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Perception of Clinic Staff on Weight Reduction Program for Young Adult Females

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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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Abstract

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Ifeyinwa.C. Ibeanu

MS, Bowie States University, 2015

BS, University of MD School of Nursing, 2006

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Obesity, a common disease among young people in the United States, is defined as a BMI of 30 or more. Among the most prevalent noncommunicable diseases, obesity is reported as a significant public health issue for the general population. The management of younger adults' obesity requires advanced skills and knowledge to promote healthier lifestyles while directly addressing the factors that contribute to the condition. As a result, this project was designed to evaluate the staff perception of an evidence-based educational program on weight reduction among young adult females (ages 18-25) diagnosed with obesity at outpatient clinic in a Northeastern mid-Atlantic States. This project addressed specific practice-focused questions regarding the importance of teaching outpatient behavior patterns and the understanding and application of guidelines among medical healthcare providers after participation in a 6-week staff educational program using the United States Preventive Services Task Force behavioral interventions guidelines and the middle–range theory of weight management model. The program was provided to a panel of 13 clinical experts-pre and post questionnaire assessed efficacy of the educational program which showed a statistically significant increase in subject matter knowledge after taking part in the program (p=.001). This result indicated an improvement in the staff's perceptions of USPSTF guidelines and an increase in awareness, understanding, and skills. Recommendations are made not to limit the weight-loss educational programs to the project site but to extend knowledge to healthcare staff at other clinics and hospitals that would benefit from a program to meet the needs of their community for weight loss.

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Dedication

For every successful woman, there is a great man behind her. Therefore, I dedicate this project to my great and supportive husband, the only love of my life, Chief Chiemezie Ibeanu (Somabuneze 1 na Neni), as it was your unconditional encouragement, unwavering support, and understanding that motivated me to keep going when I found it at times difficult to continue the journey nor to pick up the baton to continue the race. I will ever remain grateful and indebted to you. I also dedicate this project to my three loving young adult children (Chukwuebuka, Onyekachukwu, and Chidimma) who have been my technical supporter and editors; sparing their time at this stage in life to help mom get through this huddle. I will ever remain grateful to God to have given such intelligent and courteous children. I love you guys. I also dedicate this project to my mother-in-law, Mrs. Florence Ibeanu and to the memory of my deceased parents (Chief Samuel and Dibuenyi Irene Nwokeabia), may your gentle and perfect souls rest in peace. I will not end this appreciation without recognizing my siblings, especially Mrs. Edith Obinwa, who plays a mother role in my life now, thank you, sister. Finally, but significantly, I would like to dedicate this project and wonderful achievement to my Almighty God, the unchangeable God, the God of impossibilities, for without whom; this project and great achievement would not have been possible. May all honors and glory be yours forever and ever. Thank you, my heavenly Father!

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I would like to express my profound gratitude to Dr. Amy Wilson, my committee chair for her unwavering advice, direction, guidance, patience, and support, for without whom; this evidence-based project paper would not have been possible. I want to thank the entire Walden University faculty for their expert advice, contribution, and their ever-ready spirit to helping students like myself towards realizing my dream especially committee member, Dr. Roneisa Matero; URR, Dr. Anderson, Stoerm and Program coordinator Dr. Joan Hahn. I will ever remain grateful. I will forever be grateful for the friendship and support of Dr. Stella Mbah, my friend, role model, project liaison, and my motivator who preempted my DNP practicum experience and guided me throughout my clinical experience. I highly appreciate you and forever thankful for your limitless encouragement and support even at the job market, Thank You! Finally, to all my friends, families, colleagues, and well-wishers who have been by my side throughout these years of struggle, I appreciate you all.

Table of Contents

List of Tables

List of Figures

Section 1: Nature of the Project

Introduction

Obesity is one of the most common diseases in the world and is often one of the challenges faced by young women during their transition to adulthood and by young people in the United States. Individuals who are identified as obese are those with a body mass index (BMI) of 30.0 or higher, while those with a BMI of 25.0–29.9 are categorized as being overweight (Hammond, & Levine, 2010). Obesity is a health-risk condition where excess body fat results from an imbalance of energy intake and energy expenditure based on reference values for the average daily energy needs of children and adults. The recent surge in obesity cases and obesity-related health issues has become a national concern. Governments, agencies, and clinics have now considered the elimination of obesity and the encouragement of weight loss a priority. A reviewed scholarly article on obesity indicated that the World Health Organization (WHO) estimated that there were 2.3 million overweight individuals aged 15 and above, and 7million obese people worldwide in 2015 (MChan, & Woo, 2010).

Furthermore, the WHO estimates that the world rate of obesity will reach 13%by the next decade. Among the most prevalent noncommunicable diseases, obesity is reported as a critical problem for the general population and represents a vital public health issue (Agency for Healthcare Research and Quality (AHRQ), 2017). According to Sulliv (2010), obesity has risen to the level of an epidemiological health problem, both in the United States and in the surrounding developing countries. Because obesity is a significant risk factor for many chronic diseases, including Type 2 diabetes, asthma,

cardiovascular disease such as hypertension, some cancers, nonalcoholic fatty liver disease, polycystic ovary disorder, and sleep apnea; obesity in this population must be addressed to prevent undermining the 20th-century gains in life expectancy (Sulliv, 2010).

Poor diets, economic challenges, and a lack of physical activity are the main causative factors contributing to overweight, obesity, and type 2 diabetes (AHRQ, 2017). Fr example, a sedentary lifestyle of sitting or lying down to read, study, write, or work at a desk or computer for most of the day without any physical activity among is significantly increasing their risk of being overweight/obese. This has consequently affected their health status and increased their chances of developing hypertension and sleep apnea. Many young adult females who are overweight or obese reside in communities where opportunities for physical activity and lifestyle modifications remain limited, thereby making the likelihood of losing weight without therapeutic intervention low (Lagarrigue et al., 2017). As a result of increased weight gain among this population, many young adults experience physical and social challenges causing them to seek therapeutic interventions to manage their weight gain (Lagarrigue et al., 2017).

Biologically, women have a higher risk of obesity and metabolic complications than the general population due to having a higher percentage of body fat (Lagarrigue et al., 2017). The obesity rate is higher in women than in men and increases more rapidly in women (from 8.3% in 1997 to 15.7% in 2012) than in men (8.8% in 1997 to 14.3% in 2012 (Lagarrigue et al.,2017). As young women who are obese mature and grow older,

their problems with weight management may be the precursor to chronic diseases if therapeutic interventions are not implemented (AHRQ's, 2017).

This study originates from reflections on my personal communication with the clinic nurses in a primary care clinic where majority of young adult females are obese. This clinic is in the Northeastern Mid-Atlantic area. Therefore, it is crucial to address the prevalence of obesity to prevent chronic diseases and adverse effects associated with the disease. Because of the negative connotations and the impact that obesity has on society, it should be appropriately evaluated and treated specially for the young adult female population. Considering the consequences of obesity worldwide, the focus of this project is the evaluation of the perception (awareness and understanding) of clinic staff on an evidence-based weight reduction program for young adult females (ages 18-25) diagnosed with obesity at the outpatient clinic in the Northeastern Mid-Atlantic area. I implemented this study based on the following guidelines a clinical change project guided by Pickett's toward a middle–range theory of weight management model, Walden University Manual for Staff Education, and United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines.

According to Ryan et al. (2017), there is a direct correlation between weight reduction and disease prevention. Therefore, collectively addressing obesity among this population can present positive change to women and the community, in general. The staff-based education intervention contained in the guidelines considers the patient's health status and preferences while aiming at significant reductions in the obese patient's weight through staff evidenced-based practice. Following the execution of this project

will also bring about a significant social change to the staff, the clinic's patients, the surrounding community, and the general population. Increased staff understanding /awareness of the USPSTF clinical practice guidelines targeted for managing obesity among younger adult females to improve population health is seen as another positive social change. Another potential positive social change is the reduction of obesity-related chronic illnesses that will lead to a reduction in health care costs; consequently, this change would give rise to an improvement in the quality of life and a decrease in obese health-related problems. An additional social change brought by the program is enhancement of healthcare providers' understanding of the significance of weight management and long-term follow-up studies that focus on the public health implications of weight management. The end result of the project will be beneficial to the staff, patients of the clinic, the organization, and the general population. Similarly, the project is anticipated to promote positive social change through increased staff knowledge, awareness, and understanding of the USPSTF clinical practice guidelines targeted for managing obesity among younger adult females to improved population health which is the focus of the project. Epidemiological studies show a considerable increase in obesity, especially in adolescents (Ajman et al.,2019). According to Li et al.(2018), obese adults with much different comorbidity had higher expenditures than nonobese individuals. Being obese was associated with an estimated additional $2516 in mean expenditures and $1200 in median expenditures compared with others who were neither overweight nor obese in pooled data from the 2002-2011 Medical Expenditure Panel Survey (Li et al., 2018). Obesity is an important predictor of higher health care costs among the adult

population. It also poses great health-related issues to young female adults and a significant financial/economic burden to the community, the healthcare system, and the entire society.

With the expanding obesity epidemic and the rising costs of medical care, U.S. adults with comorbidity are likely to continue facing great challenges in both obesity and health care expenditures (Li et al., 2018). Therefore, by using an evidence-based approach, which includes interventions such as behavioral therapy to change diets, behaviors, and other habits that promote weight loss, increase physical activity, and the potential to reduce economic and health burdens resulting from obesity, the quality of life will improve, and the global health expenditures will decrease.

Problem Statement

The purpose of the project was to evaluate the perception of doctors, nurse practitioners, an RN, an LPN, CMAs, CNAs, a dietician, and a physical therapist on a USPSTF weight reduction program focused on decreasing the overweight and obesity in young adult females ages 18 to 25 at an outpatient clinic in a Northeastern Mid-Atlantic state. Obesity is common among young people in the United States and can be defined as a BMI of 30 or more (AHRQ, 2017). BMI is a ratio of a person's weight (in kg) to squared body height measured in meters and is a standard measure for determining a healthy weight. Among the most prevalent noncommunicable diseases, obesity is reported as a significant problem for the general population and, therefore, represents an important public health issue (AHRQ, 2017). Poor diet, poor economic status (such as internal financial constraints) and lack of physical activity are the main factors

contributing to being overweight, obesity, and Type 2 diabetes (AHRQ, 2017). The sedentary lifestyle such as sitting or lying down to read, study, write, or work at a desk or computer for most of the day without physical activities among young female adults in the geographical area of the Northeastern United States is significantly increasing their risk of being overweight/obese. This consequently affects their health status and increases the chance of developing hypertension and sleep apnea (Lagarrigue et al., 2017). From the information gathered from the clinic staff, due to this increased weight gain among the young female adults in this community, some patients are asking for measures to manage their weight gain since problems related to weight gain tend to lead to obesity. Evidently, a reviewed study on obesity prevalence by sex indicated that the percentage of obesity in women was 58% compared to 19% in men (Hopkins et al., 2015).

Due to the poor economic level of the population, the clinic area is surrounded by fast-food restaurants and corner mini-marts/shops. The population in this area depends on these neighborhood stores for their daily food choices due to less accessibility to grocery stores that carry fresh produce. This poor economic level increases obesogenic areas that have fast food. Many of the members of the community have limited or no transportation accessibility to go out of the area where they can buy fresh foods and vegetables (see Silveira, 2018). These overweight/obese females are in communities where the physical activities and lifestyle modifications are limited, resulting in low likelihood of losing weight without therapeutic intervention (Lagarrigue et al., 2017). Women are at higher risk for obesity and metabolic complications than the general population due to the higher percentage of biological body fat in women (Lagarrigue et al.,2017). The obesity rate is

higher in women than in men; and increases more rapidly in women (from 8.3% in 1997 to 15.7% in 2012) than in men (8.8% in 1997 to 14.3% in 2012(Lagarrigue et al.,2017).

Overweight /obese individuals are at high risk of developing high blood pressure, early symptoms of hardening of the arteries, Type 2 diabetes, nonalcoholic fatty liver disease, polycystic ovary disorder, and disordered breathing during sleep (Lagarrigue et al., 2017). Consequently, as these young adults grow older, their problems with weight may lead to adult obesity and conditions such as diabetes and heart diseases (AHRQ's, 2017). This study takes place at a primary care clinic where the majority of young adult females are obese, a phenomenon I identified during my personal communication with the clinic nurses. Therefore, the local problem is the need to address obesity management for young adult females due to its high prevalence in this clinic. It is crucial to address this issue of obesity to prevent the previously mentioned diseases (diabetes and heart disease) among these women. This will bring positive change to the women and to the community served at the clinic by reducing the incidence of obesity, thus, reducing diseases. Therefore, obesity should be better evaluated and treated in this community, especially for young adult females. Unfortunately, according to AHRQ (2017), a lack of understanding and awareness in obesity management among staff plays a huge role in hindering the combat of obesity. This lack of awareness/understanding can be resolved by providing professional education, organizational support, and training. Consequently, it was the right time to implement this program to bridge the gap at this local clinic and to educate and increase the staff’s inadequate training/knowledge. I observed that the staff had poor skills/knowledge/understanding of obesity management, which was indicated as

a gap in this clinic. Consequently, as these young adults grow older, their problems with weight may lead to adult obesity and conditions such as diabetes and heart diseases (see AHRQ, 2017). Therefore, obesity should be better evaluated and treated in this community, especially for young adult females. This project is relevant to nursing practice because it created an important structured program to follow in supporting patients with weight loss within a holistic assessment of their needs. Nurses are in a unique position to design and implement an evidence-based weight management program through the collaborative and holistic strategies that the nursing process (assessment, diagnosis, planning, implementation, and evaluation) provides. Therefore, the information gained from the project's approach is likely to help clarify how to make the best use of weight reduction programs in both the research and the clinical environments.

Purpose of the Project

The purpose of the project is to evaluate the perceptions of the of doctors, nurse practitioners, an RN, an LPN, CMAs, CNAs, a dietician, and a physical therapist on the USPSTF weight reduction program in decreasing the overweight and obesity in young adult females, ages 18 to 25, at an outpatient clinic in a Northeastern Mid-Atlantic state. This project identified the staff's perception and willingness to implement this education plan to promote weight loss in this context and will evaluate the possibility of the education plan leading to a positive change in the staff's knowledge, awareness, understanding, and skills to improve population behaviors, quality of life, and other outcomes. I have observed that young adult females in this clinic have knowledge deficits secondary to the absence of education by informed nursing staff on evidence-based

approaches to teaching about the management of obesity within their population, which exposes the younger adult females to the risk for obesity. This was evidenced through the young adult females' choice of snacks during their visits at the clinic. Therefore, it was tied with the lack of provision of obesity management education by the nursing staff, which was observed during my stay at the clinic. This project was conducted as an evaluation of the staff education initiative and addressed the following practice-focused questions: Are there any changes in perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the medical healthcare providers after participation in the 6-weeks staff educational program using United States Preventive Services Task Force (USPSTF) behavioral interventions guidelines at the outpatient medical clinic in a Northeastern Mid-Atlantic state?

