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Increasing Referrals of Hospitalized Obese Patients

Tammy Elaine Cabrera
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Tammy Cabrera

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

Review Committee
Dr. Mattie Burton, Committee Chairperson, Nursing Faculty
Dr. Melanie Braswell, Committee Member, Nursing Faculty
Dr. Francisca Farrar, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
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Abstract

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Abstract

The rate of obesity continues to rise in the United States and globally, placing populations at increased risk of obesity-related conditions, such as diabetes, hypertension, heart disease, cancer, and other disease states. A review of the literature showed that multiple methods have been used to address the rate of progression; however, obesity rates continue to increase. The U.S. Preventative Services Task Force, American Heart Association, and other agencies recommend obesity screening and counseling at every patient encounter; most hospitals do not have a policy to accomplish this task. The purpose of this project was to develop an obesity screening and referral tool for the hospital setting. The resulting tool was based on the 5 As framework to increase screening and referrals of obese patients. The logic model was used to guide program development, implementation, evaluation, and dissemination. Results of the obesity screening and referral program showed an increase in screenings and referrals upon a trial adoption, raising the number of identified referrals to 23, compared to 2 patients identified for referral prior to program implementation ($p = 0.035$). An increase in screenings and referrals can bring about positive change by improving care, quality of life, and weight status of patients and decreasing health care expenditure.

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Table of Contents

List of Figures

Section 1: Nature of the Project

Introduction

Obesity is a major health concern that affects more than one third of the adult

population in the United States (Centers for Disease Control and Prevention, 2016). Even

with public health interventions, obesity rates continue to rise. Currently, all states have

obesity rates of 21% and two states are now listed over 35% for obesity in their

populations (CDC, 2016). In Tennessee, the obesity rate for adults is 34.8%, which places

at Number 6 among the top 10 obese states (Trust for America's Health and Robert

Wood Johnson Foundation, 2017). Research has shown that obesity dramatically

increases comorbid conditions, health care costs, and mortality (TFAH & RWJF, 2017).

Approximately 4 million deaths occur annually related to obesity (TFAH & RWJF,

2017). Overweight and obesity contribute to an increased rate of disability-adjusted life

years by 38.5% percent (Friedrich, 2017). Rising rates of overweight and obesity increase

the importance of following national recommendations to positively impact this chronic

health condition and limit related illnesses.

The U.S. Preventative Services Task Force (USPSTF; 2016) recommended

screening all patients for obesity and offering counseling and intervention services. Even

though this is a growing health issue, providers are falling short of this goal. According to

a study by the Trust for American Health and Robert Wood's Foundation (2016), 70% of

nonprofit hospitals indicate that obesity and obesity-related conditions are top health

issues. A hospital obesity screening and referral tool based on evidence based clinical

guideline recommendations can help decrease this health condition and obesity comorbidities.

Obesity is a preventable and treatable chronic condition, and actions that target prevention and intervention include behavior change in diet and physical activity (TFAH & RWJF, 2017). For effective and sustainable goals to be met, there is a need to approach this chronic condition with interventions aimed at the individual, organization, and community levels. Multidisciplinary teams of nurses, physicians, and specialists are needed to implement the changes necessary to change the thinking of obesity as merely a behavioral problem to treating obesity and its complexities as a chronic health condition (American Association of Clinical Endocrinologists & American College of Endocrinology, 2016). Health care providers can contribute to positive social change by focusing on increasing screening, counseling, and referrals to ancillary services and community resources to improve patient and community health outcomes (see Leroux, Moore, & Dube, 2013).

Problem Statement

Obesity is a major contributor to preventable illness and death globally. Few health conditions create a greater health concern than obesity and obesity-related conditions (see Zamosky, 2014). The obesity rate for adults in Tennessee is 34.8% with adults ages 45 to 64 making up 40% of this number (TFAH & RWJF, 2017). This is only slightly higher than the age group of 26 to 44, which has a 38% rate for obesity (TFAH & RWJF, 2017). The age group of 18 to 25 have a 22% rate of obesity, and those 65 and over have a rate of 28.6%.

Racial differences in obesity rates show that non-Hispanic Blacks have a rate 45.1% among adults in Tennessee (Trust for American Health and Robert Wood's Foundation, 2017). Hispanic or Latinos are classified at a 33% rate and White adults account for 31.3% of the obese adults in Tennessee (Center for Disease Control and Prevention, 2016). By gender, women rank above men in obesity rates with approximately 32% of women and 31.5% of men falling into the category of obese for Tennessee.

New data indicates that obesity-related conditions continue to rise in the adult population of Tennessee (Centers for Disease Control, 2016). Adults with diabetes and hypertension are ranked the seventh highest out of 50 states (CDC, 2016). Other chronic obesity-related conditions also continue to trend upward, including heart disease, arthritis, and obesity-related cancers (CDC, 2016). If these rates continue to rise, by the year 2030, diabetes will affect 939,564 adults; hypertension will affect 1,714,690 adults; and 1,896,993 adults will have a diagnosis of heart disease in Tennessee (CDC, 2016). The literature shows a positive connection between obesity and increased morbidity and mortality.

In the United States, the medical cost for obesity and obesity-related conditions is estimated to be between $147 billion and $210 billion dollars a year (CDC, 2016). If the current prevalence rate continues, the cost is estimated to continue to rise to between $861 and $957 billion dollars by 2030 (see Imes & Burke, 2014). In Tennessee, the estimated additional health care cost for obesity was $2.49 billion dollars in 2014 (CDC, 2016). The Centers for Disease Control and Prevention (2016) reported that the inflation-

adjusted annual medical cost for obesity related issues was 1,580 dollars per those affected.

The problem I identified in this project was a lack of policies or procedures in place to address obesity screening, counseling, or referral to ancillary services. According to Howe et al. (2010), the hospital admission process provides an opportunity to begin addressing obesity with obese patients by nurses and other health care providers. Most patients are open to discussing behavior change when it is approached by providers (see Howe et al., 2010). The hospital admission process provides the opportunity to educate hospitalized adult patients on health issues related to obesity and institute the behavior change necessary to increase health and quality of life.

This doctoral project holds significance to the nursing practice by increasing nursing awareness of obesity and obesity-related conditions to implement positive change in practice. The project aligns with the American Association of Colleges of Nursing (AACN) essentials for Doctorate of Nursing Practice (DNP) Essentials I, II, VI, and VIII. The project met Essential I by using science-driven methods to evaluate and improve patient care outcomes and Essential II by developing evidence-based interventions and evaluating practice outcomes for the project. Essentials VI and VIII were met through the multidisciplinary approach taken in the project, the critical analysis employed, and development and delivery of evidence-based care to improve patient and community health outcomes (AACN, 2006).

Purpose

The Strategies to Overcome and Prevent (STOP) Obesity Alliance (n.d.) reported that a comprehensive obesity program generally is not completed during a hospital admission. There are many reasons that hospitals may not be providing screening, counseling, and referrals for obese adults. Focus on an acute obesity-related condition instead of the underlying cause of the health issue during a hospital admission is one of the top reasons that obesity is not addressed by nurses and providers in the hospital (see Aston, 2014). Other barriers include a lack of training and reimbursement for obesity screening and treatment (see Aston, 2014). Changes are occurring in reimbursements with Medicare and Medicaid Services offering coverage for obesity screening, counseling, and bariatric services (see Aston, 2014) According to Aston (2014), hospitals are in the position to address the significant health issues related to obesity with in-depth clinical guidelines for screening, counseling, and referrals to bariatric services. The purpose of this quality improvement project was to develop a clinical tool for obesity screening to increase referrals for obese hospitalized patients upon discharge.

