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A Staff Education Project on the Administration of Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents

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Abstract

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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March 2023

Abstract

Obesity among children and adolescents has reached epidemic proportions in the United States (U.S). Nurses in pediatric settings have a critical role to play in assessing and managing childhood obesity. The partner site for this project has a childhood obesity rate of 35% compared to the national average of 19%. However, the nursing staff lacked adequate knowledge, competence, and confidence in assessing and managing childhood obesity in line with the recommended guidelines. The problem was addressed by implementing the *Clinical Practice Guideline for the Treatment of Obesity and Overweight Children and Adolescents* via an education program. The program's content was reviewed using the Lynn model by five local clinical experts on childhood obesity. The theoretical framework guiding this project was Malcolm Knowles's adult learning theory. Six registered nurses took part in the educational program. The pretest findings identified a mean between 2.9 to 3.3 with a mode of 3 indicating that the staff had inadequate knowledge and skills regarding obesity and overweight assessment. The posttest data depicted that the educational intervention met the lesson objectives. After the staff training program, the post staff training mean ranged from 1 to 1.2, with a mode of one indicating that the staff felt knowledgeable and confident in following the practice guidelines for assessing obesity and overweight risk factors. The project has the potential to impact nursing practice by promoting timely assessment and management of pediatric obesity based on recommended practices. Social change may occur when nurses assess pediatric patient for obesity and overweight status and educate them and their families about evidence-based weight management strategies.

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Dedication

This paper is lovingly dedicated to my husband and family, who stood by me throughout this time for giving me all the love, encouragement, support, and understanding during this journey. I am also dedicating this to my friends, who always encouraged me to the end. Finally, this project is for my fellow Family Nurse practitioners and Pediatric nurses for inspiring me with their resilience, patience, and dedication to our practice.

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Section 1: Nature of the Project

Introduction

Healthcare professionals play a critical role in disease prevention and management to improve the overall well-being of healthcare service users. The well-being of patients and the provision of high-quality, evidence-based care are core responsibilities for nurses. This even becomes more critical while taking care of children and adolescents who are overweight or obese. Childhood obesity is the presence of abnormal or excessive fat accumulation that may impair the child's health (Smith et al., 2020). Obesity among children and adolescents has reached epidemic proportions in the United States. According to the latest data by the Centers for Disease Control and Prevention (CDC; 2022), obesity impacts 14.7 million children and adolescents. Of major concern is that there are evident disparities in the prevalence, with obesity being 26.2% among Hispanic or Latino children, 24.8% among non-Hispanic Black children, and 16.6% among non-Hispanic White children (CDC, 2022). This data highlights the need for healthcare providers, including nurses, to be aware of such disparities and apply evidence-based approaches to address them.

The high prevalence of obesity among children and adolescents in the United States is a major public health concern. Obesity has been identified as a risk factor for many health conditions, including high blood pressure, Type 2 diabetes, heart disease, and certain cancers (Kansra et al., 2021). In addition, the state has been associated with an increased risk of children experiencing early puberty, irregular menstrual cycles for teenage girls, and an increased risk of experiencing sleep disorders, including obstructive

sleep apnea (Sanyaolu et al., 2019). Moreover, obesity has been associated with an increased risk of experiencing poor mental well-being with the affected children and adolescents experiencing poor self-esteem, anxiety, depression, poor peer relationships, and are at an increased risk of developing eating disorders (Smith et al., 2020; Sanyaolu et al., 2019). Considering the adverse effects of obesity on the pediatric population, advanced nurse practitioners and other healthcare team members have a role to play in promoting the adoption of evidence-based prevention and management approaches in primary care settings.

The high prevalence of obesity in the pediatric population indicates that nurses have failed to take advantage of the opportunities during care to deliver evidence-based obesity prevention and management information to patients and their parents. Busch et al. (2018) have highlighted information gaps among nurses regarding assisting patients with lifestyle changes. Yeager and Karp (2019) made similar observations that there are gaps between the recommended and actual practice regarding the prevention and management of childhood obesity. Several barriers have been attributed to this practice gap, including inadequate staff knowledge regarding the guidelines, lack of time, and negative attitudes towards obese or overweight patients (Busch et al., 2018; Tsai et al., 2018; Yeager & Karp, 2019). When these barriers are addressed, nurse practitioners and other primary care providers can provide evidence-based information on weight loss and healthy lifestyle changes to decrease obesity in children and adolescents. One way to support nurses in providing evidence-based care is by designing a staff education program based

on guideline recommendations for preventing and managing obesity among children and adolescents.

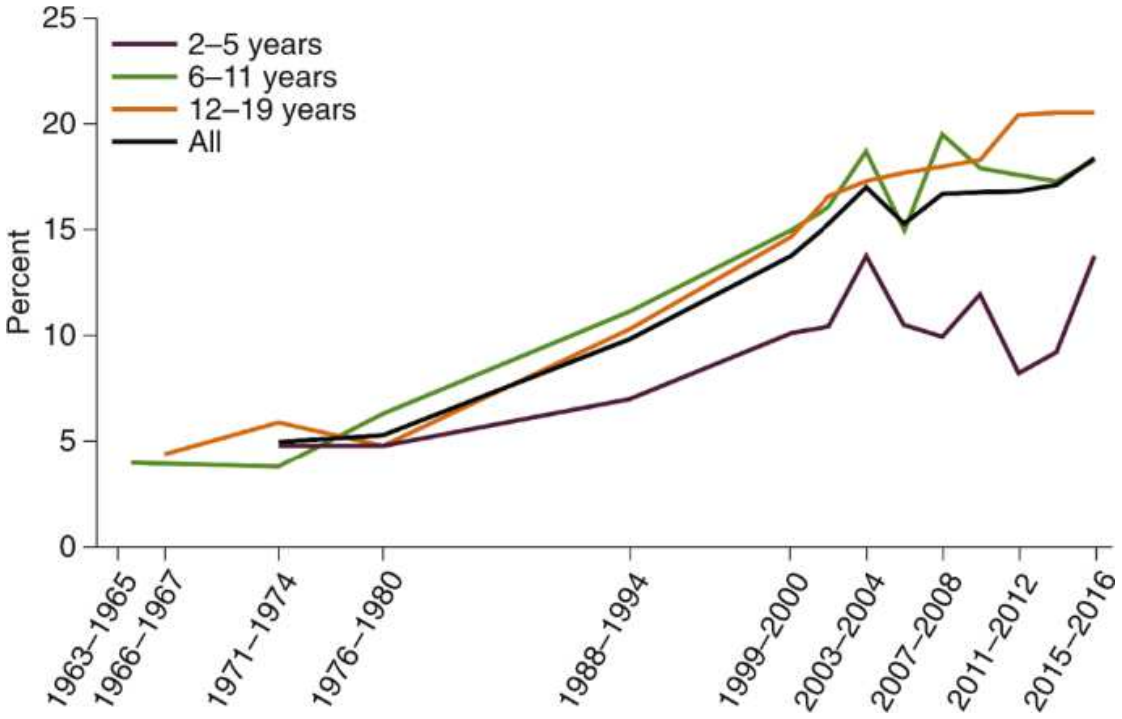
Problem Statement

Local Nursing Practice Problem

Obesity and overweight among children and adolescents are increasing. They have various medical, psychological, and social challenges (CDC, 2018b). Being obese or overweight is linked to dietary patterns and excessive food intake. Because of lopsided food utilization among teens, diet-related physiological diseases, for example, being overweight or having glucose obstruction, hypertension, and heighted levels of cholesterol, are increasing (Weihrauch-Blüher & Wiegand, 2018). Obesity in children and youth is a pandemic. Obesity impacts an estimated 124 million individuals. One out of every five youngsters and youthful grown-ups is overweight (Ogden et al., 2018). The predominance of obesity among young people and kids between ages two and nineteen was 19.3% in 2017-2018; CDC reports that 14.4 million were impacted (Figure 1). The pervasiveness of obesity among youngsters aged between 2 to 5 years was 13.4%, among 6 to 11 years was 20.3%, and for those between 12 to 19 years was 21.2% (CDC (2018b). In addition, the obesity rate for Hispanic youngsters was 25.6%. For non-Hispanic Black children, it was 24.2%, for non-Hispanic White children it was 16.1%, and the predominance among non-Hispanic Asian youngsters was 8.7% (CDC, 2018b). For over 40 years, the Body Mass Index (BMI) has increased worldwide in children and young adults (Ogden et al., 2018).

