1-1-2018

Lose to Win: Fighting Obesity in the Workplace

Latoya Dotson
Nova Southeastern University

Lose to Win: Fighting Obesity in the Workplace

by

Latoya Dotson

Nova Southeastern University

in Partial Fulfillment of the Requirements for the Degree of

Doctor of Nursing Practice

Nova Southeastern University

2018

NOVA SOUTHEASTERN UNIVERSITY
HEALTH PROFESSIONS DIVISION
COLLEGE OF NURSING

This project, written by Latoya Dotson under direction of Eglintine Rigaud, PhD, ARNP, WHNP-BC, Project Chair, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF NURSING PRACTICE

PROJECT COMMITTEE

Eglintine Rigaud, PhD, ARNP, WHNP-BC — Date 4/16/18
Chair of DNP Project Committee

Gitana Ng, DNP, ARNP, NP-C, FNP-BC — Date 4/9/18
Project Committee Member

NOVA SOUTHEASTERN UNIVERSITY
HEALTH PROFESSIONS DIVISION
COLLEGE OF NURSING

Certification

We hereby certify that this DNP Project, submitted by Latoya Dotson, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Nursing Practice degree.

Approved:

Kelly Henson-Evertz DNP, RNC-OB, CTTS — 4/9/18
Interim Program Director, Doctor of Nursing Practice — Date

Marcella M Rutherford — 5/4/18
Marcella M. Rutherford, PhD, MBA, MSN — Date
Dean, College of Nursing

Abstract

Background: Obesity is a significant healthcare problem in modern American society. It has led to decreased longevity of employees and decreased productivity in day-to-day duties of healthcare workers. There are more negative attributes to obesity than positive, regardless of the race affected. One of the leading causes of death in 2012 was cardiovascular disease. Due to poor dietary choices, the promotion of sedentary lifestyle has led to complications of obesity such as high blood pressure and diabetes. Major improvements can be made within a community that acknowledges the risks of obesity and seeks to implement preventive programs. Increasing one's physical activity and implementing healthier dietary choices leads to a reduction in cardiovascular diseases.

Purpose: The purpose of this quality improvement project was to develop an evidence-based obesity prevention program for the healthcare facility staff to increase physical activity within the workplace.

Theoretical Framework: Health Belief Model Theory.

Methods: The investigator used a quasi-experimental approach using a pretest/posttest design.

Results: The results of the data analysis revealed positive perception changes in acceptance to the implementation of physical activity in the workplace. Within two weeks of the project completion, the investigator noted a 69.23 percent increase in the implementation of physical activity in the work and home setting, and an 84.62% change in the manner individuals made food choices, with a median percentage rate of 96.2 for awareness of obesity, overweight health status, and cardiovascular disease risk factors.

Conclusion: The evidence-based worksite obesity prevention initiative provides support and acceptance for the implementation of physical activity in the work setting.

Acknowledgements

I would like to thank those who have provided support and guidance in the preparation and completion of this quality improvement project. This journey had many personal, professional, and academic challenges. I would not have been able to complete this project without each of you.

First, I would like to express my deepest gratitude to my chair, Dr. Eglintine Rigaud, who travelled this journey with me. Dr. Rigaud is the reason for my overall success throughout this program. She is the consistent factor in my academic career that pushed and motivated me for project completion. There are many times I wanted to simply give up. Her motivation and clinical expertise is what motivated me to finish and complete the task at hand. I would like to thank my project committee member, Dr. G. Ng. Thank you for coming aboard to help me in this process as my advisor and offering myself an additional set of eyes to help along the process.

I especially wanted to thank Dr. Campbell. There have been many times I have called her, confused and overwhelmed with course materials, and she has always provided a cool and calming demeanor, direction, and motivation. From the very first semester, I wanted to quit because I felt so overwhelmed and felt that I wouldn't be successful. She was that enforcer that I needed as a student and what I also needed from a mentor. I hope and pray that I will be as much of great mentor to future nurses as she is to me.

To my family: thank you for your endless love and ongoing encouragement. You were supportive throughout my journey, present when I was there, and understanding of the times when I could not be there to help. Thank you to my children, Janise and

Maverick, for being the constant reminders of my overall motivation to succeed. My goal as your mother is to enlighten and inspire you, and I pray that I'm given the opportunity to do just that for the rest of my life.

Thank you all. This journey has been collaborative, exhausting, and exhilarating, and I couldn't have made it without any one of you in my life. You are deeply appreciated.

Table of Contents

List of Tables

List of Figures

Chapter 1

Nature of Project and Problem Identification

Obesity is a healthcare problem that remains prevalent in modern society. Obesity affects the population worldwide. There are over 400,000 deaths annually related to obesity (World Health Organization [WHO], 2015). Obesity has led to increased healthcare costs, decreased productivity of employees, as well as major decreases in individuals' quality of life. Overweight and obesity are terms used often in healthcare. The difference between overweight health status and obesity can be measured using the body mass index (BMI), which measures the patient weight in relation to height for that specific individual. A BMI equal to or greater than 25 indicates that an individual is overweight, and a BMI over 30 indicates obesity (WHO, 2015). These terms both describe a non-desirable weight status of an individual and elicit a negative stigma for the patient and healthcare provider. Many complications can arise from an individual suffering from obesity. In modern society, obesity is common among all age groups. With variations in socioeconomic backgrounds, lifestyle choices, and flexibility in schedules, healthy lifestyle choices often take a backseat due to day-to-day distractions.

Obesity leads to the onset of disease processes such as diabetes, strokes, heart disease, and cancer. In 2008, over 78.6 million adults in the United States suffered from obesity, costing the U.S. over $147 billion to treat. Though researchers have made major strides in the arena of obesity and healthcare, there has been a steady rise in global obesity, which has doubled since 1980 (WHO, 2015). Different perceptions are placed on what is normal weight as well as to what is acceptable. Though different perspectives are

present, the factor that remains the same is health promotion and disease prevention is a focal point in the management of obesity and cardiovascular disease.

There are more negative attributes to obesity than positive, regardless of the race affected. One of the leading causes of death in 2012 was cardiovascular disease (WHO, 2015). Obesity not only affects the individual diagnosed, but also the individual's family. Financial burdens can arise with excess healthcare costs, which can result in non-adherence with diet and medication therapy. Major improvements are possible within a community that acknowledges the risk of obesity and seeks to implement preventive programs. An increase in one's physical activity, as well as the implementation of healthier dietary choices, leads to a reduction in cardiovascular diseases. The goal of the current quality improvement project was to foster healthy dietary choices and increase physical activity levels among healthcare employees at a community center.

Problem Statement

The problem was the absence of a developed worksite anti-obesity program for healthcare employees.

Purpose Statement

The purpose of this quality improvement project was to develop an evidence-based obesity prevention program for the healthcare facility staff and to increase physical activity level within the workplace.

Project Objectives

The following are the objectives for this project:

1. Generate support from the healthcare administration.

2. Identify evidenced-based obesity prevention information that supports worksite anti-obesity interventions.
3. Develop a worksite obesity prevention program.
4. Implement the program.
5. Evaluate the program.
6. Present to stakeholders for adoption of program as a policy within the facility.

Theoretical Foundation

The theoretical framework that the researcher selected for the current capstone project was the health belief model theory, which focuses on individual behaviors that invoke positive change. The application of the health belief model in the workplace is represented in Figure 1.