Nurses are in a prime position to identify gaps in practice and the practice-based evidence needed to effectively develop policy approaches for an obesity program (see Leeman et al., 2012). The American Association of Clinical Endocrinologists and American College of Endocrinology (2016) suggested that clinicians have failed obese patients by not treating this condition as a chronic disease. The obesity chronic care model (CCM) introduced weight loss therapies directed at prevention and treatment of obesity and obesity-related conditions by using a complications and staging model

(AACE & ACE, 2016). The CCM is based on building an educational and resource rich environment for individuals and communities to empower patients (AACE & ACE, 2016). The CCM documented the importance of recognizing and promoting health and engage health care professionals to improve care outcomes by using the latest evidence-based obesity care (AACE & ACE, 2016).

Nature of the Doctoral Project

The rate of obesity has doubled in the last 35 years and is a growing health issue that affects morbidity, mortality, and quality of life for those that are obese or have obesity-related conditions. (CDC, 2016). Even though obesity prevalence among adults showed a steady rate in the 2012–2014 time frame, obesity rates for adults remain above the goals for Healthy People 2020 at 30.5% (Healthy People, 2016). The high rates of obesity continue to increase the rate of other devastating diseases (American College of Cardiology, 2016). Current obesity rates make it necessary to take steps to combat this growing epidemic. Nurses and providers can make meaningful contributions to combating obesity by educating and referring patients to services available for nutrition, physical activity, and bariatric clinics to improve health outcomes.

In this DNP project, I developed a standardized screening and referral tool for a hospital obesity program from the latest evidence-based research and tools available. The goal of the program was to increase referrals of obese patients to ancillary services on discharge. Providers and nurses must meet this growing health condition with the best evidence-based practice guidelines. According to Woolf et al. (2012), practice guidelines

are statements that are systematically developed to help health care providers improve care based on specific patient or care circumstances.

I used guideline clearing houses to identify current evidence-based guidelines for an obesity screening and management tool (see Woolf et al., 2012). The program objectives were accomplished by the creation of an evidence-based practice tool for screening and referral of obese patients that are hospitalized. Developing a screening and referral practice tool for these patients assisted translation of the best evidence into the best practice to improve practice, reduce variations, and reduce ineffective interventions (see Rosenfeld & Shiffman, 2010). The goal of training was consistency in content while presenting interventions based on evidence from research. Obesity is a complex health problem that increases the risk of morbidity and mortality (see Rosenfeld & Shiffman, 2010). Providers and nurses must meet this growing health state with the best evidence-based practice guidelines. Education of the health care team consisting of nurses and hospitalist physicians and nurse practitioners was geared toward use of the CCM and Modified 5 As framework for obesity.

In the project, I provided educational content in a Microsoft PowerPoint slideshow in an online format to engage all learners and all shifts (see White, Dudley-Brown, & Terhaar, 2016). Other methods for dissemination of the project education and innovations are posters and paper format. All methods contain clear scholarly content to engage professional colleagues.

Significance

As the obesity epidemic continues to rise, patients are presenting with serious related health issues. The National Heart, Lung, and Blood Institute (2017) issued a request for all providers to investigate obesity interventions and management during all patient encounters because hospitalist groups have been found to fall short in this population. It has been reported that hospitalist physicians and nurse practitioners are not documenting obesity in assessments or making referrals to services available to potentially halt progression of this health issue (NHLBI, 2017). The America Association of Clinical Endocrinologists and American College of Endocrinology (2016) pointed out that health care systems must be committed to practice changes that aggressively treat obesity as any other chronic condition.

Obesity is a complex health issue that continues to challenge health care (see Wang et al., 2014). Obesity raises the risk of many other illnesses as well as the cost of health care (see Wang et al., 2014). Much of obesity management is directed at primary care, but all health care systems need to be involved in obesity programs to implement standardized care across the health care continuum. Development of a screening and referral tool based on best evidence-based research allows providers to increase consistency in providing standardized care. An essential part of the DNP project is translation and dissemination of evidence-based guidelines into practice to improve patient outcomes and health in all populations (see Wang et al., 2014). Clinicians are seeking and using evidence-based practice guidelines to deliver safe and quality patient care (see White et al., 2016). Many factors drive the momentum of evidence-based

practice, including patient outcomes, the growth of new knowledge, patient satisfaction, and implementation of safe guards to reduce medical errors (see White et al., 2016).

Introducing an obesity program practice tool in the hospital setting improved the current rate of screening and referrals for obese patients. Approaching obesity as a complex chronic condition with current practice guidelines allowed a multidisciplinary team to approach the practice problem and address the gap in practice. The development of this obesity program helped provide care that is beneficial to all stakeholders.

Various individual, social, and environmental factors influence behaviors that increase obesity in our populations (see Zoellner et al., 2013). According to the Robert Wood Johnson Foundation's (2017) obesity project, decreasing obesity can lower health care costs up to 41%. Treating obesity as a chronic disease was recommended by the American Heart Association (AHA; 2015) and the American Association of Endocrinologist and American College of Endocrinology (2016). A hospital obesity practice tool offers implementation of the best evidence-based obesity interventions to improve patient outcomes (AHA, 2015). Development of an obesity practice tool also aids in guiding a multidisciplinary team through the screening and referral process to provide patients with weight management options. This hospital obesity practice tool based on current evidence-based research offers a transferable model for other health care systems and promotes positive social change by increasing the screening and referrals of patients and families to ancillary services to improve their health (see Porter, Thrasher, & Krebs, 2012). According to the CDC (2017), changes that affect the family environment can positively affect family health.

Summary

In this section, I provided an overview of the project problem, purpose, nature of the project, and significance to patient and organization outcomes. Obesity is a major health concern in the United States because it is associated with poorer mental health outcomes and quality of life and increased rates of death (CDC, 2017). The adoption of an obesity tool based on the latest research and recommendations can help to combat this growing health concern and positively affect patient outcomes. Having an obesity program tool in place to address the gap identified in practice is a positive step for meeting the recommendations of the USPSTF (2016) and the AHA (2015) and decreasing the incidence of obesity in the hospital setting.

In Section 2, I will address the concept of the practice issue and purpose for the obesity practice guideline. The concepts, models, and theories; relevance to nursing practice; and local background and context will also be provided. I will also discuss the role of the DNP student, role of the project team, and context of the doctoral project related to the development of a hospital-based obesity screening and referral tool to address the gap in practice in the hospital setting.

Section 2: Background and Context

Introduction

The problem I identified in this project was a lack of an obesity program to address the screening and referrals of obese patients to ancillary services on discharge. The project question was derived using the population, intervention, comparison, and outcome (PICO) statement to guide the project focus. Riva et al. (2012) stated that the PICO statement helps summarize a research question and discover therapy options. The PICO statement provided a framework for this DNP project. The question I developed to guide this project was: Does development of a quality improvement initiative to incorporate the modified 5 As and obesity CCM with hospitalized, obese, adult patients increase screening and follow-up referrals with ancillary health care services?