Figure 1

Rising Rate of Childhood Obesity



Note. Adapted from "*Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2–19 years: United States, 1963–1965 through 2017–2018," by* Centers for Disease Control and Prevention (2021). . https://www.cdc.gov/nchs/data/hestat/obesity-child-17-18/obesity-child.htm

While understanding the exact cause of obesity remains elusive, there is evidence that various risk factors, including a sedentary lifestyle, unhealthy meals, and physiological and psychological factors, are the leading risk factors (Yeager & Karp, 2019). The American Academy of Pediatrics (AAP) and the American Psychological Association (APA) have developed clinical practice guidelines for preventing and

managing obesity affecting children and adolescents. The guidelines endorse using a standardized approach to managing obesity and overweight problems in the target population by improving lifestyle decisions and promoting weight management (AAP, 2022; APA, 2022). Nevertheless, the partner organization's practice for this study was inconsistent with the guideline recommendations. The failure to comply with the guideline recommendations led to a gap in training and addressing the gap was the focus of this project.

The Local Relevance of the Need to Address the Problem

The partner organization is a pediatric care facility in the south-central United States. This project focused on obesity among children and adolescents seeking care at the facility because it has not been addressed with the seriousness it deserves. Most of the staff at the facility are nurses and are usually the first health professionals to have contact with obese and overweight patients. Therefore, these frequent interactions with these individuals provide an opportunity to offer evidence-based interventions directed to assist these individuals with creating a healthy lifestyle, in part to decrease their BMI (Busch et al., 2018). However, this was not the case at the practice site because the staff were not assisting patients with weight issues as per the recommended guidelines. The nurses at the facility were not confident in their knowledge to adequately educate children, adolescents, and their parents or guardians on obesity and overweight management. On average, 35% of children and adolescents seeking care at the facility are overweight or obese, based on a recent audit. This is equivalent to a third of the children and

adolescents seeking care at the facility falling under the overweight and obese weight status.

The professional practice gap relates to the nursing staff not having adequate knowledge and training on the recent guideline recommendations for preventing and managing obesity in the pediatric population. To address the gap in practice, pediatric registered nurses needed awareness of clinical practice guidelines regarding treating obesity and overweight children and young people. Therefore, the DNP project intended to educate the pediatric nurses at the practicum site on a guideline published by the APA called the *Clinical Practice Guideline for the Treatment of Obesity and Overweight Children and Adolescents* (CPGTOOCA; APA, 2022). Knowing these evidence-based clinical practice guidelines, the pediatric nurse could potentially assist children and youth with elevated BMI when implemented in their treatment plans.

Project Significance for the Field of Nursing

Obesity among children and adolescents has reached epidemic proportions in the United States, with about a third of the population affected. This is a public health concern considering that obesity adversely impacts all aspects of the child and adolescent development process, including psychological, physical, and cardiovascular health (Sanyaolu et al., 2019). Obesity and overweight screening and management are needed to improve outcomes in the pediatric population (Lynch et al., 2018). Furthermore, by teaching nurses how to use the CPGTOOCA guidelines, they are empowered to identify obesity in children and adolescents and give early intervention to those who need it. The

program's goals, objectives, and methodology are connected and meant to help people alter their lives.

Purpose Statement

The Gap-In-Practice

The pediatric clinic had not implemented assessment tools to assess the risk of overweight and childhood obesity, consumption habits, and parental beliefs. The nursing staff's lack of knowledge of obesity assessment was the major barrier behind the limited protocol use (Lynch et al., 2018). Busch et al. (2018) suggested that many nursing professionals have low confidence in assessing childhood obesity. They lack knowledge of BMI assessment, parent perception, and food habits influencing obesity. Similarly, other barriers are a lack of confidence in skills to promote change, following clinical protocol, and limited education regarding protocol use (Hill et al. 2019). Such issues increased the practice gap regarding nurses' knowledge of childhood and adolescent obesity assessment and treatment.

Practice-Focused Questions

The practice-focused questions were:

- Using Lynn's model, will the assessment of the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents' educational activity meet the evaluation criteria?
- After attending the educational sessions regarding the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and

Adolescents protocol, will the nursing staff meet the learning outcome objectives?

As discussed above, nursing professionals often had limited knowledge of guidelines and childhood obesity, which was reflected in the quality of pediatric care they deliver. In this case, integrating the staff education program and validating this assessment tool allowed nurses to identify the risk of obesity, dietary, and sleeping patterns. In addition, it provided family-based multicomponent behavioral intervention. The early identification of obesity would also enable nurses to understand nutritional habits and provide family-based multicomponent behavioral intervention per the guideline (Davidson et al., 2018).

How the Project Addresses the Gap in Practice

As a DNP student, I developed an educational program to teach nurses to use the CPGTOOCA guidelines to screen children and adolescents. The guidelines are for children aged 6 and older who are overweight. The policies provide information regarding weight-related diet, support from the multidisciplinary team, and exercise counseling. A validated lesson plan and objectives regarding the evidence-based guideline were used to educate the nursing participants on using the tool for screening. The education program was first subjected to Lynn's validation tool as part of the protocols needed to determine its validity (Lynn, 1986). After successful validation, I educated pediatric nursing staff on the effective use of the CPGTOOCA. Any clinical and training project in healthcare centers requires ethical approval as it involves living participants and personal data of individuals/participants (Boozaripour et al., 2018). The

project site and the Walden University Institutional Review Board (IRB) approval number 12-16-22-0731464 this project. Following institutional approval, consent was obtained from all the participants willing to participate in the program. The program did not cause any harm or damage to the participants or their belongings. No patient data were collected (Boozaripour et al., 2018). All the personal data the participants shared were kept for verification purposes and securely maintained in an encrypted e-database, reducing the additional risk of information breaching.

This project aimed to create a training curriculum for pediatric nurses to administer the CPGTOOCA recommendations. An expert team of five pediatric health specialists utilized Lynn's validation technique to validate the program. Staff received written and verbal information after the program was validated in a formal training session. Per the nursing administrator at the healthcare organization, limited understanding of the management of childhood obesity impacts the quality of care provided to obese children. Obesity and overweight can be managed at the pediatric health center with early diagnosis and intervention (Valerio et al., 2018). Pediatric nurses who work in pediatric clinics can gain appropriate skills, understanding, and knowledge and would be able to provide evidence-based care to these patients. Michel et al. (2020) suggests that evidence-based education programs focusing on optimized or standardized guidelines are useful. There are many interventions for managing pediatric obesity. However, a gap in translational practice creates a space for further education (Agarwal, 2019). As such, instruction was provided to improve the pediatric nursing staff's

knowledge of the CPGTOOCA for ensuring the improvement and well-being of patients with obesity (Arteaga et al., 2018).

Nature of the Doctoral Project

Sources of Evidence

A thorough literature search, review of facility statistics, personal experience within the specified department, professional organization websites, anecdotal reports from the preceptor, and discussions with field specialists were all used to support this project. CINAHL, Google Scholar, Academic Search Premier, EBSCO, PubMed, Psych INFO, and the Cochrane Library were the electronic databases used for the literature search. Some anticipated electronic data-based search terms included *CPGTOOCA use in pediatric clinics and units* plus childhood and adolescent obesity. In addition, other words included *overweight* and *treatment guidelines for childhood and teenage obesity*. Unfortunately, at the start of this project, the project site's pediatric nurses lacked the training to utilize the CPGTOOCA, which could help improve patient outcomes. Nursing administrators confirmed this (Clinic director, personal communication, February 20, 2022).

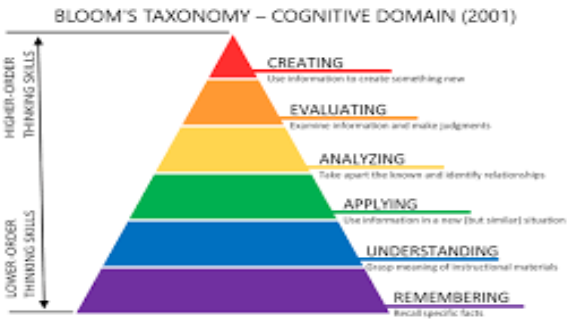
Approach Used for the Project

The expert panel used Lynn's validation tool to validate the staff education program (Lynn, 1986). The education program's content was reviewed by an expert panel of five experts in obesity and overweight in children and adolescents. Once the staff educational program is validated, I educated staff on CPGTOOCA and evaluated their understanding. A pretest and posttest regarding the essential guidelines for using the

CPGTOOCA by pediatric nurses was developed (Agarwal, 2019). Bloom's taxonomy supported the educational program. Benjamin Bloom designed three domains of educational activities that support adult learning to gather comprehensive knowledge (Agarwal, 2019). For example, (a) cognitive domain knowledge, (b) affective domain growth in emotional areas, and (c) psychomotor domains; manual and physical skills were utilized in the educational offering (Figure 2).