Health Belief Model Theory

The health belief model is an excellent model of care that motivates and encourages individual change, responsibility, and confidence in health promotions. The creators of this theory analyzed the prediction of health behaviors for the advancement of behavior science. They posited that, "by implementing changes in cognitive behaviors, it will invoke change in the knowledge and beliefs of others" (Adams, Hall, & Fulghum, 2014, p. 393). The health belief model focuses on the individual behaviors associated with change. It explains the individual's health belief and decision-making factors related to compliance (Adams et al., 2014).

Individuals are often motivated by fear and negative outcomes (McEwen, 2012). The health belief model was developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels due to the population inadvertently avoiding health screenings

against tuberculosis. The public's dismissive manner in health promotion led to an increase amount of individuals affected with the disease. The theory of the model focuses on the individual's value or worth in avoidance of the illness, as well as what specific measures he or she will act upon to prevent acquiring the disease.

The health belief model promotes responsibility, taking action, and decision-making. It focuses on an individual's motivation and desire for positive health outcomes (Adams et al., 2014). The construction of the model includes five phases: (a) perceived susceptibility to the disease, (b) perceived severity of the disease, (c) perceived benefits, (d) perceived barriers to health promotion, and (e) self-efficacy.

Perceived Susceptibility

This stage focuses on the individual's personal beliefs regarding the likelihood of acquiring a diseased state. For example, an individual of the desired body weight with poor eating habits may not see the threat of obesity, but if he or she has a family history of cardiovascular disease or diabetes, that individual may consider diet modification. If the perceived threat is present (cardiovascular disease or diabetes), there is a positive likelihood of health promotion.

Perceived Severity

The individual's perception of the negative outcomes of contracting the disease explains this stage of the health belief model. Poor eating habits and physical inactivity can lead to obesity. Obesity leads to a decrease in quality of life and the onset of many diseases. This is when the perceived threat is established. Once an individual can visualize him or herself with the disease, it will then invoke fear and motivate an individual to change his or her unhealthy eating habits.

Perceived Benefits

This stage of the health belief model involves the individual's beliefs that engaging in health promotion will minimize the risk of the susceptibility and severity of the disease. Diet modification and exercise can lead to longevity and lessen the individual's chance of acquiring the disease.

Perceived Barriers

An individual discovers the perceived barriers when the individual creates roadblocks in his or her own success. This occurs when the individual feels his or her participation in the health promotion act is limited due to financial, physical, and psychosocial endeavors. This occurs when an individual feels he or she cannot make healthy choices due to financial strain, personal availability, and motivation.

Self-efficacy

The self-efficacy phase is acknowledged when the individual is self-aware and willing to make positive changes in his or her life. Despite the obstacles or self-doubt an individual may face, if he or she is willing to make a positive change in health promotion, then the individual will experience self-efficacy.

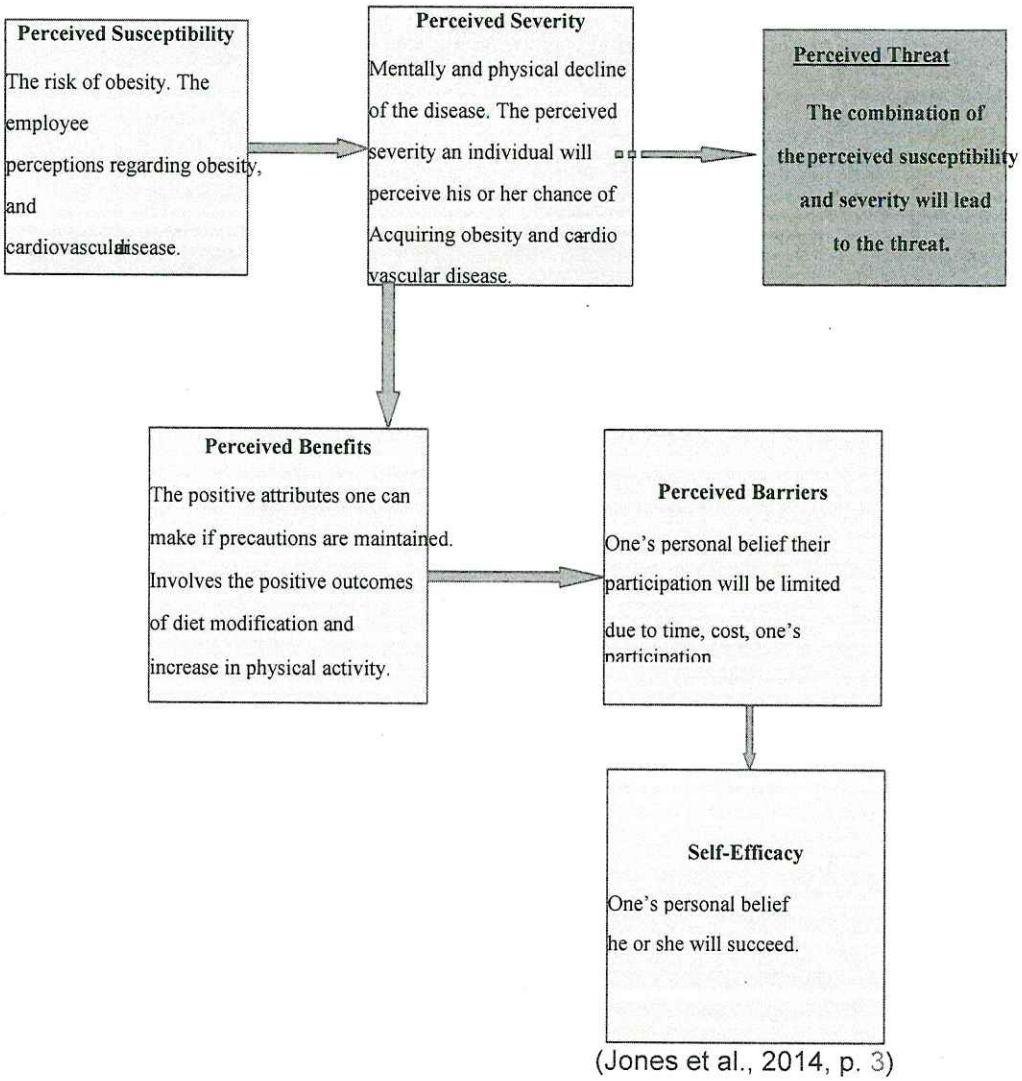

Figure 1. Health Belief Model Context: Obesity prevention in the workplace.

Obesity leads to lifelong complications that can affect the cardiovascular, respiratory, and integumentary systems due to onset of new diseases. Once the individual acknowledges that a change is needed to reduce his or her risk of health complications, the intent to better oneself physically and mentally is fulfilled.

The Impact on Nursing Practice

The current researcher developed this project to impact nursing practice by changing nurses' perception of physical activity in the work environment. Having staff become self-aware of the dietary choices that they make may aid in weight loss and increased productivity. Increasing physical activity can increase employees' serotonin and energy level, making the work environment more productive. Due to time constraints, it is easier to choose unhealthy eating opposed to healthier food choices. Carbonated beverages and carbohydrates are easily accessible, tasty, and inexpensive. Many health and wellness programs are offered in occupational settings. Some focus on obesity, smoking, and reducing cardiovascular risk. Various companies offer discounted memberships to fitness centers in the hopes of promoting healthier living for their employees. Despite a healthcare employee's access to healthcare, there is decreased participation for treatment for individuals categorized as obese or overweight (LaCaille et al., 2016). In the current project, the researcher focused on the significance of having a healthy staff, which may lead to increased productivity, longevity, and job satisfaction.