With the changes in staff perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the medical healthcare providers after participation in a staff educational program using the USPSTF behavioral interventions at the outpatient medical clinic, the gap-in-practice was likely addressed. Taking the nature of this project into consideration and given the primary goal of this project, the aim of this project was to seek a factual response to the practice-focused question. According to AHRQ (2017), behavioral interventions have a statistically significant effect on weight loss (on

average 6% decrease of baseline weight (4 to 7 kg [8.8 to 15.4 lb.]) that is clinically significant. Furthermore, the USPSTF (2019) posited that effective intensive behavioral interventions were designed to help the obese population achieve or maintain a ≥ 5% weight loss through a combination of dietary changes, behavioral modification, and increased physical activity. The U.S. Food and Drug Administration considers a weight loss of 5% as clinically important (USPSTF, 2019). However, the behavioral intervention included a reduced-calorie diet, increased physical activity, and behavioral therapy. Therefore, I implemented the quality improvement weight reduction educational program at this project site. The data from the program was evaluated and I determined that staff education program increased awareness/understanding of the staff and its implementation will increase healthy behaviors that will lead to weight reduction among the female adults with obesity. The data was collected through pre/postquestionnaires of the 13 staff participants in this outpatient clinic weight loss educational program.

The setting for the project was within an outpatient clinic in a Northeastern Mid-Atlantic state. Many of the patients who were seen at this clinic live within the regional city area of the United States, where obesity is still on the rise. According to governing data obtained from 2011 county statistics, 38.4% of people in this area were overweight, 28.0% were obese, and 24.0% were not engaged in any physical activity (Governing Data, 2011).

DNP Essentials

Chism (2010) discussed effective Doctor of Nursing Practice (DNP) essentials that guided this DNP project. One of the essentials discussed was obtaining a knowledge

base about the patients, population, and community levels to assist in creating a new model of health care delivery. However, the DNP manual that was applied in this project was Walden University 2019 Manual for Staff Education. Staff education was often used to help inform and improve knowledge and skills using current evidence -based practices. Following the guidelines from the staff education manual, both the pre-assessment before the program execution and the post- assessment after the program using a 5-item Likert scale questionnaire were incorporated and used to evaluate the staff perception/awareness and understanding of the USPSTF guidelines. I applied the Likert scale questionnaire due to its strength responses. The Five-point Likert Scale has been the most commonly used data collection method for the evaluation due to its durability and dependability**.** However, Likert Scale questions are one of the most widely used tools in researching popular opinion. The options are straight and self-explanatory questions. It has values of 1-5 that guide the researcher in producing the evaluation questionnaire options. Moreover, Likert Scale questions use a universal method of collecting data, which means it is easy to understand them. Because I worked with quantitative data, it was easy to draw conclusions, reports, results, and tables from the responses. Furthermore, because Likert Scale questions use a scale; my participants were not forced to express an either-or opinion, rather allowed them to be neutral should they so choose. Once all responses have been received, it was very easy to analyze them. Finally, it was very quick and easy to run (see Cleave, 2017).

Therefore, within this clinic, arrangements consistent with a memorandum of understanding (MOU), with the managing authorities was made to reserve a recreation

room for the participants (staff) to meet. The participants met at a certain time each week during the project's execution period beginning at the introductory phase to the data collection phase. During my practicum period, I discovered that the clinic had a prior conventional weight reduction program, but it was not stable and was ineffective. I understood that the program was last re-enforced 10 years ago when the clinic was upgraded and had the recreation room remodeled for activities. Therefore, the recreation room was utilized for the staff's sessions during this project when the group met throughout the program.

The clinic's conventional weight reduction program consists of a long-time dietician who had been in this clinic and has the responsibility of overseeing obese patients through a medical doctor's referral/approval. This project was significant when considering the need for a future study on obesity among the younger adult females in this outpatient clinic. It will also have beneficial effects on other clinics with weight loss programs by giving guidance in understanding the strategies applied by this outpatient clinic in this geographical area. Thus, future researches need to be done to implement additional, possible changes that will address the health problem of obesity and serve as an avenue to help other medical centers towards decreasing and eliminating obesity. Furthermore, providers and communities need to be acquainted with the methods applied in this current weight reduction program so that important lessons can be learned from the success stories for the benefit of other obese individuals, nutritionists, dieticians, agencies, communities, states, and governmental agencies. Nevertheless, the primary purpose of this change is to determine whether the program results in the meaningful and

successful accomplishment of attaining an effective knowledge of weight management with a healthy range body mass index without associated public health issues.

Nature of the Doctoral Project

Although it is recognized that diets, social interactions, economic statuses, inactivity, and living arrangements can be factors that contribute to obesity, the nature of this project was limited to the evaluation of the staff's perception of USPSTF treatment recommendation guidelines to determine whether a staff education program would increase knowledge, awareness, and understanding of the staff's in-care-practice implementation to increase healthy behaviors that will lead to weight reduction among the female adults with obesity; determined through the post questionnaires of the 13 staff participants in this outpatient clinic weight loss educational program. According to Hussan et al., in 2016, a calculation based on the morbid obesity reports indicated that 6.4 % of U.S adults were affected and linked obesity to colorectal cancer. Hussan et al(2016) further posited that obese patients were found to have many coexisting comorbidities including heart failure, lung disease, diabetes, hypertension, and renal failure and are more likely to have accompanying mental health disorders. Furthermore, in terms of procedures, surgery in obese patients was considered laborious and challenging due to the need for safe positioning on the operating room table, manipulation of fatty tissues, and the deeper access required reaching the desired organ (Hussan et al., 2016). This challenge can potentially lead to worse surgical outcomes (Hussan et al., 2016). Consequently, morbidly obese patients have increased surgery perioperative mortality

with a higher prevalence of comorbidities, surgical complications, and more health care resource utilization (Hussan et al., 2016).

Considering the impact of this health problem, my project was guided by the application of some relevant theories. This project utilizes the Population Intervention Comparison and Outcome (PICO) tool framework, Walden Unversity staff education manual, and Prickett's toward a middle–range theory of weight management model. Prickett's theory is a grounded theory that was developed in 1959 which was extracted from Orem's theory of self-care .This theory had the notion that the concept of self-care is related to a human's need for maintaining and promoting health. An individual is expected to function independently and where he/she fails indicates deficient. Dorothea Orem's theory believes that people have a natural ability for self-care, and nursing should focus on affecting that ability. According to Gray et al. (2017), a theoretical framework is an abstract, logical structure of meaning that guides the development of a study and enables the researcher to link the findings to the body of knowledge of nursing. My interest was more on the chronic issue (obesity) facing young adult females in that clinic and was focused on the evaluation of the perception of the clinic staff on evidence-based weight reduction program for young adult female that included strategies for reduced calories, increased physical activities, and behavioral therapy on weight reduction for young adult females (ages 18-25) diagnosed with obesity. Therefore, the aims of this project were to evaluate the perception of clinic staff on the USPSTF evidence-based educational program on weight loss among obese young adults and to determine the staff's satisfaction with the program appropriateness. The primary approach for achieving

weight loss was a therapeutic lifestyle change, which includes an educational program on reduction in energy intake and an increase in physical activity (Clark et al., 2004). Furthermore, AHRQ (2017) suggested that obesity can also be approached with the implementation of successful programs that included information about a healthy diet, safe exercising, and reading food labels. Their suggestions also included advice and strategies for limiting access to tempting foods and limiting screen time, goal-setting, self-monitoring, rewards, problem-solving, and supervised physical activity sessions (AHRQ, 2017). Stallworth (2018) posited that the development and implementation of practice transformation in a primary care setting required sustained improvement efforts guided by knowledge and a broader vision committed to ensuring that a single change is developed into a meaningful whole. Consequently, to accomplish this, a panel of 13 clinic staff (two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist) was set up through self-voluntary that met the qualifications for the program. Six weeks of the evidenced-based weight reduction educational program (EBP) was evaluated to determine the experts' opinions on the program. However, the statistically significant weight loss resulted from the use of the weight reduction program using the USPSTF treatment recommendation guidelines. The medical clinic implemented the guideline from USPSTF in the management of the obesity epidemic. Similarly, before the beginning of the project, the DNP student met with the stakeholders; explained the topic, analyzed the need for staff education to combat obesity, and established the criteria for the Staff Education program using literature and theoretical support. I also discussed the needs and goals of the staff

education program with organizational leadership through verbal conversation rather than in a survey/interview. I explained to the stakeholders that staff education is usually developed to meet a need identified by the clinical practice setting, such as lack of staff awareness/ knowledge on obesity management to improve patient care to achieve standards of practice or to meet regulatory guidelines. I obtained a commitment of support from organizational leadership. Finally, I obtained Walden University's ethics approval number for this study as 09-04-20-0982466 before data collection. A meta-analysis of effective primary care-based interventions showed that behavioral interventions have a statistically significant effect on weight loss (on average 6% decrease of baseline weight (4 to 7 kg [8.8 to 15.4 lb.]), which is clinically significant (AHRQ, 2017). The following terms are relevant to this project:

Population

The population for this project was black/African Americans, Latinos, and Hispanic male and female adult staff working in Northeastern Mid-Atlantic state medical clinic with a sample size of 13. The sampling method that was appropriate for this project is purposive sampling. Purposive sampling is a fit for the project because according to Lee-Jen et al.(2014), researchers who use this technique carefully select subjects based on study purposes with the expectation that each participant will provide unique and rich information of value to the project. Therefore, the participants were selected based on the educational program to determine if it would lead to increase knowledge, awareness, and understanding in obese management in that clinic. They were also selected because they were available and worked at the clinic. Six weeks of the evidence-based educational

programming was provided to a panel of 13 clinical experts made up of two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist who work with these younger adult females who are obese. The qualifications for participation were based on the following:

- The participants were male and female.
- The participants lived in the Northeastern area of the states and worked at the outpatient medical clinic at the time of the project.
- They were Black /African Americans, Latinos, and Hispanics.
- They were medical personnel or considered experts (doctors, nurse practitioner, RN, LPN, CMA, CNA, dieticians, physical therapists)

Intervention

The intervention included three primary strategies. The first strategy was a focus on reducing calorie consumption. Examples of foods that were lower in calories included vegetable, fruits, whole grains, fat free or lowfat dairy products, and including a variety of foods with protein, including seafood, lean meats and poultry, eggs, beans, peas, nuts, seeds, and soy products. The second strategy was increasing physical activity. The physical activity was a combination of aerobic 150 minutes a week and muscle-strengthening activities 3 days a week. Aerobic activities make breathing harder and cause the heart to beat faster (e.g. walking fast). Muscle-strengthening activities make the muscles stronger (e.g. lifting weights, using resistance bands, and doing push-ups (AHRQ, 2017).

The third strategy was a focus on making behavioral changes. Behavioral interventions are strategies to help patients acquire the skills, motivations, and support to change diet and exercise patterns (Moyer, 2012). The behavioral therapy consisted of daily monitoring of food intake and physical activity, facilitated by paper diaries or apps, and advises individuals to have a structured curriculum of behavior change including goal setting, problem-solving, and stimulus control. Therefore, the program was presented to the considered experts, the staff, for feedback on appropriateness for the clinic. The education sessions were carried out in the clinic each week for 6 weeks, and the follow-up assessments were completed to determine the findings regarding the program appropriateness.

Outcome

Feedback from the two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist that participated in the 6-week weight reduction educational program was obtained from a five-question, five-point Likert scale evaluation questionnaire from the staff before and following the educational sessions to solicit the professional opinions on the weight reduction program using the USPSTF treatment recommendation guidelines in the care of young adults' female patients at the outpatient medical clinic. However, the questionnaires were shared with the 13 participants formative and summative and they were asked to evaluate the objectives of the proposed weight reduction educational program based on USPSTF guidelines. The scoring of the questionnaire was based on the following responses: 5 = *strongly agree*, 4 = *agree*, 3 = *undecided*, 2 = *disagree*, and 1 = *strongly disagree*.

The collection of data was another phase of the project. Data collection is the process of selecting subjects and gathering data from them (Gary et al., 2017). I evaluated the effectiveness of the weight reduction educational program using the feedback from the medical clinic staff that participated in the 6-week weight reduction educational program. This was obtained from a five-question, five-point Likert scale evaluation questionnaire from the staff following the educational sessions to solicit the professional opinions on the weight reduction program using USPSTF treatment recommendation guidelines in the care of young adult female patients at the outpatient medical clinic. The scoring of the questionnaire was based on the following responses: 5 = *strongly agree*, 4 = *agree*, 3= *undecided*, 2 = *disagree*, and 1 = *strongly disagree*. This was an opportunity for the participating staff to leave comments, recommendations, and suggestions for further program improvement. Before the collection of the data, the DNP student obtained the approval of the IRB of Walden University as well as approval from the clinic administration. I calculated the collected data and analyzed the data using descriptive analysis techniques. This was appropriate for the project because descriptive analyses are generally useful in any situation where a detailed specification of a single product or a comparison of the sensory differences among several products is desired (Lawless & Heymann, 2010). Furthermore, this technique is ideal for self-testing and is frequently used in product development to measure how close a new introduction is to the target or to assess the suitability of the products to the targeted population.

Significance

Significantly, a positive outcome from USPSTF program will have some beneficial effects on the nursing practice, patients, organizations, communities, and worldwide. The program will help the nursing practice assist patients in modifying their personal risk profile that will reduce the complications from obesity and improve health outcomes. In addition, having a better knowledge of the factors that facilitate or jeopardize an individual's success in weight reduction programs would assist not only this outpatient clinic but also other obesity prevention and elimination programs or clinics to recognized and encourage individuals, communities, and societies in planning, executing and encouraging a weight reduction program to achieve their goals. Finally, this change will bring about an increase in the health of a community by reducing chronic illnesses associated with obesity and reduce health costs to society.

However, there was an important element that played a part in achieving the outcomes. This element was the stakeholders, which included the project team (project director, clinic manager and quality improvement director, and the staff (two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist. Stakeholder involvement was one of the strategies because it was the process by which an organization involved people who may be affected by the decisions it makes or can influence the implementation of its decisions. Such stakeholders included the clinic manager, the staff, and the project team. The project manager was periodically reviewing the response from the staff to enable me to decide if there was a need for adjustment during the educational period and reviewed the participant's compliance with

the program. The clinic manager acted as a middle person between myself and clinic staff by reenforcing the need for participation.

Summary

According to Lee et al., (2019), the prevalence of obesity has dramatically increased across the globe and has become a major public health concern. The Centers for Disease Control and Prevention (CDC) estimated the annual cost of obesity in the United States at $147 billion in 2008 U.S. dollars (AHRQ, 2017). Because obesity presents with many risk factors that predispose patients to chronic illnesses, such as hypertension, Type 2 diabetes, hypercholesterolemia, coronary heart disease (CHD), stroke, asthma, arthritis, and economic constraints, it is critical that obesity is addressed to prevent undermining the 20th-century gains in life expectancy (Sulliv, 2010). Finally, there is strong evidence from prospective studies showing that weight loss by obese individuals improves long-term morbidity and mortality, that obesity is associated with increased morbidity and mortality, and that weight loss in obese persons reduces important disease risk factors (Lyznicki et al.,2001). Ultimately, this project utilized theories and models of Pickett's theory of weight management, USPSTF recommendation guidelines, and Walden University Staff Education manual in executing the program to address the issue.