Figure 2

Bloom's Taxonomy



Note. Adapted from "Retrieval practice & Bloom's taxonomy: Do students need facts and mental health problems in adolescents?" by Agarwal (2019). *Brain, Behavior, and Immunity*, *69*, 428-439. https://doi.org/10.1037/edu0000282

Summary of Purpose

The staff education aimed to evaluate the importance of clinical practice guidelines in treating obesity and overweight among children and adolescents. Thus, Lynn's validation tool was a part of the protocol used for validity determination. After successful validation, I educated pediatric nursing staff about the effective use of

CPGTOOCA. The nursing staff's knowledge regarding treating overweight and obese children and youth hindered their ability to provide evidence-based care. Koivumäki and Jallinoja (2022) reported that many nursing experts often have low trust in surveying adolescents' overweight and obesity. These nurses need information on the appraisal of BMI, parent insight, and food habits that impact obesity. Essentially, nurses' knowledge deficits create a lack of competencies regarding evidence-based clinical guidelines for treating overweight and obese (Hill et al., 2019).

Significance

The lack of knowledge by health care providers is one of the most probable causes of increased deaths linked with childhood obesity. Therefore, treating these children and youth at an early age is essential. Furthermore, if untreated, the issue poses various health and mental issues later in life (Vargas et al., 2017).

Stakeholders

The project stakeholders included pediatric nursing staff, healthcare professionals, and children and young people suffering from being overweight and obese. The awareness among pediatric nurses was enhanced by applying CPGTOOCA guidelines to pediatric practice settings. Thus, these staff were the key stakeholders or participants in this project. Their current practice needed to be modified so that the knowledge was incorporated. The children were other stakeholders in this project, as improving knowledge among pediatric nurses would help offer better treatment of childhood obesity. Several grave negative impacts on children with obesity can be addressed effectively using this project.

Potential Contribution to Nursing Practice

Lynn's validation tool was employed to validate the pediatric nursing staff training program on childhood obesity (Lynn, 1986). The contribution derived from the project would, in part, be to improve registered nurse knowledge of treating and managing overweight and obese children and youth. Thus, the nurses would be able to influence practice and hopefully decrease health problems associated with obesity.

Potential Transferability to Similar Practice Area

The aspect of nursing knowledge plays a critical role in addressing the various issues in healthcare. Lack of adequate knowledge may threaten patients' safety and negatively affect the health care setting. As the prevalence of childhood obesity is increasing, it is exceedingly crucial for pediatric nursing professionals to know about it and act accordingly.

Potential Social Change

This project can facilitate changes in how pediatric nurses, once aware of managing childhood obesity, can assist with its reduction. Childhood obesity is one of the most significant health issues that impact children from almost every socioeconomic level. However, individuals from lower socioeconomic groups have been affected disproportionately. As a result, the burden of chronic illnesses is also higher among this population worldwide (Torre et al., 2018). In this regard, interference and support from healthcare professionals, especially nurses, are highly solicited from the perspective of the social well-being of these individuals (Vittrup & McClure, 2018).

Pediatric nurses must become more efficient in recognizing children with a high risk of obesity. With the implementation of an evidence-based strategy, they might be able to prevent their health complications. Therefore, a focus is on the social well-being of the children. In addition, social problems such as stigmatization or bullying might be prevented, and the disease burden on the healthcare system can be decreased further promoting social change.

Summary

Lack of knowledge related to childhood obesity inhibits health promotion by nurses. Health promotion involves intervention that offers evidence of effectiveness in a setting and can be replicated in other situations. Concerning public health, intervention needs to be evaluated based on the context, outcome, and process. Increasing awareness is required for patient safety and improving patient information. The staff education project instructed pediatric nursing staff on using the CPGTOOCA. These guidelines support nursing staff, especially those working in the pediatric department, to improve their knowledge base on treating childhood obesity and increase their confidence in addressing this issue in the clinical setting.

Section 2: Background and Context

Introduction

The incidence of obesity among children and teenagers has been increasing at an alarming rate in the United States. Currently, approximately 20% of American children are obese (CDC, 2022; Sanyaolu et al., 2019). The high prevalence is of concern, considering that obesity is a severe public health problem that puts children at risk of poor health. Obesity affects all aspects of children's lives, including their physical and mental well-being. It has been associated with an increased risk of developing physical health conditions, including cardiovascular disease, sleep disorders, diabetes, and metabolic syndrome (Kansra et al., 2021; Sanyaolu et al., 2019). In addition, obese children can experience poor self-esteem, anxiety, depression, and eating disorders (Sanyaolu et al., 2019). Obesity is a costly health condition, with the U.S. healthcare system spending $147 billion annually (CDC, 2022). There is a need for interventions addressing modifiable risk factors to decrease the incidence of childhood obesity and its impacts in the country. As depicted in the literature, evidence-based interventions effectively decrease the prevalence of obesity and its effects. However, healthcare professionals, including nurses, have inadequate knowledge regarding assisting patients with lifestyle changes to reduce the prevalence of obesity in children and adolescents (Tsai et al., 2018; Yeager & Karp, 2019).

The partner organization had not implemented assessment tools to assess the risk of being overweight and childhood obesity, consumption habits, and parental beliefs. Nursing staff's lack of knowledge of obesity assessment can be major barrier behind the

limited protocol use (Lynch et al., 2018). Nurse practitioners and other primary care providers should provide evidence-based information on weight loss and healthy lifestyle changes to decrease obesity in children and adolescents. The current project sought to support nurses in assessing and managing childhood obesity by designing a staff education program based on guideline recommendations for preventing and managing obesity among children and adolescents. The two practice-focused questions were:

- Using Lynn's model, will the assessment of the pre-developed staff education based on Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents meet the evaluation criteria?
- After attending the educational sessions regarding the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents protocol, will the nursing staff meet the learning outcome objectives?

The staff education activity seeks to meet the following objectives: (a) orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents, (b) improve staff knowledge and confidence on the application of the standardized and comprehensive guidelines on childhood obesity, and (c) bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity. Section 2 provides a detailed discussion of the background and context, including the application of theory, the local setting, and the roles of the DNP student and project team.

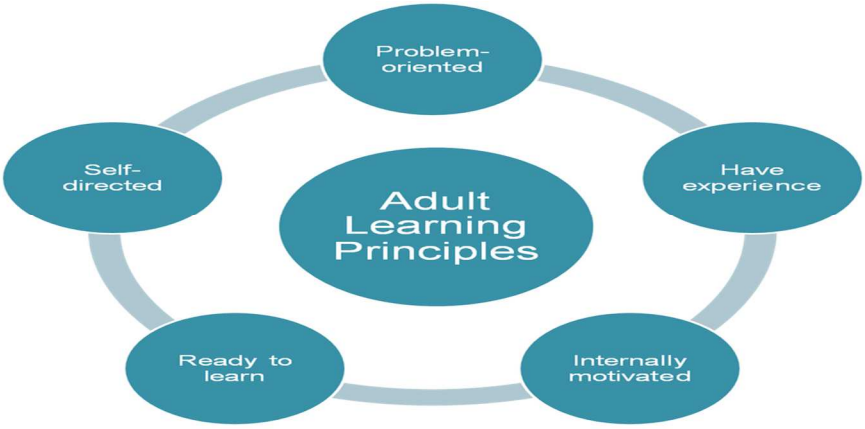
Concepts, Models, and Theories

Theoretical Foundation of the Project

A theoretical framework is needed to conceptualize the nature of the research problem and guide the planning, designing, and evaluation of quality improvement programs (Strifler et al., 2020). The current staff training program used Knowles' adult learning theory or the theory of andragogy (El-Amin, 2020). The theory was selected considering the staff's demography at the partner organization, considering that the theory mostly focuses on adult education. Knowles positioned the theory of andragogy to address the limitation of pedagogy (El-Amin, 2020). According to this theory, adult learners are independent and self-directed, and experience is a rich resource for learning. Adult learners tend to incline toward education that matters to them, with the readiness to learn influenced by the perceived applicability of the teaching (Figure 3).