The Impact of Worksite Obesity Prevention Program

This project has impacted healthcare outcomes in obesity prevention by promoting a healthier and cost-effective environment for the employees as well as the employer. Obesity brings on a variety of complications, including diabetes, heart disease, cholesterol issues, arthritis, and cancers. The action plan for implementing the health wellness program aimed to benefit employees of all sizes, but focused more on lowering the individual risk for cardiovascular disease in the overweight and obese employee. The implementation of the worksite obesity prevention program within the individual's place

of employment focused on education and increasing one's physical activity level. Methods to increase an employee's physical activity level were implemented in daily exercise huddles. Daily exercising may decrease the individuals' BMI and lower their chances of acquiring heart disease. Economically, this may be a feasible task to decrease healthcare costs for the healthcare organization.

The Impact on Healthcare Delivery

The project has impacted healthcare delivery providing healthcare employers avenue for improving the health of their employees. The researcher aimed to give employees the ammunition needed to become self-aware, assume responsibility for their actions, and lead others. Once nurses at the facility alter their own physical activity and dietary habits, they may deliver a higher level of obesity prevention and wellness care to patients.

The Impact on Healthcare Policy

The project has changed policies at the facility regarding the adoption of an employee wellness program addressing weight management. The exercise huddles involved 10 different 5-15 minute exercise regimens that promote physical activity among the nursing staff. The policy promotes health by making it interactive with other healthcare professionals at work. It promotes communication, teamwork, and healthier living choices.

Summary

If practitioners understood the significance and feasibility for the implementation of a worksite obesity prevention program, it would be imperative for this practice to be adopted in all companies. The utilization of the exercise huddles in the workplace may

promote healthier lifestyles and lower employee's risk of obesity. Utilizing the health belief model may assist employees to perceive the threat to their health and foster their participation in a worksite obesity prevention program. Providing education, resources, and support will lead to a healthier health system that not only focuses on the health restoration of its patients, but on the quality care of its employees.

Chapter 2

Review of Literature

Researchers have defined that the key measures to obesity prevention are encouraging physical activity and healthy eating. These preventive measures aid in the assistance of weight reduction and lower an individual's risk of non-communicable disease such as cardiovascular disease, diabetes, musculoskeletal injuries, and cancers (WHO, 2015). To aid in the assistance of weight reduction and optimal healthy living, many companies implement health wellness programs within the work setting to promote the health and wellbeing of their employees. The benefits of implementing the worksite obesity prevention program include the provision of comprehensive individualized care. By increasing one's physical activity level, there is a probability in the prevention of absenteeism and reduced healthcare cost for the employers (Romney, Thomson, & Kash, 2011). Health wellness programs have made major strides in the prevention of obesity; there are tobacco cessation programs, exercise classes, cholesterol education and diet modification. Evidence-based practice plays a key role in measuring positive outcomes for the patient and clinician. Evidence-based practices hold care to higher standards in order to manage specific health outcomes.

The investigator performed a systematic literature search using Cumulative Index to Nursing and Allied Health Literature (CINAHL) Complete, MEDLINE, Nursing & Allied Health: Complete databases, as well as professional and governmental agencies. The investigator reviewed articles published from 2010 until 2015. The investigator's search strategy focused on articles relevant to evidenced-based obesity prevention practices and the use of the Internet for web-based health wellness programs

in the workplace. The keywords used in the search strategy included *obesity, overweight, wellness, cardiovascular risk, co-morbidities, patient education, technology,* and *Internet.* The themes noted in the literature reviewed relating to obesity prevention and health wellness programs included the program implementation benefits, institutional promotion of obesity prevention, strategies to decrease obesity, evidenced-based educational intervention programs, and the use of the Internet in the conquest of obesity prevention.

Changing the Employees' Perspective

Obesity causes 3 million deaths yearly, accounting for $75 billion in healthcare costs (Davis, Clark, Lewis, & Duncan, 2014). Common issues among employees and employers regarding obesity include increased absenteeism, as well as higher claims of employees claiming disability and workers' compensation. In the study of Davis et al., the researchers reviewed weight management programs that focused on weight and cholesterol reduction of the employee and his or her family. The researchers' two goals were to increase participants' awareness of healthy interventions that focused on weight reduction. The researchers analyzed the efficacy of completing a more interactive approach to achieving weight loss in the workplace; they held individualized face-to-face meetings with employees and the health coach to ascertain if the intervention implemented assisted in the overall weight loss reduction for employees. The researchers chose three worksites during the timeframe of January 2005 to June 2010. At the completion of the study, participants showed a 5.6 percent rate of weight loss. Participants benefitted in a positive manner from the interventions implemented. There was a 12-pound reduction in weight, as well as a reduction of the participants' total

cholesterol level (Davis et al., 2014). Results showed worksites with higher obesity rates per episodes of HTN, CAD, or CVD per 1,000 employees. The highest recorded incidence was of individuals diagnosed with HTN, with a mean score of 38.6. The hypothesis proved accurate in its claims that worksites benefit from employee weight loss. The researchers, however, did not provide sufficient evidence to explain the true significance of the wellness programs. Limitations within this study were the amount of participants and the lack of a control group. The investigators did not provide the complete individual data for each worksite; the results were given for one location, but did not specify the others. Obesity prevention in the workplace is beneficial to reduce cost for the employer. This project did not produce enough evidence to prove a reduction in medical costs attained by the employer. Methods for future projects should include data of each site and statistical measures of the impact made to the employer.

In an article by Pescud et al. (2015), the researchers examined qualitative study values for the promotion of health in the workplace. The authors' main goal of the study was to ascertain the employer's perception regarding the utilization of a worksite obesity prevention program in hopes of changing employees' negative perspectives into positive health outcomes. Methods to improve health outcomes included increasing awareness, completing health risk assessments, vaccinations, as well as encouraging healthy eating and physical activity (Pescud et al., 2015). The researchers recruited 10 focus groups within Western Australia with sample size of 79. The results revealed several concepts: the conceptualization, the employer's perception, the description, and the employer's personal beliefs that the workplace plays in health promotion. The common themes were in relation to the employer's awareness to the significance of a program in the workplace,

identification of at-risk healthcare workers for chronic diseases, and the employer's perception of encouraging employees' healthy lifestyles. These themes helped the researchers to identify the at-risk population.

Building Employee Awareness to Obesity Prevention

Lacaille et al. (2016) assessed the implementation of environmental cues and physical activity promotion to increase awareness and change perceptions when making healthy food choices. These researchers performed annual analysis of the hospitals' employees assessed in the prevention to increase physical activity with the administration of the pedometer and communication. The study showed a high participation rate, with 309 out of the 361 hospital employees participating. Interventions focused on nutritional labeling of foods, increasing physical activity, and collaborating with an interdisciplinary team. The results indicated that it is possible to invoke employees to make healthy food choice and to increase their physical activity level.

Summary

Health wellness programs against obesity in the workplace may result in decreased costs and increased productivity. Increased awareness leads to increased participation and decreased health costs for the employer. Utilizing alternative strategies to prevent future episodes of cardiovascular disease would benefit both employee and employer. In this body of literature, various scholars provided a platform of the common issues and errors made in evidence-based practice that can help improve future studies. Continued research will lead to further advancements in the ways that healthcare practitioner and employers view health wellness programs.

