentations and handouts used in the training sessions to ensure that they were relevant and consistent with the project objectives. The whole team was incredibly supportive as well as elemental in implementing the project.

## Strengths and Limitations of the Project

### Strengths

One of the strengths of the whole evidence-based project is recognition of the need to address the training needs of staff to improve health care providers educational program on management of obesity, though the NPs and PAs did not show much improvements base on pre- and postintervention survey the 4 Ns (military medics) had significant improvement. Additionally, use of Pender's health promotion has established a clear foundation for the project and demonstrated that the health care practitioners at the project site are enthusiastic about exploring and self-directed as evidenced by an overall increasing recognition, as per the statistical analysis. Another strength is the opportunity for transparency and accurate, current assessments through pre- and postintervention surveys.

**Limitations**

Project limitations include time constraints and insufficient knowledge of our unlicensed medics. Kim et al. (2020) searched that healthcare providers acknowledge that barriers hinder their patient care from consistent with existing guidelines, which is a primary barrier to obesity treatment due to a lack of information. Another limitation was that the staff small sample size was surveyed due to the military mission turnover. Some of our active servicemen and women have been deployed, relocated, and some has been tasked to support ongoing pandemic, COVID-19, and with that, the staff had been reduced.

## Section 5: Dissemination Plan

I disseminated the results of this evidence-based project to the stakeholders' staff, nurse educators, and leadership at the project site. I emailed the pretest intervention survey, and one of our medics and one RN collected the completed surveys from the participants. I invited 20 participants via email, but only 15 could participate. Three active-duty Health care providers who were very interested in participating were tasked with a military mission so they could not. I disseminated the education program of the project with a PowerPoint presentation. The education program comprised a collective 1 hour of group discussion and 30 minutes of one-on-one discussion for those who could not join the group discussion. A handout was also prepared and designed as a teaching tool for Health care providers to keep for their future reference and the PowerPoint presentation. One month after the group and one-on-one educational program discussions

and presentations, I emailed a posttest intervention survey to the participants, and once again, the same medic and RN collected the completed surveys.

The introduction of evidence-based scientific findings is essential to improving health care. For the effective implementation of conceptual methods, it is vital to incorporate an effective dissemination process (Walsh, 2010). Dissemination facilitates the selection of the target group, the presentation of findings, and the related dissemination channels to encourage the acceptance of conclusions (White, 2016). Dissemination is a crucial element of the translation of evidence because if the information were not disseminated appropriately, there would be a lack of dissemination platform without long-term innovations.

I also plan to disseminate the project results during a monthly meetings to the entire administration/medical leadership, primary Health care providers, and stakeholders at the project site. Additionally, I plan to publish the project results in the *American Journal of Nursing*. Publishing the results of the project is central to improving knowledge and understanding in the nursing field.

## Analysis of Self

During the journey of this DNP project, I have genuinely experienced professional and personal growth. I developed my teaching skills as I took the opportunity to teach the staff of primary care providers, RNs, and military medics regarding the implementation of evidence-based strategies with the help of colleagues and an interdisciplinary approach (see AACN, 2006). I have studied new ways to communicate, collaborate with others in an organization, and enhance and gain

leadership skills. As a DNP-prepared nurse, I am encouraged to come up with ways to bring all the leadership knowledge I have gained into practice. I now can provide excellent care by finding the latest evidence-based studies in several fields to analyzed and assess the data they contain.

Health care practitioners need to build expertise for quality management in interprofessional practice. Dulay et al. (2020) reviewed the Multidisciplinary Quality Improvement Curriculum application and showed that the value of commitment to team building and faculty growth was the key to a good outcome on quality improvement.

## Summary

In this project, I developed an education program to disseminate confidence with obesity management among primary Health care providers, RNs, and military medics was planned by incorporating evidence-based practice guidelines current for pediatric, adolescent, and adult overweight and obesity management, some common barriers in management, and integrating an overview of the 5As for obesity management. The dissemination of the project results is critical for augmenting the fundamental of nursing practice. Welzel et al. (2018) studied the use of 5As and the use of  the 5As by Health care providers were associated with increased patient encouragement. People with obesity were most often prevented by the notion that weight control was their duty, so discussions of the topic with Health care providers were launched, and 25% of patients with Health care providers experienced lower expectations for weight loss, although just 21% of people with obesity felt unmotivated (Rigas et al., 2020).

