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Employee Wellness Model for Obesity

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Walden University

College of Health Sciences

This is to certify that the doctoral study by

Barbara Siebold

has been found to be complete and satisfactory in all respects,
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Walden University

2015

Abstract

Employee Wellness Model for Obesity

by

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MSN, Barry University, 1998

BSN, Loyola University, 1984

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

February 2015

Abstract

Obesity, a condition of having a body mass index (BMI) greater than 30, is a universal epidemic with the greatest prevalence in the United States. The greatest concern with this epidemic health problem is that it presents with many comorbidities and is a risk factor for other chronic diseases. Employee wellness programs (EWP) have been in place for years and incorporate programs on weight management, nutritional education, and smoking cessation to reduce risk factors associated with chronic diseases. These programs utilize the concept of empowerment, often guided by Pender's self-management theory, to encourage employees to take onus for their health by making better lifestyle choices. The research question for this project addressed whether obesity rates as measured by BMI could be diminished through an EWP by implementing health promotion strategies. This EWP project was conducted utilizing a quasi-experimental, 1-group, pretest-posttest design with a convenience sample of 23 employees who had a BMI > 30 and were from a health information management department of a health care organization in southeast Florida. The project evaluated whether a 6-week EWP would decrease the BMI of participants. Data were analyzed using paired sample *t* test and Statistical Product and Service Software. The results of the paired sample *t* test indicated there was a significant decrease in BMI from the preintervention to the postintervention. The results demonstrated that health promotion strategies implemented by an advanced practice nurse can affect obesity rates while effecting social change and supporting a culture of health and well-being.

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Dedication

First, I would like to dedicate this doctor of nursing practice (DNP) project to my late parents, Coleman and Barbara Walsh, who taught me the value of an education and were role models for caring and empathy. In addition, I would like to dedicate this DNP project to my children, Bridget and Colleen, for their support and encouragement through this journey. You both have been patient, understanding, and supportive of my commitment to life-long learning.

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Section 1: Nature of the Project

Introduction

Obesity is a health problem that affects many people all over the world and has increased in prevalence in recent years (Burke & Wang, 2012; Centers for Disease Control and Prevention [CDC], 2013). The CDC (2010) described obesity as a person with a body mass index (BMI) greater than 30, which is a calculation using height and weight that correlates with body fat. Obesity is a universal epidemic with the greatest prevalence in the United States (Flegal, Carroll, Kit, & Ogden, 2011; National Research Council and Institute of Medicine [NRCIOM], 2013). On June, 18, 2013, the American Medical Association (AMA; 2013) announced a new policy that officially labeled obesity as a disease with multiple pathological risk factors that require a range of health promotion and treatment interventions. The myriad impact this has on health care is profound in that medical interventions will now be required for the diagnosis, prevention, and treatment of obesity, along with the potential for government funding and public awareness campaigns (Cable News Network [CNN], 2013; Lankford, Kruger, & Bauer, 2009).

Successful employee wellness programs (EWP) have been in place for years and these corporations have encouraged their employees to make better lifestyle choices to prevent the development and progression of chronic diseases (Birdee et al., 2013; Carter, Kelly, Alexander, & Holmes, 2011; Chaudhry et al., 2009; Kurec, 2009). EWP incorporate weight management, on-site exercise fitness centers, nutritional education, and smoking cessation to reduce risk factors associated with chronic diseases (Anshel et

al., 2010; Benavides & David, 2010). These interventions are population-based strategies that improve physical as well as social environments to promote healthy living and are complementary to primary prevention and disease management interventions that are included in treatment programs for obesity (CDC, 2010; Flegal et al., 2011; Kramer, McWilliams, Chen, & Siminerio, 2011).

One of the pioneers that launched their EWP in the 1970s, Johnson & Johnson, began with programs such as smoking cessation and nutrition, along with weight, blood pressure, and stress management (Gebhardt & Crump, 1990). Over the years, other corporations such as General Motors, Prudential Insurance, health care organizations such as Vanderbilt University, and locally the public school system began similar programs along with health screenings of employees to identify high-risk members in an effort to provide health promotion and disease management (Berry, Mirabito, & Baun, 2010). EWP support health promotion and disease prevention management for employees and their families utilizing health screenings based on questionnaires and evidence-based guidelines (Berry et al., 2010; Carter et al., 2011). Corporations that have leadership support from top administration produce successful EWP; conversely, without this support the programs do not reap the benefits of return on investment (ROI), diminished health care costs, and a healthier work culture (Anshel et al., 2010; Birdee et al., 2013; Carter et al., 2011; Edries, Jelsma, & Maart, 2013).

Problem Statement

Obesity is a global health care concern with almost a third of the world being overweight (Keas, 2013). According to the CDC (2013), the United States is

experiencing an obesity epidemic with rates increasing almost 50% between 1997 and 2012. As of 2012, nearly 30% of American adults were obese and the problem was almost as prevalent in children. At the current rate of growth, the Agency for Health care Research and Quality (AHRQ; 2012) forecasted that obesity could increase to as much as 42% by the year 2030. Obesity is a significant health problem that leads to a diminished quality of life and is a financial burden on the health care system (AHRQ, 2012; CDC, 2013; Hammond & Levine, 2010).