The results of this review did not provide sufficient evidence to explain the true significance of workplace wellness programs. Implementing physical activity in the work place is collaborative in weight management and disease prevention. The study conducted by Davis et al. (2014) provided one-to-one worksite management for the employee and family. This intervention provided for additional support for healthier living in the work and home setting for all participants. The most similar literature review whose characteristics were similar to the worksite obesity prevention program was the analysis of the employer's perception to identify core measures that needed attainable goals for weight reduction is needed in healthcare (Prescud et al., 2015). LaCaille et al. (2016) analyzed the changing perceptions of employees by implementing weight reduction in the community. Recommended methods for research include conducting group-oriented weight loss programs, as well as building knowledge awareness of the employer and employee.

Chapter 3

Methods

Obesity is a nondiscriminatory disease that affects all races worldwide. Obesity presents with modifiable and non-modifiable risk factors. Obesity can originate from a genetic background affecting one's social, economic, and behavioral status (Anderson, Symoniak, & Epstein, 2004). The high demands of society have led to a decrease in physical activity, along with an increase in the intake of carbonated beverages and carbohydrates. Due to the many advances in technology, many careers and lifestyles became sedentary. Workers have experienced increased BMI due to short staffing, extended hours, and work-related stress (Anderson et al., 2014). Obstacles in obesity prevention arise due to healthcare costs and availability of the employee. Over 30% of the American adult population is obese, making obesity an important factor in employers' management of health costs, absenteeism, and healthcare claims (Anderson et al., 2014). Prevention of obesity in the workplace is an appealing and lucrative innovation in healthcare. Over 60% of the healthcare employees are employed full-time and receive health insurance from the employer (Thorndike, 2011). The purpose of this quality improvement project was to develop and implement an evidenced-based obesity prevention program in a healthcare facility in order to increase staff members' physical activity.

Project Design

The purpose of this quality improvement project was to develop an evidence-based obesity prevention program for the healthcare facility staff in order to increase physical activity within the workplace. In keeping with the purpose and aims of this

quality improvement project, the investigator implemented a quasi-experimental approach using a pretest and posttest design. The investigator conducted a pretest-posttest design in order to determine whether perceptual changes of the clinical staff are achieved with the implementation of physical activity in management of obesity and weight reduction.

Setting

The setting was an outpatient healthcare clinic in southern Florida.

Identification of Participants

The study's participants included the employees of a local community hospital that treats a wide range of patients in southern Florida. The participants' sample size consisted of 13 healthcare professionals employed full-time in an outpatient surgical oncology clinic. The clinical staff consisted of four physicians, one office manager, one surgical coordinator, one prior authorization heath personnel, two surgical coordinators, two receptionists, and two medical assistants.

Inclusion Criteria

The inclusion criteria for the quality improvement project included men and women between the ages of 18-64 that were employed full-time in the outpatient health clinic.

Exclusion Criteria

Exclusion criteria for the study included the part-time and per-diem staff without healthcare coverage. The exclusion criteria also included staff employed for fewer than 3 months.

Ethical Considerations

This quality improvement program required approval from the Nova Southeastern University (NSU) Institutional Review Board (IRB) in order for the project to be implemented. The investigator also obtained a letter of support from the facility's medical director. The approval to participant in the quality improvement project was contingent on medical clearance from each healthcare employee's medical provider prior to participation in the project. The investigator discussed informed consent with the participants, as well as the right to withdraw at any point during the course of the project. The investigator maintained the confidentiality of the project on a password-sensitive document file on the principal's investigator personal computer. The investigator will maintain this data in a locked computer file for 3 years, after which time the data will be delete from the database. Signed consents and medical clearance forms were secured in a locked file in the investigator's home office. Data will be held for three 3 years then shredded and discarded.

Incentives

The investigator held an information session during lunch and break sessions to discuss the worksite obesity prevention program. The investigator provided a healthy themed lunch to the staff as an incentive for participation.

Project Phases/Objectives

The investigator designed this project in phases in order to meet the objectives.

Objective 1 was to generate support from the healthcare administration. The investigator obtained a letter of support and permission from the administration.

Objective 2 was to identify evidenced-based obesity prevention information that supports worksite obesity interventions.

Objective 3 was to develop 10 different 5-15 minute exercise interventions that could be utilized in the work environment to increase employees' physical activity. The investigator linked the interventions to the employees' bulletin boards and computer screens for participation.

Objective 4 was to evaluate the significance of the obesity prevention program by completing a pretest with the employees at the onset of the project and a posttest at the completion of the project.

Timeline

The completion of the quality improvement project consisted of five phases, which are listed below:

Phase 1 of the project consisted of objective one, obtaining administrative support. This process took 2weeks to complete.

Phase 2 involved the conduction of an intensive literature review regarding the diet, exercise, and workplace programs. This was done over several months during the capstone 2 course.

Phase 3 consisted of the development of the program (Objective 3). During this phase, the investigator conducted consultation with a nutritionist, physical therapist, and quality assurance personnel in order to enhance the development of an efficient program. This was also completed over several months during fall 2016 and winter 2017.

In Phase 4, the investigator completed the implementation and evaluation of the project during summer 2017.

During Phase 5, the investigator presented a PowerPoint presentation on the completed project to the stakeholders and facility medical director.

Resources/Budget

Costs related to the project included the printing of flyers, the provision of a complimentary lunch for the participants, and the purchase of a membership with Survey Monkey. The total costs for the project included an estimated $120.00, as illustrated in Table 1.

Table 1

Project Resources and Budget

Category	Item	Description	Quantity	Total
Printing Material	Paper	Stock-White -110lb	$5.00 x 1	$ 5.00
	Ink	Combo Black/Color Ink Cartridge	$50.00 x 2	$ 50.00
ɔmplimentary lunch for participants	Lunch	Fruits, Vegetables,	$10.00 x 2	$20.00
		Coffee	$40.00 x 1	$ 40.00
Total Costs				$ 120.00

Objective Outcome Measures

The investigator evaluated the outcomes of this project using the project phase measures and objectives listed below.

Objective 1: Generate Support from the Healthcare Administration.

The investigator measured this objective by the administration's willingness to utilize the healthcare facility. The administrator granted access for the investigator to utilize the facility, and granted permission to its employees to participate in the study.

Objective 2: Identify Evidenced-Based Obesity Prevention Information That Supports Worksite Anti-Obesity Interventions.

Through this objective, the investigator aimed to ascertain the different physical activity intervention programs utilized to aid in the prevention of obesity in the workplace. The investigator conducted a comprehensive literature review to meet this measure. In Chapter 4, the investigator will discuss how she evaluated the literature based on best practices.

Objective 3: Develop A Worksite Obesity Prevention Program.

This objective had challenges in regards to awareness and participation of employees. Methods to increase the employee's willingness to participate as well as increase his or her knowledge base was to keep the staff aware by using informational fliers located at the nurses' station, lounge, and work computer screens.

Objective 4: Implement The Program.

The objective was accomplished by the successfully implementation of the program in the facility with the support of the staff and administration.

Objective 5: Evaluate The Program.