Researchers have studied many styles or classes of students who prefer PowerPoint presentations over other presentations. When asking students about their preference for PowerPoint presentations and encouraging them to see displays composed of many words like outlines of critical remarks, pictures, appropriate sounds, and colored backgrounds, students typically indicate that they like PowerPoint presentations (Kosslyn et al., 2012). PowerPoint lends itself by analyzing memory retention only after the entire list has been specifically taught retention and when each item on the list has been addressed separately, and by finding improved memory in sequential states.

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# Appendix A: Participants Demographic Data Collection Form

Age _____

Gender:

- Male
- Female

Job Title:

- NP/PA
- RN
- Military Medic

Number of years in profession: _____

Number of years in clinic: _____

Education: Please indicate the highest degree earned.

- Trade/technical/vocational training
- Associates degree
- Bachelor's degree
- Master's degree
- Doctorate degree
- Other

## Appendix B: Participant Survey (Preintervention)

This survey is designed to assess provider and nurse confidence and perceived barriers in providing weight management counseling for overweight and obese patients. Your opinions and/or individual preferences are important. This survey is anonymous. Thank you for sharing your time in completing this survey. On a scale of 0 to 10 with 0 being not confident at all, and 10 being extremely confident, please answer the following questions:

1. How confident are you in using motivational interviewing to help a patient to lose weight? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

2. How confident are you in utilizing the 5As (assess, advise, agree, assist, arrange) as a counseling strategy to assist a patient with weight loss management? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

3. How confident are you in implementing Evidence-Base Practice (EBP) in managing your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

4. How confident are you that you can ascertain a patient's readiness and ability to work on weight loss based on stage of readiness for change? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

5. How confident are you that you can provide a brief counseling intervention to help a patient to lose weight? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

6. How confident are you that you can prescribe a plan for weight management for your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

7. How confident are you that you can obtain a diet history and assess for unhealthy behaviors in your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

8. How confident are you that you can respond to a patient's questions regarding weight management? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

9. How confident are you that you can assist a patient in setting realistic goals and making lifestyle changes for weight loss? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

10. How confident are you that you can collaborate and refer patients to other providers, such as dieticians when appropriate? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

Rate yourself by circling the response which most closely applies to you.

11. Weight loss counseling and management is difficult. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

12. It is difficult to find the time to address weight management with my patients while in clinic. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

13. I have a thorough knowledge of weight loss management and feel qualified to treat overweight/obese patients. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

14. I am usually successful in helping overweight/obese patients lose weight. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

15. Patients are likely to benefit from weight loss counseling while being seen in primary care. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

16. Obesity is a condition that is treatable. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

17. Most obese patients will not lose a significant amount of weight. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

18. I feel uncomfortable addressing weight loss with patients. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

19. Changing patient behavior is futile. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

20. Please write two barriers that you believe are important in hindering discussion of weight loss with patients:

1.

2.

## Appendix C: Participant Survey (Postintervention)

This survey is designed to assess provider and nurse confidence and perceived barriers in providing weight management counseling for overweight and obese patients. Your opinions and/or individual preferences are important. This survey is anonymous. Thank you for sharing your time in completing this survey. On a scale of 0 to 10 with 0 being not confident at all, and 10 being extremely confident, please answer the following questions:

1. How confident are you in using motivational interviewing to help a patient to lose weight? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

2. How confident are you in utilizing the 5As (assess, advise, agree, assist, arrange) as a counseling strategy to assist a patient with weight loss management? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

3. How confident are you in implementing Evidence-Base Practice (EBP) in managing your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

4. How confident are you that you can ascertain a patient's readiness and ability to work on weight loss based on stage of readiness for change? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

5. How confident are you that you can provide a brief counseling intervention to help a patient to lose weight? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

6. How confident are you that you can prescribe a plan for weight management for your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