The greatest concern with this health epidemic is that it presents with many comorbidities and is a risk factor for other chronic diseases such as hypertension, type 2 diabetes, respiratory problems, and various cancers (Burke & Wang, 2012; Carter et al., 2011; CDC, 2010). Thirty percent of Americans who are obese place a financial strain on the health care system, which trickles down to employees making EWP an imperative business strategy. According to Keas (2013), obesity costs employers an estimated \$150 billion in lost productivity, obese workers miss 450 million more days per year than nonobese employees, and employers pay 42% more in medical cost for obese employees. The ability to keep employees healthy is now paramount to the success of organizations.

Purpose Statement and Project Objectives

Disease prevention and management of chronic diseases such as obesity through an EWP provide patients and employees with health screenings based on national guidelines, assessments, health monitoring, and goal setting (American Hospital Association [AHA], 2011; Benavides & David, 2010; Berry et al., 2010; Carter et al., 2011; Christensen & McMahon, 2012; Morse, 2011). According to Kurec (2009), more

corporations and hospitals have been participating in EWP to improve the health of their employees through health promotion and disease management, that increases productivity, diminishes absenteeism, and promotes a better collaborative work environment.

Health promotion strategies such as lifestyle modifications including nutritious eating, increased physical activity, and weight management often improve risk factors associated with obesity. Many EWP incorporate these lifestyle modifications into their programs and have been reaping economic benefits through diminished health care costs along with improved productivity and a better work environment (Birdee et al., 2013; Kurec, 2009; Morse, 2011). The purpose of this doctor of nursing practice (DNP) project was to affect obesity rates as evidenced by a reduction in BMI through health promotion strategies within an EWP. The impact of obesity in the United States appears to be substantial, with ongoing research to evaluate its aggregate effect. The magnitude of this impact now and in the future highlights the importance of the obesity epidemic as a focus for policy, national initiatives, and a topic for future research (Hammond & Levine, 2010). “Healthy People 2020” (2011) is a science-based, national initiative that supports health promotion to improve the well-being of Americans for the next 10 years. The Affordable Care Act and its national objectives support the diagnosis of obesity and offer free preventative screenings and treatment. In addition, AMA just labeled obesity a disease (AHRQ, 2012; CNN, 2013).

The objectives of incorporating lifestyle modification strategies into an EWP to diminish the prevalence of obesity is in alignment with the United States’ national goals.

Healthy People 2020 promotes healthy lifestyle modifications through policies that incorporate eating a balanced diet and maintaining a healthy body weight in settings such as workplaces, health care organizations, schools, and communities. Healthy People 2020 supports preventative health programs aimed at prevention of obesity through programs similar to EWP (Carter, Gaskins, & Shaw, 2005). These same objectives of offering services to diminish the prevalence of obesity are in alignment with other government programs such as Medicare/Medicaid (AHRQ, 2012; Benavides & David, 2010; Lankford et al., 2009). The Affordable Care Act is in alignment with accountable care organizations (ACO), which are health care organizations that coordinate care, promote health prevention, and health management. According to the AHA (2011), EWP function similarly to an ACO.

Relevance to Practice

Nursing practice addresses complex issues such as obesity and attempts to contribute to the good of society by applying nursing practice knowledge to this universal health epidemic (McCurry, Revell, & Roy, 2010). Traditional medicine has mainly focused on diagnosis and treatment of diseases with more recent emphasis on health promotion and disease management (Benavides & David, 2010). EWP incorporate nutritional education, weight management, exercise, and smoking cessation, and promote a healthy lifestyle. With the implementation of sophisticated disease prevention and management interventions, EWP are beginning to see remarkable financial benefits (Benavides & David, 2010; Berry et al., 2010; Carter et al., 2011; Kurec, 2009; Morse, 2011; Zeratsky, Christensen, & McMahan, 2012). Successful EWP boost employee

morale, improve quality of life, and transform an organization's culture into one that promotes healthy behaviors (Benavides & David, 2010).

Advanced prepared nurses (APN) such as DNP are in the best position to provide leadership in health promotion and disease management through EWP programs (IOM, 2010; Laureate Education, 2011a). APN will be able to work with the obese population to monitor their health, provide health care, and promote healthy behaviors (AHRQ, 2012; IOM, 2010). Nationally, DNP are in a position to work with programs such as First Lady Michelle Obama's campaign "Let's Move" to raise awareness of childhood obesity and the Patient Protection and Affordable Care Act (PPACA), which offers patients free preventative services and benefits for obesity (AHRQ, 2012; Bodenheimer & Grumbach, 2009). The PPACA also requires private insurance companies to offer obesity screenings for all children and adults at no charge (Health care.gov, 2011). The "CDC's Lean Works" (2011) program bridges the gap between research and public health practice, with a focus on physical activity and public awareness through the prevention and control of obesity. Berwick (2003) discussed the gap between knowledge and practice as slowing innovation.