Figure 3

Knowles' Adult Learning Theory Assumptions



Note. Adapted from "*Professional Learning: Adult Learning Theory in Action,"* by Teaching and Learning Consulting Network, LLC. https://www.teachingandlearningnetwork.com/adult-learners.html

Synthesis of Theory

A priority of health care settings is to focus on patient safety by improving the clinical care process and general staff education among the entire workforce. The education to staff in terms of clinical simulation, on-duty education, and distance learning are different forms of staff education that allow for providing real-time clinical instructions and designing an appropriate approach for adult learning. As per Knowles, there are differences between pre-adult learning and adult learning, based on the concept of andragogy. According to Quan-Haase et al. (2018), adult learners connect personal, social, and professional life that involve past experiences to learn new things. Adult learning involving experience offers support and capabilities that include purposeful learning. The adult learning theory has four preconceived notions that support adult learning needs. These include motivation, experience, readiness to learn new things, and situation that impacts the learning process. Thus, the chosen theory allows for the developing of new teaching strategies based on adult learning ability and frameworks related to other adult learners' theories (El-Amin, 2020).

Key Terms

Body mass index (BMI): The value obtained from the mass (weight) when divided by the square of body height in meters of an individual and is expressed in kg/m^2. It

approximates an individual's body fat, indicating whether one is obese, overweight, normal, or underweight (Khanna et al., 2022).

Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents (CPGTOOCA): These are guideline recommendations for managing overweight and obese children and adolescents aged 2 to 18 (American Psychological Association, 2021).

Childhood/pediatric obesity: An abnormal or excessive fat accumulation that may impair the child's health. The criterion for defining obesity in the pediatric population is a BMI of more than the 95th percentile for age and gender (Smith et al., 2020).

Relevance to Nursing Practice

History and Existing Scholarship Related to the Project

The clinical problem addressed in this DNP project concerned the nursing staff's limited knowledge and skills in evaluating, educating, and referring pediatric patient populations with weight management issues (overweight and obesity) based on the recommended guidelines. Consequently, many children, teenagers, and their parents or guardians were not aware of or understood the health risks their weight status posed. Identifying those in need of assistance is critical. Nurses at the project site were not evaluating patients as per recommended practice, contributing to increased cost of care as patients seek treatment when already experiencing complications associated with obesity (Yeager & Karp, 2019).

In primary care settings, pediatric nurses provide care to a wide range of patients, including those with weight issues and needing professional assistance to lose weight. A

wide range of weight loss interventions have been found effective in decreasing weight in the pediatric population (Alman et al., 2021; Figlia-Peck et al., 2020; Smith et al., 2020). Pediatric nurses have more contact with patients compared to other professionals. They are strategically placed in an ideal position to screen for obesity and empower patients to acquire a healthy weight. There is evidence that nurses trained and motivated in overweight and obesity management are more effective at screening and counseling patients about weight management than those without training (Fruh et al., 2019; Whitehead et al., 2021). Nurses' practice counseling and managing pediatric patients with weight management issues should align with the general guideline recommendations (Whitehead et al., 2021). The CPGTOOCA guidelines offer interventions for screening and managing overweight and obesity in young people and adolescents aged 2-18 years were addressed in the training program provided by this DNP project.

Current State of Nursing and Recommendations

The American Psychological Association (APA) 2018 developed a set of practice guidelines for managing overweight and obese weight status among children aged 2 to 18 years. The recommendations were based on the best research evidence, including evidence from systematic reviews, and involved weighing the benefits versus the potential harms of the interventions while considering what is known about patient needs and preferences. The guidelines highlight the need for primary care providers to be aware of the evidence-based approaches to managing childhood obesity (APA, 2022). They should also be well versed in identifying patients who need to implement interventions to

lose weight to decrease the risk of chronic diseases and improve their overall well-being (Figlia-Peck et al., 2020).

The National Association of Pediatric Nurse Practitioners (NAPNAP) highlights that clinicians should underline the need for timely detection. They offer parents, family, caregivers, and patients with age-specific advice on healthy behaviors and the condition to consistently experience positive effects in managing overweight and obese weight status (NAPNAP, 2020). Healthcare practitioners have numerous opportunities to discuss the overweight and obese status and identify proper weight control means. However, they do not always initiate health promotion conversations considering that obesity and overweight are not prioritized as other physical health conditions (Busch et al., 2018; Tsai et al., 2018; Yeager & Karp, 2019).

Previous Strategies and Standards of Practice

Previously used strategies employed to mitigate the adverse effects of childhood obesity are organization specific. Childhood obesity is increasing at an alarming rate, and it impacts the physical, mental, and social well-being of the affected child or adolescent (CDC, 2022; Sanyaolu et al., 2019). Generally, childhood obesity treatment involves lifestyle changes related to enhancing participation in physical activities and dietary changes. Multi-component interventions encompassing different strategies consisting of dietary modifications, exercise, behavioral therapy, and patient education are most effective (Figlia-Peck et al., 2020). Treatment of childhood obesity conducted in different settings has led to varying outcomes, with various agencies and stakeholders developing guidelines to guide the screening and management of obesity (NAPNAP, 2020; Smith et

al., 2020). While there are guideline recommendations for screening and management of pediatric obesity, the partner site had not implemented the guidelines for childhood obesity.

The pediatric clinic had not implemented assessment tools to evaluate the risk of overweight and childhood obesity. As a result, the staff at the facility relied on their perceptions and clinical judgments to identify overweight or obese children and hardly provide them with evidence-based information on effective management practices. Societal barriers also inhibit timely screening and management of childhood obesity, with parents or guardians failing to identify the problem early (Busch et al., 2018). As a result, the problem may get the attention of healthcare providers when it is already advanced, and the problem is that there is research depicting a lack of adequate knowledge and competency in pediatric obesity management among primary healthcare providers (Lynch et al., 2018; Yeager & Karp, 2019).

Advanced interventions such as bariatric surgery have been reserved for extreme cases of severe obesity and can only be done in specialty facilities. In addition, even though medications have been formulated for managing obesity, none have received US Food and Drug Administration approval for use in the pediatric population (Cuda & Censani, 2019). This highlights the need for timely interventions for assessing and managing obesity. There is a need for evidence-based protocols to enhance childhood obesity screening and management to improve population health.

How the Project Advances Nursing Practice

There was a gap at the pediatric clinic regarding staff knowledge and skills regarding assessing and managing childhood obesity in line with the recommended practices. The development of a staff education program based on the guideline recommendations for preventing and managing obesity among children and adolescents was aligned with the current priority at the pediatric clinic. Educating the staff on using BMI percentiles and screening tools to evaluate weight status in pediatric patients can enhance the staff's knowledge, skills, and confidence and improve patient outcomes (Hill et al*.,* 2019; Lynch et al., 2018). Implementing the clinical practice guidelines would promote counseling on pediatric weight and increase the frequency of childhood obesity and overweight health assessment in the pediatric setting (Figlia-Peck et al., 2020). The newly introduced protocol impacted the practitioners with knowledge of obesity, thus placing them in a better position to address weight issues during pediatric appointments and encourage families to embrace healthy lifestyles (Alman et al., 2021).

Local Background and Context

The partner organization had not implemented assessment tools to assess the risk of overweight and childhood obesity, consumption habits, and parental beliefs. The partner organization's clinical preceptor expressed concerns over staff knowledge and skills inadequately assessing and educating pediatric patients and their parents about healthy eating and participation in physical activities. Consequently, patients may have left the facility unaware of their current weight status risks. This led to missed care opportunities and increased cost of care, considering that majority of patients seek care

when they have started experiencing the adverse effects of overweight and obesity weight status. According to Whitehead et al. (2021), pediatric nurses are responsible for assessing patients for obesity and offering nutritional advice and weight management, including strategies such as managing calorie intake and increasing their physical activity levels. The lack of standardized assessment tools to evaluate the risks of overweight and childhood obesity contributed to the lack of screening and provision of timely care. The lack of familiarity of the nursing staff at the facility with the recent guideline recommendations for the prevention and management of obesity in the pediatric population was identified as the professional practice gap addressed in this project (Busch et al., 2018).