The purpose of this obesity project was to develop a sustainable program to increase the referrals of hospitalized obese patients to ancillary health care services. Referral to dietary, physical therapy, and bariatric services can help promote better patient outcomes for weight management and quality of life. In this section, I will also discuss the logic model, modified 5 As framework, and medical CCM as frameworks used to guide the hospital obesity practice guideline. Other areas that will be discussed in this section are relevance to nursing practice, local background and context, role of the DNP student, and role of the project team.

Concepts, Models, and Theories

Grant and Osanloo (2014) stated that selection of a model or theoretical framework is an important but often underutilized part of a research project. The model

or theory provides a foundation for knowledge translation and provides support for the rationale of the project (see Grant & Osanloo, 2014). The most appropriate framework or model is the one that aligns best with the problem, purpose, and significance of the study (see Grant & Osanloo, 2014). Multiple theories may be used and may give differing perspectives for the same study (see Grant & Osanloo, 2014). Finding the view of the study that aligns with the perspective of the research team helps justify the research question, establish context, and explain results (see Grant & Osanloo, 2014).

Logic Model

The logic model, or theory of change, is an adaptable tool for program planning, implementation, and evaluation of outcomes (see Hayes, Parchman, & Howard, 2011). The model helped the research team compile a representation of how a practice tool could work to increase the screening and referrals of obese patients in the hospital setting. This representation helped link processes and assumptions with the intended outcome and demonstrated "if then" relationships to lead to the desired outcomes (see Hayes et al., 2011). Use of the logic model does not require more than team work, which works well with budgets (see Hayes et al., 2011). The logic model by W.K. Kellogg Foundation (2006) was a useful tool to address the complex issue of obesity and guiding the project for optimal outcomes (see Hayes et al., 2011).

The logic model was useful for examining approaches and clinical research for the best evidence-based guidelines to address obesity. The two types of logic models are the theory of change model and the program logic model (see Hayes et al., 2011). The logic model, or theory of change, encompasses the obesity CCM developed by the AACE

& ACE (2016). Kettner, Moroney, and Martin (2017) stated that use of the logic model

demonstrates relationships among and between resources, services, and results in an easy

to understand tool (see Figure 1).

Formative Evaluation		Process Evaluation	Outcome Evaluation	
Input/Resources	Activities	Output	Outcomes	Impact
Program Champion/Funds	Chart review	Target population: Hosptialist Nurse Practitioners	Educational packet on 5 A's	Lifestyle changes in nutrition/exercise
Mission, goals, and objectives	Staff education on modified 5 A's framework on obesity	Staff awareness of obesity program	Behavioral changes	Decreased BMI/improved weight status
Examine current literature and current hospital policies on obesity			Improved access to resources available	Improved quality of life
Multidisciplinary team development	Develop program tool and guidelines	Referrals to outpatient obesity clinic and dietician		Decreased risk of obesity-related conditions
Discuss perceived barriers	Develop implementation guidelines	Plan evaluation for 3, 6, and 12 months		Dissemination of program findings
Obesity prevention and intervention strategies from current evidence-based research	Develop a team evaluation tool and evaluation plan			

Figure 1. Logic model for hospital obesity project.

Modified 5 As Framework

The 5 As framework was designed for smoking cessation; however, when modified it is an effective tool for obesity screening, counseling, and the referrals of patients (see Vallis et al., 2013). The 5 As framework helps guide providers through different levels of obesity counseling (see Vallis et al., 2013). The first section involves

the asking of permission to talk about obesity with the patient (see Vallis et al., 2013). This discussion should be direct and nonjudgmental (see Vallis et al., 2013). Asking the patient about their weight leads to the second section of assessing the patient for ways their weight affects their health (see Vallis et al., 2013). In advising, the third level, the patient helps direct how to approach the complexities of obesity management and prevention (see Vallis et al., 2013). An emphasis on personal risk factors and how a modest weight loss of 5% can impact risk factors can be helpful in the discussion with the patient at this section. The patient must buy-in to interventions before the fourth level, agree, can be completed (see Vallis et al., 2013). Agreement should be a respectful approach to behavior modification techniques and goal setting that is patient driven (see Vallis et al., 2013). The fifth level in the framework is assisting the patient in finding the best weight management resources and providers to guide their treatment plan.

Chronic Care Model (CCM)

The CCM has been recommended by various agencies for use with obesity management (AACE & ACE, 2016; World Health Organization, 2018; World Obesity Federation, 2017). The complexity of obesity and its chronic relapsing disease state demonstrates the need to address obesity using the CCM. Because obesity has components of relapse and progress, it is necessary that early interventions are needed to prevent and control the obesity epidemic globally (AACE & ACE, 2016).

Multidisciplinary teams of nurses, physicians, and specialists are needed to implement the changes necessary to change the thinking of obesity as merely a behavioral problem to treating obesity and its complexity as a chronic health condition. In

this project, I examined current obesity policies in the hospital setting for development of

an obesity screening and referral tool to improve outcomes in obese patients. It was

important to involve stakeholders in the development to ensure that all guidelines were

described and the results were disseminated upon completion.

Definitions

Adult: For the purposes of this project, adult are patients ages 18 years and

greater.

Body mass index (BMI): This index is calculated by dividing an individual's

weight in kilograms by the square of their height in meters. Written as $\geq$ 30 kg/m² when

defining obesity (CDC, 2016).

<center>**Relevance to Nursing Practice**</center>

Primary care providers are the primary targets for managing prevention and

interventions for obesity. According to Howe et al. (2010), health care providers are

missing an opportunity to impact the obesity epidemic in the hospital setting. The aim of

this current evidence-based research was to get all providers invested in obesity screening

and referrals to improve patient outcomes. Andermann et al. (2016) stated that diligence

should be used in research and incorporating research into our clinical practice. Hospital

nurses have an opportunity to impact the health and clinical outcomes of obese patients.

Nurses are in the position to bring evidence into patient care that addresses and

implements scientific research guidelines. Ultimately, patients' well-being and health

should drive any evidence-based guidelines. The objective of this program was to use a

screening tool to increase the referrals of patients to appropriate resources during

hospitalization and at follow-up. The results of the project can be transferred to other

facilities to improve patient outcomes and decrease obesity-related comorbidities in

patient populations.

Chan and Woo (2010) reported that public health approaches have had limited

success in treating obesity in overweight and obese populations. There have been many

attempts, centered on primary care, to address obesity with patients; however, most

hospitals do not focus on obesity because it is viewed as a chronic condition not an acute

problem during admission (Chan & Woo, 2010). According to the CDC (2016), the

hospital is an important setting to initiate obesity prevention and interventions because of

the large population within its setting. Impacting staff, visitors, and patients can lead to

better community outcomes. The 5 As has demonstrated effectiveness when used in the

primary care setting and is supported by the USPSTF and Centers for Medicare and

Medicaid Services for use and reimbursement for screening, counseling, and referrals of

overweight and obese patients (Alexander et al., 2011; CDC, 2016; Vallis et al., 2013).