This objective was accomplished by evaluating the significance and feasibility of the exercise interventions in the workplace. The purpose was to help employees identify the risk factors that increase their chances at obesity acquired in the workplace. The investigator evaluated the utilization of the exercise intervention program based on the posttest responses and perspectives of the employees.

Objective 6: Present To Stakeholders For Adoption of Program as a Policy Within The Facility.

A presentation on the completed project was provided and well received by the stakeholders and facility medical director.

Summary

Obesity is often seen in healthcare professionals due to stress on the job, inactivity, and accessibility of high-fructose drinks and food. Nurses tend to eat unhealthily due to time constraints and job responsibilities. Implementing an action plan that focuses on education of lifestyle choices would assist in the fight against obesity. The purpose of this quality improvement project was to develop and implement an evidence-based approach for the implementation of an anti-obesity prevention program in the health system that will focus on education and physical activity in the workplace for nursing staff to lower the risk of cardiovascular disease. The target audience was healthcare employees in an outpatient health clinic. Nurses have accounted for 55 percent of the obesity statistics due to work-related stress and irregular sleeping patterns (Katrandjian, 2012). Obesity is seen in a variety of settings, and patients range from the very young to the very old. The current scholarly project involved the development of an evidence-based pretest and posttest questionnaire evaluating employees' competency in obesity prevention in the workplace using exercise interventions. The investigator utilized multiple phases to accomplish the objectives of this project.

Chapter 4

Results and Discussions

The purpose of this quality improvement project was to develop an evidence-based obesity prevention program for the healthcare facility staff in order to increase physical activity within the workplace. Worksite obesity prevention, in the form of an employee wellness program, has been in place for decade. In this DNP quality improvement project, the investigator offered a 6-week program to employees of a healthcare organization in southern Florida. The investigator utilized a quasi-experimental, pretest-posttest design without randomization.

Increasing an individual's physical activity level can lead to positive health benefits, psychological stability, as well as financial and functional gains. Preventing worksite obesity in the workplace by encouraging physical activity may include an employee wellness program initiative that employees can utilize at the comfort of their desk. Healthcare personnel are individual, employed in various healthcare settings that assists the health provider to provide safe effective patient care. The work setting can be a stressful environment for an individual to focus on healthy living and physical activity. There are daily demands, deadlines and numerous task and assignments to fulfill that choosing healthier food choices becomes unattainable.

Although clinical staff provide leadership, direction, and education to patients and families regarding disease management, the staff themselves may be unlikely to engage in activities that lower their risk of cardiovascular disease. In order to reduce the incident rate of employed staff members' risk of chronic diseases, the current investigator implemented an employee wellness programs. Employee wellness programs have

become ubiquitous, with more employers depending on them to attract and retain top talent, increase productivity, reduce absenteeism, and control healthcare costs. Utilizing physical activity in the workplace provided a unique way to change the perception of the employees by educating and implementing health strategies to prevent cardiovascular risk factors.

Results

The investigator implemented this worksite obesity prevention program after receiving a letter of approval by the center for advanced surgical oncology medical director on May 5, 2017. The investigator-required approval from the Nova Southeastern University Institution Review Board because the project directly affected human subjects and medical clearance to determine if participants are physically fit to participate. In order to meet the objectives, the investigator completed this project over three phases. These phases were project planning, implementation, and data collection and analysis. The investigator completed each project objective according to the aforementioned timeline; in this section, the investigator will discuss the achievement of each objective in its entirety.

Objective 1 was to generate facility support. The investigator met this objective by collaborating with the interdisciplinary team members to discuss individual factors leading towards obesity acquired in the work setting. There were a total of two meetings held with the dietician, diet clerk, internist, physical therapist, registered nurse, and advanced practice registered nurse to discuss the common themes in obesity prevention. The most common themes discussed pertained to individual weight status, eating habits, location, desire to change, and self-awareness. In this meeting, the investigator and the

staff also discussed dietary initiatives for clinical staff and methods to increase physical activity in the workplace. The investigator identified the quality improvement project problem and initiated a plan for program development.

Objective 2 was to conduct a literature review to identify preexisting healthcare based programs in the work setting. The investigator accomplished this objective by completing a systematic search of current, reputable evidenced-based literature in Cumulative Index to Nursing and Allied Health Literature (CINAHL) Complete, MEDLINE, Nursing & Allied Health: Complete databases, and Cochrane Reviews. Key words used in the search were *obesity, overweight, health wellness programs, exercise in the workplace, cardiovascular prevention, patient education, worksite obesity, technology,* and *Internet.* Additionally, the investigator reviewed content from websites of obesity prevention experts and organizations that protect support and promote worksite obesity prevention. The sites included the World Health Organization and the Center for Disease Control and Prevention (CDC).

Objective 3 was to develop the program. The investigator accomplished this objective by meeting with the project mentor and physical therapy department to develop 10 different 5-15 minute exercises that could be utilized in the work setting and disseminate the information in clinical practice. The investigator held a meeting with the physical therapist to determine the risk factors previously discussed, discuss the needs of the clinical staff, and determine the final routines to implement in the work setting. The investigator posted the 10 different 5-15 minute exercise routines on a poster board in the staff lounge for review. The physical therapist felt that the exercises should be completed in a group setting over a 3- to 4-day work period, with 1 day of rest. The routines were

completed on Monday through Thursday, with Friday utilized as a rest day to catch up and complete daily office day-to-day functions. Individuals that participated in the program were offered an extra 15-minute break that focuses on the core measures discussed for project completion. This incentive promoted staff participation and project implementation for future usage. The investigator accomplished Objective 3 in approximately 4 weeks, which concluded Phase 2.

Objective 4 was focused on implementation of the program. Before the quality improvement project was implemented into clinical practice, the participants completed a pretest questionnaire. The clinical indication for the questionnaire prior to project initiation was to ascertain the clinical staff perception and awareness of obesity and cardiovascular disease. The investigator designed this questionnaire to identify the barriers and risk factors for obesity. The information provided from the questionnaire directed the path of the presentation the principal investigator conducted. The presentation focused on clarification, obesity awareness, and education. The goal of the presentation was to enlighten and inspire the clinical staff for possible behavior change and attitudes towards obesity prevention.

An informational presentation was provided based on the pretest questionnaire responses that focused on quality improvement participation and clarification of perceived barriers to obesity prevention. This presentation included an action plan and examples of content to be used as exercise routine. The investigator reviewed this presentation with the quality improvement mentor, chair, and co-chair of the project. The investigator further held meetings with the medical director to finalize the plans for the worksite obesity prevention initiative.

Objective 5 was to evaluate the program. Using the hosting site Survey Monkey for the pretest and posttest questionnaire, the investigator reviewed the perception, knowledge, and impact on the staff of the worksite obesity prevention program.

Objective 6 was to present the findings to stakeholders for future implementation. The investigator accomplished this objective by using descriptive statistics with data collected over the 6-week period. To optimize the collection of data Survey Monkey was utilized. It provided distinct features, such as the ability to set custom variables and obtain various reports. The investigator collected data on the clinical staff perception and self-awareness to obesity prevention and cardiovascular disease awareness.

Findings of the Project

The purpose of this DNP worksite obesity initiative was to change the perception of obesity significance through health promotion strategies within the workplace. This project was based on a quasi-experimental design without randomization, evaluating the intervention of pre and posttest questionnaires. This worksite obesity prevention program consisted of educational and physical strategies to address obesity and was administered over a 6 weeks period. Demographic data of age, sex, and race were collected. Participants (n = 13) participated both in the pretest and posttest questionnaire.