Institutional and Local Context

Considering the potential impact of childhood obesity, the failure of the organization to implement the latest guidelines on obesity and overweight for the pediatric population had adversely affected the provision of patient care. Incident reports concerning the current practices revealed that the failure to screen patients for obesity and offer weight management interventions is associated with poor outcomes. Obese and overweight children and teenagers develop complications such as Type 2 diabetes, hypertension, and mental health conditions such as low self-esteem and depression (CDC, 2022; Sanyaolu et al., 2019). The failure to screen pediatric patients results in missed opportunities for the patient to become aware of their weight health issues. It prevents the healthcare staff from initiating a weight management plan to empower patients to acquire a healthy weight status.

The partner organization is a pediatric care facility in the South-Central part of the US. The recipients of the training sessions were nurses working at the clinic. The healthcare staff at the facility works with younger patients, including children and young adults, to diagnose and manage their illnesses and monitor their development progress. Pediatric clinics have a role in offering comprehensive medical and psychological assessments of children and adolescents with obesity. The staff has a role in leading the pediatric population to improve weight control and overall health and quality of life.

According to CDC (2022), 19.7% of children and adolescents in the US are obese, meaning that close to 20% of the pediatric population seeking care is likely to be obese. The percentage can be higher considering that patients with obesity are likely to develop other conditions and thus more likely to present in healthcare settings. This DNP project promotes the adoption of CPGTOOCA guidelines for assessing and managing overweight and obesity health issues among children and adolescents seeking care in the pediatric care setting. The project also involved the provision of educational training to impact the nursing staff with the knowledge and skills to assess and educate pediatric patients on overweight and obesity weight status. The training program improved staff knowledge, skills, and confidence in evaluating and managing childhood obesity (Fruh et al., 2019; Osmundsen et al., 2019; Whitehead et al., 2021).

Applicable State or Federal Context

Measures have been put in the state and federal context to address the problem of childhood obesity across the country. Various states have adopted legislation to promote healthy eating in school settings. For instance, Arkansas, through the Child Nutrition Unit

at the Division of Elementary and Secondary Education, administers various programs and initiatives to decrease the prevalence of childhood obesity. The programs include the School Breakfast Program, Fresh Fruit and Vegetable Program, and After School Snack Program, nutritional programs for schools in the state (Division of Elementary and Secondary Education, 2022). Many of these initiatives are federally assisted and operate in public and non-profit private schools. Likewise, Colorado has enrolled in the Breakfast After Bell Nutrition Program (BAPNP), whose core purpose is to provide breakfast at no charge to every student enrolled in a public school, with 70% or more students eligible for subsidized meals (Colorado Education Initiative, 2018). The Child Day Care Act mandates teachers and daycare directors to have at least one hour of training on childhood nutrition as a key component of health promotion initiatives in California (California Department of Social Services, 2022). There has been the development of strategic plans in other states through private and public partnership programs to decrease the prevalence of childhood obesity. There are also goals to create awareness regarding obesity as a priority health issue with a major impact on life. Effective prevention and management practices, including exercise and healthy eating, are taught in school and exercised through various initiatives (Smith et al., 2020).

A wide range of policies have been passed and programs implemented at the federal level with the overarching goal of addressing pediatric obesity and ensuring the overall well-being of children and adolescents. For instance, the Healthy, Hunger-Free Kids Act of 2010, a federal statute still active to date, improved the nutrition standards for meals served in school settings (Richardson et al., 2022). The act strengthened the

National School Lunch Program providing nutritionally balanced, low-cost, or free meals to millions of children in public and non-profit private schools. The School Breakfast Program is also administered by the Food and Nutrition Service and the After School Snack Program to ascertain that children in afterschool activities are served snacks to promote their health and well-being (Division of Elementary and Secondary Education, 2022).

While research by Kenney et al. (2020) did not find a substantial relationship between the legislation and trends in childhood obesity, the risk of obesity reduced each year significantly upon the implementation of the act among children living in poverty. The investigators report that pediatric obesity prevalence levels could have reached 47% if there were no interventions through the legislation and initiatives (Kenney et al., 2020). The findings highlight that initiatives supported through the Healthy Hunger Free Kid Act are evidence-based nutritional standards that must be sustained to support healthy growth among American children.

Role of the DNP Student

Professional Context and Relationship

As a family nurse practitioner at the partner site and a future DNP-prepared nurse, my professional role was to ensure the organization's readiness for change. I have professional responsibilities in developing and implementing the new protocol to improve childhood obesity and overweight health assessment and management at the pediatric clinic. I acted as the change champion and project leader by having conversations regarding the need for this project and its potential impact on improving the well-being of

the pediatric patient population seeking care at the clinic. As a DNP student, my relationship with this project emanated during the clinical practicum activities at the partner site. I observed that nurses at the clinic hardly engaged patients' families in weight management conversations due to a lack of evidence-based knowledge and confidence to tackle the issues of overweight and obesity in the pediatric population.

The practice problem motivated me to address the problem by developing a staff training program based on CPGTOOCA guidelines for assessing and managing overweight and obesity health issues among children and adolescents. I was convinced that the practice problem is worthy of special consideration, considering the adverse effects of the condition and the enormous costs to the healthcare system. Promoting timely prevention and management of pediatric obesity is critical in preventing the long-term negative impact of this condition, including cardiovascular disease, diabetes, certain types of cancers, and disability in adulthood (Hill et al*.,* 2019; Smith et al., 2020).

Role in the Doctoral Project

I am a DNP student at the partner organization with a clinical preceptor on location. My role in the project was to develop a staff training program to empower nurses at the partner organization to follow the recommended practices concerning the assessment and management of pediatric obesity. As the project leader, I conducted a literature search across selected databases. I identified the practice guidelines and empirical evidence depicting the development and implementation of the staff training program as an evidence-based approach to addressing the identified clinical problem at the partner site. In addition, I was responsible for ensuring that the staff training program

was reviewed by a panel of experts on childhood obesity. A panel of five content experts reviewed the program and establish that it has relevant content and an acceptable level of validity for the staff education activities. The content experts included three nurse practitioners and two physicians, all involved in providing care to pediatric populations and in treating numerous children who are obese or overweight. They all have at least ten years of experience in practice. The adult learning theory by Knowles guided the staff education program. The project implementation processes involved collecting pre-test and post-test data to establish the program's impact.

Motivation

The inspirations for this venture were the pediatric nurses and the patients at the accomplice association. As a doctorate-prepared nurse, I was responsible for bridging the gap in practice at the project site by implementing the recommended clinical practice guidelines for managing childhood obesity. The patients seeking care at the facility are children and adolescents, mostly accompanied by their parents or guardians. Children are part of the vulnerable population hence the need to promote adherence to the already tested and validated practice. As a nurse educator at the clinic, I looked forward to offering the required training and education to improve the assessment and management of pediatric obesity.

Potential Biases

There might have been bias from the DNP candidate's assumptions concerning the demographics and knowledge of the nurses at the project site regarding pediatric obesity. Nurses at the project site come from different ethnic, cultural, and professional

backgrounds and all have varying levels of clinical experience. They are also likely to have different learning styles. To overcome the potential biases, the project leader employed several measures. The first step is using Knowles's adult learning theory and incorporating relevant concepts into adult learning programs. The participants' learning needs were considered using different teaching methods to accommodate learners who understand information through various learning methods (Purwati et al., 2022).

Most importantly, the project leader sought IRB approval from Walden University to ascertain that the project complied with ethical principles guiding research involving human subjects. An approval letter was obtained from the partner organization allowing the implementation of the staff training program. Participants were provided with an informed consent form, and questionnaires employed to collect data were all anonymous, thus guaranteeing the confidentiality and privacy of the participants. All course materials were stored in a private room to which only I had access. Soft copies, including data entered on the computers, were entered only on devices that are password protected to prevent access to unauthorized individuals. The five content experts who took part in validating the staff education program using the Lynn model were all voluntary participants.

Role of the Project Team

The involvement of the various stakeholders as team members in this project was critical in ascertaining that the obesity assessment and management needs of the staff, pediatric patient population, and family members seeking care at the facility have been met. Identified stakeholders included nurses, nurse educators, pediatric nurses, nursing

leadership-leader nurses, family nurse practitioners, and the quality assurance nurse. There were five content experts: family nurse practitioners, physicians, chief nurses, and nurse practitioners. The other team members included staff who participated in the staff education activity and nurses. In this case, I provided leadership in this project and mentorship from the clinical preceptor and nursing educators. The educators and five experts served as subject matter experts and validated the education program.