Local and Background Context

According to Howe et al. (2010), obesity has increased dramatically in the United

States over the last 50 years and a clear majority of this population is admitted to the

hospital with conditions that are caused by increased weight. The CDC (2017) reported

that more than 36.5% of U.S. adults are categorized as obese. The state of Tennessee

currently has a 34.8% rate for obesity in adults and is Number 6 in the top 10 of obese

states (CDC, 2017). In the state, 40% of adults are obese in the age group of 45–64 in the

state (CDC, 2017). Racial groupings demonstrated that Black adults have a 45.1% rate of

obesity, and obesity by gender showed that women outnumber men by 1.5%. The Department of Nutrition, Physical Activity, and Obesity allocates $1,943,759 per year for the REACH basic program at Meharry Medical College; High Obesity Program, University of Tennessee; and State Public Health Actions, Tennessee Department of Health (Trust for Americas Health and Robert Wood Johnson Foundation, 2017). Funding for programs are an attempt to bridge the health gap caused by race, income, location, education levels, and other social factors to help population achieve their best possible health outcomes (CDC, 2017).

The site for this project was in an academic medical center that provides residency programs and education sites for medical students. It is a Level 1 trauma center that is Magnet recognized. The hospital offers a primary stroke center, specialized care in six areas, and offers comprehensive services in many regional centers in the surrounding area. The medical center is a 609-bed facility that has an 18-bed trauma center, a 30-bed cardio-respiratory step-down unit, and 30-bed orthopedic trauma unit. The campus is also home to a bariatric surgical center.

Role of the DNP student

As a family nurse practitioner, I have practiced in the hospital and private clinic setting for more than 20 years. In the hospital, obese patient needs are different than their normal weight counterparts. Extra care must be taken for skin care, medication calculations, and the different equipment that may be needed to properly care for this population. I have been actively involved with nutrition and weight management for 12

years in Tennessee. Unfortunately, I have seen some of the devastating effects of obesity and its related conditions on patients, families, and communities.

My role as a doctoral student in development of a hospital obesity screening and referral tool was to work with the project team to develop a tool based on the 5 As, plan an education component for staff on the use of screening tool, and identify an effective evaluation model that aligned with the program goals and objectives. There were no probable biases for development of a screening tool to increase the screening and referrals of hospitalized obese patients. Once the tool was approved, staff were trained on its use to increase the identification of obese patients, assess for risk factors, advise on personal health harms and benefits, assist in setting goals, and arrange follow-up contacts. Identified patients received screening and referrals once the program was established in the hospital setting. The hospital program increased awareness in obesity prevention and treatment and decreased comorbidities and health care cost.

Role of the Project Team

The success of the hospital obesity program was related to the activities of the team in translating the evidence-based research into practice and the team that replicated those activities in the future to establish the credibility of the program. Developing an effective obesity program required a multidisciplinary approach to appropriately tackle all aspects of this complex health issue (see Vallis et al., 2016). The team of stakeholders included a physician champion (internal medicine, hospitalist) and two nurse practitioners (hospitalists). The team collaborated to develop the mission, goals, and

objectives for the program. During the needs assessment, gaps-in-practice were identified

for the development of the practice problem and practice tool development.

The team determined the best manner to update the information system to

increase compliance with screening and follow-up referrals of obese hospitalized adult

patients based on the screening tool algorithm. Information systems help foster the use of

evidence-based research and support clinical and administrative decision making

(Hodges & Videto, 2011). Updating the information system increased the measurable

performance data. Developing a successful project required that all stakeholders be

included in the process (Hodges & Videto, 2011). Key stakeholders, those affected or

involved in the program, were involved in operations and in the evaluation and

dissemination of the results.

The following timeline is mapped out using the logic model to show activities of

the project phases from design through proposed implementation and evaluation. The

first meeting of the team consisted of a discussion of the project background, literature to

support the project design, and the framework to be used in project development. The

project mission, goals, and objectives were developed in that first official team meeting.

Summary

Section 2 provided an overview of concepts, models, and theoretical frameworks

being used for the DNP project. The model and framework used will guide the

development, future implementation, and collection and analysis of data to support the

hospital obesity program. Development of the hospital obesity program proposal aids in

addressing the gap-in-practice identified in the needs assessment. Additionally, relevance

of the project to nursing practice, local background and context of the project, and roles of the DNP student and team members was summarized in Section 2.

Section 3 will discuss the identified practice focused question and the sources of evidence that will be utilized in addressing the practice focused question. In addition, the evidence generated from the Doctoral project and analysis and synthesis of findings will be explained in Section 3. The transferability of the hospital obesity program to other facilities will also be discussed in the following section of this paper.

Section 3: Collection and Analysis of Evidence

Introduction

The purpose of this DNP project was to contribute to nursing scholarship by developing a hospital obesity screening and referral tool to increase the screening and referral of hospitalized obese patients. In Section 3, I will discuss the practice-focused question and the sources of evidence that were used to develop the project. A prospective analysis and synthesis of the DNP project will also be discussed in this section.

Project-Focused Question

Tennessee ranks sixth for obesity in the United States (CDC, 2017). Rising obesity numbers raise the risk of obesity-related conditions and health care cost (CDC, 2017). Recommendations for the screening of all patients for obesity and lack of screening and referral interventions were the gaps-in-practice that motivated this DNP project. A review of the facilities policies and a random chart review at the study site demonstrated that less than 90% of adults with a BMI of ≥ 30 kg/m² or ≥ 25 kg/m² with comorbid conditions had documentation of further screening, counseling, or follow-up referrals for obesity. According to Howe et al. (2010), hospitals are missing a valuable opportunity to impact the obesity epidemic by not addressing this condition during hospitalization. I formulated the following practice-focused question to treat obesity in hospitalized patients: Does development of a screening and referral tool to incorporate the modified 5 As and obesity CCM with hospitalized, obese, adult patients increase screening and follow-up referrals with ancillary health care services?

The purpose of this DNP project was to develop a sustainable obesity program that included a screening and referral tool, practice guidelines, implementation plan, and evaluation plan to address the identified practice problem. The obesity program demonstrated an increase in obesity screening and follow-up referrals for hospitalized, obese, adult patients. A review of the current literature found that only 40% of primary care visits resulted in counseling for obesity or obesity-related conditions, even though there are recommendations in place from the USPSTF to screen and counseling all patients for obesity (CDC, 2016).

I designed the hospital obesity tool to meet the following objectives:

1. Develop a screening and referral tool based on the 5 As framework to increase screening and referrals for obese hospitalized patients.

2. Develop guidelines to educate staff on the use of the screening and referral tool using an evidence-based guideline to provide care for obese patients.

The research team also created a Gantt chart to demonstrate a timeline for development and provide an overview of processes for developing the hospital obesity screening and referral tool.

Sources of Evidence

The target population for this project was hospitalist nurse practitioners. The hospital policies regarding screening and counseling were reviewed to reveal that there were no policies currently in place to address obesity, advise, or refer obese patients to bariatric services. I completed observation of workflow processes to identify gaps in the

system and establish needs to increase stakeholder support. Complex analysis helps improve patient care and reduce costs in the healthcare arena (see Wang et al., 2014).