Section 2: Background and Context

Introduction

The practice problem for this study is obesity. According to the WHO (2016), overweight and obesity are defined as excessive or abnormal fat buildup that presents a risk to an individual's health and well-being (WHO, 2016). Clinically, obesity is defined as a BMI > 30 kg/m2, and results from a prolonged imbalance between energy intake (food intake) and energy expenditure (basal metabolism, physical activity, and thermogenesis) and manifests itself physiologically as the excessive storage of triglycerides in adipose tissue (Burke & Heisler, 2015). Similary, Hammond and Levine (2010) posited that those with a BMI of 30.0 or higher are identified as obese, while those with a BMI of 25.0–29.9 are categorized as being overweight. Furthermore, Budnik and Henneberg (2017) added that obesity prevalence has been increasing for the last several decades worldwide. This increase is most likely a result of complex interactions between genetic predispositions, environmental factors, and human behavior (Budnik, & Henneberg, 2017). Although the main cause of obesity is the disturbed energetic balance, too much food consumed in relation to low field metabolic rates of everyday existence had a significant impact, as well.

Lee et al. (2019) stated that from 1980 to 2013, an increase in the prevalence of obesity had been elevated in developed countries from 28.8% to 36.9% for men, from 29.8% to 38.0% for women, from 16.2%to 22.6% for girls, and from 16.9% to 23.8% for boys. Furthermore, surgical procedures for obese patients are considered laborious and challenging due to the need for safe positioning on the operating room table,

manipulation of fatty tissues, and the deeper access required reaching the desired organ (Hussan et al., 2019). This challenge can potentially lead to worse surgical outcomes. Consequently, morbidly obese patients have increased surgery perioperative mortality rates with a higher prevalence of comorbidities, surgical complications, and more health care resource utilization (Hussan et al., 2019). According to Poobalan (2016), young adults ages 18–25 are in a period of transition from adolescence to adulthood. It is perceived that obesity mostly affects this age level, as evidenced by the increasing trend of obesity among young adults, especially college and university students. While understanding the increase in obesity among young adults, it should be noted that during this time of life, many young adults undergo significant lifestyle changes. Many leave home to attend colleges and universities; some gain employment, build relationships, possibly cohabitate, or get married. Additionally, some young adults experience pregnancy and are caring for children, as well. These transition periods in their lives are seen as a time of displacement, time in which many young adults experience a sense of loss and discontinuity of their identity as they leave behind familiar contexts and take on new ventures. Consequently, these life transitions may make young adults vulnerable to energy imbalances, which often leads to weight gain, and which may not be concerning at the time but later accumulates. Poobalan (2016) also added that the interaction of social, psychological, and biological factors that happen during these transitional years in the younger adults' lives might make them vulnerable to many risk-taking behaviors but can be countered towards positive behavioral changes given constructive childhood and adolescent experiences. Nonetheless, both positive and negative health behaviors

established during this transition to adulthood often persist later into life as they grow older (Poobalan, 2016).

Focused Question

This project was conducted as an evaluation of the staff education initiative and will address the following practice-focused question: Are there any changes in perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the medical healthcare providers after participation in the 6-week staff educational program using USPSTF behavioral interventions guidelines at the outpatient medical clinic in a Northeastern Mid-Atlantic state? Taking into consideration the nature of this project, and given the primary goal of this project, the aim of this project was to seek a factual response to the practice-focused question.

Purpose of the Project

The purpose of the project was to evaluate staff perceptions of the EBP weight reduction educational program in decreasing the overweight and obesity in young adult females, ages18 to 25, at an outpatient clinic in a Northeastern Mid-Atlantic state. This will foster an opportunity to evaluate the perception of clinic staff on the evidence-based educational program on weight loss among this population and determine the staff's satisfaction with the program appropriateness to be considered a possible way to lead to positive change that would influence the service population's behavior and improve their quality of life and other health outcomes.

Global Data on Obesity based on World Health Organization (WHO):

- 39% of the global population above 18 years of age is overweight, and of these, 13% are obese.
- World Health Organization (WHO) estimates that the world rate of obesity will reach 13 percent by the next decade.
- From 1980 to 2013, an increase in the prevalence of obesity had been evaluated in developed countries from 28.8% to 36.9% for men, from 29.8% to 38.0% for women, from 16.2%to 22.6% for girls, and from 16.9% to 23.8% for boys
- Among 2.1 billion people, almost 30 percent of the world's population is overweight or obese.
- At the global level between 1980 and 2015, the prevalence of obesity increased from 3.9% to 7.2% in boys and from 3.7% to 6.4% in girls, aged 2–4 years.
- It is estimated that by 2030, up to 57.8% of adults in the world would suffer from being overweight or obese.

Obesity in the United States of America

According to Lee et al., (2019), the prevalence of obesity has dramatically increased across the globe and has become a major public health concern. According to Hussan et al., (2016), calculations based on the morbid obesity reports indicated that 6.4% of U.S. adults were affected and linked obesity to colorectal cancer. Hussan et al. (2016) further posited that obese patients who were found to have many co-existing co-

morbidities including, heart failure, lung disease, diabetes, hypertension, and renal failure were more likely to have accompanying mental health disorders.

Furthermore, surgical procedures for obese patients are considered laborious and challenging due to the need for safe positioning on the operating room table, manipulation of fatty tissues, and the deeper access required reaching the desired organ (Hussan et al., 2019). This challenge can potentially lead to worse surgical outcomes. Consequently, morbidly obese patients have increased surgery perioperative mortality rates with a higher prevalence of comorbidities, surgical complications, and more health care resource utilization (Hussan et al., 2019). Epidemiological studies show a considerably tremendous increase in obesity, especially in adolescents. According to Sulliv (2010), obesity has increased to the level of epidemiological health problems in the United States and surrounding developing countries. Notably, obesity increases the likelihood of total joint replacement surgery among younger adults and is a well-recognized risk factor for other various illnesses (Harms, Larson, Sahmoun, & Beal, 2007). Furthermore, Lee et al. (2019) opined that being overweight or obese has negative implications in social aspects, as well as evidence through several previous studies indicating that appearance-based discrimination towards obese and overweight persons results in an overall negative effect (Lee et al., 2019).

Because obesity presents with many risk factors that predispose patients to chronic illnesses, such as hypertension, Type 2 diabetes, hypercholesterolemia, coronary heart disease (CHD), stroke, asthma, and arthritis, it is critical that obesity is addressed to prevent undermining the 20th-century gains in life expectancy (Sulliv, 2010). According

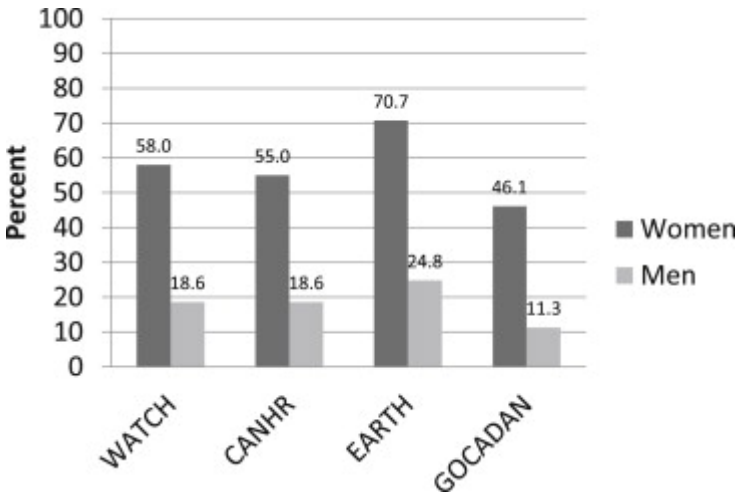
to Csige et al. (2018), numerous studies have demonstrated a relationship between obesity and cardiovascular diseases (stable coronary disease, acute myocardial infarction, heart failure, cardiac arrhythmias, and sudden cardiac death). As a causative factor, obesity plays a destructive role in the development of atherosclerosis and coronary artery disease while creating a detrimental economic impact on the United States. Due to the expanding obesity epidemic, coupled with rising costs of medical care, co-morbid American adults will likely face greater challenges and health care expenditures (Li et al., 2018). Furthermore, (AHRQ, 2017) estimated that more than one-third (or 78.6 million) of U.S. adults are obese. The Centers for Disease Control and Prevention (CDC) estimated the annual cost of obesity in the United States at $147 billion in 2008 U.S. dollars (AHRQ, 2017). The Agency for Healthcare Research and Quality added that obesity could potentially cause asthma, high blood pressure, and mental health problems (AHRQ, 2017).

Past obesity research has investigated numerous correlates and causes of obesity, including demographic, genetic background, biological, medical, socioeconomic, and institutional factors (Lin et al., 2019). In designing health promotion programs for these overweight and obese younger female adults, I was aware of family and environmental risk factors including, household monthly income, individual education level, and the type of family that might be prone to overweight/obese conditions during my interaction with the clinic staff. The obesity rate is higher in women than in men and increases more rapidly in women (from 8.3% in 1997 to 15.7% in 2012) than in men 8.8% in 1997 to 14.3% in 2012 (Lagarrigue et al.,2017). There are clear regional differences in the

relationship between obesity levels and gender. In 2016, the prevalence of obesity was higher in girls than boys in most countries, according to Di Cesare et al., (2019). Furthermore, a reviewed study on obesity prevalence by sex indicated that the percentage of obesity in women was 58% compared to 19% in men (Hopkins et al., 2015). See

Figure 1

Obesity Percentage by Sex



Note. Adapted from "Sex differences in Obesity prevalence and Cardiometabolic factors among Western Alaska Native people" by Hopkins et al.,2015, Nutrition, Metabolism and Cardiovascular Diseases, 25(3), 312–318 (https://doi.org/10.1016/j.numecd.2014.10.012).

Factors Leading to Obesity

There are numerous factors that may lead to obesity either major risk factors or related to the risk factors. Some literature revealed that the central causes of obesity

include unhealthy dietary habits, lack of physical activity, medications, and behavioral factors. However, some illnesses can lead to obesity as well according to some research.

Unhealthy Diet

Unhealthy diet are diets high in sugars, saturated and trans- fats, low fiber foods and high-sugar drinks which contribute to non-communicable diseases (NCDs) and other health problems (Buscemi,2014). According to Buscemi (2014), a review of a recent study has demonstrated that the consumption of sugar-sweetened beverages, known as soft drinks, contributes to the development of obesity in both adolescents and adults. Adolescents and adults have increasingly eaten out or ordered in, with a marked increase in calories compared with home cooking. The obese population is more open to diets that exclude fruit and vegetable consumption because they frequently rely on cheaper fast foods such as hamburgers and instant noodles. This increases their trips to fast-food restaurants. Consequently, their diets are high consumptions of soft drinks, fried foods, seed oils, cured meats, butter, red meat, and sweets, which make them susceptible to obesity and its related health problems.

Lack of Physical Activity

Many pieces of literature reviewed have shown that physical inactivity is directly associated with weight gain and a primary contributor to the obesity epidemic, but sometimes may be facilitated or hindered by environmental factors. Some of the environmental facilitators are lack of access to parks, green space, and recreational facilities. People stay indoors from morning to night eating, drinking, and sleeping without any exercise or being active. Thus, individuals have no regular or weekly

physical activity or report exercising only an average of one session per week or less than four sessions per month. Most people have no access to home equipment for exercise, therefore, relying on the community parks for their physical exercise. Since physical inactivity is one of the primary contributors to the obesity epidemic in the U.S., public health emphasis should be placed on physical inactivity (Gray et al., 2018).

Medication and Diseases

Medications such as psychotropic medications, seizures, and migraine medications play major roles in individuals' weight gain that leads to obesity (Svärd et al., 2016). Among the psychotropic medications are melatonin, liraglutide, and naltrexone/bupropion (Howland, 2015). Furthermore, some diseases such as Hashimoto's disease, Hypothyroidism, Cushing syndrome, and Dysthymia are contributory factors to weight gain that lead to obesity (Tomer et al., 2015).

Behavioral Factors

According to Lin et al. (2019), some of the behavioral factors that lead to obesity include a sedentary lifestyle. This means time spent during the day in front of a screen watching TV, playing video games, and using a computer. More than two hours are spent, which is opposed to the set maximum of two hours per day, following the American Academy of Pediatrics guidelines. Remaining at a spot for such hours without burning any fat or calories tends to increase weight gain.

Hereditary/Genetic

The inherited group of obesity is usually accompanied by dysmorphic features and congenital anomalies. These are known as Prader-Willi syndrome and Bardet-Biedl

syndrome. Increasing evidence suggests that interactions between eating habits and genetic material also determine the susceptibility to obesity (Duran et al., 2017).

Inadequate Breast Feeding

There is a relationship between body image concern and breastfeeding behavior among women. Women attach more interest/concern on their body image, such as having the notion that breastfeeding should lead to sagging of the breast and feeling of social stigma associated with breast pumping while nursing. These behavioral health outcomes, particularly in women, have been reflected in decreased breastfeeding practices and increased obesity rates (Bigman et al., 2018).

Lifestyle Change

According to Ajman et al. (2019), lifestyle changes have effect on weight gain that leads to obesity. Individuals are less physically active because they spend more time watching TV, sitting in front of the computer, and playing games. People stay in their homes, ordering groceries and shopping online instead of traditional shopping (going out to the market). Ajman et al., (2019) reported that overweight children spent more than hours/day in sedentary activities compared to normal-weight children.

Facts About Obesity

Obesity, as a public health issue, is defined by WHO as abnormal or excessive fat accumulation that presents a health risk and is classified by BMI (Persson And, & Bondke Persson, 2013). Similary, Hammond and Levine (2010) posited that those with a BMI of 30.0 or higher are identified as obese, while those with a BMI of 25.0–29.9 are categorized as being overweight. Sadly, this major public health problem affects over 78

million adults in the United States (Pickett et al., 2019). The disease of obesity accounts for, directly or indirectly, the reduced quality of life of affected individuals and imposes substantial societal, economic costs.

Table 1

Classification of Obesity in Adults based on BMI (kg/m2)

Classification	BMI
Underweight	≤18.5
Healthy/normal weight	18.5–24.9
Over weight (pre-obese)	25–29.9
Moderate obesity (class 1)	30–34.9
Severe obesity (class 2)	35–39.9
Morbid/extreme obesity (class 3)	≥40

Note. Adapted from *Definitions, Classification, and Epidemiology of Obesity* by J.Q Purnel, 2018, South Dartmouth (MA): MDText.com, Inc.; (.https://www.ncbi.nlm.nih.gov/books/NBK279167/)

Obesity Health Consequences

According to Mollaioli, et al (2020), obesity is a risk factor for cardiovascular disease and increases the incidence of pathological issues such as diabetes, dyslipidemia, hypertension, and the development of cardiovascular disease. Among psychosocial factors, obesity causes psychological distress; in particular, it is a cause of social stigma and weight-related discrimination, which affects the quality of life, especially among

women. Obesity has led to chronic medical health consequences that include asthma, some cancers, nonalcoholic fatty liver disease, polycystic ovary disorder, and sleep apnea. These medical problems lead to lifelong medical issues and sometimes-death.

Economic Impact

Economically, obesity is a predictor of higher health care costs among the adult population and poses health-related problems to young adult females. Obesity presents a significant economic burden to the community at large, the healthcare system, as well as to society at large. These economic impacts include direct medical costs, productivity costs, transportation costs, and human capital costs (Hammond, & Levine, 2010). However, McCafferty et al. (2020) posited that the estimated annual medical cost of obesity is $85.7 billion, with prescription drug spending as the major expense. Furthermore, according to Li et al., (2018), due to comorbid indicators, obese adults had higher expenditures than their non-obese counterparts. Moreover, obesity was associated with an estimated additional $2516 in mean expenditures and $1200 in median expenditures compared with those who were neither overweight nor obese (Li et al., 2018). An epidemiological study conducted between 2011 and 2012 found that 60% of adults and 30% of young people were obese. Over the past 40 years, obesity rates have risen all over the world, and the rate of increase in America has tripled. Surprisingly, obesity was found in 17% of pre-school children (Duran et al., 2017).