According to the Agency for Healthcare Research and Quality (2012), obesity in relationship to gender is more common in women, particularly White and Hispanic women, than men; this finding is similar to that of this project. The investigator conducted a quasi-experimental pretest and posttest to evaluate whether a statistically significant variant existed between the staff's personal perceptions of obesity and the implementation of a worksite obesity program. The posttest analysis was based on the

similarities of each questionnaire, as viewed in Table 2. The results of the posttest questionnaire showed a significant change in the employees' perception and motivation towards the implementation of a worksite anti-obesity program. The analysis showed an 85% awareness increase for the staff's awareness of obesity and overweight health status, as illustrated in Table 3. There was a slight decline in relation to the clinical staff's motivation to participate in cardio exercise with a mean score from the pretest of 38.89 and posttest analysis of 38.46 for cardio exercising. The staff showed a 92.31 percent increase from the pretest analysis of 55.56 for the promotion of collaboration and communication among healthcare workers engaged in shared exercise activities.

Changes in eating pattern increased; clinic staff show a 38.46 percent increase in the consumption of lean proteins from every 3 days to every day, and an overall median score of increasing physical active it in the workplace at 76.92 percent.

The results in regards to physical activity showed that most participants increased their weekly exercise; the majority increased to 1 to 3 days per week from 0 days per week. No participants in both pre and post intervention reported exercising 4 to 7 days per week. This increase in physical activity from 0 to 1 to 3 days per week improved after the intervention.

The results in regards to servings of fruits and vegetables eaten daily showed the majority of participants increased their intake of eating fruits and vegetables daily. The greatest improvement was in the increase to three to five servings of fruits and vegetables daily, from one to two servings daily. The number of participants eating five or more servings per day remained the same both pre and post intervention.

In regards to health status, almost half of the participants reported their health as fair prior to the intervention. All participants reported their health as very good after the intervention, with no participants reporting their health as poor or excellent either before or after the intervention.

Strengths and Limitations

The major strength of this DNP quality improvement project was to provide education and knowledge to participants within their work setting promoting the utilization of physical activity strategies to prevent cardiovascular disease. The investigator noted an apparent success of the worksite obesity prevention program. The results showed a significant increase in the number of participants who supported a healthier lifestyle by increasing their physical activity and intake of fruits and vegetables, along with all participants reporting a very good health status after the worksite obesity prevention program.

The limitations of the current quality improvement project were based on the location and sample size of the participants. In this project, the investigator assessed the questionnaire supplied by 16 participants in one clinical setting over a short timeframe. The project also included limited demographic information. The targeted sample was limited to the physician's current clinical staff.

Table 2

Pretest and Posttest Questionnaire

Question	Answers

1. Have you started exercising within the last 1-2 weeks?	□ Yes No
2. Are you currently doing anything to improve your health or lose weight?	• Eating healthier foods. • Doing more cardio exercise (running, walking, biking, dancing, etc). • Doing more strength and toning exercise (pushups-weights, Crunches, etc.). • Dieting on my own. • Dieting with a plan, like weight watchers or Jenny Craig. No, I'm not currently doing anything.
3. Do you know the difference between being overweight and obese?	Yes No
4. Are you aware of current cardiovascular risk factors?	Yes No
5. Have you decreased your intake of fast food?	Yes No
6. Do you know the long-term effects of not eating healthy?	Yes No
7. Do you feel you can benefit from increasing your physical activity level in the work setting?	Yes No

8. How often are you including lean proteins such as poultry and fish in your diet?	Everyday Every other day Every 3 days Weekends only
9. 9. Do you feel completing the worksite exercises have improved collaboration and communication skills with colleagues?	Yes No
10. Do you see any barriers to increasing your physical activity in the work setting?	Lack of energy My busy schedule Physical functional status Stress Age None of the above
11.How often do you usually eat fruits and Vegetables (fresh, frozen, dried, or canned)?	More than 3 times a day 2 times a day 1 time a day Zero times a day

---

Table 3 shows an analysis of the pretest and posttest questionnaire that the investigator used for comparison.

Table 3

Pretest and Posttest Analysis

Question	Pretest Score	Posttest Score	Difference	% Change
1	55.6	69.23	13.63	25%
2	38.89	38.46	-0.43	-1%
3	50	92.31	42.31	85%
4	61.11	100	38.89	64%
5	38.89	92.31	53.42	13%
6	77.78	100	22.22	29%
7	82.35	100	17.65	21%
8	61.11	38.46	-22.65	-37%
9	94.44	100	-5.56	6%
10	94.44	84.62	-9.82	-10%
11	35.29	53.85	18.56	53%

Table 3 illustrates the analysis of the overall scores for the pretest and posttest questionnaire, representing the difference and the significant change in health behaviors. The posttest analysis shows a significant increase and awareness of obesity and interventions for successful compliance for increasing one's activity in the workplace.

Table 4 showed the results of the paired sample *t*-test to determine whether there is a significant difference between the overall scores for the pretest and posttest questionnaire. The results of the paired sample *t*-test showed that there is a significant difference between the overall scores for the pretest and posttest questionnaire (t (10) = -

2.70, $p = 0.02$). This was because the p-value was less than the level of significance set at 0.05. Mean comparison showed that the overall posttest score ($M = 80.29$) was significantly greater than the overall pretest score ($M = 62.72$) by a mean difference of 17.58. This indicates that there was a significant increase and awareness of obesity and interventions for successful compliance for increasing one's activity in the workplace after the intervention.

Table 4

Paired Sample t-test Results of Differences of Overall Score between Pretest and Posttest

	Variable 1	Variable 2
Mean	62.72	80.29
Variance	473.03	649.98
Observations	11	11
Pearson Correlation	0.59	
Hypothesized Mean Difference	0	
Df	10	
t Stat	-2.70	
P(T<=t) one-tail	0.01	
t Critical one-tail	1.81	
P(T<=t) two-tail	0.02	
t Critical two-tail	2.23	

Implications for Nursing and Healthcare

The findings from this project have made a positive impact in nursing practice, healthcare outcomes, healthcare delivery, and healthcare policy by supporting the use of physical activity in the workplace. The project has proven to change the perception of health measures to healthcare staff and encourage participation and healthy living. Participation in this study's physical activity measures can aide in the management of weight loss, stress relief, and communication with healthcare staff.

Future Research

Obesity among employees can lead to decreased productivity, increased absenteeism, and increased healthcare costs to the organization. There is an overabundance of healthcare workers whom are obese and overweight. Scholars have estimated that obesity accounts for 30 percent of healthcare workers in the United States (Hammond & Levine, 2010). For future usages implementation into clinical practice, additional information and education will be needed for the employer and employee to ascertain the pros and cons of conducting this improvement strategy as well as determine if this is an employee wellness program that can be utilize as short term or long term.

Summary

The goal of this quality improvement project was to ascertain healthcare employees' health beliefs and perceptions in order to increase their physical activity level. Individuals that are obese and overweight have a higher incidence rate of acquiring cardiovascular disease opposed to healthcare personnel of a healthy weight. Increasing one's physical activity level leads to lower risk of cardiovascular disease, more so than weight loss methods (Hattar, Haggar, & Pal, 2015).