Research Question

The application of EWP to treat obesity and improve patient outcome was the focus of this DNP project. I sought to answer the following research question: Can obesity rates as measured by BMI be diminished through EWP by implementing health promotion strategies? According to Terry (2012), research questions attempt to fill in a

gap in literature and practice. Employees who are healthy are more engaged and more productive at work, making employee wellness a priority at most organizations.

Evidenced-Based Significance of the Project

Applying evidence-based nursing practice to the epidemic of obesity will have a positive effect on individuals by improving quality of life, as well as on society by creating a culture that values good health, and at the same time saving valuable health care (Berwick, 2003; Biddle, Fox, & Boutcher, 2012; Bluford, 2011; McCurry et al., 2010). Evidence-based research is peer researched, written, and reviewed for the most current and safe practice that improves patient outcomes and supports a change in practice (Stillwell, Fineout-Overholt, Melnyk, & Williamson, 2010). According to Grossmeier, Terry, Cipriotti, and Burtaine (2010), best practice evaluation for EWP includes measurable tracking of specific metrics. These include engagement metrics of participants in programs as measured by initial registration, active participation, and completion rates. The more active or engaged an employee is in the program, the greater success and sustainability of that program (Compas, Hopkins, & Townsley, 2008). Biometrics measure employees' health status for changes in blood pressure, cholesterol, blood sugar, and BMI.

Nursing focuses on complex universal and epidemic health issues such as obesity and other chronic diseases and attempts to contribute to the good of society by applying the most current evidence-based nursing practice (McCurry et al., 2010). Professional nurses are well positioned to advocate the use of new evidenced-based practices to effect changes in health care through policy development. Engagement during the process of

policy development is essential in creating a health care system that meets the needs of its constituents (American Association of Colleges of Nursing [AACN], 2006).

Towers Watson (2012) reported a strong link between health, wellbeing, and productivity related to an engaged workforce; these companies have ROI that are 3 times higher than companies with low engagement. In addition, the results of the Towers Watson (2012) health, well-being, and productivity survey found respondents' future health strategies were to raise employee engagement, create a workplace culture of health, and improve general and mental health awareness. Creating a culture that values good health along with improved patient outcome and quality of life along with diminished health care costs is in alignment with the objectives of EWP (Carter et al., 2005; McCurry et al., 2010). Health care workers are committed to caring for people and encouraging them to realize their full potential; this begins in health care organizations with their employees (Bluford, 2011). Health ambassadors are health care champions that lead by example and improve the health of the culture within the health care organizations, as well as the community (Bluford, 2011). As American society confronts this challenging epidemic of obesity, health ambassadors must work with community stakeholders to diminish its prevalence and successfully develop programs along with policy and procedures for early diagnosis and treatment (AHRQ, 2012). Creating a culture of healthy living starts at the top with executive administration making wellness a strategic priority for the organization and incorporating it into their mission (AHA, 2011; Bluford, 2011; Carter et al., 2011).

Employees that are in control of their health care choices through the support of EWP become empowered to utilize wellness strategies that work for them. This investment in employees has shown a positive financial return in health care organizations (Benavides & David, 2010; Berry et al., 2010; Hammond & Levine, 2010). The research synthesized evidenced-based research and applied health promotion strategies within an EWP to affect the prevalence of obesity through health promotion.

Implications for Social Change

Walden University (2011) is committed to social change. Their mission and vision is to produce practitioners that can effect positive social change. The AACN (2006) proposed that the essentials of DNP-prepared practitioners affect social change by becoming involved proactively in policy change at all levels and advocate for equitable health care. According to Anshel et al. (2010), obesity is a financial burden on society. Lifestyle modifications that incorporate healthy choices are cost effective, can be sustained indefinitely, and can be incorporated into health policy while effecting social change and supporting a culture of health promotion. The AMA (as cited in CNN, 2013) recently classified obesity as a disease, so now there will be the potential for increased public awareness, government funding, and policy development. Other social implications include a reduction in the use of valuable health care resources, support of a society that values healthy behaviors, along with improved health and quality of life (CDC, 2010; Edries et al., 2013).

One way to ensure sustainability is to cultivate the EWP culture of wellness into the community it serves (Biddle et al., 2012). A culture of wellness should be embraced

in the hospital family through the EWP and serve as a role model in the community (AMA, 2011). Executive administrators know that EWP are good business because health care is such passionately personal work; employees need to think of themselves as a family of coworkers that support a healthy lifestyle (Biddle et al., 2012). Bluford (2011) discussed health care organizations that build a culture of health that is rooted in the community they serve. Many health care organizations have supported grass roots efforts to have local farmers markets supply their fresh produce and dairy to their cafeteria (Bluford, 2011).