Developing a successful project required the inclusion of all stakeholders in the process. I completed a literature review to gather the latest evidence-based research for interventions in obesity by key stakeholders. The steps I took to complete the project included developing a continuous relationship of collaboration with the project team to direct the development of a screening and referral tool to anticipate patient needs and services for obesity and obesity-related conditions. The practice tool was developed to optimize patient outcomes, disease control, and follow-up referrals based on evidence-based research (see Krause et al., 2014).

Published Outcomes Research

I completed a comprehensive literature review and critique to provide background for the DNP project development. The literature review was focused on current evidence-based research as it applied to obesity prevention and interventions, use of the 5 As framework for obesity, and the CCM for obesity. The literature review was also completed to gain an understanding of the problem, development of the project, and implementation of the program (see Oermann & Hays, 2016). Studies included in the literature review consisted of randomized controlled trials, evidence-based research guidelines, and theoretical models and frameworks. The articles centered on adult obesity interventions in primary care and the hospital setting. The databases I used for literature searches included: CINAHL Plus, PubMed, Medline Plus, Cochrane Library, Scopus, PsycINFO, UpToDate, Micromedex, Nursing Consult, EBSCO health, National

Guideline Clearinghouse, Clinical Evidence, National Institutes of Health, CDC, Google

Scholar, Journal of Obesity, governmental organizations, and state websites. Search terms

used included: *obesity, hospital obesity programs, obesity programs, obesity counseling,*

obesity treatment plan, weight management, health promotion, obesity co-morbidities, 5

As framework, chronic care model for obesity, multidisciplinary, and *logic model*. The

articles I used dated back 10 years with older articles reviewed if the data and literature

were appropriate. The hospital obesity program stemmed from these research sources.

Krause et al. (2014) evaluated tailored interventions to improve overweight and

obesity in the primary care setting. Tailored interventions compared to usual care in the

management of overweight and obese populations adhering to National Institute for

Clinical Excellence guidelines guidelines were included in their randomized controlled

study. Their study took place in a primary care setting where they used a cluster

randomized trial. Eligible patients included those ages 16 and over with a diagnosis of

overweight or obesity (see Krause et al., 2014). All identifying patient information data

were cleaned to protect the patient. All primary care offices in East Midland England

were invited to participate, and the total number of offices included was 28 with the

average sample size of 500 (see Krause et al, 2014). During the initial phase, the authors

found that most patients are aware of concepts of healthy eating but felt that more advice

from their providers would be helpful. Healthcare professionals did not feel equipped to

offer sound advice; NICE guidelines were provided with training to provide knowledge

to treat their patients (see Krause et al, 2014). Additionally, they found that providers

were unaware of services available for patient referral. The aim of their intervention was

to provide up-to-date, local referral services to all clinics. The goal of their study was to provide materials and resources for use within intervention teams at the end of the trial.

Zamosky (2014) reported on new obesity guidelines for physicians to allow tailored interventions for weight management in overweight and obese patients. The author discussed guidelines developed by the AHA, American College of Cardiology, and the Obesity Society based on a systematic review of 133 research studies on the latest scientific evidence. Zamosky's recommendations included screening for BMI on each patient encounter; using a three-step: ask, advise, and refer approach in talking with patients; and treating obesity as a chronic condition that needs ongoing interventions.

Alexander et al. (2011) recorded encounters between 40 physicians and 461 patients that were either overweight or obese. The patients were only told that the discussions were about preventative health measures (see Alexander et al., 2011). The researchers' use of the 5 As were coded upon transcription of the recordings. Their findings were that most conversations discussed weight and most physicians used at least one of the 5 As when patients appeared motivated to reduce fat, increase physical activity, and lose weight. The authors noted that the patients demonstrated more motivation and confidence to change behaviors when the physicians used the ask, assist, and arrange parts of the 5 As framework. Patients that demonstrated weight loss had arranged follow-ups and the findings supported the frequency of patient contact with influence on behaviors (see Alexander et al, 2011).

There remains a gap in prevention and management of obesity even with clinical practice guidelines. Osunlana et al. (2015) conducted a randomized controlled trial on use

of the 5 As to change provider behaviors on addressing obesity. During their study, 12

tools were developed based on the 5 As interventions. The researchers found that tools

needed to be adaptive, facilitate interdisciplinary practice, and help patients with goal

setting and decision making. Their final assessment found that the 5 As tools help

expedite patient assessments, counseling, and interdisciplinary approaches for obesity

management. Productivity and shared decision making can facilitate increased patient

outcomes (see Osunlana et al., 2015).

     Aston (2014) reported that Syosset Hospital in New York developed an adult

obesity program that has been successful in increasing screenings for obesity and obesity-

related conditions to find motivators for weight management and help create a plan of

care that is patient centric. The author also stated that obesity screening should be

included in all hospital stays and should be treated as all other chronic disease conditions.

Obesity is rarely addressed in discharge planning in the hospital setting; however, Aston

(2014) noted that hospitals can foster obesity prevention and intervention with hospital

obesity screening and referral programs.

     Leroux, Spencer, and Dubè (2013) completed a systematic review to identify

obesity interventions from a social perspective. Their review consisted of 30 articles that

were characterized by social constructs of relational aspects, ecological levels, and

theoretical approach. In the study, the authors compared how social constructs compared

the complexities of different interventions and found there is need to address obesity at

levels beyond just the individual. Interventions aimed at organizational and community

levels may offer better long-term methods of reducing the individual risk of obesity (see

Leroux et al., 2013). The authors highlighted the necessity for social network interventions to address gaps in obesity research and practice.

Most hospital obesity programs are aimed at pediatric facilities (see Eneli, et al., 2011). Eneli et al. (2011) reported that the obesity epidemic increased the need for a multidisciplinary approach to be successful and sustainable. The authors noted that 47 National Association of Children's Hospitals and Related Institutions completed a survey to investigate the needs, barriers, and implementation of obesity programs. They found that three quarters of the facilities surveyed added obesity programs to their plans. The value of adding the programs were listed as meeting the needs of patients, families, and providers (see Eneli et al., 2011). The addition of an obesity program was reported to decrease the risk factors of other health problems, and the most common barriers were cited as lack of reimbursement and increased operating cost (see Eneli et al., 2011). Most hospital administrators felt the programs were necessary to their mission to provide the best evidence-based care of children (see Eneli et al., 2011).

The obesity interventions literature review showed motivational interviewing, group counseling, and use of e-technology enhanced weight management behaviors (see Azar et al., 2015). Azar et al. (2015) rated the top free smart phone apps in the health and fitness categories to use to increase motivation to change the behaviors necessary to increase healthy eating and physical activity. They found all apps to be low in theoretical content or use of theory to guide behavior change. However, the researchers noted that LoseIt and MyFitnessPal incorporated self-tracking technology in dietary intake and

physical activity levels, which has been shown to be successful with weight loss and weight management.

A randomized controlled trial tested the use of motivational text messages to promote healthy behaviors and weight management (see Gerber et al., 2013). The clinical trial was based on the Obesity Reduction Black Intervention trial. The participants in the trial included 95 African American women that agreed to receive text messages throughout the day. The text messages were motivational messages agreed upon by the group to promote healthy behaviors for weight maintenance. The findings of the study showed that the text messages supplied positive motivation in reinforcing positive behaviors but did not support long-term benefits (see Gerber, et al. 2013).