Project Presentation to the Team

The project team included nurse educators who served as subject matter experts and evaluated the staff development program. They ascertained that the staff education activity was concise and clear and included the required information to provide nurses with adequate information about childhood obesity. As per the recommendation of the Lynn model, five validators are needed to ensure a proper level of control and prevent chance agreement (Boozaripour et al., 2018). The Lynn model is a framework for validating and evaluating staff training programs. I created a lesson plan and PowerPoint presentation for staff awareness about childhood obesity. The presentation of the educational activity to the nursing staff was given after validation and administration of pre-tests in the staff education activity implementation upon administering the pre-tests to the nursing staff (Appendix C). Upon implementing the staff education program, post-tests assessments were carried out. The pre-tests and post-tests findings were compared and contrasted to establish if the program objectives have been accomplished. The course instruction occurred during the in-service training, and the entire project execution period was four weeks.

Use of Contextual Insight of Team and Timeline

The timeline for completing the staff education program evaluation was two weeks. During this time, the expert panel validated the context and provide contextual, language, and literacy-based feedback about the material. The staff education validation teaching, presentation, and other activity occurred in four weeks.

Summary

Doctorate-prepared advanced practice nurses have a role in bridging the gap between the actual and recommended practice. This is possible by promoting the adoption of EBP in clinical practice. A literature search led to the identification of evidence supporting the development of a staff training program to enhance adherence to the recommended clinical practice guidelines for managing and preventing pediatric obesity. Although there are validated practice guidelines, there remains a substantial gap in the knowledge and skills of childhood obesity prevention and management strategies among nurses working at the partner organization. Knowles adult learning theory (Andragogy) was employed to promote the adoption of best practices in obesity prevention and management in the pediatric population. A team of five local experts validated the staff training program, and I served as the project leader and change champion advocating for the adoption of CPGTOOCA guidelines.

The project was anticipated to improve staff knowledge, skills, and confidence in assessing pediatric patients for overweight and obesity. The guidelines promoted timely interventions, thus protecting the patient population from the debilitating health effects of childhood obesity. The next chapter will review how the evidence used in this project

was collected and analyzed, along with a review of the practice-focused questions, sources of evidence, and procedures followed in data analysis.

Section 3: Collection and Analysis of Evidence

Introduction

Childhood obesity is a leading public health problem in the United States. It affects a substantial proportion of the country's pediatric population and has been associated with many short-term and long-term health issues (Larqué et al., 2019). Unhealthy weight in childhood results in serious complications such as Type 2 diabetes, liver disease, high blood pressure, high blood cholesterol, sleep disorders, bone and joint issues, eating disorders, and skin infections (Kansra et al., 2021). In the project setting, a third of pediatric patients seeking care at the facility are obese or overweight. However, the nurses at the partner site seldom assessed the patients' weight or educated them on healthy eating habits and lifestyles. The gap in practice was attributable to the lack of knowledge and confidence impacting their ability to initiate conversations regarding healthy weight with pediatric patient families. Therefore, the current project sought to address the problem by implementing CPGTOOCA guidelines for assessing, diagnosing, treating, and preventing childhood obesity and overweight. Section 3 presents a discussion of the procedures followed in the data collection and analysis of the evidence for this project. The section will address various subtopics, including practice-focused questions, sources of evidence, and analysis and synthesis procedures.

Practice-Focused Questions

- Using Lynn's model, will the assessment of the pre-developed staff education based on Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents meet the evaluation criteria?

- After attending the educational sessions regarding the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents protocol, will the nursing staff meet the learning outcome objectives?

The DNP project sought to develop a staff education program to teach nurses using CPGTOOCA guidelines to screen children and adolescents for obesity and overweight health issues. A validated lesson plan and objectives regarding the evidence-based guideline were used to educate the nursing participants on using the tool for screening. In addition, the nurses were expected to counsel patients and their families about healthy eating and lifestyle habits to assist in weight management. A panel of five local experts on childhood obesity screening and management validated the lesson plans using the Lynn model. The project's second phase involved the completion of a pretest and providing the staff with educational activities. The third phase of this project culminated with completing the posttest.

Operational Definitions

Body mass index (BMI): The value obtained from the mass (weight) when divided by the square of body height in meters of an individual and is expressed in kg/m^2. It approximates an individual's body fat and indicates whether one is obese, overweight, normal, or underweight (Khanna et al., 2022).

Childhood/pediatric obesity: An abnormal or excessive fat accumulation that may impair the child's health. The criterion for defining obesity in the pediatric population is a BMI of more than the 95th percentile for age and gender (Smith et al., 2020).

Content validity: The degree to which a test or an assessment instrument assesses all aspects of the topic of interest or behavior it was developed to measure (Lynch et al., 2018).

Sources of Evidence

The key evidence for this project's development included a literature search, a review of professional organizational and academic websites, my professional experience, and anecdotal reports from the clinical preceptor and nursing educators at the partner organizations. I searched websites such as Walden University Library and corporate websites such as CDC and APA. I also conducted a literature search from databases such as CINAHL, Medline, Clinical Key for Nursing, Ovid, PubMed, EBSCO, ProQuest, Academic Search Complete, and the Cochrane Systematic Review to complete the search.

Evidence Generated for the Doctoral Project

Participants

The pediatric nurses at the partner organization were the participants in this doctoral project. There are 10 pediatric nurses at the partner organization, and they were selected based on their availability in the pediatric nursing care unit and their current job description. They had expressed interest in participating in this project and improving the standards of practice in the care settings. I conducted the staff education training based on CPGTOOCA guidelines. The five content experts validated the staff education program using the Lynn model. The subject matter experts were selected based on their

educational qualifications and clinical practice experience in preventing and managing pediatric obesity. I offered leadership and served as the coordinator for this project.

Procedure

The first step in the DNP project is developing the staff education program to teach pediatric nurses about childhood obesity assessment and management. I presented the lesson plan to the expert panel, who were also given the learning material and educational program. They were provided with evaluation directions and protocol. The expert panel assessed the learning objectives to ensure the academic program's validity and reliability using the Lynn model. The Likert scale for reviewing is 1 = not relevant, 2 = unable to access relevance without revising the activity, 3 = relevant but needs modification, and 4 = very relevant. The content validity of the project items were determined based on the responses obtained from the content validators. Five content experts were involved, which aligns with Lynn's (1986) recommendation for a minimum of three experts and a maximum of ten. The average content validity indicator (CVI) was calculated for all items.

The staff education instruction on pediatric obesity assessment and management took part at the pediatric clinic. The learning objectives for the staff education program were as follows: (a) orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents, (b) improve staff knowledge and confidence on the application of the standardized and comprehensive guidelines on childhood obesity, and (c) bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity. Once the

staff education program was validated, the next action was for the participants to complete the pre-test questionnaire, followed by delivering the course content. Knowles's adult learning theory was employed to guide the staff training program. Upon delivery of the staff education activity, the next step was collecting post-test data, which was analyzed and interpreted using descriptive analysis to evaluate the statistical significance.

Protections

I made considerable efforts to ascertain that this project adheres to ethical principles guiding healthcare practice and research. The first step was seeking ethical approval from Walden University's IRB before commencing the project implementation activities. I also obtained a signed letter from the partner organization for this staff education program. Participation in this project was voluntary, and no one was coerced to participate. The participants were informed that they could withdraw their involvement anytime without facing the consequences. Confidentiality was maintained by ascertaining that no personally identifying details are included in the analysis. The participants received an envelope with a similar four-digit code for the pre-test and post-test data collection and analysis. The purpose of this was to facilitate matching the pre-test and post-test knowledge assessment scores for each participant while protecting the identity of the participants. The project materials and all hard copy documents were locked in a private office. The electronic materials will be stored on a password-protected device and destroyed after five years. The panel experts were not compensated financially for participating in the content review process.

Analysis and Synthesis

A panel of five experts in pediatric nursing education completed an analysis of staff education programs using the Lynn model. I prepared an evidence-based PowerPoint on the staff training program, which was based on Knowles's Adult Learning Theory. A CVI of at least 0.8 is sought, under which the staff education program would have to be reviewed and updated to meet the criteria. The overall validity of the program was calculated based on Lynn's model. Nurses at the pediatric clinic were invited to participate in the staff training program on pediatric obesity. Upon implementation of the training program, the staff were asked to take a post-test assessment to establish the education program's impact on staff knowledge and competence in evaluating and managing pediatric obesity. The tests were reviewed with the help of descriptive analysis to assess whether knowledge acquisition occurred or not. The tests were based on staff education's learning objectives.