EWP entails changes in lifestyle creating new healthy habits and is more successful when done with committing to lifestyle changes, which represents a culture of wellness (Biddle et al., 2013). This culture of wellness is a process that culminates with embracing lifestyle changes and incorporating it into the culture, mission, and way of life within the organization and the community it serves (Grant, Colello, Riehle, & Dende, 2010; White & Dudley-Brown, 2010). One way to embrace this culture of wellness is to build a sense of shared values of a healthy lifestyle into the community (Compas et al., 2008). This culture would support a healthy way of life in the community where residents would be provided local opportunities to promote physical activity in places such as parks, jogging paths, or basketball courts. In addition, this culture of a healthy lifestyle in the community would also include neighborhood farmers markets where locally grown fruits and vegetables would be distributed.

Definition of Terms

Body mass index (BMI) is a measure of body fat based on weight and height that applies to adults (CDC, 2013). BMI is not a diagnostic tool, but a screening tool designed to identify people who may be at risk for health problems due to their weight (CDC, 2012).

Chronic diseases are long lasting, and most could be prevented (Nash, Reifsnyder, Fabius, & Pracilio, 2011). According to the CDC (2013), 75% of our health care dollars in the United States goes to the treatment of chronic diseases such as diabetes, hypertension, heart failure, tobacco addiction, hyperlipidemia, chronic obstructive pulmonary disorder, and asthma.

Comorbidities are the presence or effect of one or more diseases in addition to a primary disease, or the result of such additional disorders or diseases (Nash et al., 2011).

Culture is the diverse ways that people living differently are classified and represented by their experiences. It is the beliefs and the way of life of society, groups, and also a way of thinking, behaving, or working that exists in a place or organization (Nash et al., 2011).

Disease management is a system management of coordinated health care interventions for populations with chronic conditions in which patient self-care efforts are significant (Nash et al., 2011).

Employee wellness program (EWP) is a program offered to employees through the organization's human resources department as part of a benefits plan. EWP provide health promotion services to their employees, which include health risk assessments

along with health screenings based on national guidelines, health monitoring, treatment, and goal setting (Anshel et al., 2010; Carter et al., 2011).

Epidemic is a disease affecting a population disproportionately during a given period of time that substantially exceeds what is expected based on current data (Nash et al., 2011). Obesity is a universal epidemic with the greatest prevalence in the United States (Flegal et al., 2011; NRCIOM, 2013).

Health promotion (HP) is the process of enabling people to increase control over their health and its causes, thereby, improving their health. HP involves collaborative patient-centered care to promote health through education, prevention, screening, behavior modification, and self-care (Nash et al., 2011).

Lifestyle modifications are behaviors that can be changed such as exercise, weight loss, nutrition, alcohol consumption, and smoking cessation, resulting in improved health status.

Obesity is a BMI greater than 30 (CDC, 2010). BMI is a calculation using height and weight that correlates with body fat.

Pender's health promotion model focuses on behaviors that motivate patients to change and engage in health-promoting lifestyles that lead to better outcomes (Edries et al., 2013; Yin Kwan Ho, Berggren, & Dahlborg-Lyckhage, 2010).

Primary preventions are interventions aimed at preventing disease such as immunization, safety advocacy such as use of seat belts and safe sex, stress management, avoidance of tobacco and illicit drugs (Nash et al., 2011).

Sustainability is the ability to endure and persevere, allowing a program such as EWP to continue successfully (Biddle et al., 2012).

Assumptions and Limitations

An assumption was that the population would utilize the strategies presented during the wellness program and improve their health outcomes. I also assumed that the program itself would be effective as measured by a decrease in BMI after administration of the intervention.

A limitation of the project was that a control group was not used; a randomized-controlled study would include a group of employees who would not receive the intervention of the program strategies (Anshel et al., 2010). There was no control group in this pilot project as it was not in alignment with the goals and mission of the health care organization. Another limitation could have been the Hawthorne effect of participants knowing they were participating in a project at their place of employment and altering their behavior motivated by the need to please their employer (Edries et al., 2013). The internal stakeholders who were the participants may have just attended the program to placate their employer and may not have been engaged or motivated by the proposed strategies. To mitigate this Hawthorne effect, the participants were made aware of confidentiality of the results. The participants were also informed that I as the researcher had no supervisory or managing role over them.

Summary

EWP that decrease risk factors through lifestyle modification incentives are being offered in many corporate environments. Nationally, President Obama has supported

lifestyle modifications through the PPACA by offering obesity preventative screenings for both children and adults (United States Department of Health and Human Services [USDHHS], 2011). The social impact is that employing primary prevention to reduce the obesity epidemic is cost effective, and the money saved is intended to reduce the federal deficit (USDHHS, 2011).