7. How confident are you that you can obtain a diet history and assess for unhealthy behaviors in your patient? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10----Extremely Confident

8. How confident are you that you can respond to a patient's questions regarding weight management? Not confident at all ----0----1----2----3----4----5----6----7----8----9----10---- Extremely Confident

9. How confident are you that you can assist a patient in setting realistic goals and making lifestyle changes for weight loss? Not confident at all ----0----1----2----3----4---- 5----6----7----8----9----10----Extremely Confident

10. How confident are you that you can collaborate and refer patients to other providers, such as dieticians when appropriate? Not confident at all ----0----1----2----3----4----5---- 6----7----8----9----10----Extremely Confident

Rate yourself by circling the response which most closely applies to you.

11. Weight loss counseling and management is difficult. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

12. It is difficult to find the time to address weight management with my patients while in clinic. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

13. I have a thorough knowledge of weight loss management and feel qualified to treat overweight/obese patients. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

14. I am usually successful in helping overweight/obese patients lose weight. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

15. Patients are likely to benefit from weight loss counseling while being seen in primary care. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

16. Obesity is a condition that is treatable. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

17. Most obese patients will not lose a significant amount of weight. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

18. I feel uncomfortable addressing weight loss with patients. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

19. Changing patient behavior is futile. (Strongly Disagree) (Disagree) (Uncertain) (Agree) (Strongly Agree)

20. Please write two barriers that you believe are important in hindering discussion of weight loss with patients:

1.

2.

## Appendix D: Letter Requesting Permission for Questionnaire Use

To: Dr. Andrea Bearden
Subject: Request for Permission
September 21, 2020
Request for Permission for Questionnaire Use

Dear Dr. Bearden:
Ma'am, I am writing to request permission to use the questionnaire developed in your research: Project Title: Overcoming Barriers and Increasing Confidence of Providers and Nurses in Addressing Overweight and Obesity. I am a Family Nurse Practitioner and currently stationed and working as an Active Duty here XXXXXXXXXX. I am always interested in providing an education program on weight management practices to healthcare providers at a large military base. Our primary care providers, RN's, and 4Ns (Military medic-4N's) are on the frontline of health care for patients. Obesity affecting active-duty military personnel, reservists, veterans, and dependent family members is a significant problem. Knowledgeable providers can assist patients in improving their health and quality of life. I am pursuing the Doctor of Nursing Practice, a clinical doctorate that requires completing a scholarly project that demonstrates research translation into practice.
My capstone project pursues to Healthcare Provider Education Program on Management of Obesity. I am requesting permission to use your authorized questionnaire as a means of evaluating; Will an education program increases the knowledge of healthcare providers in management of obesity?
Thank you for your consideration of my request.

Very Respectfully,
Erlinda Padua Bhat, Capt (Maj s) USAF
Walden University
DNP student
XXXXXXXXX or alternate email: XXXXXXXXX

Appendix E: Continuation of Request Permission to use Questionnaire.

**From:** erlinda bhat <XXXXXXXXX >
**Sent:** Friday, September 25, 2020 8:29 AM
**To:** Bearden, Andrea D. <XXXXXXXX>
**Cc:** Bhat Erlinda P Capt USAF (USA) XXXXXXXXX
**Subject:** [EXTERNAL] Re: Request for Permission for Questionnaire Use
Good morning Dr. Bearden,
Again, thank you for calling me back this past Tuesday and agreeing to use your project questionnaires. Ma'am, I am requesting that if you can email me a small note stating that you authorize me together with literature/references, so I send it to my chair to approve it. Thanking you very much.

Very Respectfully,
Erlinda Padua Bhat Captain (Maj s) USAF
FNP-BC, FAANP
Family Health Clinic
XXXXXXX

DNP Student
Walden University
XXXXXXXX

On Wednesday, September 23, 2020, 4:48:51 AM PDT, erlinda bhat <XXXXXXX > wrote:
Good morning Dr. Bearden,
It was nice talking to you yesterday and thank you again for allowing me to use your questionnaire per our conversation.
Please see attached.