Furthermore, looking at the monetary aspect of the obesity impact, according to the WHO (Persson And, & Bondke Persson, 2013)., the cost estimates of the obesity epidemic account for several billion dollars per year, with a great impact on medical

expenditure, and this trend is still rising worldwide. In the USA alone, obesity medical cost was almost $40 billion in 2006, and prescription drugs amounted to $7 billion in the same year. Similarly, in 2005, Australia was faced with obesity-related costs of $1721 million, of which direct medical costs were responsible for $1084 million and indirect costs for $637 million (Specchia et al.2015). Specchia et.al (2015) predicts that U.S. adults classified as obese in 2009 imposed a net social cost or deadweight loss of $148.2 billion in 2009. Using data from the National Health Expenditure Accounts, it was estimated that obesity accounted for $61.8 billion in Medicaid and Medicare (McTigue et al.,2003). Obesity is associated with an increased risk of developing several chronic illnesses (e.g., diabetes, colon cancer, heart disease, stroke) and, thus, increase the direct costs of preventive, diagnostic, and treatment services associated with these chronic diseases (MacEwan et al.,2014)

Social Impact

Being obese negatively impacts some individuals and leads to low self-esteem. Assuming that employers desire healthy workers with positive social characteristics, being overweight or obese can negatively affect these individuals in the job market. Reportedly, obese people earn less, are less likely to be hired, and are more likely to remain unemployed. Unfortunately, obese and overweight women were 0.33 times less likely to have service jobs, earned 9.0% lower monthly wages, and are half as likely to have jobs with bonuses as that of their normal-weight counterparts (Lee et al., 2019).

Treatment of Obesity

Various treatment interventions recommend lifestyle modification as the cornerstone of treatment for all individuals overweight or obese. Healthy lifestyles, such as being physically active and eating a healthy diet help reduce the obesity risk. According to AHRQ (2017), obesity can be approached with the implementation of successful programs that include information about a healthy diet, safe exercising, and reading food labels; advice and strategies for limiting access to tempting foods and limiting screen time; goal setting, self-monitoring, rewards, problem-solving, and supervised physical activity sessions. However, the following are different ways to successfully treat and minimize, if not eradicate, the issue of obesity: increase physical activity, enforce a healthy diet education, provide behavioral therapy, and use medication/surgery.

Increase Physical Activity

A physically inactive lifestyle can be reduced through a motivational interview to boost their physical activity levels, focusing on encouraging physical activities and decreasing TV viewing time. The activity will be planned to have greater or equal to 150-180min/week of aerobic physical activity (e.g., brisk walking or cycling).

- Aerobic activities make breathe harder and cause the heart to beat faster (e.g. walking fast) (AHRO, 2017).
- Muscle-strengthening activities make the muscles stronger (e.g. lifting weights, using resistance bands, and doing push-ups) (AHRQ, 2017).

The DNP student can liaise with the clinic manager/physical/occupational therapy team to provide free access to council-run gyms, physical activity classes, and walking activities for the staff working with obese populations. Individuals in the obese state that become physically active will have a lower risk of developing Type 2 diabetes and other obese-related health problems, in comparison with obese individuals that are not physically active. However, physical activity is also associated with improved fitness, which may attenuate the risk of mortality associated with obesity (Wadden et al.,2020). Staff should be educated to encourage obese patients and their parents to limit and monitor the time children spend in front of the TV by reducing it to no more than 2 hours a day. There should be encouragement on brisk walking or cycling for at least 2 hours a day within the house or around the neighborhood.

Healthy Diet Education

Education on the right diet will improve weight loss and reduce the chances of obesity in this population. Therefore, there is a strong need to create awareness within the population. The student's dietary education to the staff will include consumption of a low-calorie diet (typically 1,200–1,500 kcal/day for women; 1,500–1,800 kcal/d for men). The menu should include fruits, high fibers such as whole grains, oatmeal, fat-free or low-fat dairy products, lean meats, poultry, fish, beans, eggs, and nuts. Nursing mothers should exclusively breastfeed through their nursing period and monitor children's mealtimes. They should encourage decreasing the habit of eating out and ordering in. The adoption of public health measures to maintain a healthy diet is

appropriate as an attempt to reduce the obesity epidemic and the consequent risk of diabetes and cardiovascular diseases.

Behavioral Therapy

Behavioral interventions are strategies to help patients acquire the skills, motivations, and support to change diet and exercise patterns (Moyer, 2012). The behavioral therapy should consist of daily monitoring of food intake and physical activity, facilitated by paper diaries or apps. The individual will be advised to occasional and/or frequent monitoring of food intake and physical activity, as needed. The encouragement of weekly to daily monitoring of weight will be included. Next, individuals will be advised to have a structured curriculum of behavior change including goal setting, problem-solving, and stimulus control. Individuals will be advised to seek regular feedback and support from a trained interventionist. Women who breastfeed exclusively for 3 months or more tend to lose more weight than those who do not and breastfeeding for more than 4-6 months may contribute to continuing weight loss (AHRQ, 2017). Ultimately, women should be encouraged to maintain the act of breast-feeding following child delivery. Therefore, the program will be presented to staff and considered experts for feedback on its appropriateness for the clinic. The education sessions will be carried out in a Mid-Atlantic state clinic each week for 6 weeks and will include follow-up assessments to determine their findings regarding the program appropriateness.

Medication and Surgery, Not Included in the USPSTF Program

Obesity can be treated surgically through bariatric surgery, which can be performed in severe obesity cases **(**Atienzar et al.,2019). Bariatric surgery is restrictive or malabsorptive, but current techniques are primarily restrictive. It is limited to patients with BMIs exceeding 40 kg/m2 or patients with BMIs of 35kg/m2 or more who have associated severe health complications and have not responded to other treatment methods (Moyer, 2012). Burke et al. (2015) added that bariatric surgery is an effective treatment for obese patients or patients with comorbidities where changes in their lifestyle, such as diet and increased physical exercise, have failed. Similarly, obesity can be pharmacologically treated using 5-hydroxytryptamine /serotonin (Burke, & Heisler, 2015). The results of some studies indicate that 5-HT obesity medications are associated with a reduction in blood glucose, an increase in serum insulin, and an improvement in Type 2 diabetes. Losing weight is not as easy as gaining weight, therefore, patients with the difficulty of losing their weight-despite the lifestyle modifications-are presented with the option of achieving their goal either through pharmacological or surgical measures.

Duties of the Local, State, and Federal Government in Combating Obesity

Government agencies have an important role to play in combating the obesity public health problem. They can approach the problem by banning the sales of foods and soft drinks, which can lead to disability and early death, on all public premises such as hospitals, markets, and schools. They can put regulations on the requirement for the fast-food companies to meet before opening and serving the people. They can also launch a

drive to ensure children have healthy food at school and ban vending machines in schools. They can increase the age eligibility to purchase soft drinks, similar to tobacco and beers. Government policies on food in government-supported establishments should be linked to local agriculture that can provide appropriate high-quality food in an environment where everyone can have multiple, healthy choices. In conclusion, obesity is a chronic, multi-disease epidemic that can be best managed through lifestyle modifications (nonpharmacologic) and pharmacologic therapies.

Concepts, Models, and Theories

The theoretical framework that was applied to the project was towards a middle-range theory of weight management by Pickett. This theory of weight management was developed with information deducted from Orem's theory of self-care, a constituent theory within the broader self-care deficit nursing theory**,** and from the research literature. According to Gray et al. (2017), Pickett theory can be applied to weight management by predicting weight management in populations at risk for obesity-related disorders. Pickett's theory may also serve as a guiding framework to explore the influence of cultural, environmental, and psychosocial factors on weight management behaviors in populations at high-risk for obesity-related disorders. Furthermore, towards a middle-range theory of weight management may be useful to other clinicians in assessing a patient's success at engaging in behaviors needed for weight control. Based on Pickett et al. (2019), the development of towards a middle-range weight management theory served to build nursing science by integrating nursing theor**y** and empirical knowledge. The middle-range theory of weight

management may be useful to researchers and clinicians. Researchers may test the middle-range theory by developing hypotheses to empirically examine the theoretical concepts and conceptual relationships. After empirical testing, clinicians which include healthcare providers of the hospitals, clinics, online programs, businesses, health promotions, including personal users, can use the theory to assess their patients' capability to be successful at engaging in behaviors needed for weight control (Pickett et al.,2019). Ultimately, the theory of weight management may help predict weight management in populations at risk for obesity-related disorders because it seeks to analyze the various processes where the individual intends to give up previous behaviors that are dangerous to their health and adopt the current habits that increase and promotes positive health outcomes. This model is a perfect and absolute framework that assists in the management and assessment of obesity. Its creditable value could be testified when used in different environments, by individuals, in businesses, and academic needs such as projects and research studies.

To meet the goal of weight management with the application of middle-range theory of weight management, the following concepts will be articulated and implemented; weight management behaviors, weight management agency, weight contextual factors, and weight control (Pickett et al., 2019). The weight management behaviors are identified as behaviors a young adult will exhibit to maintain caloric balance inclusive of regular physical activity such as working, sports, leisure time, and eating behavioral patterns. The weight management agency involves the young adult's beliefs regarding weight, motivation to manage their weight, and overall knowledge base

of weight management. There are various contextual factors related to overeating, weight management, and weight control. While weight contextual factors are capable of weight management, they may further influence requisites related to weight management (intake of food, a balance between activity and rest) and will also include age, gender, comorbidities, sociocultural orientation, and socioeconomic status. This will also include environmental resource factors that provide some indication of neighborhood resources for physical activity and access to healthy foods for young adults (Pickett et al., 2019). The guideline developed for the treatment of obesity is found to be in line and to support the idea of using the theory of weight management in minimizing and eliminating obesity and its health-related problems.

Relevance to Nursing Practice

According to Lóp et al., (2014), overweight and obesity is a major health hazard among females of all ages, as approximately two-thirds of reproductive-aged women in the United States are currently overweight or obese. Consequently, educational interventions are needed that improve health care providers' knowledge, awareness, understanding, and skills related to healthy weight management. The strategies applied to the program will be a tool leading to the enhancement of healthcare providers' understanding of the significance of weight management and the long-term follow-up studies that focus on the public health implications of weight management. However, the intent of applying this change is to determine whether the program results in a meaningful and successful accomplishment of attaining an effective knowledge and understanding of weight management with a healthy range body mass index without

associated public health problems and to increase providers' awareness and confidence in talking with patients about weight management. The providers can apply these strategies in other similar clinics, facilities, or communities where such interventions are needed. In light of increasing obesity rates across the nation, chronic disease outcomes will reach epidemic proportions requiring integrative, comprehensive care. Addressing excess weight during young female adulthood will be a starting point for women and their families to live long and healthy lives.

Local Background and Context

Obesity and overweight have reached near-epidemic proportions in the United States because nearly 60% of the total population is obese (Silveira, 2018). Obesity, as a chronic disease, is the leading source of health care costs in Maryland, both in terms of direct costs such as hospitalizations, medications, and clinic visits; and as indirect costs such as early death and productivity loss (Maryland Department of Health and Mental Hygiene DHMH,2020). According to HEALTHY BALTIMORE (2015), obesity is a serious public health issue in the Northeastern Mid-Atlantic state/city that not only impacts the overall quality of life but is also linked to serious health conditions, such as cardiovascular disease, high blood pressure, and diabetes (HEALTHY BALTIMORE, 2015). According to an estimate provided by the Milken Institute (DHMH,2020), chronic disease cost Maryland $5.2 billion in treatment expenditures in 2003 and another $20.5 billion in lost productivity. Based on the U.S. census, 33.3% of the Northeastern Mid-Atlantic state city populations are obese (Silveira, 2018). The Northeastern Mid-Atlantic state/city's obesity rate of 35% is higher than their counterparts in Maryland and of the

U.S., making this problem a high-rise priority based on 2007 data (Governing Data, 2011). Comparing the rate of Northeastern Mid-Atlantic state/city obesity to the rest of the states, 38.1% of the African American/Black population is obese, and 33.6% are 10–17-year-old adolescents (Silveira, 2018). This puts Maryland as the 13th obese state in the United States (Silveira, 2018).

In the Northeastern Mid-Atlantic state/city alone, with 63% of the demographic being African American/Black, 34% of the adolescents are greatly affected making this an emerging public health problem. Most of the key factors contributing to this issue include biological factors such as birth weight, sex, and ethnicity; behavioral factors such as dietary intake, physical activity and screen time; as well as other individuals, family, community, and political determinants (Silveira, 2018). Evidently, if adolescent obesity continues into adulthood, the adolescents will have 30% higher rates of mortality as young and middle-aged adults and will increase their risks of obese-related health problems of diabetes and hypertension. Sadly, obesity has continued to make its way into ethnic minorities such as the African American population at higher rates. In the Northeastern Mid-Atlantic state/city with more than half of the population identifying within this ethnic group, the city has taken great strides towards raising awareness and implementing programs tackling obesity (Silveira, 2018). Silveira (2018) listed some of the strategies from the Baltimore Healthy Communities for Kids (BHCFK). These strategies include: rethink your drink; what makes a lunch, and planet health (Silveira, 2018). HEALTHY BALTIMORE (2015) suggested that combating obesity requires increased physical activity levels and improving dietary patterns, including the

consumption of more fresh fruits and vegetables. To attain this, Healthy Baltimore (2015) states that the community needs to be redesigned. Obesity is especially common in African-Americans, some Hispanics, and Native Americans, and some health sequelae reflect similar ethnic differences (McTigue et al.,2003). Unfortunately, this project's clinic is situated in the heart of the Northeastern Mid-Atlantic state/city, and the participants in this clinic are made up of blacks/African Americans, Latinos, and a few Hispanics.

These overweight/obese females are in communities where physical activities and lifestyle modifications are limited, which means their likelihood of losing weight without therapeutic intervention is low (Lagarrigue et al., 2017). Due to the economic level of the population, the area is surrounded by fast-food restaurants and corner mini-marts/shops. The population in this area depends on these neighborhood stores for daily meals. Consequently, to address the issue of obesity, HEALTHY BALTIMORE (2015) stated that the city can achieve its goal of decreasing and eliminating obesity through redesigning the community by increasing physical activity levels and improving dietary patterns-possible through the encouragement of the consumption of more fresh fruits and vegetables. In addition to that, the city can make it easier for people in the community to eat healthily and be physically active by changing the conditions where they live, work, and play (playground accessibility). Northeastern Mid-Atlantic state/city can also make healthy food accessible by providing transportation for the low-income people who cannot afford private cars to leave the community to buy fresh foods and vegetables elsewhere. Finally, the city can make the environment safe for people to walk to school

and use the playground and other recreational areas (HEALTHY BALTIMORE, 2015). Furthermore, the researcher added that the primary decision criteria used for selecting these interventions were effectiveness, political will, and sustainability. In addition, a similar alternative intervention applied, according to the research, was a community based (programmatic) intervention to increase healthy food options in corner stores and take-out food services. Resulting from the intervention, the DHMH (2020) reported that 80% of heart disease, stroke, and Type 2 diabetes cases and 40% of some cancers are preventable through proper nutrition, daily physical activity, and smoking cessation.