According to the AHRQ (2012), obese people on average spend \$738 more each year on medical expenses and are more likely to have one or more chronic diseases such as diabetes, heart disease, or pulmonary disease (Butcher et al., 2011; CDC, 2010; Kramer et al., 2011). The CDC (2010) recently reported that obesity increases employer costs including medical expenditures and absenteeism by \$460 to \$2,500 per obese employee, per year. Cost savings are measured by ROI, which is simply the benefit of the investment and, in this case, the EWP divided by the cost to run the program (Baicker, Cutler, & Song, 2010). The literature showed ROI from \$3.37-\$15.00, which is a cost savings for every dollar spent on the program (AHA, 2011; Baicker et al., 2010; Berry et al., 2010; Bluford, 2011; Gebhardt & Crump, 1990; Grossmeier et al., 2010; Huff, 2012; Parks & Steellman, 2008).

Section 2: Review of Literature and Theoretical and Conceptual Framework

Introduction

The literature review is a synthesis of the most current literature on the topic. The purpose of the literature review is to present an exhaustive overview of the important literature and research related to one's topic of study (Compas et al., 2008). The research synthesized evidence-based research and applied an EWP model to affect the prevalence of obesity through health promotion. This DNP capstone project examined the effect of an EWP on the problem of obesity and attempted to better understand the nature and scope of the problem along with appraising the research that had already been done (Zaccagnini & White, 2011).

Specific Literature

According to Terry (2012), literature reviews are directed by a research question and involve critically evaluating published research. Literature reviews attempt to address a research question, fill in knowledge gaps, or test an existing model (Terry, 2012). Literature reviews almost always occur online through a supported database (Compas et al., 2008); in this case, the Walden University library database was used. A more comprehensive search would include Cumulative Index to Nursing and Allied Health Literature (CINAHL) plus Medline, which according to Walden University Library (2011) are two of the best health and nursing databases, used simultaneously, which provides a more effective search of the literature available without duplication. I utilized both CINAHL and Medline.

The population health problem of obesity as described by the CDC (2013) is an adult with a BMI of 30 or higher. This application focused on obesity in adults. Obesity is the most prevalent, preventable chronic disorder worldwide and is a risk factor for heart disease, stroke, type 2 diabetes, sleep apnea, certain cancers, and is associated with multiple comorbidities (Burke & Wang, 2012; CDC, 2010; NRCIOM, 2013).

In 2000, the estimated cost in the United States for obesity was \$117 billion in direct medical costs and indirect expenses such as premature death and comorbidities (CDC, 2013). Direct medical costs include preventive, diagnostic, and treatment services related to obesity. Indirect expenses include absenteeism, diminished productivity, loss of future earning, premature death, along with comorbidities (AHRQ, 2010).

Evidence from several studies indicated that obesity and weight gain are associated with an increased risk of diabetes (CDC, 2010). In the United States 37% of adults are inactive and have poor eating habits, which lead to a greater risk of obesity and are associated with an increase in mortality and chronic health issues such as diabetes (Birdee et al., 2013; CDC, 2010; “Healthy People 2020,” 2010; Kurec, 2009). Obesity is associated with hypertension, which places a person at risk for stroke, congestive heart failure, and heart disease, which is the leading cause of death in the United States (CDC, 2010). People who are overweight and regularly exercise can increase their energy levels, improve circulation, and reduce symptoms of pulmonary disease (“Healthy People 2020,” 2010). Unhealthy lifestyle behaviors account for over 50% of preventable deaths in the United States; this will improve with the use of primary prevention, disease management, and predictive modeling in health care (AACN, 2006). However, recent studies showed

that obesity is underdiagnosed and many patients do not receive treatment from their primary care providers about the risk and treatment options (AHRQ, 2012).

The United States has the highest rate of obesity in the world; it is estimated that one third of adults and 20% of children are obese (CDC, 2012). Obesity is a major health problem that leads to a diminished quality of life and is a financial burden on health care costs. The greatest concern with this population health problem is that it presents with many comorbidities and is a risk factor for other chronic diseases such as hypertension, type 2 diabetes, and various cancers (Burke & Wang, 2012; CDC, 2012). Health care costs associated with obesity are estimated at \$147 billion annually; this includes diagnosis, treatment, and disabilities (CDC, 2012). The health care problem of obesity is a major issue in the United States and will continue to be a challenge unless more emphasis is placed on prevention in programs such as EWP.

In the United States, 7 out of every 10 deaths are attributed to a chronic disease (AHRQ, 2012). Disease prevention and management of chronic diseases such as obesity through an EWP provide patients, employees, and their families with health screenings based on national guidelines, assessments, and health monitoring (Burke & Wang, 2012; Carter et al., 2011; CDC, 2010). For example, studies have shown that the chronic disease of diabetes mellitus can often be prevented or delayed by losing just 7% of total body weight through lifestyle modifications such as proper nutrition and regular physical exercise (Butcher et al., 2011). Staying at a healthy weight can help prevent diabetes and other diseases. By understanding risk factors, people can take the necessary steps to help prevent the onset of such chronic diseases.