Morrison et al. (2014) used a mixed model method to study the use of mobile phone technology and the development of apps for health interventions to enhance weight management. The participants included 13 adults from a university in the United Kingdom who were provided with the Positive Online Weight Reduction tracker, which is an android mobile phone app to supplement an online web intervention tool. The participants in their study had access on alternate weeks for 4 weeks. Telephone interviews were conducted to explore participant engagement in interventions that increased dietary awareness and physical activity (see Morrison et al., 2014). The participants also engaged in daily questionnaires of the goal measure (Morrison et al., 2014). Participant usage of online and mobile tracker were recorded using LifeGuide software (see Morrison et al., 2014). The researchers' conclusion supported that the use of both web-based and smartphone apps support health promotions and goals awareness.

A combination of the two methods increased delivery and engagement of use with the participants showing a preference for the ease of smartphone use over computer use (see Morrison et al., 2014).

Evidence Generated for the Doctoral Project

The target population for the obesity program was hospitalist nurse practitioners. Developing a successful program required that all areas work together to ensure sustainability and growth, as well as improving patient outcomes. Steps taken to develop a hospital obesity program was as follows:

Obesity is rarely addressed in discharge planning in the hospital setting; however, Aston (2014) noted that hospitals can foster obesity prevention and intervention with hospital obesity screening and referral programs.

1. Assembly of a team of vested stakeholders as team members.

2. Guide team through the literature review of scientific evidence that supports the program.

3. Develop a screening and referral tool using the 5 As for adult patients with a BMI $\geq$ 30 kg/m² or a BMI of $\geq$ 25 kg/m² and co-morbid conditions. (Appendix A).

4. Complete staff training on use of the screening and referral tool to increase referrals of obese patients to the bariatric clinic.

5. Have a hospital staff member complete a chart review of two nurse practitioner's chart to count referrals to bariatric clinic for 3 weeks prior to piloting screening tool.

6. Initiate screening tool for 3 weeks with the nurse practitioner pilot team members.

7. Have a designated hospital staff member complete a chart review to count number of referrals to bariatric center after the 3-week pilot test.

8. Use a t-test to test for significance of using screening and referral tool.

A comprehensive literature review was compiled and reviewed with the project team and stakeholders. Information obtained was used to guide the hospital obesity project design, development, implementation plan, and staff education to ensure alignment with facility mission and goals. The team was provided with the literature review summarization and theoretical framework used for development of the hospital obesity program and 5 A stool algorithm. All barriers were addressed as encountered at each phase of the program. The goals of the program were to increase staff knowledge and use of the 5 As framework and increased patient screenings and follow-up referrals to improve patient outcomes.

The Walden University Internal Review Board (IRB) approval was obtained prior to initiating this DNP project. Health care facilities have IRBs that follow the same guidelines and regulations, and this would need to be addressed on Walden University's IRB approval for the project. The IRB determines at what level the project is to be reviewed based on three different levels for the review of research. Application for IRB approval must be submitted for final approval of the project (Terry, 2015). The project design was based on a hybrid quality improvement project. The project examined

practice interventions to improve patient care outcomes. Studies that offer no risk to subjects are often deemed exempt by facility IRBs (Grove, Burns, & Gray, 2013).

Analysis and Synthesis

Results for current electronic patient records of two nurse practitioners were reviewed and analyzed by a facility nurse to identify how many obese patients received referrals to the bariatric clinic over a 3-week period prior to initiating screening tool. The obesity screening and referral tool was put into place for a pilot test for 3 weeks after staff received training on use of the tool. A facility nurse completed a chart review 3 weeks after tool initiation to count how many referrals to the bariatric clinic were made by the nurse practitioners. A *t* test was completed to determine if there was a significant increase in the number of patients referred to the bariatric clinic after the screening and referral tool was implemented. A *t* test is a common way to analyze data and test for study significance (see Polit, 2010).

The results were used to guide the hospital obesity program tool to increase screening and follow-up referrals for obese, adult patients to dieticians, physical therapy, and bariatric services. The program will be further developed by the interdisciplinary team members to meet patient and organizational needs. Referral to the bariatric center and information on local services available will be designed by the team members to educate identified patients and family based on the initial results of the pilot test.

Evaluation

Program evaluation begins during the development phase and continues throughout the program. A good evaluation design can help produce accurate, evidence-

based results that are meaningful and can be used to improve the program. This allows the team to assess who needs the information and provision of relevant information in a timely manner. A good evaluation helps guide the program to engage the stakeholders, give a clear idea of the program, collect data, test the procedure, analyze the program, make changes, and follow a budget in a timely manner (Hodges & Videto, 2011).

Formative and impact evaluations were used for this hospital obesity project to answer questions on effectiveness and acceptability of educational materials. A formative evaluation aide the development or improvement of a program. formative evaluation was used during the planning of the program and at implementation of the final phase of the program. This evaluation helped the project team test the program, determine materials needed, and allowed modification of procedures prior to implementation. The project's feasibility, appropriateness, and program acceptability may be better understood with the help of a formative evaluation. Identification and modification of problems was part of the pilot testing and activity evaluations are a vital part of the formative evaluation process (Hodges & Videto, 2011).

An impact evaluation was conducted at the intermediate level to access program effectiveness on a short-term basis. The impact evaluation allowed planners to evaluate the program and make modifications before final implementation. The projects goals and objects were measured using the impact evaluation to look at behavior changes and qualifying factors produced by the program. A summative evaluation or outcome evaluation will be conducted by the hospital team prior to dissemination and at 6 and 12 months to determine if the program was effective. The summative evaluation is good to

determine if the results are related to the program implementation. The summative

evolution looks at the long-term effects and health outcomes that occur due to the

implementation of the program (Hodges & Videto, 2011).

The logic model, or theory of change is an adaptable tool for program planning,

implementation, and evaluation of outcomes in an obesity program. The model helped the

team compile a representation of how an existing or new program plan should work. This

representation helped link processes and assumptions with the intended outcome. It can

be described in "if then" relationships as it leads to the desired outcomes. Use of the logic

model does not require more than team work which works well with budgets. The logic

model by W.K. Kellogg Foundation (2006) is a useful tool to address the complex issue

of obesity and guide projects for optimal outcomes (Hodges & Videto, 2011).

An impact evaluation should be conducted by the project team at one month after

the program is implemented. Questions to guide the post implementation evaluation are:

1. Was the hospital obesity program implemented as designed by the team?

2. Were any needed changes identified and adjusted in the program?

3. Were there challenges to implementation of the program?

4. Did the program meet short term goals and objectives?

5. Was knowledge and skill increased in the program participants?

6. Was the number of patients receiving screening and referrals for obesity
    increased?

7. Did hospitalist nurse practitioners change practice habits to increase screening
    and referrals?

Summary

In section 3, an opportunity is provided to restate the practice focused problem, program goals and objectives, and sources of evidence used to guide the project. Developing a hospital obesity tool to increase screening and follow-up referrals for obese patients helped satisfy the gap-in-practice identified in the hospital setting. The strategies used to develop the screening tool and hospital obesity program can reduce obesity, comorbidities, and mortality in obese adults. In Section 4, this paper will discuss findings, implications, recommendations, and team contributions to the obesity program. Discussions will also include program strengths and limitations.