Role of the DNP Student

Obesity has been associated with a 36% increase in health care spending. Treating obese patients can be medically challenging; nevertheless, obesity prevention is considered a public health priority. Hoppé and Ogden (1997) stipulated that practicing nurses are responsible for the majority of weight-related interventions in primary care and that the results provide some insights into their beliefs about obesity. One area of health promotion being targeted for reducing the prevalence of obesity is dietary behavior. However, weight management has been identified as one of the most common health promotion clinic activities engaged by practice nurses who undertake the majority of routine health promotion work within primary care (Hoppé, & Ogden, 1997). Traditional explanations of the behavior of healthcare professionals have emphasized the role of knowledge. Accordingly, evidence suggests that the primary health care team lack the knowledge and skills to give appropriate lifestyle advice, particularly in relation to diet (Hoppé, & Ogden, 1997). So, my role in leading the program evaluation to identify and

address those gaps in knowledge became essential. The DNP student tailored an EBP-driven weight management education program by USPSTF for the outpatient clinic staff that could lead to improvements in younger adults' obesity rates. Traditionally, interventions for weight management included energy modification, behavioral therapy, and pharmacological intervention (Ward-Smith, 2010). For the purpose of this project, interventions for weight management included education on behavioral therapy. Behavioral therapy involves changing diet and physical activity patterns and habits toward behaviors that promote weight loss. The DNP student was an evaluator/leader of the program and got the stakeholders involved to be aware of the program as she seeks approval.

Stakeholder involvement is the process by which an organization involves people who may be affected by the decisions it makes or can influence the implementation of its decisions (Laureate Education, Inc., 2011). The major stakeholders in the healthcare system are comprised of the staff, the project team, and the clinic manager. Therefore, for effective planning and implementation of the program, it is crucial to get the population representatives involved in developing the goals and objectives for the program. The DNP student created a forum for awareness and communicated the issue clearly and definitively to the representatives by explaining to them the benefits involved in having increased staff knowledge/awareness/understanding guidelines in managing obesity, weight loss by the patients, the consequences of obesity in the population health, and cost to the organization. I advised that the evaluation of the program will produce an outcome of clinic staff awareness and understanding in management of young adult females'

obesity, and the collected information from the project will be useful for the stakeholders, administrators, and clinical directors in investing resources and time. The project manager periodically reviewed responses from the staff to enable me to decide if there was a need for adjustment during the program period. They also reviewed the participants' compliance with the program. The clinic manager acted as a middle person between myself and clinic staff by re-enforcing the need for participation.

Furthermore, I collaborated with other disciplines, including teaming with physicians, other nurse practitioners, clinic staff, and other nonclinical staff such as housekeepers and security men. In doing this, they are aligning with the AACN essentials that state DNP students should demonstrate achievement of learning objectives related to the AACN (2006) DNP essentials (VI. Inter-professional Collaboration for Improving Patient and Population Health Outcomes). The DNP student met this essential by working with the multidisciplinary team and participating in the work of the team in the evaluation of the health promotion program and disease prevention initiatives in her project setting. The DNP student has the responsibility of selecting eligible participants for the educational program presentation, session duration, and frequency. The contents are also at the discretion of the DNP student. Sessions included pre and post assessments as directed by myself. I developed the assessment in the beginning and at the end of the program, and the experts were asked to provide a formative review of the weight reduction staff education content before the presentation and a summative assessment after the presentation (see Appendix B). The qualification for participation were evaluated by the project team and approved for the data collection from the clinic

administration. Finally, I facilitated staff education and professional growth by providing guidance, support, and EBP educational resources required for the education program, which will be implemented to the patients in the future post-graduation.

My motivation for this project is that obesity interventions support Walden University's mission statement. According to the mission statement, Walden University provides a diverse community of career professionals with the opportunity to transform themselves as scholar-practitioners so that they can affect positive social change" (2018-2019 Walden University Catalog). As a scholar-practitioner student, I evaluated the staff's perception (awareness, understanding, and having confidence) of the educational program as aligned with the university mission. Furthermore, Walden University Staff Education Manual posited that any scholarly project related to staff education is aligned with the DNP essentials. Ultimately, the basic nursing process of assessment, diagnosis, planning, implementation, and will guide the DNP student and nurses/clinic staff towards making an efficient nursing judgment in providing evidence-based care to the obese population. When the issues of obesity are arrested and eradicated, there will be a reduction in the incidence of morbidity and mortality related to obesity, thereby leading to improved patients' outcomes and a decrease in the population's economic waste. This leads to positive change.

Summary

In summary, this section reviewed the practice health problem (obesity), which was defined as a body mass index > 30 kg/m2 (Burke & Heisler, 2015). Obesity results from a prolonged imbalance between energy intake (food intake) and energy expenditure

(basal metabolism, physical activity, and thermogenesis) and manifests itself physiologically as the excessive storage of triglycerides in adipose tissue (Burke & Heisler, 2015). The section reviewed the contributory risk factors to obesity, as well as the management. It also looked at obesity globally and locally, narrowing it down to Maryland as a state and the Mid-Atlantic States as a city. The explicit application of toward a middle-range theory of weight management by Pickett was reviewed, and the steps of the model to attain weight loss such as weight management behaviors, weight management agency, weight contextual factors, and weight control were noted (Pickett, Peters, & Jarosz, 2019). Finally, the section pointed out the roles of the DNP student as they align with AACN essentials and the Walden University mission leading to the approaches to attain the goal of staff's perception of the obesity prevention/management guideline that will lead to weight loss. A further explanation will be in the next section.

Section 3: Collection and Analysis of Evidence

Introduction

The practice-focused problem addressed in this project was to evaluate the staff perception (awareness and understanding) regarding the USPSTF guidelines in managing overweight and obesity in young adult females, ages18 to 25, at the outpatient clinic in Northeastern Mid-Atlantic states. Obesity is common among young people in the United States and can be defined as a BMI of 30 or more (AHRQ, 2017). Among the most prevalent noncommunicable diseases, obesity is reported as a significant problem for the general population and, therefore, represents an important public health issue. Poor diets, economic status, and lack of physical activity are the main factors contributing to overweight, obesity, and Type 2 diabetes (AHRQ, 2017). Brinkworth et at. *(*2004) posited that the prevalence of obesity is increasing at a rapid rate in industrialized countries, and has become a major public health problem, with significant implications for morbidity, mortality, and socioeconomic cost. Consequently, there is a critical need for effective weight reduction and maintenance strategies to combat this growing epidemic. This project was concentrated on the evaluation of the staff's perception of the evidenced-based educational program (EBP) on weight reduction among young adult females diagnosed with obesity. The purpose of the project was to evaluate the staff's perception of the EBP weight reduction program in decreasing the overweight and obesity in young female adults, ages18 to 25, at an outpatient clinic in a Northeastern Mid-Atlantic state. I observed that young female adults in this clinic had knowledge deficits secondary to the absence of education by informed nursing staff on evidence-

based approaches to teaching about the management of obesity, which exposes the younger female adults to the risk of obesity. Therefore, it was tied together with the lack of provision of obesity management education by the nursing staff, which I observed during my stay at the clinic. According to the AHRQ, behavioral interventions have a statistically significant effect on weight loss (on average 6% decrease of baseline weight (4 to 7 kg [8.8 to 15.4 lb.]), which is clinically significant (AHRQ, 2017). Furthermore, the USPSTF (2019) posited that effective intensive behavioral interventions were designed to help participants achieve or maintain a ≥ 5% weight loss through a combination of dietary changes and increased physical activity. Behavioral interventions include a reduced-calorie diet, increased physical activity, and behavioral therapy. Therefore, a quality improvement weight reduction program was implemented at the project site and the data was evaluated to determine whether a staff education program would increase awareness and understanding of how the staff perceives the guidelines as appropriate to implement to increase healthy behaviors that will lead to weight reduction among the female adults with obesity through pre and postquestionnaires of the 13 staff participants in this outpatient clinic weight loss educational program.

The public health problems of obesity have increased globally, and its effects are felt globally, nationally, and locally. According to Silveira (2018), the magnitude of obesity has peaked globally, and of the worldwide population, a third of the U.S. population is obese. This magnitude has created some unwanted medical issues and expenditures that some states had made a tremendous move in combating the issue. This move was made due to the result of the U.S. Census of 2018, which indicated that 33.3%

of Mid-Atlantic state populations are obese. Obesity had continued to increase, especially among African Americans. Based on this, there was an interventional program set to reduce and eradicate obesity in the area. Falling in line with the Baltimore view on the obesity epidemic and its health-related effects, my project clinic site was not far from this epidemic zone. The project clinic was situated at the heart of the Mid-Atlantic city, and the patients in this project site were made up of Blacks/African Americans, Latinos, Native Americans and a few Hispanics. These overweight/obese females were in communities where the physical activities and lifestyle modifications were limited, which meant their likelihood of losing weight without staff knowledge and skills in obesity management was low (Lagarrigue, et al., 2017). Due to the economic level of the population, the area was surrounded by fast-food restaurants and corner minimarts/shops. The population in this area depends on these neighborhood stores for their daily bread.

Therefore, the primary approach for achieving weight loss in this population was a therapeutic lifestyle change, which includes an educational program on reduction in energy intake and an increase in physical activity and behavioral modification (Clark et al., 2004). AHRQ (2017) further suggested that obesity can also be approached with the implementation of successful programs that include information about a healthy diet, safe exercising, and reading food labels; advice and strategies for limiting access to tempting foods and limiting screen time; goal setting; self-monitoring; rewards; problem-solving; and supervised physical activity sessions (AHRQ, 2017). However, to increase the awareness and understanding of the measures to manage obesity in this clinic, a panel of 13 clinic staff was voluntary. Even though they were voluntary, they still had to meet the

qualification to participate in program such as being male or female, working at the clinic, and living at the Northeastern part of the city. The panel evaluated the program using a 5-item, Likert-style questionnaire covering the 5 objectives of the program. Six weeks of the evidenced-based weight reduction educational program was evaluated to determine the experts' opinion on the program. Because that the project is determining its effectiveness on outcome, the collection of data, and analyzing of the data evaluated the staff perceptions of the clinic's education program in the weight reduction following the application of the established guideline.

However, there was more attention to the pre-knowledge base assessment before the process and post-knowledge assessment at the end of the staff weight reduction educational program that was measured through pre and post quetionnaires. This was necessary for helping the me to evaluate the staff and the perception (awareness and understanding) of the weight reduction program on the staff members who participated in a program for the period of 6-weeks under the application of the USPSTF weight management program guideline before and after the program. Finally, there were five-questions, five-point Likert scale evaluation questionnaires used to solicit professional opinions on the guidelines. The questionnaires were shared with the 13clinic staff (two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist) and they were asked to evaluate the objectives of the proposed staff education weight reduction guideline according to USPSTF guidelines. The questionnaires were scored based on the following responses: 5 = *strongly agree*, 4= *agree*, 3=*undecided*, 2 = *disagree*, and 1 = *strongly disagree*. There was an opportunity

for them to make their comments, suggestions, and recommendations on the guideline. There were post summative response data from participants of the program, which were not only helpful in revealing the perception of the appropriateness of the program but also helpful in providing the area of improvement in retaining and participation in future programs for the health problem.

Population and Sampling

The sampling method that was appropriate for this project was purposive sampling. Purposive sampling is a fit for the project because, according to Lee-Jen et al., (2014), project students who use this technique carefully select subjects based on study purpose with the expectation that each participant will provide unique and rich information of value to the project. As a result, the members of the accessible population are not interchangeable, and the sample size is determined by data saturation, not by statistical power analysis (Lee-Jen et al., 2014).Therefore, the participants of 13 clinic staff (two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist) were selected based on the requirements below for the educational program to determine if it will increase the staff's perception (awareness and understanding) of USPSTF guidelines for weight management that will lead to the populations' weight reduction. Six weeks of evidenced-based weight reduction educational program were evaluated to determine the expert's opinion on the program. The group was provided with a planned educational program consisting of information regarding nutrition, a healthy diet, physical activities, safe exercise, and goal setting. The

qualifications for participation were evaluated by the project team. The requirements were decided by the DNP student and based on the following:

- The participants were male and female.
- The participants lived in the Mid-Atlantic City area of MD and worked at the outpatient medical clinic at the time of the project.
- They were black /African American, Latino, and Hispanic.
- They were medical personnel or considered experts(two doctors, two nurse practitioners, one RN, two LPN, two CMAs, two CNAs, one dietician, and one physical therapist)
- They are voluntarily agreed to participate.

Data collection:

The collection of data was another phase of the project. Data collection is the process of selecting subjects and gathering data from them (Gary et al., 2017). I evaluated the effectiveness of the weight reduction educational program using the feedback from the clinic staff which consisted of two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist that participated in the 6 weeks weight reduction educational program. This was obtained from a five-question, five-point Likert scale evaluation questionnaire from the staff following the educational sessions to solicit the professional opinions on the weight reduction program using the USPSTF treatment recommendation guidelines in the care of young adult female patients at the outpatient medical clinic. The questionnaires were shared with the 13 participants (staff), and they were asked to evaluate the objectives of the proposed

weight reduction program based on USPSTF guidelines. The scoring of the questionnaire was based on the following responses: 5 = *strongly agree*, 4 = *agree*, 3= *undecided*, 2 = *disagree*, and 1 = *strongly disagree*. There should be an opportunity for the participating staff to leave comments, recommendations, and suggestions for further program improvement. Before the collection of the data, I obtained the approval of the IRB of Walden University as well as approval from the clinic administration. Walden University's ethics approval number for this study is 09-04-20-0982466.

Practice-Focused Question

Obesity, as a chronic disease, is the leading source of health care costs in Maryland, both in terms of direct costs such as hospitalizations, medications, and clinic visits; and indirect costs such as early death and productivity loss (Maryland Department of Health and Mental Hygiene DHMH,2020). There are overwhelming adverse outcomes associated with obesity among young female adults at the outpatient medical clinic in the Northeastern Mid-Atlantic state. I observed that young female adults in this clinic had knowledge deficits secondary to the absence of education by informed nursing staff on evidence-based approaches to teaching about the management of obesity with this population, thereby exposing the younger female adults to the risk for obesity. Therefore, it was tied together with the lack of provision of obesity management education by the nursing staff, which was observed during my stay at the clinic. Unfortunately, according to AHRQ (2017), staff inadequacy training plays a great role in hindering the combat of obesity in this population. This inadequacy training can be resolved by providing professional and organizational support and training.

Consequently, this was the right time for this program to come in and bridged the gap at this local clinical project site since the staff was observed to have poor understanding/skills/knowledge in obesity management, which was indicated as a gap in this clinic. This project addressed the following practice-focused question: "Are there any changes in perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding, and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the clinic staffs after participation in the 6 weeks staff educational program using the United States Preventive Services Task Force (USPSTF) behavioral interventions guidelines at the outpatient medical clinic in Northeastern Mid-Atlantic state? Strong evidence suggests that obesity is associated with increased morbidity and mortality and that weight loss in obese persons reduces important disease risk factors (Lyznicki et al., 2001). Therefore, the purpose of the project was to evaluate the staff's perception of the EBP weight reduction program in decreasing the overweight and obesity in young adults, ages18 to 25, at an outpatient clinic in the Northeastern Mid-Atlantic states.