More corporations and hospitals are participating in EWP to improve the health of their employees through health promotion and disease management, which increases productivity, diminish absenteeism, and promotes a better collaborative work environment (Birdee et al., 2013; Edries et al., 2013; Kurec, 2009). The focus of this DNP project was decreasing obesity rates through health promotion strategies within an EWP. EWP focuses primarily on the needs of their employees, regardless of their current health status, and recognizes the diversity, preferences, and culture of the participants (Anshel et al., 2010; Benavides & David, 2010; CDC, 2010). Organizations utilize EWP to motivate employees over time, continuously reinforcing wellness as a leadership priority through comprehensive wellness programs that provide ongoing screenings, health promotion classes, and disease prevention (Biddle et al., 2012; Carter et al., 2005).

Health care organizations that commit to EWP and show a positive ROI over several years continue to support the strategic case for sustaining the program (Biddle et al., 2012). EWP have proven sustainability that can be incorporated into the mission, vision, and goals of health care organizations and corporations in support of an organizational culture of health promotion (AHA, 2011; Anshel et al., 2010; Carter et al., 2011; CDC, 2010, 2011). The AMA recently declared obesity as a disease, increasing public awareness, which can lead to increased government funding and policy development (CNN, 2013). The economic, social, cultural, and health changes could be similar to the success of smoking cessation, which decreased in prevalence from 40% to 18% after the Surgeon General declared it a disease (CNN, 2013). Community stakeholders along with the target population need to rally by advocating change in

policy related to better nutrition and increased physical activity to create healthier environments (AHRQ, 2012). These community stakeholders need to represent the health care community, which includes workplace settings within EWP, along with public health, and community-based programs (AHRQ, 2012).

Lifestyle modification involves changing a patient's way of life to promote a healthy balance, diminish complications of chronic diseases, and improves patient outcomes (Butcher et al., 2011; CDC, 2010; Kramer et al., 2011). Employees need to become accountable to their EWP by taking responsibility for their health and adopting healthier lifestyles choices for themselves and their families as a means to reduce escalating health care costs (AHA, 2011; Baicker et al., 2010; Benavides & David, 2010; Bluford, 2011; Gebhardt & Crump, 1990; Grossmeier et al., 2010; Huff, 2012; Parks & Steellman, 2008). Corporations also measure overall health care cost savings per employee. Gebhardt and Crump (1990) reported a 22% decrease in absenteeism at a savings of \$83,265 per year, turnover savings estimated at \$203 per employee, and a 25% decrease in workers' compensation, which they attributed to the company fitness program.

General Literature

Obesity is a global health problem and in the United States there has been a dramatic increase in obesity from 1990 through 2010, occurring in 2/3 of adults with greater incidence in the younger adult population than the elderly (CDC, 2013). Most recently, between 2007 and 2009 there has been a 1.1% increase nationally which is an additional 2.4 million obese adults (CDCP, 2013). According to NRCIOM (2013), the

United States spent \$2.6 trillion on health care in 2010 which is more than any other country in the world. In addition, Americans are living shorter lives and experiencing more injuries and illnesses than people in similar high-income countries. Obesity is the most common preventable risk factor for high blood pressure, heart disease, diabetes, respiratory diseases, and cancer (“Healthy People 2020,” 2011). While obesity in the United States and other countries has increased and remains a major health issue, obesity rates in the United States are the highest in the world (AHRQ, 2012). The obesity rate for men has continued to increase between 1999 and 2008, while the rate for women has been steady (Flegal et al., 2011). In addition, obesity is currently more common in women, particularly Hispanic women, than men and it is more common in African Americans (AHRQ, 2012). In looking at trends of obesity in adults, there is a correlation to their childhood. Obese children have a 70% chance of becoming obese in their adult years; this increases to 80% if one or both parents are obese (CDCP, 2013; Flegal et al., 2011).

Creating a culture that supports and encourages a healthy lifestyle is the cornerstone of EWP (Carter et al., 2005). According to Bluford (2011), health care workers are committed to helping people realize their full potential; therefore, health care organizations should encourage their employees to be health ambassadors and lead by example to improve the health of the culture they work in and the community they live in. Employees are encouraged to utilize self-management wellness strategies to empower themselves to be involved in EWP at little or no cost (AHA, 2011). Creating a culture of healthy living begins with top-level executives and trickles down to all level employees

to make wellness a strategic priority for the organization (Bluford, 2011). Successful EWP requires careful planning and coordination of well-trained staff members and resources sufficient to carry out the program (Biddle et al., 2012).

The challenges of implementation of EWP programs can also become barriers presented by the participants. These barriers ultimately have to do with the participants accepting and embracing change, which is a challenge for many people (Hyrkäs & Harvey, 2010). Successful programs recognize and embrace the barrier of change and the resistance of people engaging in a new EWP. Change is a challenge and applying change theories along with strategies will help to overcome barriers (Rosswurm & Larrabee, 1999; White & Dudley-Brown, 2012). The success and sustainability of EWP will be constantly challenged; the triumph will come from the commitment to innovation from the top administrators to the team that is implementing the program (Berwick, 2003). Strategies that have been successful in augmenting change in EWP include open discussions with stakeholders, leaders, and participants. In addition, other strategies include providing the evidence-based research of why the current process is not working, setting direction, engaging participants, providing education campaigns, and answering questions (Grant et al., 2010).