Section 4: Findings and Recommendations

Introduction

The high prevalence of obesity has made it a major health concern in the United States and globally (American Nurse Practitioner Foundation, 2013). Obesity is recognized as a top contributor to preventable death and increases health care costs (CDC, 2017). The practice problem that I identified in this project was a lack of a hospital obesity programs for the screening and referrals of obese adult patients in the hospital setting. The DNP project practice-focused question was: Does development of a hospital obesity program to incorporate the modified 5 As and obesity CCM with hospitalized, obese, adult patients increase screening and follow-up referrals to ancillary health care services?

I completed an extensive, systematic literature review for this project by searching the databases of CINAHL Plus, PubMed, Medline Plus, Cochran Library, Scopus, and Google Scholar as well as state and government organization websites with a combination of the following search terms: *obesity, 5 As framework, chronic care model, hospital obesity programs, obesity programs, obesity counseling, obesity treatment plan, multidisciplinary, weight management, logic model,* and *obesity comorbidities.* The systematic review showed that use of the 5 As was effective as a screening and referral tool for obesity and is an accepted tool for reimbursement for obesity screening, counseling, and referrals through the CMS and many private insurance carriers. The research team used Kellogg's logic model to develop and guide the project. In Section 4,

I will discuss the findings and potential implications, recommendations, contribution of the DNP project team, and the strengths and limitations of the project.

Findings and Implications

The DNP project was developed as a proposal for a hospital obesity program based on the 5 As to increase screening and follow-up referrals for obese patients. I completed a t test to examine the difference of the before tool implementation referral numbers and the post implementation referral numbers to look for statistically significant differences. The two groups were compared for numbers of obese patients that were identified for referral to the bariatric center prior to the tool implementation and after implementation. The total sample size for the groups was 430 patients with 23 in the identified obese group prior to tool implementation and 34 in the group of obese patients identified for referral after implementation. After the test program implementation, the number of identified referrals was 23 patients versus two patients identified for referral prior to program implementation. The calculated p value was 0.035. A p value less than 0.05 and greater than 0.001 demonstrated significance between the number of patients identified for referral prior to implementation and the number of patients identified for referral after implementation of the screening and referral tool (see Polit, 2010).

I submitted the screening tool algorithm, education PowerPoint, implementation and evaluation plans to the executive team and leadership committees to substantiate program fidelity and applicability to the organization. In the DNP project proposal, I defined the problem, the supporting evidence, a purpose, clear goals, and a plan of action (see White et al., 2016). Feedback from the initial interactions with the leadership team

were positive for project adoption in a pilot testing and full implementation after addressing the barriers limitations.

The hospital obesity program can address the identified gap in practice and increase screening and follow-up referrals in obese patient populations 18 years of age and older, and in doing so, help the hospital combat obesity and obesity-related conditions. In the screening tool algorithm (see Figure 1), I defined the screening and referral process clearly and offered an evidenced-based tool to impact nursing care transformation and improve patient outcomes. The project aligns with the AACN (2006) Essentials for DNPs to generate new knowledge and translate findings to evidence-based practice.

Recommendations

My recommendation to address the gap in practice identified is using the latest evidence-based research to improve practice. The USPSTF (2016) recommended screening all patients for obesity and referring patients with a BMI of ≥ 30 kg/m² to intensive intervention services. Efforts are needed to halt the obesity epidemic by developing usable and sustainable obesity programs based on the best evidence practice guidelines. The barriers to program implementation and success are a lack of staff training on the screening and referral tool based on the modified 5 As for obesity. Other barriers may include a lack of knowledge on resources available through the bariatric center for nutrition, weight management, and surgical interventions. Training on use of the screening and referral tool and the options available are a priority for program adoption and achievement of objectives and goals.

My recommendations for the hospital obesity program were based on implementation of the proposed project by the project team. The project was initially a developmental project with implementation, evaluation, monitoring, and adaption of changes included in the development of the project goals and objectives and defined using the logic model. The organization and team may need further research into compensation and reimbursement as it pertains to screening and referrals of obese patients in the hospital setting. Another recommendation is to develop an obesity program champion to serve as a leader in training staff and incorporating the obesity program into daily care.

Contributions of the Doctoral Project Team

The healthcare team helped direct the development of this hospital obesity program proposal to improve patient outcomes. The formation of the project team was useful in providing guidance on the project objectives and goals. The team helped me develop the project and education criteria for program implementation support. Team interaction included scheduled meetings after I received IRB approval (Approval No. 07-19-18-0491477), and the executive team was presented with the proposal, implementation, and evaluation plans. The doctoral project team will take further steps for implementation, evaluation, and monitoring of the hospital obesity program in the future based on organizational approval.

Plans to extend the DNP project into daily care include using the quality improvement team and an obesity program champion to further develop and implement the hospital obesity screening and referral tool to increase referrals of obese patients to

the bariatric center. One of the hospitalist nurse practitioners agreed to be the obesity

program champion moving forward. Initial training will include an online training

PowerPoint with a follow-up survey to test the trainees' increase in knowledge on how to

use the screening and referral tool. A chart review will be conducted at the 3-, 6-, and 12-

month points to determine if the program increases referrals and is being fully

implemented. Other areas for development include reimbursement for screening and

referral of obese hospital patients and how it affects the revenue of the facility.

Strengths and Limitations

I identified several strengths and limitations for this DNP project. One of the

major strengths was developing the project proposal using the most current evidence-

based research. Transferability is another strength of the project. The hospital obesity

program proposal offers practice improvement tools to increase the screening and

referrals of obese patient to improve patient and organization outcomes and can be easily

adapted for other facilities. Another strength of the program is the fact that CMS and

most private insurance reimburse for screening and counseling using the 5 As framework

(CDC, 2016; Vallis, et al., 2013). The DNP project satisfies Essential VII by contributing

to improvements in a specified population health (see AACN, 2006).

One identified limitation of the project was the inability to fully pilot

implementation of the program once approval was obtained from the leadership

committee. Customization of the Cerner electronic medical record system could also

possibly be a limitation related to funding if needed. Other factors that could possibly be

limitations are staff acceptance, patient willingness to participate, culture, and daily incorporation of the tool into practice to increase screening and referrals.

Summary

In Section 4, I restated the local practice problem and the gap-in-practice that generated the DNP project. Practice-focused questions were developed from the gap-in-practice that was identified, which helped explain the purpose of the doctoral project on obesity in the hospital setting. I also discussed the project findings, limitations, strengths, and my recommendations for the project. The dissemination plan and a self-analysis will be provided in Section 5 of this DNP project. Section 5 will also include a summary of the doctoral project.

Section 5: Dissemination Plan

Dissemination of scholarly work is valuable to advance clinical practice and

population health outcomes (Zaccagnini & White, 2011). Communication of the DNP

project results are the last steps in the change process (Zaccagnini & White, 2011).

Dissemination gives a basis for project application, evaluation, the development of

questions, and testing of the findings in the clinical arena (Zaccagnini & White, 2011).