Summary

This DNP project aimed to develop and implement a staff education activity to empower nurses to use the recommended practice guidelines in assessing, preventing, and managing childhood obesity. The content review process were based on the Lynn model, and five specialists on childhood obesity conducted the validation. Knowles's Adult Learning Theory guided the staff education program as the theoretical framework. Relevant ethical principles were taken into account, including ascertaining that confidentiality was maintained by putting measures to prevent unauthorized access to the

data. The project used descriptive statistical analysis and summative assessments to evaluate the effectiveness of the staff training program on the set goals.

Section 4: Findings and Recommendations

Introduction

The partner organization lacked a standardized approach for evaluating the risk of overweight and obesity among children seeking care at the facility. As a result, the nurses at the facility were not confident in their knowledge and skills to adequately assess and educate children, adolescents, and their parents or guardians on obesity and overweight prevention and management. As a result, pediatric patients seeking care at the facility were not receiving a timely assessment for overweight and obesity status, leading to poor care outcomes.

Findings and Implications

A panel of five content experts reviewed the program and established that it had relevant content and an acceptable level of validity for the staff education activities. The five content experts included three family nurse practitioners, a physician, and the chief nurse. I reached out individually to each expert to discuss the program goals and review them to address the practice problem effectively. The project materials were then sent to the content experts for validity review and alignment with the purpose of the staff education program. The content experts reviewed the contents of the program over five days and independently rated the content of the program.

Evaluation of the Staff Education Activity

The staff education program was rated using a four-point Likert scale. The questions on the Likert scale tool focused on evaluating the appropriateness of the staff education program content regarding the staff education activity. The objectives of the

staff education program were as follows: (a) orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents, (b) improve staff knowledge and confidence in the application of the standardized and comprehensive guidelines on childhood obesity, and (c) bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity. Upon collecting all the evaluation forms, reviewing them for completeness, and analyzing the content, the analysis depicted a CVI of 0.873, which is an acceptable level of content validity per Lynn's model (Table 1). In addition, the high CVI index depicted that the content subject matters were confident in the staff education program.

Table 1

*Evaluation of the Staff Education Program (*N = *5)*

Objectives	CVI
Objective 1: To orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents.	0.93/1.00
Objective 2: To improve staff knowledge and confidence in the application of the standardized and comprehensive guidelines on childhood obesity.	0.81/1.00
Objective 3: To bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity.	0.879/1.00
Overall rating	0.873/1.00

Note. Evaluators were asked to consider the relevance of each objective for the education program.

This project led to a validated education program that provided the nurses at the facility with the knowledge and skills they require to evaluate pediatric patients for overweight and obese weight status effectively.

Staff Education

Six participants took part in the program. I distributed the consent form for the anonymous questionnaire to the participating nurses. Before the commencement of the education sessions, the participants were given a brown envelope containing the pretest assessment questionnaires. The questionnaires did not ask for names or other potentially identifying participant data. Instead, each participant was assigned a four-digit unit code to match the pre- and post-project assessments. Upon participating in the staff training program, participants received instructions to drop the brown envelopes at the receptionist. The pretest and posttest staff education assessment questionnaire was composed of questions about the lesson goals, knowledge and confidence in applying the practice guidelines for screening, and the rate of agreement for improving pediatric population weight status examination.

The pretest depicted a mean between 2.9 and 3.3, with a mode of three, highlighting that the staff had inadequate knowledge and skills regarding obesity and overweight assessment among pediatric patients. The findings for Objective 1 gave a mean score of 3.3 and a mode of three. The results highlight that the staff was, to some extent, oriented to implementing the practice guidelines concerning obesity and overweight assessment and management among children and adolescents. The analysis for the second objective showed a mean of 2.9 and a mode of three. The results indicated

that the staff had inadequate knowledge and confidence regarding evidence-based practices in assessing and managing childhood obesity and overweight status. The analysis for the third objective led to a mean score of 3.3 with a mode of four (Table 2). Thus, indicating that the staff was, to some extent, unaware of the gap in practice prior to completing the staff education activity.

Table 2

Analysis of Educational Activity

Objective evaluation	Pretest mean	Post-test mean	Pretest median	Post-test median	Pretest mode	Post-test mode	Pretest *SD*	Post-test *SD*
Objective 1: To orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents.	3.3	1	3	1	3	1	0.7917	0
Objective 2: To improve staff knowledge and confidence on the application of the standardized and comprehensive guidelines on childhood obesity	2.9	1	3	1	3	1	0.5773	0
Objective 3: To bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity.	3.3	1.2	4	1	4	1	0.7894	0

Note. Participants were requested "Kindly rate the degree of orientation regarding improving staff knowledge and skills on CPGTOOCA guidelines. Kindly mark the circle that best describes your response."

The posttest data depicted that the intervention involving the provision of staff education met the learning objectives. The post-staff training program led to a mean of 1 to 1.2, with a mode of one for most items (Table 4). The analysis of the post-staff training program depicted that the staff felt knowledgeable and confident in following the practice guidelines for assessing obesity and overweight risk factors. The analysis also showed that awareness of the practice gap and the need to bridge it by implementing standardized and comprehensive guidelines on pediatric obesity improved substantially.

Recommendations

The evaluation of the staff education program by the content experts highlighted that the course content effectively addressed the gap in practice. The nurses at the partner organization agreed that the education program improved their knowledge and confidence in applying practice guidelines for pediatric obesity. They also became aware of the practice gap and ways to address it through implementing CPGTOOCA guidelines. Implementing the standardized practice guideline bridged the gap in practice at the partner organization. All newly hired pediatric nurses should complete the staff education activity during orientation or annual training programs.

Contribution of the Doctoral Project Team

Doctor of nursing practice (DNP) prepared nurses plays a critical role in the rapidly evolving healthcare system in the face of changing demographics and challenges such as the COVID-19 pandemic. DNP graduates have a broad array of knowledge and the skills required to translate research evidence into practice (Zaccagnini & Pechacek, 2019). The project was based on the best available evidence. A literature search was

conducted, and the analysis of empirical evidence depicted training programs as an effective approach to improving nurses' practices regarding assessing and managing pediatric obesity.

The project team played a critical role in the development and implementation of the staff education program. As the team leader, I was responsible for developing and executing this project. The leadership at the partner organization included the chief nurse, family nurse practitioners, and the quality assurance nurse. The panel of five experts was involved in the review of the content for the educational activity. They also reviewed the lesson plan and the pre-post-education assessment activity tests. The nursing leadership at the partner site was critical in facilitating discussions and the execution of project activities.

Strengths and Limitations of the Project

The strength of this project is that it is evidence-based. Upon identification of the practice gap, a literature search identified an evidence-based approach to addressing the identified problem. The evidence used to support this project was recent and of high quality—another strength of the buy-in from essential stakeholders. The five content experts volunteered to participate in this project by applying their expertise to review the project materials. The facility staff also volunteered to participate in educational activities, which was critical in successfully implementing the project. There was adequate support from the management, which made the development and implementation of the project easier. In addition, the panel members validating the project materials were experts on childhood obesity.

A limitation of this project was the small number of nurses who took part in this project. The total number of staff at the facility that took part is six. Another limitation is that I developed the staff education program alone; thus, there is a possibility of bias in the process. However, I focused on evidence-based materials in developing the program, thus minimizing the possibility of bias. In addition, the program was reviewed by the five content experts and revised based on the recommended changes, minimizing the possibility of bias. The proposed follow-up should evaluate the program's impact on decreasing childhood obesity.

Summary

Childhood obesity is a leading public health problem in the US, affecting a substantial proportion of the country's pediatric population. It has been associated with many short-term and long-term health issues. The current project sought to address the problem by implementing CPGTOOCA guidelines for assessing, diagnosing, treating, and preventing childhood obesity and overweight. A panel of five content experts participated in reviewing the content of the staff education program. Section five will outline the dissemination plan and provide a critical analysis of self upon completing this project.