Most stakeholders of EWP, who are the high-level management, know that employee wellness is good business. These stakeholders are members of the health care organization as well as the community and encourage their employees to embrace wellness and to become role models making wellness a part of the culture of the health care organization (AHA, 2011; Biddle et al., 2012). According to Biddle et al. (2012),

making employee wellness a priority within an organization is an important message of health promotion within the culture of employees. Empowering these same people to be role models within their own families and communities will further the cause of committing to a society that values healthy lifestyles.

One way to identify the needs of a population is to assess its social determinants. Social determinants are environments into which people are born, live, learn, play, and work that affect a wide range of health issues including quality of life, health outcomes, and risks factors (AHRQ, 2012). In the United States, 37% of adults are inactive; this physical inactivity is a major contributor to obesity (Birdee et al., 2013). An assessment of social determinants evaluates and measures environmental factors that affect a person's lifestyle such as where he or she lives, which will affect what is available in regards to exercise such as parks, jogging paths, or basketball courts. Social determinant risk factors for physical inactivity include race, ethnicity (African Americans and Hispanics), lower income, education, age, and living environment (Birdee et al., 2013). National objectives through the Healthy People 2020 are developing policies and recommendations that the workplace along with schools and health care organization provide social determinant environmental opportunities to promote physical activity (AHRQ, 2012).

In order to combat the epidemic of obesity, there needs to be a collaborative-efforts approach. The AMA (2013) and the AHRQ (2012) recommend a collaborative approach that involves intervention aimed at building stronger coalitions across community sectors, having programs in place for the diagnosis and treatment of patients

who are overweight or obese, and creating healthier communities through policy and environmental changes. According to the AHRQ (2012), these national objectives, health policies, EWP, and environmental changes will promote collaboration and innovation along with health equity to reduce the prevalence of obesity in the United States.

Theoretical Frameworks

The evidence-based practice framework that supports the proposed practice guidelines for this DNP project is Nola Pender's health promotion model (HPM), which focuses on behaviors that motivate and empower patients to change and engage in health-promoting lifestyles that lead to better outcomes (Edries et al., 2013; Yin Kwan Ho et al., 2010). According to Hyrkäs and Harvey (2010), empowerment is a reciprocal relationship that supports learning and sharing. Empowering patients by providing them with education through health promotion has been an effective intervention by allowing them to make better lifestyle choices and be successful at managing their chronic disease (Evans, 2010; Keselman, Logan, Arnott Smith, Leroy, & Zeng-Treitler, 2008). Pender's HPM is an excellent framework to motivate patients to change and engage in health-promoting lifestyles. Titler (2010) describes Pender's HPM as a solid and reliable contribution to patient self-management as it relates to chronic illnesses such as obesity. This model integrates health promotion, prevention, and self-management which are the foundations of EWP (Benavides & David, 2010; Berry et al., 2010; Kurec, 2009; Yin Kwan Ho et al., 2010). EWP focus on keeping healthy people healthy and providing opportunities to help sick people manage their disease better.

Pender began studying health-promoting behavior in the mid-1970 and first published the HPM in 1982 (McEwen & Wills, 2011). The HPM was proposed as a framework for integrating nursing and behavioral science perspectives on factors that influence health behaviors (McEwen & Wills, 2011). Health promotion services are essential for improving the health of populations everywhere. Nurses can develop and execute health-promoting interventions to individuals and groups in their work environment since this is where people spend so much of their time (McEwen & Wills, 2011). Nurses need to utilize the HPM and work toward empowerment and enhancing the client's capacity for self-care through education and personal development (McEwen & Wills, 2011). In a 1997 study, Pender stated that many elements of nurses' professional expertise are applicable to health promotion and make nurses highly qualified to lead needed health-promotion activities (as cited in Chaska, 2001). They include holistic assessment, patient teaching, anticipatory guidance, family dynamics, coordination of multiple services within vulnerable groups, behavioral change, innovative use of limited resources, and impact of health policies on clients (Chaska, 2001).

The literature strengthens the importance of the theoretical framework used to explore self-management in the context of empowerment in Pender's HPM. According to Yin Kwan Ho et al. (2010), the more successful a patient is at achieving a particular behavior, the more likely the patient is to continue to positively demonstrate and commit to the behavior. Evans (2010) also utilized the concept of self-management through health promotion and empowerment which allows the "patient to care for their chronic illness and maintain their optimal level of wellness" (p. 318). Empowerment plays an

important role in allowing patients to be successful in the management of their diseases and take control of diminishing the long-term chronic complications (Evans, 2010).