Very Respectfully,

Erlinda Padua Bhat Captain (Maj s) USAF
FNP-BC, FAANP
XXXXXXXXDNP Student
Walden University

Appendix F: Permission to use Questionnaire.

RE: [EXTERNAL] Re: Request for Permission for Questionnaire Use
From: Bearden, Andrea D. (XXXXXXX)
To: Erlinda Bhat (XXXXXX)
Date: Saturday, September 26, 2020, 12:50 PM PDT

See attached document.

Department of Veterans Affairs
VA Northern IN Health Care System
XXXX Xxxx Xxxxxx

XXX-XXX-XXXX
xxxxx.xxxx@xx.xxx

September 26, 2020

Capt. Erlinda Bhat
Walden University

To Whom it May Concern:

Captain Erlinda Bhat has my permission to utilize my Participant Surveys from my DNP Capstone project, entitled, "Overcoming Barriers and Increasing Confidence of Providers and Nurses in Addressing Overweight and Obesity," in your DNP project. She may utilize references from my project that may be helpful as well.

Regards,

Andrea Bearden, DNP, NP-C

Neurology

Acute Medicine Service

VA Northern Indiana Health Care System

Appendix G: Education Program

Teaching methods: PowerPoint presentation, handout, and group discussion

| Objective | Content | Teaching Method |
|---|---|---|
| **Define obesity.**<br><br>**What is BMI?** | Obesity is a chronic disease that is historically described by excessive body fat buildup and is one of the most imperative public health problems in the world. While there are no detailed metrics used for daily practice to quantify obesity, the body mass index (BMI), measured as body weight (in kilograms) above the squared height (in meters), has long been used as a metric to classify different body weights. The World Health Organization (WHO) classifies weight into four categories, including underweight (< 18.5 kg / m2), average weight. (18.5–24.9 kg / m2), overweight (25–29.9 kg / m2) and obese (> 30 kg / m2).<br><br>Different cutting points have been used for Asians, particularly adults with BMI > 23 kg / m2 and adults with BMI > 27.5 kg / m2obese. It is anticipated that more than two-thirds of the U.S. population is either overweight or obese (Egom et al., 2018). | Group discussion: Use PowerPoint and a handout.<br>Obesity**:** What is it and diseases that cause by obesity?<br>How are obesity and overweight diagnosed? |

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| | In the 1950s, obesity was considered by the medical profession to be an addictive condition caused by compulsive overeating due to early childhood oral fixation. This psychiatric and addiction connotation labeling posed a stigma that adversely affected the health care, employment, and self-esteem of people with obesity. Experience has highlighted that the concept of addiction to overweight people turned out to be dangerous to them and often interfered with public health (Ramussen, 2014). | |
| | Obesity rates have risen sharply over the past 30 years, causing a global health epidemic. Global estimates indicate that 500 million adults have obesity worldwide, with elevated prevalence rates among National Health and Nutrition children and adolescents.<br>Review studies indicate that about 2 in 3 adults in the U.S. have overweight or obese, and 1 in 3 adults has obese. Obesity impacts morbidity, longevity, and profound healthcare prices. Obesity and weight-related problems put an enormous burden on patients who suffer and social costs. Obesity is estimated to add | Group discussion: Use PowerPoint and a handout. What are the obesity rates over the past 30 years? Cost? |