Section 5: Dissemination Plan

Disseminating the findings of scholarly research is a professional responsibility of a DNP-prepared nurse. Sharing the results and knowledge obtained from the DNP project is critical in promoting evidence-based practices. It allows DNP-prepared nurses to share the findings with their colleagues and other practitioners in similar settings, which is imperative in advancing the nursing profession (Zaccagnini & Pechacek, 2019)). I shared the findings of my project with stakeholders at the partner organization. I presented the findings of this staff education initiative to the nursing leadership and executive staff at the project site. As a result, the facility leadership agreed to incorporate the staff training program into the annual staff competency. Dissemination of the project findings will also take place beyond the partner organization. It will target nurses and practitioners in similar settings to combat childhood obesity. I intend to share the findings of this project at regional conferences for nurse practitioners. An example of such a conference is the Fundamentals of Obesity Treatment and Overcoming Obesity, which will take place in 2023 (Obesity Medicine Association, 2022). I will prepare a poster summarizing the project procedures and findings and discuss the implications of the project with other practitioners during the conference. Attending the regional conference meetings will provide an opportunity to network with other advanced nurse practitioners regarding this staff development activity. Nurses and other healthcare professionals are responsible for assessing pediatric populations for obesity and overweight status using appropriate practice guidelines and recommendations (Fruh et al., 2019; Whitehead et al., 2021).

I intend to submit a letter of inquiry to the *Journal of Pediatric Health Care* for potential publication. The journal is preferred due to its open-access policy allowing members of the public to view the published articles without having to purchase a subscription. The target audience for this journal includes family and primary care providers. In addition, the journal addresses pediatric healthcare issues, meaning that the findings will be shared with practitioners interested in the issue of childhood obesity.

Analysis of Self

DNP-prepared nurses play a critical role in advancing nursing practice by applying evidence-based practice to improve patient care outcomes (Beeber et al., 2019). The staff education activity was critical in enhancing staff knowledge and skills in assessing childhood obesity. The project allowed me to develop staff education activities at the partner site. The project allowed me to contribute to evidence-based practice through the implementation of CPGTOOCA guidelines for the assessment of childhood obesity. It offered an opportunity to be involved in the translation of research evidence to address the identified practice problem. The experience gained in developing and leading this project will inform my future endeavors in pursuing the implementation of evidence-based practice initiatives to improve care outcomes and patient experiences. DNP-prepared nurses are responsible for enhancing practice by offering leadership toward quality improvement initiatives (Bekemeier et al., 2021).

The project was critical in my development as a DNP-prepared nurse scholar. I have amassed knowledge and skills that will improve my ability to deliver high-quality care. I integrated research evidence into practice and applied a learning theory to guide

the implementation of the staff education activity, which are critical features of a DNP-prepared nurse (Zaccagnini & Pechacek, 2019). Another academic skill I developed is improving my ability to identify practice problems and apply critical thinking skills to address them. I identified the practice problem regarding poor practices in assessing the pediatric population for childhood obesity and carried out a literature search to identify evidence-based approaches to address the problem. The exercise allowed me to improve my critical thinking skills by critically reviewing the evidence to support the development of this project.

The project has impacted me with project management skills, and I feel adequately prepared as a project manager. I participated in various project manager roles, such as decision-making, communication, and team leadership (see Harris et al., 2020). I had to lead and make appropriate decisions for the project to be successful. I also applied effective communication skills to seek buy-in from the management to successfully implement this project. Additionally, I improved my time management skills considering that I had to ascertain that project deliverables had to be completed on time. I also improved my ability to collaborate and work with multidisciplinary team members. According to the American Association of Colleges of Nursing (2006), the current multitiered healthcare environment largely depends on the contributions of highly knowledgeable and competent individuals from various healthcare professions. I consulted with the five content experts and other senior leaders on executing the change. I will apply these skills in leading and managing future projects to facilitate applying the best evidence to address gaps in practice.

While implementing this project, I encountered various challenges, such as sticking to my schedule and remaining committed to completing the staff training project. Another challenge I faced was that one of the reviewers did not review the project materials on time due to other commitments. I learned that it is imperative to consider such eventualities while developing the project plan. I also experienced challenges balancing project, personal, and professional responsibilities. In addition, the dynamic nature of the partner organization led to the rescheduling of some project activities. Nevertheless, the outstanding management made it possible for me to work with the team at the facility for the successful development and implementation of this project. Overall, this staff education project positively impacted me as a nurse practitioner, scholar, and project manager.

Summary

Childhood obesity is a severe public health challenge experienced at the state and federal levels. Nurses play a major role in preventing, assessing, and managing childhood obesity, considering that they provide the first point of contact with the healthcare system. Nevertheless, evidence indicates that nurses lack knowledge, confidence, and skills in conducting childhood obesity assessments. The project setting did not have a comprehensive and standardized protocol for childhood obesity assessment. The practice gap has been addressed through the implementation of the staff education activity concerned with implementing CPGTOOCA guidelines. The DNP project sought to establish if the staff education program using CPGTOOCA guidelines would be validated using Lynn's model.

Furthermore, to establish if the staff would meet the learning goals and outcomes upon attending the staff education program. The five content experts validated the staff education activity, which was done using Lynn's model. With the implementation of the practice guidelines, it is anticipated that the project will lead to decreased incidence of childhood obesity and associated complications. The partner site nurses will apply the guidelines to educate pediatric patients and their families about healthy eating and exercising to acquire a healthy weight and improve overall health. The findings of this project were shared with key stakeholders at the facility. As a result, the facility has impacted the change in the assessment protocol to support sustainability. The project allowed me to develop as a scholar, project leader, and staff educator.

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Appendix A: Lesson Plan for Staff Education

<table>
<tr><td colspan="4">A Staff Education Project for the Administration of Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents</td></tr>
<tr><td colspan="4">Goal: To increase pediatric nurse's knowledge of Administration of Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents</td></tr>
<tr><td>Objectives</td><td>Methods/Strategies</td><td>Timeframe</td><td>Outcome Measurement</td></tr>
<tr><td>1. To orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents</td><td rowspan="2">Share the full explanation of the identified gap in the practice.

Summative evaluation using pre- and post-questionnaire.

Instructional tools: PowerPoint slides with video and oral presentation.</td><td rowspan="2">Two weeks of instruction</td><td rowspan="2">Improved knowledge</td></tr>
<tr><td>2. To improve staff knowledge and confidence on the application of the standardized and comprehensive</td></tr>
</table>

guidelines on childhood obesity, 3. To bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity	Evaluation method: Descriptive statistics.		

Appendix B: Lynn's Assessment for the Staff Education Project

Objective 1. To orient nurses on administering the clinical practice guidelines for managing obesity among children and adolescents.

- 1 = not relevant
- 2 = unable to assess relevance without item revision
- 3 = relevant but needs minor alterations
- 4 = very relevant and succinct

Objective 2. To improve staff knowledge and confidence on the application of the standardized and comprehensive guidelines on childhood obesity

- 1 = not relevant
- 2 = unable to assess relevance without item revision
- 3 = relevant but needs minor alterations
- 4 = very relevant and succinct

Objective 3. To bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity.

- 1 = not relevant
- 2 = unable to assess relevance without item revision
- 3 = relevant but needs minor alterations
- 4 = very relevant and succinct

Appendix C: Staff Education Activity Pre- and Post-Evaluation Questionnaire

Lesson Objective 1: To orient nurses on the administration of the clinical practice guidelines for the management of obesity among children and adolescents. Please rate your degree of orientation regarding the elements of the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents. Please mark the circle that corresponds to your answer.

- 1 = Oriented
- 2 = Somewhat oriented
- 3 = Somewhat not oriented
- 4 = Not oriented

Lesson Objective 2. To improve staff knowledge and confidence on the application of the standardized and comprehensive guidelines on childhood obesity. Please rate your level of knowledge and confidence regarding the application of the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents. Please mark the circle that corresponds to your answer.

- 1 = High level of knowledge
- 2 = Medium level of knowledge
- 3 = Low level of knowledge
- 4 = No level of knowledge

Lesson Objective 3. To bridge the gap created by the failure to implement standardized and comprehensive guidelines on childhood obesity. Please rate your degree of

knowledge with the gap in current practice about the application of the Clinical Practice Guidelines for the Treatment of Obesity and Overweight Children and Adolescents.

- 1 = Knowledgeable
- 2 = Somewhat knowledgeable
- 3 = Somewhat non-knowledgeable
- 4 = No knowledge