Healthcare personnel that sit at a desk are at greater risk for adverse reactions to obesity. Obesity can lead to decreased quality of life, increased healthcare costs, and higher rates of disease progression (Davis et al., 2014). Developing a quality improvement project that focuses on the individual perception of healthcare employees and encourages physical activity may have a positive impact on obesity prevention. Data support the notion that increasing one's physical activity level in the work setting can change an individual's perception of obesity and encourage healthier living and physical activity. Overcoming worksite obesity continues to be successful at workplaces within

the confines of an office setting where meetings or programs could take place (Baicker, Cutler, & Song, 2010).

Healthcare professionals have a responsibility to provide reliable sources regarding obesity prevention to clinical staff, enabling them to make healthier choices and improve their quality of life.

References

Adams, A., Hall, M., & Fulghum, J. (2014). The utilization of the health belief model in the assessment of vaccine acceptance of patients on hemodialysis. *Nephrology Nursing*, *41*(4), 393-406. Retrieved from https://www.annanurse.org/resources/products/nephrology-nursing-journal

Agency for Healthcare Research and Quality (AHRQ). (2012). *Screening for and management of obesity: Fact sheet and resources.* Retrieved from http://www.ahrq.gov/professionals/prevention-chronic-care/healthier-pregnancy/preventative/obesity.html

Anderson, L. M., Symoniak, E. D., & Epstein, L. H. (2014). A randomized pilot trial of an integrated school-worksite weight control program. *Health Psychology*, *33*(11), 1421-1425. doi:10.1037/hea0000007

Baicker, K., Cutler, D., & Song, Z. (2010). Workplace Wellness Programs Can Generate savings. *Health Affairs*, *29*(2), 304-311. doi:10.1377/hlthaff.2009.0626

Burke, L. E., & Wang, J. (2012). Treatment strategies for overweight and obesity. *Journal of Nursing Scholarship*, *43*(4), 368-375. doi:10.1111/j.1547-5069.2011.01424.x

Davis, J., Clark, B., Lewis, G., & Duncan, I. (2014). The impact of a worksite weight management program on obesity: A retrospective analysis. *Population Health Management*, *17*(5), 265-271. doi:10.1089/pop.2013.0108

Hattar, A., Hagger, M. S., & Pal, S. (2015). Weight-loss intervention using implementation intention and mental imagery. *BMC Health, 15*(1), 196. doi:1186/s12889-015-1578-8

Hammond, R. A., & Levine, R. (2010). The economic impact of obesity in the United States. *Diabetes, Metabolic Syndrome, and Obesity: Targets and Therapy, 3*(1), 285-95. doi:10.2147/DMSOTT.S7384

Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., Christy, K., & Weaver, J. (2014). The Health Belief Model as an Explanatory Framework in Communication Research: Exploring Parallel, Serial, and Moderated Mediation. *Health Communication*, *30*(6), 566-576. doi:10.1080/10410236.2013.873363

Katrandjian, O. (2012). *Study finds 55 percent of nurses are overweight or obese.* Retrieved from http://abcnews.go.com/Health/study-finds-55-percent-nurses-overweight-obese/story?id=15472375

LaCaille, L. J., Schultz, J. F., Goei, R., LaCaille, R. A., Dauner, K. N., De Souza, R., … & Regal, R. (2016). Go! Results from a quasi-experimental obesity prevention trial with hospital employees. *BMC Public Health*, *16*(1). doi:10.1186/s12889-016-2828-0

McEwen, M. (2012). *Theoretical basis for nursing* (3rd ed.). Phoenix, AZ: Content Technologies.

Medicare Interactive. (n.d.). *The five-star rating system and Medicare plan enrollment.* Retrieved from https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcomplianc/fsqrs.html

Pescud, M., Teal, R., Shilton, T., Slevin, T., Ledger, M., Waterworth, P., & Rosenberg, M. (2015). Employers' views on the promotion of workplace health and wellbeing: A qualitative study. *BMC Public Health*, *15*(1). doi:10.1186/s12889-015-2029-2

Romney, M. C., Thomson, E., & Kash, K. (2011). Population-based worksite obesity management interventions: A qualitative case study. *Population Health Management*, *14*(3), 127-132. doi:10.1089/pop.2010.0017

Thorndike, A. N. (2010). Workplace interventions to reduce obesity and cardiometabolic risk. *Current Cardiovascular Risk Reports*, *5*(1), 79-85. doi:10.1007/s12170-010-0138-0

World Health Organization (WHO). (2015). *Obesity and overweight.* Retrieved from http://www.who.int/mediacentre/factsheets/fs311/en/

Appendix A

Approval Forms

SITE APPROVAL LETTER

Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314-7796

Subject: Site Approval Letter

To whom it may concern:

This letter acknowledges that I have received and reviewed a request by Latoya Dotson to conduct a research project entitled Worksite Obesity at The center for advanced surgical oncology and I approve of this research to be conducted at our facility.

When the researcher receives approval for her research project from the Nova Southeastern University's Institutional Review Board/NSU IRB, I agree to provide access for the approved research project. If we have any concerns or need additional information, we will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

[*Vanitha Vasudevan*]
[*MD*]
[*305-820-6657*
Vanitha. Vasudevan@Tenethealth.com]

MEMORANDUM

To: **Latoya Dotson, MSN**
College of Nursing

From: **Jo Ann Kleier, Ph.D., Ed.D.,**
Center Representative, Institutional Review Board

Date: **June 19, 2017**

Re: **IRB #: 2017-396; Title, "Lose to Win; Preventing Worksite Obesity"**

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review under **45 CFR 46.101(b) (Exempt Category 1)**. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

1) CONSENT: If recruitment procedures include consent forms, they must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have

sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.

2) ADVERSE EVENTS/UNANTICIPATED PROBLEMS: The principal investigator is required to notify the IRB chair and me (954-262-5369 and Jo Ann Kleier, Ph.D., Ed.D., respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: Eglintine Rigaud, Ph.D.

Vanessa Johnson

Appendix B

Pretest Questionnaire

Question	Answers
1. Do you exercise?	• Yes • No
2. Are you currently doing anything to improve your health or lose weight?	• Eating healthier foods. • Doing more cardio exercise (running, walking, biking, dancing, etc). • Doing more strength and toning exercise (pushups-weights, Crunches, etc.). • Dieting on my own. • Dieting with a plan, like weight watchers or Jenny Craig. • No, I'm not currently doing anything.
3. Do you know the difference between being overweight and obese?	• Yes • No
4.Are you a Male or Female	• Male • Female
5. 5.What is your age?	• 18-24 • 25-34 • 35-44 □ 45-54 • 55-64
6. How often are you including lean proteins such as poultry and fish in your diet?	• Everyday • Every other day • Every 3 days • Weekends only

7. Do you feel as if you have gotten into better shape by increasing your physical activity in the workplace?	• Yes • No
8. Do you know the long term effects of	☐ Yes

not eating healthy?	☐ No
9. Do you know the current risk factors for cardiovascular disease?	☐ Yes ☐ No
10. Do you feel you can benefit from increasing your physical activity in the work setting?	☐ Yes ☐ No
11. Do you see any barriers to increasing your physical activity in the work setting?	☐ Lack of energy ☐ My busy schedule ☐ Physical functional status ☐ Stress ☐ Age ☐ None of the above
12. How often do you eat fast food?	☐ Once a week ☐ Twice a week ☐ Three times a week ☐ Five times a week ☐ Weekends only
13. If you eat out, what influences your decision to eat out most?	☐ It's convenient for me ☐ It's just something me and my friend do ☐ My parents don't cook much