Sources of Evidence

Review of some studies had proved that weight loss intervention had great effects on both the population's health and its organizational economic status. Therefore, the USPSTF had recommended that primary care clinicians screen all adults for obesity and provide those affected with intensive multicomponent behavioral interventions (Wadden et al., 2020). As a result, all primary care clinicians (PCP) have been encouraged by the USPSTF and the Centers for Medicare and Medicaid Services (CMS) to offer intensive

behavioral treatment (IBT) to all patients with obesity, either directly or by referral. This is because there was strong evidence from prospective studies showing that weight loss by obese individuals improves long-term morbidity and mortality. A reliable review from the National Health Service (NHS) UK (Ian & Aitkaterini, 2008), had found that behavioral interventions, combined with diet and exercise, appeared effective, and that long-term maintenance strategies were useful in the management of obesity. Similarly, Moyer (2012) posited that USPSTF found adequate evidence that intensive and multiple behavioral components interventions for obese adults have the tendency of weight reduction of 4 to 7 kg (8.8 to 15.4lbs), which is associated with improvements in health and quality of life (Moyer, 2012). In addition, these interventions affect the diabetic individual through the improvement of glucose tolerance and other physiologic risk factors for cardiovascular disease.

Another credible review of the interventional guideline set by AHRQ (2017) revealed that the behavioral interventions also showed a reduction in diabetes incidence, declines in glucose levels in prediabetic patients, reductions in diastolic and systolic blood pressure, and decreases in waist circumference. In assessing the mental effect of the weight loss on the obese population, moderate weight loss is associated with reduced symptoms of depression in participants who had moderate or greater depression at the start of the interventional program. Furthermore, Wadden et al. (2020) stated that high intensity lifestyle modification programs can help individuals with overweight and obesity lose 5%–10% of initial weight to achieve clinically meaningful improvements in multiple health outcomes. Conclusively, weight loss in obese individuals is associated

with a lower incidence of health problems and death (Moyer, 2012). Optimistically, the evaluation of the intervention helped to determine if the weight reduction practices/program applied at the outpatient clinic at Northeastern USA, as guided by USPSTF, promoted staff awareness/understanding /knowledge /skills that would lead to weight loss in this context; and might be considered a possible way to lead to positive change in the service population's behavior and improve their quality of life and other outcomes. A comprehensive literature review was performed using multiple database search engines to identify interventions that could be effective for improving obesity management. I utilized the most credible sources such as PubMed, MEDLINE, CINAHL, EBSCO, and GOOGLE SCHOLAR. Consequently, the evidence I obtained from the sources were applied to this DNP project as relevant literature on an intervention regarding the treatment, management, and prevention of obesity and its related health issues in the primary care setting.

Analysis and Synthesis

Considering the nature of this project**,** it was aimed at examining the effectiveness of USPSTF education program guidelines in increasing awareness and understanding in the clinic staff for weight reduction channeled by toward a middle range theory of weight management by Pickett (Pickett et al.,2019). AHRQ (2017) posited that effective primary care-based interventions showed that behavioral interventions have a statistically significant effect on weight loss (on average 6% decrease of baseline weight (4 to 7 kg [8.8 to 15.4 lb) and that the elements present in behavioral interventions-a reduced-calorie diet, increased physical activity, and behavioral therapy- present adequate

intervention for combating the obesity epidemic. The interventional program can be completed when its outcome is evaluated; therefore, the program was evaluated following the response from the five-question, five-point Likert scale evaluation questionnaire. The proposed Mid-Atlantic state clinic weight reduction program objectives were presented to an expert panel of 13 staff involved in the clinical practice of young adult females' obesity treatment and management. Ultimately, the accurate collection and analysis of the data are very necessary to measure, evaluate, and assess program effectiveness. This helped to determine if the program was effective in increasing the staff's awareness/understanding of the guidelines that deserve merits or are worthy of application to other areas/facilities-generalizability. Therefore, to accomplish that, the DNP student, at this point serving as a leader throughout the project process, had the following data collected and analyzed in this project following the approvals of the Walden University IRB and outpatient clinic's representatives.(a) The pre and post program responses of each of the staff participants (two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist) in the weight-loss program at the same outpatient clinic (b)compare their pre and post responses.

However, the collection of the post response from the staff participants in the program is very necessary for measuring the increase awareness/understanding/ knowledge/skills on physical activity, dietary education, and behavioral therapy in weight reduction and lifestyle modification for the young adult females at the clinic. I calculated the collected data and analyzed it using descriptive analysis technique of Wilcoxon (see

Table 2 & Figure2). This was appropriate for the project because descriptive analyses are generally useful in any situation where a detailed specification of a single product or a comparison of the sensory differences among several products is desired. Furthermore, this technique is ideal for self-testing and is frequently used in product development to measure how close a new introduction is to the target or to assess the suitability of the products to the targeted population. This helped the DNP student, clinic administrators, and people of interest in determining the effect of the program on increasing the staff's understanding/awareness of the guidelines that would lead to the weight reduction among the obese population.

Summary

In summary, obesity-which is defined as having a BMI of 30 or more-is a common disease among young adults in the United States (Agency for Healthcare Research and Quality, 2017). The main factors that influence this common disease are poor diets, economic status, and lack of physical activity (AHRQ, 2017). This project was created to address the overweight and obesity problem plaguing young female adults, ages 18 to 25, at the outpatient clinic in Northeastern Mid-Atlantic states following the USPSTF guidelines. The project clinic was situated at the heart of the Mid-Atlantic city, and the patients in this project site were made up of blacks/African Americans, Latinos, and a few Hispanics. The practice-focused question of determining whether there are any changes in perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding, and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the

clinic staff consisted of two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist after participation in the 6 weeks staff educational program using the USPSTF behavioral interventions guidelines at the outpatient medical clinic in Northeastern Mid-Atlantic state was addressed using purposive sampling. The participants in the program were picked based on qualifications determined by the DNP student and by the expectation that each participant would provide unique and rich information of value to the project. The purpose of the project was to evaluate the staff's perception of the EBP weight reduction program in decreasing the overweight and obesity in young adults, ages 18 to 25, at an outpatient clinic in the Northeastern Mid-Atlantic states.

This project was necessary because the staff at the outpatient clinic was observed by the student to have poor awareness/understanding/skills/knowledge in obesity management, which was indicated as a gap in this clinic. Since the young female adults being treated were in communities where the physical activities and lifestyle modifications were limited, the likelihood of losing weight without staff awareness / understanding and skills in obesity management among these individuals was low (Lagarrigue, et al., 2017). As a result, it was crucial to develop a program that could help eradicate the obesity and overweight problem in the area (Lagarrigue et al., 2017).

As highlighted earlier, studies had proved that weight loss intervention had great effects on both the population's health and its organizational, economic status. Using intense multicomponent behavioral interventions and/or intensive behavioral treatments (IBT) could improve the long-term morbidity and mortality of obese individuals. The

nature of this project was aimed at examining the effectiveness of USPSTF education program guidelines in increasing awareness and understanding in the clinic staff for weight reduction conducted using the toward a middle-range theory of weight management by Pickett (Pickett et al., 2019). In following the evaluation of the program, determined by the five-question, five-point Likert scale evaluation questionnaires of the 13 staff involved in the clinical practice of the young adult females' obesity treatment and management, I analyzed the collected data using descriptive analysis technique of Wilcoxon to compare the pre and post responses of the staff participants. This method was used to assess the suitability of the products to the targeted population and to determine the effect of the program on increasing the staff's understanding/awareness of the guidelines leading to weight reduction among the obese population.

Section 4: Findings and Recommendations

Introduction

The local health problem addressed in this project was the incidence of young adult female obesity observed at the outpatient clinic in a Northeastern Mid-Atlantic state/city during my personal communication with the clinic staff. Obesity is common among young people in the United States and can be defined as a BMI of 30 or more. Among the most prevalent noncommunicable diseases, obesity is reported as a significant problem for the general population; and therefore, represents an important public health issue. The staff in this clinic were observed to lack-skills/awareness/understanding of obesity management through their discharge instructions, which was indicated as a gap in this clinic. Staff inadequacy training plays a great role in hindering obesity in this population. However, this inadequate training issue can be resolved by providing professional support, organizational support, and training. Consequently, the staff education program was offered to bridge the gap at this local clinical project site, where the staff had inadequate training/knowledge/understanding in obesity management.

Overview

The purpose of this DNP project was to evaluate the perception (awareness and understanding) of the clinic staff on USPSTF guidelines for weight reduction in decreasing the overweight and obesity in young adult females, ages 18 to 25, at an outpatient clinic in a Northeastern Mid-Atlantic state. This project will help to identify staff perception and willingness to implement this education plan to promote weight loss in this context. This program's aim was to increase staff knowledge, awareness,

understanding, and skills to improve population behaviors, their quality of life, and other outcomes. The question for this project was: Are there any changes in perception (improved awareness of the importance of teaching patients population about behavioral interventions, understanding and having confidence in using guidelines and feeling prepared to engage with patients using guidelines) among the clinic staff after participation in a 6-week staff educational program using the United States Preventive Services Task Force (USPSTF) behavioral interventions guidelines at the outpatient medical clinic in a Northeastern Mid-Atlantic state? Numerous nursing students agree that evidence-based nursing care can improve patient outcomes and is the optimal approach to patient care. This section of the project is the description of how the method chosen to deliver the educational project guaranteed credibility and feasibility of the staff education program using USPSTF recommendation guidelines. The finding which indicated that an expert panel would support and approve the use of the younger adult female obesity education program for the targeted clinical staff and other staff in other clinics and hospitals from the project; reflect a descriptive analysis of the data collected that were based on the learning objectives for USPSTF guidelines. Generally, the evidence-based practice USPSTF recommendation guidelines on younger adult female obesity were presented as a PowerPoint and would be implemented by the staff after my graduation. This supports their need as providers of health care for enhanced understanding, awareness, and improved knowledge in their treatment, management, and prevention of younger adult female obesity within the outpatient medical clinic in the Northeastern Mid-Atlantic state/city. Lastly, this section bestows the outline of the

USPSTF educational guidelines for the clinic staff to execute in the future. The finding from this DNP project indicated that staff education can improve a patient's health status and other outcomes at the outpatient clinic in this area. The panel of 13 experts two doctors, two nurse practitioners, one RN, two LPNs, two CMAs, two CNAs, one dietician, and one physical therapist reviewed the content and learning objectives established for the EBP USPSTF recommendation guidelines on younger adult female obesity and provided pre and postfactual responses, suggestions, and recommendations to be examined in the future development of USPSTF recommendation guidelines. The expert's responses and recommendations guided me to emphasize the application of USPSTF educational guidelines to help the younger adult female achieve their goal of weight loss and improve their health outcomes, and to reduce global health care expenditures.

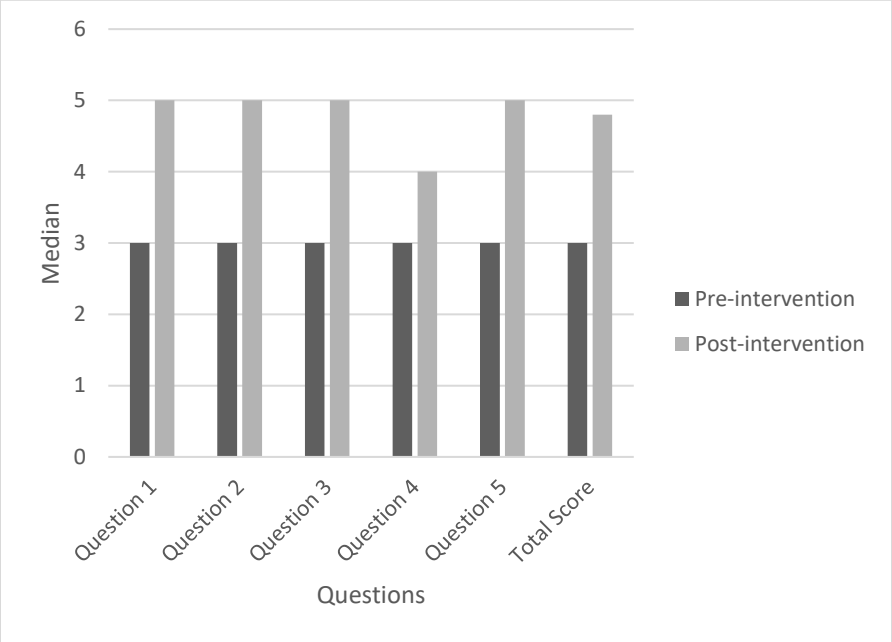
Findings

The data for the DNP project was extracted from a pre and posttest taken by the 13 clinic staff who participated in 6-week weight loss educational program for young adult female obesity. The 13 panel was instructed to respond to questions that were created to appraise the feasibility of the learning objectives established for the EBP USPSTF guidelines on young adult female obesity. The panel anonymously provided pre- assessment feedback on the feasibility of the EBP USPSTF guidelines objectives (Appendix C) before the presentation, which indicated that most of the participants were not sure of the merit and the ability of the program to give rise to weight loss. Therefore, a majority responded undecided.

Following the presentation of the USPSTF guidelines for obesity management through the Power Points, the undecided response at the pre-assessment had improved and changed to agree or strongly agree through the post questionnaire, given to the same 13clinic participants to share their opinion (Appendix D) on the objectives of the guidelines. Responses to the questionnaire indicated that the USPSTF guideline would be a useful tool to inform and assess the identified learning objectives. Furthermore, the 13 participants' responses also indicated that the USPSTF guidelines were well received and credible, which provided support that the USPSTF guidelines would provide an informative educational program for the clinic staff. Finally, in comparing the pre and post questionnaire responses (Figure 2), the evidence-based guideline has the potential to enhance staff's awareness and understanding and give them the ability to apply EBP knowledge to the care of younger adult females with obesity.

Figure 2

Comparison Pre & Post Participant's Questionnaire Responses



In summary, the panel's responses to the five Likert style questions that were included in the 13 Panel Feasibility Survey showed that the USPSTF recommendation guidelines were: (a) relevant to improving patient outcomes (n = 13, M = 4.7); (b) important to enhancing and improving North Eastern Mid-Atlantic outpatient clinic staffs' clinical practice and range of skills (n = 13, M = 4.7); (c) significant to increase the use of an underutilized approach to patient care (n =13, M =5); (d) an appropriate way to enhance the management/measurement skills required of the North Eastern Mid-Atlantic outpatient clinic staff (n = 13, M = 4.5); and (e) pertinent to the goal of reducing the incidence of obesity among younger adult female receiving health care in the North Eastern Mid-Atlantic outpatient clinic (n = 13, M = 4.7). In conclusion, the project

findings indicated that the USPSTF weight loss recommendation guideline has the ability to increase the staff awareness and understanding of obese management that can reduce the younger adult female obesity weight, improve their health outcomes, and reduce health care costs.

Statistical Methods

The five survey items were compared across time individually, as well as when the five items were summed together and divided by the number of items to yield a total score. Due to the violation of normality for several of the five survey items and the total score at both pre-education and post-education, non-parametric Wilcoxon tests were used to test for significant change across time in the individual items and the total score. Wilcoxon tests are robust to violations of the statistical assumption of normality (versus traditional repeated-measures t-tests, which require the assumption of normality to be met for all observations of an outcome), as well as for small samples sizes (n = 13 for the current project). Medians and interquartile ranges were reported and interpreted for the non-parametric analyses. Statistical significance was assumed at an alpha value of 0.05 and all analyses were performed using SPSS Version 26 (Armonk, NY: IBM Corp.)