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| | $3,559 annually to medical spending per patient compared to non-obesity patients; this includes $1,372 annually for inpatient care, $1,057 for outpatient services, and $1,130 the medication (Garvey et al., 2016). | |
| **Comprehend the common barriers in the management of obesity.**<br><br>**Healthcare providers should be able to practice and implementation of obesity management base on 5 A's and current guidelines.** | American Medical Association deemed obesity a disorder with its specific physiological causes in June 2013. Awareness of obesity as a disease can transform the health care system. It would undoubtedly contribute to reimbursement for obesity treatments that could help contemplate healthcare professionals' attention on measures to manage the obesity epidemic (Barnes, Theeke, & Mallow, 2015).<br><br>Professional guidance to health care providers to handle obesity is widely available, primary care providers dramatically underdiagnosed and undertreat excess weight. Patient and provider factors were identified as obstacles to obesity treatment.<br><br>Patient barriers have been described as the burden of clinicians, lack of motivation for weight loss assistance, lack of | Group discussion: Use PowerPoint and a handout.<br><br>Encourage providers to implement the usage of 5As for obesity management.<br>ASSES: Assess health history and weight gain goals<br>ADVISE: Advise the choices for treatment.<br>AGREE: Agree on goals of weight loss and treatment of care.<br>ASSIST: Assist the patient in the continuous weight loss process (Welzel et al., 2018).<br>Practice the current guidelines for pediatric, adolescent, adult overweight, and obesity management.<br>(Jensen & Ryan, 2014).<br>Diagnosis and management: AACE/ACE Guidelines (Garvey et al., 2016) |

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| | knowledge of the recurrence of obesity, socioeconomic status, time restrictions, lack of social support, comorbidity, medicines, and drug abuse (Barnes, Theeke, & Mallow, 2015).<br><br>Provider barriers involve lack of confidence in obesity management, doubts about care success, dissatisfaction with past challenges, negative attitudes towards obese patients, and beliefs that patients lack time for exercise and self-control to avoid unhealthy foods. Failure to use comprehensive screening tools leads to reduced obesity control and increased unfavorable health effects in overweight and obese individuals. | |
| **Risk assessment** | Examined the effect of Provider and Healthcare Team Adherence to Treatment Guidelines (PHAT-G) intervention on adherence to existing practice guidelines for obesity in a primary care center. This evidence-based practice project had three phases: first, evaluating baseline provider compliance to clinical practice guidelines for obesity; second, implementing PHAT-G | Group discussion: Use PowerPoint and a handout. Significance of providers assessment:<br>1. Documentation from the BMI, or how does BMI use?<br>BMI was more essential or equivalent to 30. To improve the likelihood of obesity diagnosis is recorded.<br>The body mass index (BMI) is a person's kilogram weight divided into meters by square |

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| | treatment in the medical practice; and third, evaluating provider compliance to current guidelines for obesity diagnosis and overweight and obesity care (Barnes, Theeke, & Mallow, 2015). | height. BMI is a cost-effective and straightforward screening tool for underweight, overweight, and obesity groups.<br>2. Waist circumference: Assessing the diameter of the waist helps to track prospective health problems of overweight and obesity. Waist size greater than 35 cm for women or 40 cm for men.<br>3. Establish a diagnosis of obesity.<br>4. Identify comorbidities such as Hypertension, Mellitus Diabetes, and Hyperlipidemia, Depression, Osteoarthritis, Sleep apnea, Coronary Heart Disease (CHD).<br>5. Blood pressure<br>6. Tobacco use<br>7. History taking: Any premature CHD family history.<br>8. Check for fast glucose and lipid panel blood draw<br>9. Referral to stakeholders if warrant: Behavior therapy, nutritionist, pharmacotherapy use, bariatric surgery if indicated.<br>(Theeke, & Mallow, 2015). |
| **Healthcare providers understanding of weight loss advantages.** | Lowers death, myocardial infarction, stroke, and diabetes.<br>A weight loss of 6,8% over four years was associated with reduced 21% to 29% | Group discussion: Use PowerPoint and a handout. Providers awareness of the importance of physical activity and weight reduction diets. |

| | | |
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| | of the risk of high blood pressure in the Framingham trial (Bray, 2016). | |
| **Healthcare providers understanding of comprehensive lifestyle change interventions.** | The 2008 recommendations on physical activities for Americans have shown that both children, young adults, higher for adults and older adults (age 65 and older). advantage from physical activity. | Group discussion: Use PowerPoint and a handout. 2008 recommendation |
| **Healthcare providers understanding of bariatric surgery.** | Does bariatric surgery treat obesity and weight-related complications?<br>When can bariatric surgery be used to treat obesity and weight complications? | Group discussion: Use PowerPoint and a handout. What is bariatric surgery, benefits, and risks.<br>When to refer for bariatric surgery if indicated. |