	☐ None of the above ☐ I do not eat out
14.How often do you usually eat fruits and vegetables (fresh, frozen, dried, or canned	☐ More than three times a day ☐ Twice a day ☐ Once a day ☐ Zero times a day
15. About how much time do you spend on your computer at work daily?	☐ 1 hours or less ☐ 2-3 hours a day ☐ 3-4 hours ☐ 4 hours or more
16. Is collaborating and communicating	☐ Yes ☐ No
with the clinical staff difficult in the work place?	
17.Do you feel using the buddy system for increasing your physical activity level in the workplace is beneficial to lowering your cardiovascular risk?	☐ Yes ☐ No

Appendix C

Flyer

Lose to Win: Preventing Worksite Obesity in the Workplace

Employee Wellness Program offering

FREE Health and Wellness informational session. Complimentary Lunch will be provided for participants

Learn how to incorporate physical activity to optimize your health presented by Latoya Dotson Doctor of Nursing (DNP) student. You are invited to take part in this voluntary quality improvement project which will promote health wellness focusing on increasing physical activity in the workplace. The benefit of this study is to learn and apply a variety of strategies to help you lower your risk of chronic diseases. For additional questions regarding participation, please feel free to contact my cellular directly with any questions at (786) 356-2357.

Appendix D

Participation Letter

Title of Study: Lose to Win: Preventing Worksite Obesity

Principal investigator(s)

Latoya Dotson ARNP

Ld1182@Nova.edu

Co-Investigator

Rigaud, Eglintine Ph.D.

11501 N. Military Trail

Palm Beach Gardens, Fl. 33410-6507

Room 216

erigaud@nova.edu

Institutional Review Board

Nova Southeastern University

3301 College Avenue

Fort Lauderdale, FL 33314

IRB@nsu.nova.edu

Description of Study: Latoya D. is a Doctoral student at Nova Southeastern University engaged in completing a quality improvement project for the purpose of satisfying a requirement for a Doctor of Nursing Practice degree. The purpose of this project is to develop an evidenced-based approach for obesity prevention by increasing participant's physical activity in the work setting.

If you agree to participate, you will be asked to complete the attached questionnaire. This questionnaire will help the writer identify risk factors for cardiovascular disease and knowledge of physical activities possible to complete in the workplace. In addition to answering a questionnaire, the participants will be asked to engage in certain physical activities once cleared by their PCP.

Risks/Benefits to the Participant: There may be minimal risk involved in participating in this study. There are no direct benefits to agreeing to be in this study. Please understand that although you may not benefit directly from participation in this study, you have the opportunity to increase employee knowledge regarding workplace fitness and possible measures to aid in lowering cardiovascular risk. If you have any concerns about the risks/benefits of participating in this study, you can contact the investigators and/or the university's human research oversight board (the Institutional Review Board or IRB) at the numbers listed above.

Cost and Payments to the Participant: There is no cost for participation in this study. Participation is completely voluntary and no payment will be provided.

Confidentiality: Information obtained in this study is strictly confidential unless disclosure is required by law. All data will be secured in a locked file on the principal investigators computer. Your name will not be used in the reporting of information in publications or conference presentations.

Participant's Right to Withdraw from the Study: You have the right to refuse to participate in this study and the right to withdraw from the study at any time without penalty.

.

I have read this letter and I fully understand the contents of this document and voluntarily consent to participate. All of my questions concerning this research have been answered. If I have any questions in the future about this study they will be answered by the investigator listed above or his/her staff.

I understand that the completion of this questionnaire implies my consent to participate in this study.

Appendix E

Medical Statement of Medical Clearance for Exercise

Participant's name:

_____

Address:

_____

Date of birth:

_____

Physician's name:

_____

Address:

_____

Telephone number:

_____

- An exercise program has been established for this participant to be completed in the work setting. Listed below are examples of the physical activity exercises to be performed within the workplace:

Marching in place

Arm extension using water bottles as weights

Deep breathing exercises

Walking up and down a flight of stairs

Upper extremity stretching

Walking the floor of the office

- Please check below if the participant is able to participate in the quality improvement project.

- YES. My patient _____ has no current unstable medical problems that are a contraindication to participating in the quality improvement project. I approve and support his or her participation in the quality improvement project.

- NO. My patient _____ is not eligible to participate in the exercise program due to his or her current medical status.

Please indicate any special recommendations or specific comments:

_____

_____

_____

_____

Physician's signature Date

Appendix F

Posttest Questionnaire

Question	Answers
1. Have you started exercising within the last 1-2 weeks?	☐ Yes ☐ No
2. Are you currently doing anything to improve your health or lose weight?	☐ Eating healthier foods. ☐ Doing more cardio exercise (running, walking, biking, dancing, etc). ☐ Doing more strength and toning exercise (pushups-weights, Crunches, etc.). ☐ Dieting on my own. ☐ Dieting with a plan, like weight watchers or Jenny Craig. ☐ No, I'm not currently doing anything.
3. Have you changed the way you select foods or snacks?	☐ Yes ☐ No
4. Do you know the difference between being overweight and obese?	Yes No
5. Are you aware of current cardiovascular risk factors?	Yes No
6. Have you decreased your intake of fast food?	Yes No
7. Do you know the long term effects of not eating healthy?	Yes No

8. Do you feel you can benefit from increasing your physical activity level in the work setting?	Yes No
9. Do you feel completing the worksite exercises have improved collaboration and communication skills with colleagues?	Yes No
10. How often are you including lean proteins such as poultry and fish in your diet?	Everyday Every other day Every 3 days Weekends only
11. Do you feel as if you have gotten into better shape by increasing your physical activity in the workplace?	Yes No
12. Do you see any barriers to increasing your physical activity in the work setting?	Lack of energy My busy schedule Physical functional status Stress Age None of the above

13.How often do you usually eat fruits and Vegetables (fresh, frozen, dried, or canned)?	More than 3 times a day 2 times a day 1 time a day Zero times a day
14. Will you increase your physical activity level in the workplace?	Yes No

Appendix G

Worksite Exercises

Below are examples of 10 different 5-15 minute exercises. In a group setting, three of the exercises listed below will be chosen to complete three times a week.

Stretching While standing raise your hands above your head and stretch.	**Arm Lift (20 Reps)** While sitting at your desk using a water bottle, extend arms up and down	**Meditation (10 Reps)** Sitting in an upright position, turn off computer and complete deep breathing exercises by taking in a deep breath and exhaling.
Up we go (10 minutes) Travel up and down 1 flight of stairs.	**ABC Leg (5 Reps each)** While sitting in an upright position, extend each leg one at a time spelling each letter of the alphabet.	**Arm stretching (5 reps each)** While in the sitting position extending your left arm towards the right side of your body, hold the left elbow for 10 seconds and repeat on the opposite side.
Neck Roll (10 per side) Sitting in an upright position with feet apart, roll your head starting from the right side and ending on the left and vice versa.	**Farther parking (10 minutes)** Park farther away from the entrance of the building.	**Walk the Floor (10 minutes)** Walk the entire floor of the office building.
Stand (15-30 minutes) Move your desk chair to the side and complete your work while standing.		