Statistical Results

The Wilcoxon tests found statistically significant increase in respondent values from pre-test to post-test for Question 1, $p = 0.003$, Question 2, $p = 0.001$, Question 3, $p < 0.001$, Question 4, $p = 0.002$, and Question 5, $p = 0.001$. There was also a statistically significant increase in the total score from pre-test to post-test, $p = 0.001$. The medians and interquartile ranges for the Wilcoxon comparisons are presented in Table 2.

Table 2

Medians and Interquartile Ranges

Outcome	Pretest	Posttest	*p*-value
Question 1	3 (3-4)	5 (4-5)	0.003
Question 2	3 (3-3)	5 (4-5)	0.001
Question 3	3 (3-3)	5 (5-5)	< 0.001
Question 4	3 (3-3)	4 (4-5)	0.002
Question 5	3 (3-3)	5 (4-5)	0.001
Total Score	3 (3-3.2)	4.8 (4.6-4.8)	0.001

Note. Values are median (interquartile range).

Implications

There are several implications resulting from this project, which indicated the efficacy of USPSTF guidelines in managing obesity. The project promoted positive social change through increased staff knowledge/awareness/understanding of the USPSTF clinical practice guidelines targeted for managing obesity among younger adult females to improved population health. The findings indicated that the clinic staff would support and approve the use of the young adult female obesity education program as set by the USPSTF guidelines for the targeted clinic and other surrounding clinics and hospitals. The results also showed the potential influence the USPSTF guidelines can have on the clinic staff's management of obesity found in young adult females seeking health care in the Northeastern Mid-Atlantic state clinic. Furthermore, the DNP project has implications

for social change and factors that contribute to the social determinant for this population, such as socioeconomics, physical inactivity, and unhealthy foods. Therefore, the social implication for social change is the clinic staff's application of EBP USPSTF guidelines in the care practice for the population, which can indirectly or directly improve the social factors responsible for obesity among the young adult females not only living in the part of the city where the clinic is located but globally. Finally, another implication is the enhancement of healthcare providers' understanding of the significance of weight management and the long-term follow-up studies that focus on the public health implications of weight management. My DNP project has implications for both the staff and the population because by using an evidence-based approach of USPSTF, which include interventions such as behavioral therapy to change diets, increase physical activity, and change other habits and behaviors that promote weight loss, there is potential to reduce these economic and health burdens resulting from obesity. This will increase and improve the quality of life and decrease global health expenditures.

Recommendations

This project's findings suggested that the USPSTF guidelines are important to improve the Northeastern outpatient staff's clinical practice and their range of skills and understanding. Future studies are needed to examine the validity of similar programs using a larger sample size of greater than a13 person expert panel and to extend it to the staff of other clinics and hospitals. This project also suggests an extension of such weight-loss educational programs to more than 6 weeks to allow future participants more

time to become more accustomed to the demands of the weight-loss program and to be responsible for helping the obese patients in combating their health issues.

Contribution of the Doctoral Project Team

For any successful project, project team involvement is essential. The project team comprises the quality improvement director, clinic manager and project director. The project director periodically reviewed verbal responses from the staff, which enabled the me to make needed adjustments during the program presentation and reviewed the participant's compliance with the program. The clinic manager acted as a middle person between myself and clinic staff by re-enforcing the need for participation. The qualification for participation was evaluated by the project team and approved for the data collection. Finally, the project team took responsibility and made available the participants (clinic staff) for the project even though they were clinic staff. They supported the project from the introductory phase to the dissemination of the results.

Strengths and Limitations of the DNP Project

The most significant strength of the project was that the project provided a specific obesity management guideline as recommended by USPSTF for clinic staff that provided health care in settings that are more accessible to the younger adult female population. Significance finding at $p = 0.001$ on table #2 shows the strength of change.

One significant limitation was how this project was conceptualized to only examining the perception of the clinic staff on USPSTF weight-loss guidelines without paying attention to the medical issues related to obesity, even though various pieces of literature enumerated numerous diseases resulting from obesity. Therefore, it would have

been a great idea to look at the program's effects on the BMI, high blood pressure, HA1C, and other blood work associated with the patients to determine a more comprehensive impact of the program on the struggle to combat obesity. This can be implemented at a later time by the clinic staff post student graduation.Another limitation was the number of staff. It would have yieled better outcomes with larger number of participants compared to the small size of 13.

Section 5: Dissemination Plan

Dissemination can be seen as a planned process that involves the consideration of target audiences and the settings in which research findings are to be shared and received; and where it appropriates, communicates, and interacts with wider policy and health service audiences in ways that will facilitate the research uptake in decision-making. One way to disseminate my project findings is through publication in ProQuest/UMI with the approval of the Center for Research Quality. After approval, this study will be available at the Walden University Library and accessible to other students that are working with obesity as a medical health issue. Furthermore, the findings can also be disseminated by providing the study site's administrators access to the USPSTF guidelines on younger adult female obesity-developed in a PowerPoint presentation along with an explanation of its purpose and learning objectives. Finally, another opportunity to present the project would be at annually held conferences such as Director of Nursing Practices, American Association of Nurse Practitioners, and the National Association of Nigerian Nurses in North America (NANNNA).

Analysis of Self

As a DNP student, I started this journey in Summer 2018 and it has been rigorous and challenging but rewarding at the end. This had been my longtime goal and I am glad to achieve it. This DNP project had created an opportunity for me to fully understand the consequences of obesity and comorbidities that are detrimental to human lives. From the knowledge acquired during this program, both from the project and experiences from practicum, I was able to understand the impact of obesity in the life of individuals and

was able to talk about it and think about the measures to address the health problem. Improvement of patient care outcomes is the goal of any practice care, and that should be achieved through joint efforts of all the professionals. With the education of both the stakeholders and other professionals on the need to manage obesity, the consequences of obesity and the benefits of losing weight- both for the patients, facility, and the world in general- should create a change in the patient care outcomes. According to the American Association of Colleges of Nursing (2006), nursing as a practice profession requires both practice experts and nurse scientists to expand the scientific basis for patient care. However, scholarship and research are the hallmarks of doctoral education, and nurses have long recognized that scholarly nursing practice is characterized by the discovery of new phenomena and the application of new discoveries in increasingly complex practice situations (AACN, 2006). Based on the above identifying benefits of practice doctoral programs, the practicum experiences that were capped with the project helped me in developing advanced competencies for tackling complex practice, as well as increasing my leadership skills to strengthen practice and health care delivery in my future. Finally, these experiences have enhanced my knowledge to improve nursing practice and patient outcomes because it was built on previously acquired knowledge, before embarking on the DNP program. This is because, according to AACN (2006), the DNP degree is built upon the generalist foundation acquired through a baccalaureate or advanced generalist Masters in nursing.

Summary

Obesity is common among young people in the United States. It is marked as an important predictor of higher health care costs among the adult population and poses great health-related problems to the young adult female; furthermore, obesity is a significant financial/economic burden to the community, the healthcare system, and the entire society. The issue was combated through the application of the USPSTF guidelines on the clinic staff. Increasing the staff awareness and understanding of younger adult female obesity management and the clinical practice skills in the study site not only facilitates the translation of evidence to practice but promotes social change through reduced health care cost. Furthermore, this project is relevant to nursing practice because it creates an important structured program to follow in supporting patients with weight loss within a holistic assessment of their needs. Finally, this project suggests an extension of such weight-loss educational programs to more than 6 weeks to allow future participants more time to become more accustomed to the demands of the weight-loss program and to be more responsible in helping the obese patients in combating their health issues.

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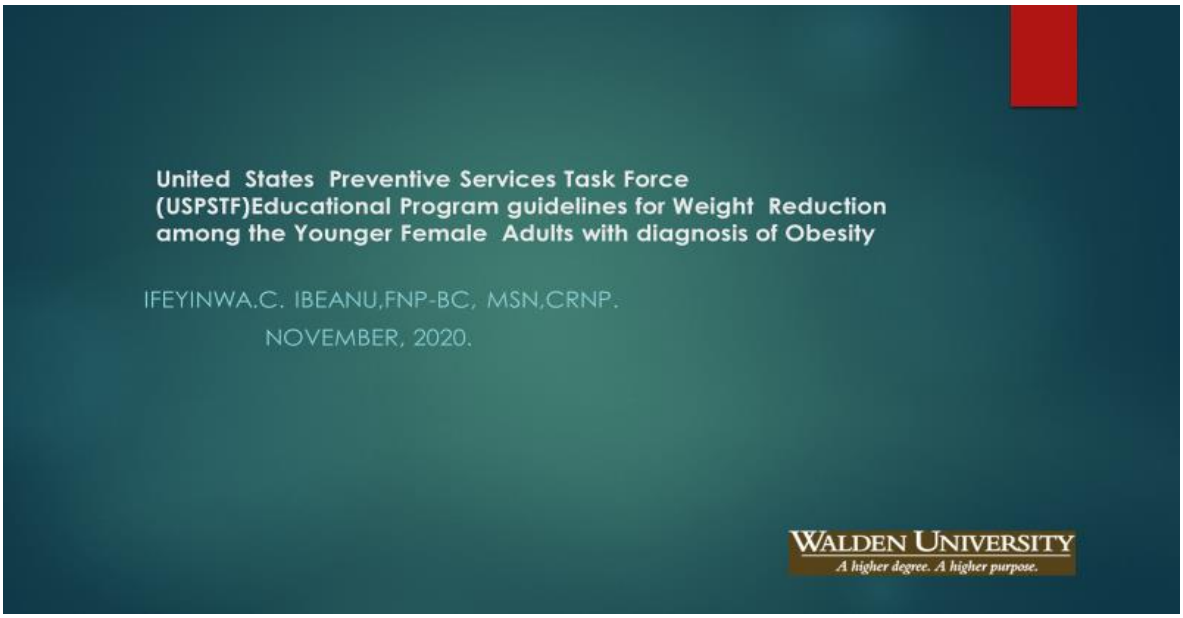
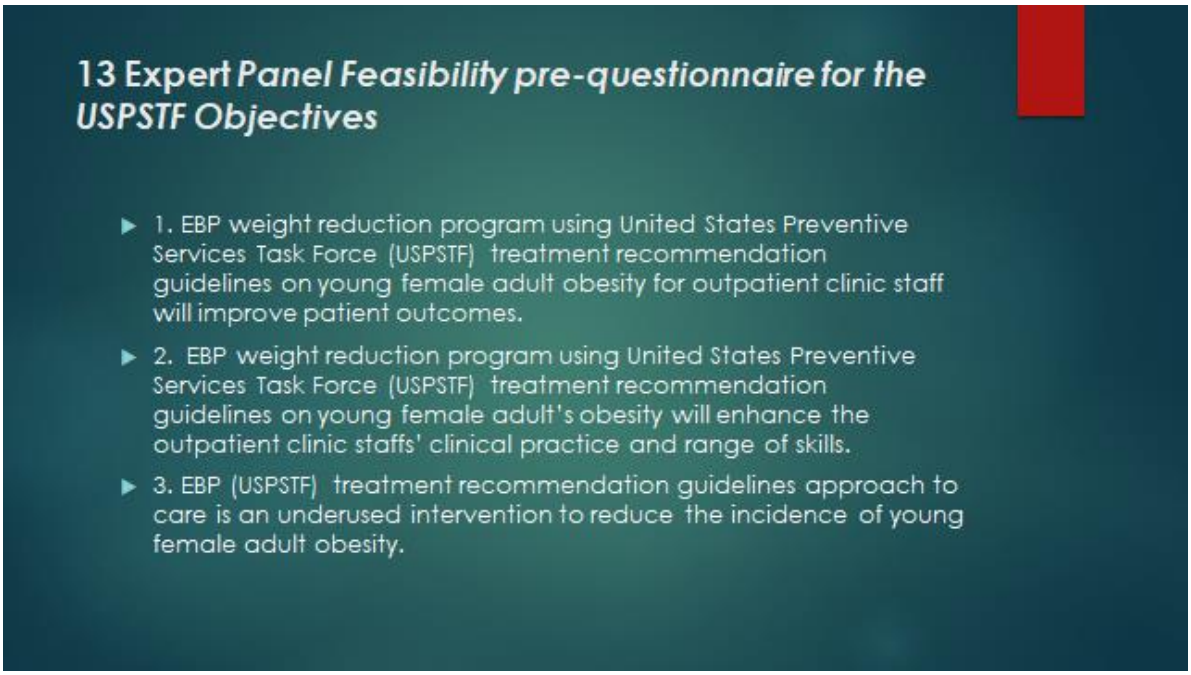
Appendix A: USPSTF Guideline Staff Education PowerPoint Presentation





13 Expert *Panel Feasibility pre-questionnaire for the USPSTF Objectives* cont'd

- 4. EBP USPSTF treatment recommendation guidelines on young female adult obesity can enhance the BMI measurement and calculation skills of Outpatient clinic staff.
- 5. EBP staff education on young female adult's obesity can reduce the incidence of this disease among patients receiving health care in outpatient clinic.

Note. Scoring Key: 5= *Strongly Agree*, 4= *Agree*, 3= Undecided, 2= *Disagree*, 1= *Strongly Disagree*. Questions 1-5 are of equal weight on 5-point type Likert scale

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Objectives

Upon completion of the USPSTF guidelines educational program , the staff would be able to:

- Review younger adult obesity .
- List classification of obesity .
- List risk factors for obesity.
- List Comorbidities resulted from obesity.
- Discuss guidelines and recommendations for treatment , management and prevention of younger adult obesity per USPSTF .

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Obesity

- Abnormal or excessive fat accumulation that presents a risk to health and is classified by body mass index (BMI).
- Body mass index (BMI) of 30.0 or higher = obese, BMI of 25.0–29.9 =overweight.
- Among 2.1 billion people, 30% of the world's populations are overweight or obese.
- By 2030 up to 57.8% of adults in the world would suffer from being overweight or obese
- World rate of obesity will reach 13 percent by the next decade.

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Classification of obesity in adults based on B MI (kg/m2)(Purnell ,2018

Underweight	≤18.5
Healthy/normal weight	18.5–24.9
Over weight (pre-obese)	25–29.9
Moderate obesity (class 1)	30–34.9
Severe obesity (class 2)	35–39.9
Morbid/extreme obesity (class 3)	≥40

BMI: Body Mass Index

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Risk factors for obesity

- Genetics:
  - May affects how the body burns fat during exercise.
  - May affect how body fat is stored.
- Family lifestyle:
  - Members share the similar eating habit and activities.
- Unhealthy diet :
  - Food high in calories.
  - Increase in fast food consumption.
  - Lack of vegetables and fruits intakes.

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Obesity risk factors cont'd

- Inactivity:
  - Decrease in physical activity .
  - Spending much time in front of TV/computers.
- Psychotropic medications :
  - Melatonin.
  - liraglutide.
  - Naltrexone/bupropion .
- Diseases :
  - Hashimoto's disease, Hypothyroidism, Cushing syndrome and Dysthymia .

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Obesity as Risk factor for Co-morbidities

Obesity is a significant risk factor for many chronic diseases:-

- Type 2 diabetes,
- Asthma,
- Cardiovascular disease such as hypertension ,
- Some cancers,
- Nonalcoholic fatty liver disease,
- Polycystic ovary disorder,
- Sleep apnea.

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Guidelines for the treatment, management and prevention of obesity

- Healthy diet-include strategies for reduced calories :–
- Vegetables,
- fruits, whole grains,
- Fat-free or low-fat dairy products.
- variety of foods with protein, including seafood, lean meats and poultry, eggs, beans, peas, nuts, seeds, and soy products.