There are many methods for dissemination of scholarly work depending on audience

interest and areas of practice. Regardless of the method utilized, current research

knowledge and practitioner expertise should be included and matched with needs of the

desired audience (Zaccagnini & White, 2011).

Dissemination

Through Poster

Dissemination of clinical projects through poster presentations has become an

acceptable method for the communication of project findings (Zaccagnini & White,

2011). The poster presentation offers a less formal way to present and allows for

participant engagement, education, and a great venue to promote networking (Zaccagnini

& White, 2011). Time and planning are needed to present a good poster and layouts are

different for each type of dissemination type. A poster presentation will be a good

medium to present at conferences in the future.

Through Power Point

PowerPoint allows the ability to present the information orally and via

technology. The slides should be easy to read and contain grouped information to offer

the best readability (Zaccagnini & White, 2011). Benefits of this manner of presentation are ease of sharing information and offering a visual component to enhance the oral presentation. Another benefit is the ease of sharing on a technology platform for those that cannot attend a live oral presentation. A PowerPoint presentation can be easily adaptable as a webinar or online self-study to accommodate different shift schedules.

Analysis of Self

Nurses are critical to the delivery of quality evidence-based care. Improving quality care has been on the forefront of quality improvement since the quality report, *To Err is Human: Building a Better Health System*, by the Institute of Medicine documenting weakness in care (Institute of Healthcare Improvement, 2018). In a follow-up report, safe and patient-centered care was outlined to improve quality and safety with the Institute of Medicine concluding that nursing care is essential for quality care outcomes.

The past 3 years of doctoral education has given me new knowledge and tools with which to critically appraise clinical practice issues and foster engagement in higher level activities regarding program design, implementation, and evaluation. My project of developing a screening and referral tool for a hospital obesity program was aimed at increasing patient referrals, patient outcomes, and better quality of life. The DNP program and project has been a valuable experience that allowed me to grow clinically as a practitioner and as a scholar of nursing practice.

The DNP program has prepared me to interpret research to improve clinical practice. Addressing current health issues provided me with the opportunity to grow as a

scholar and helped to fulfil the DNP Essential III as defined by the AACN (2006). The DNP program also provided me with a deeper understanding of the leadership role in nursing. Working with a team to develop a practice project demonstrated the multidimensional aspects of the leadership role, improved my practice knowledge base, and strengthened my clinical practice abilities and complex system analysis skills.

The development of the DNP scholarly project has practice implications, increases nursing knowledge, scholarly practice, and impacts health care. The hospital obesity project allowed me the opportunity to contribute to nursing through research and evidence-based practice. The proposal phase of the project increased my ability to research and comprehend literature from the field. The AACN (2006) DNP Essential III addresses the need for nurses to make connections across disciplines and apply the new knowledge to solve a problem. It was important for me as a nurse scholar to generate new knowledge, apply it to practice, and disseminate the results to improve nursing practice and improve health outcomes.

The DNP project also provided me with an opportunity to improve the practice areas of project development and leadership. The development of the project increased my knowledge and practice in planning, reviewing evidence-based research, and incorporating evidence-based research into practice. The translation of evidence into practice increased my confidence in program development and my ability to identify gaps-in-practice and plan, implement, and evaluate interventions to produce the best outcomes.

Summary

The development and implementation of the hospital obesity screening tool offers a practice care model that is transferrable to other facilities. The screening tool and patient referral education provides an evidence-based intervention to decrease obesity in the hospital and community settings. I will disseminate the project and results by PowerPoint to educate the study site staff on current obesity statistics and the impact obesity has on hospitalized patients and staff. The results of this DNP project brought awareness to the magnitude of the problem, identified the gap-in-practice, contributed to positive patient and facility outcomes, and enhanced the growth of the DNP student in multidisciplinary roles.

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Appendix: 5 As Screening Tool Algorithm
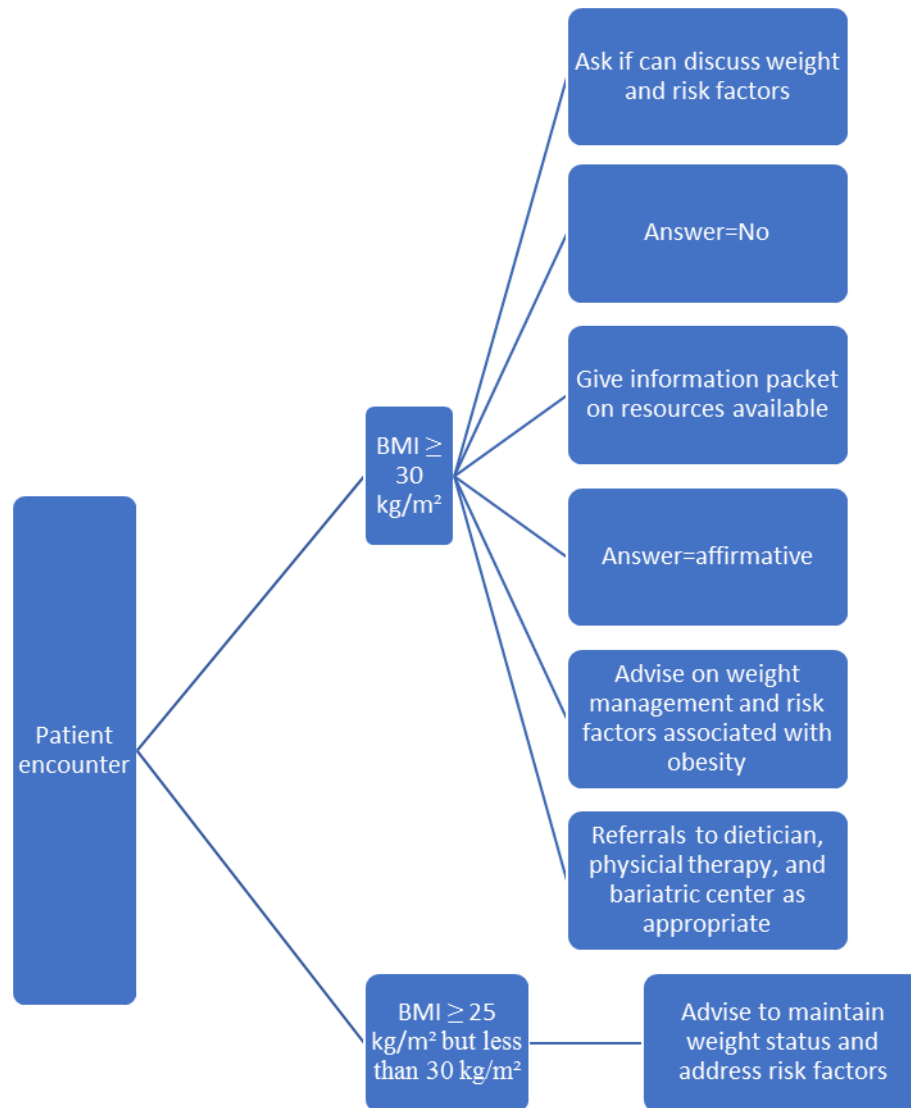
Treatment tool algorithm to increase screening and referrals of obese patients in the hospital setting. The screening and referral tool is based on the 5 A's modified for obesity prevention and management. (Adapted from Vallis et al., 2013).