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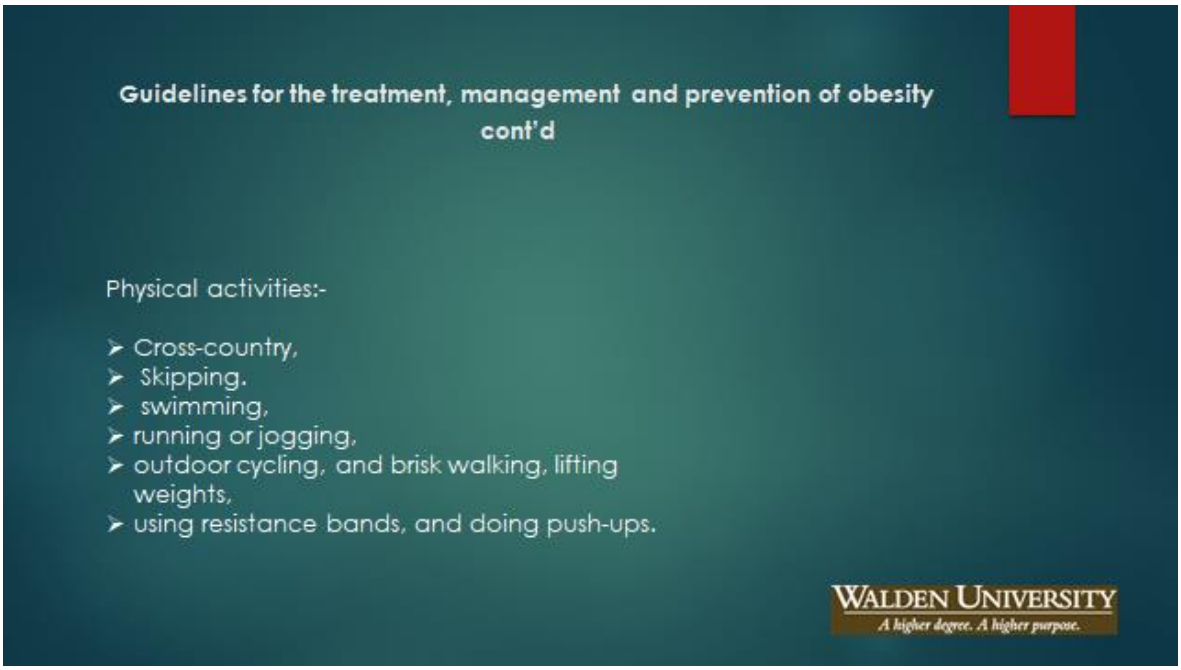
Guidelines for the treatment, management and prevention of obesity cont'd
Physical activities:-
Cross-country,
Skipping.
swimming,
running or jogging,
outdoor cycling, and brisk walking, lifting weights,
using resistance bands, and doing push-ups.
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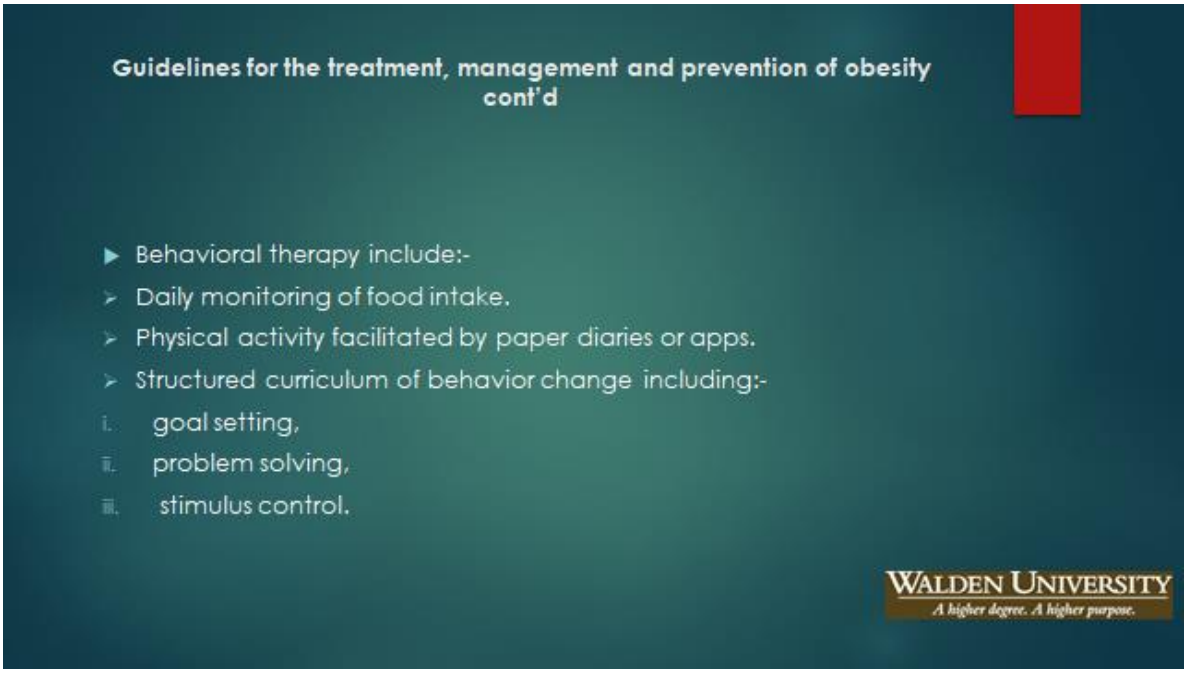
Guidelines for the treatment, management and prevention of obesity cont'd
Behavioral therapy include:-
Daily monitoring of food intake.
Physical activity facilitated by paper diaries or apps.
Structured curriculum of behavior change including:-
i. goal setting,
ii. problem solving,
iii. stimulus control.
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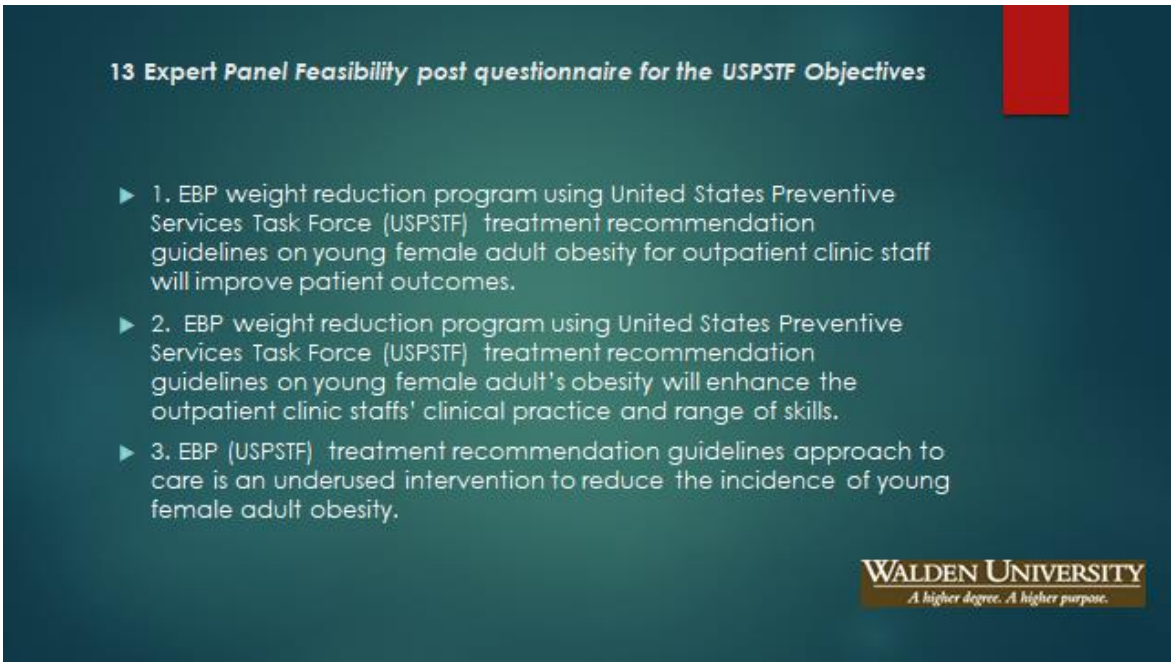
13 Expert Panel Feasibility post questionnaire for the USPSTF Objectives
1. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult obesity for outpatient clinic staff will improve patient outcomes.
2. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult's obesity will enhance the outpatient clinic staffs' clinical practice and range of skills.
3. EBP (USPSTF) treatment recommendation guidelines approach to care is an underused intervention to reduce the incidence of young female adult obesity.
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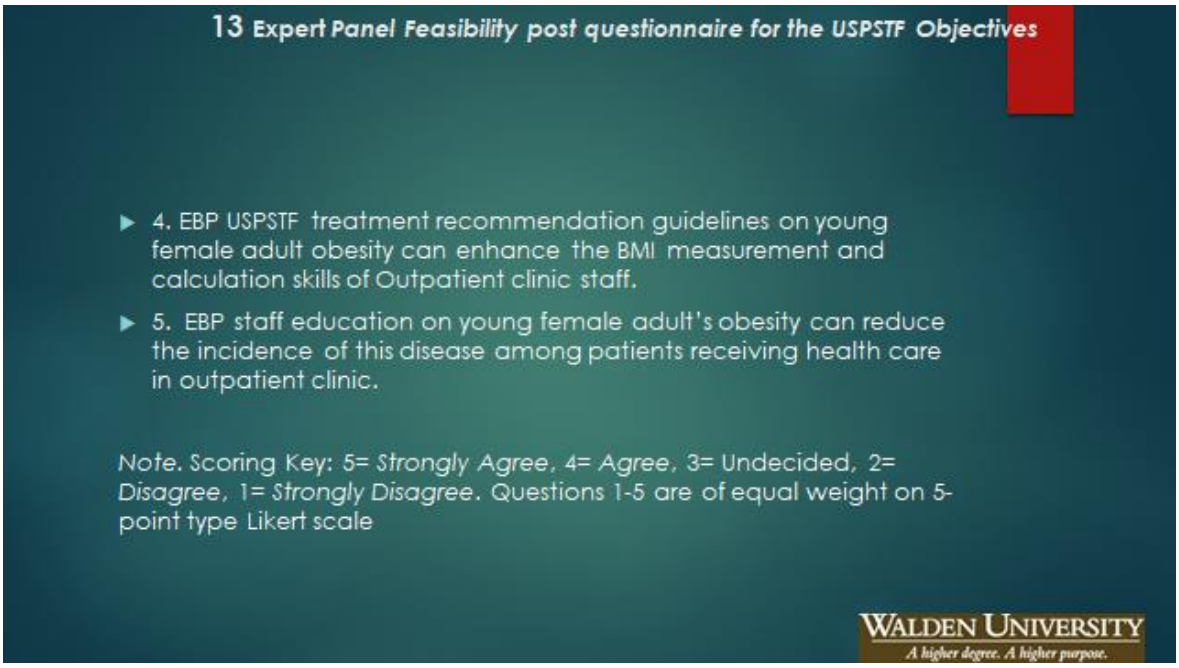
13 Expert Panel Feasibility post questionnaire for the USPSTF Objectives
4. EBP USPSTF treatment recommendation guidelines on young female adult obesity can enhance the BMI measurement and calculation skills of Outpatient clinic staff.
5. EBP staff education on young female adult's obesity can reduce the incidence of this disease among patients receiving health care in outpatient clinic.
Note. Scoring Key: 5= Strongly Agree, 4= Agree, 3= Undecided, 2= Disagree, 1= Strongly Disagree. Questions 1-5 are of equal weight on 5-point type Likert scale
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References

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- Moyer, V. A. (2012). Screening for and management of obesity in adults: US Preventive Services Task Force recommendation statement. *Annals of internal medicine*, *157*(5), 373-378.

Appendix B: DNP Project Questionnaire

1. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult obesity for outpatient clinic staff will improve patient outcomes.

5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*

2. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult's obesity will enhance the outpatient clinic staffs' clinical practice and range of skills.

5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*

3. EBP (USPSTF) treatment recommendation guidelines approach to care is an underused intervention to reduce the incidence of young female adult obesity.

5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*

4. EBP USPSTF treatment recommendation guidelines on young female adult obesity can enhance the BMI measurement and calculation skills of Outpatient clinic staff.

5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*

5.EBP staff education on young female adult's obesity can reduce the incidence of this disease among patients receiving health care in outpatient clinic.
5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*.
Comments, Suggestions and Recommendations_____
_____

Note. Scoring Key: 5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*. Questions 1-5 are of equal weight on 5-point type Likert scale.

Appendix C**:** 13 Clinic Staff Feasibility Results of prequestionnaire for the USPSTF Objectives

Questions	Score	Total	Mean response	Percentage response
1. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult obesity for outpatient clinic staff will improve patient outcomes.	5, 4, 4, 4, 3, 3, 3, 3, 3, 3, 3, 3, 3	44	3.4	68
2. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult's obesity will enhance the outpatient clinic staffs' clinical practice and range of skills.	4, 3, 3, 3, 3, 3, 3,3, 3, 3, 3, 3, 3,	40	3.1	65
3. EBP (USPSTF) treatment recommendation guidelines approach to care is an underused intervention to reduce the incidence of young female adult obesity.	4, 3, 3, 3, 3, 3, 3 3, 3, 3, 3, 3,	40	3.1	65

4. EBP USPSTF treatment recommendation guidelines on young female adult obesity can enhance the BMI measurement and calculation skills of Outpatient clinic staff.	4, 3, 3, 3, 3, 3, 3, 3,3, 3, 3, 3, 3, 3.	40	3.1	65
5. EBP staff education on young female adult's obesity can reduce the incidence of this disease among patients receiving health care in outpatient clinic.	4, 3, 3, 3, 3, 3, 3 3, 3, 3, 3, 3 ,3 .	40	3.1	65

Note. Scoring Key: 5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*. Questions 1-5 are of equal weight on 5-point type Likert scale.

Appendix D: 13 Clinician's Feasibility Results of postquestionnaire for the USPSTF Objectives

Questions	**Score**	**Total**	**Mean response**	**Percentage response**
1. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult obesity for outpatient clinic staff will improve patient outcomes.	5, 5, 5, 4, 5, 5, 5, 4, 4 4, 5, 5, 5.	61	4.7	93
2. EBP weight reduction program using United States Preventive Services Task Force (USPSTF) treatment recommendation guidelines on young female adult's obesity will enhance the outpatient clinic staffs' clinical practice and range of skills.	4, 4, 5 5, 5, 5, 5, 5, 5, 5, 5, 5, 4, 4.	61	4.7	93
3. EBP (USPSTF) treatment recommendation guidelines approach to care is an underused intervention to reduce the incidence of young female adult obesity.	5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5.	65	5.0	100
4. EBP USPSTF treatment recommendation guidelines on young	4, 4, 4, 4, 5, 5, 5, 4, 4,	58	4.5	89

female adult obesity can enhance the BMI measurement and calculation skills of Outpatient clinic staff.	4, 5, 5, 5.			
5. EBP staff education on young female adult's obesity can reduce the incidence of this disease among patients receiving health care in outpatient clinic.	5, 5, 5, 4, 4, 4, 5, 4, 5, 5, 5, 5, 5.	61	4.7	93

Note. Scoring Key: 5= *Strongly Agree*, 4= *Agree*, 3= *Undecided*, 2= *Disagree*, 1= *Strongly Disagree*. Questions 1-5 are of equal weight on 5-point type Likert scale.