New practice guidelines are aimed at building a culture of health that supports and encourages a healthy lifestyle by offering employees ongoing opportunities to maintain or improve their health status (Grossmeier et al., 2010). Pender's theory evaluates the experiences of health maintenance through increased awareness and education affording empowerment (Evans, 2010). According to Yin Kwan Ho et al. (2010), effective empowerment strategies influence and enhance patients' health-promoting behaviors. Empowerment plays a vital role in helping patients experience successful self-management and assume greater responsibility for their own health (Carter et al., 2005; Evans, 2010). For the majority of people, major contributors to obesity are a sedentary lifestyle and poor nutritional habits (Benavides & David, 2010). EWP are designed to focus on health promotion by helping employees make lifestyle changes.

Needs Assessment

A needs assessment is conducted in program planning once the problem has been identified (Kettner, Moroney, & Martin, 2013). These problems are then translated into needs, which are then implemented into services within a population or a community (Hodges & Videtor, 2011; Kettner et al., 2013). Program planning that focusses on decreasing obesity within an EWP begins with a needs assessment that attempts to define what the needs are in this population. The World Health Organization (WHO) has developed a 9 step guideline for conducting a needs assessment (Hodges & Videto, 2011). The steps are as follows:

1. Determine when to conduct an assessment.
2. Determine what information needs to be collected and what has already been collected.
3. Determine how the data should be ascertained.
4. Formation of a complete action plan which will also include timelines and cost.
5. Determination of needs assessment team and proper training.
6. Data collection.
7. Data analysis.
8. Interpretation of data analysis.
9. Reporting of the data to all stakeholders. (Hodges & Videto, 2011)

Summary

Employers are placing more of the onus of health care and accountability on their employees and investing in programs that promote a culture of well-being (Birdee et al., 2013). A needs assessment would be conducted to define the needs in this population, and then implemented into a program that focusses on diminishing obesity within an EWP.

Section 3: Methodology

Introduction

In this employee wellness research project (EWRP), the successful outcome was the effect on the participants after the intervention of the program as measured by pre- and post-BMI. The EWRP was composed of educational strategies to address obesity and was administered weekly at the employees' workplace, in a classroom setting, for 6 weeks during lunchtime with each session lasting 50 minutes. This EWRP *lunch and learn* included educational strategies using open discussion, online resources, and PowerPoint presentations (PPP) on topics such as exercise and weight loss, diet and nutrition, healthy lifestyle choices, health promotion, and disease prevention.

Project Design/Methods

The design phase of a research project is critical and provides the foundation of the project. Included in the design phase are the community and cultural needs and experiences of the health care organization, along with perceived perceptions, which can help with the success of the design of the program and lead to sustainability (Laureate Education, 2011a). The research design of this DNP capstone project is a pilot intervention of a single group pretest/posttest design.

An overview of the program began Week 1 with the collection of demographic data, followed by program goals, objectives, and overview. Goals for the EWRP are to affect obesity rates through health promotion strategies within an EWP. Objectives included incorporating lifestyle modification strategies into an EWP to decrease the prevalence of obesity, which is in alignment with national goals. "Healthy People 2020"

(2011) promotes healthy lifestyle modifications through policies that incorporate healthy lifestyle choices such as nutrition and exercise in the workplace. Healthy People 2020 supports educational health programs aimed at prevention and treatment of obesity through programs similar to EWP (Carter et al., 2005).

The outline for the EWRP is as follows:

Week 1

1. Introductions PPP (see Appendix A)–5 minutes.
2. Explain EWRP goals, objectives, and overview–10 minutes.
3. Collect demographic data–10 minutes.
4. Measure height and weight, calculate BMI, and record–performed by researcher and assistants–10 minutes.
5. Review “know your numbers,” BMI, blood pressure, cholesterol, and correlation to obesity and chronic diseases (“CDC's LEAN Works,” 2011)–10 minutes.

Week 2

1. Keep it simple: Meal planning with the plate method (“Diabetes at Work,” 2013)–15 minutes.
2. Exercise plan (Weight Control Information Network, 2012; Kilka & Jordan, 2013)–35 minutes.

Week 3

1. Introduce health promotion model PPP (Yin Kwan Ho et al., 2010)–10 minutes.

2. Healthy practices to follow everyday PPP (“Personal Wellness Profile,” 2013)–10 minutes.
3. Healthy eating at home, work, and on the go (“Diabetes at Work,” 2013)–10 minutes.
4. Healthy lifestyle/balance, eating, exercise, and open discussion–20 minutes.

Week 4

1. Emotional well-being PPP (“CDC's LEAN Works,” 2011; “Diabetes at Work,” 2013)–20 minutes.
2. Share experiences and solutions to common issues and concerns–30 minutes.

Week 5

1. Get moving and small steps for getting physically active (“Diabetes at Work,” 2013)–15 minutes.
2. Incorporating family and culture into a healthy lifestyle (“CDC's LEAN Works,” 2011)–10 minutes.
3. Reading food labels and making healthy lifestyle choices (CDC, 2010)–25 minutes.

Week 6

1. Measure weight and recalculate BMI–20 minutes.
2. Re-administer health risk assessment–10 minutes.
3. Discuss successes and identify barriers–20 minutes.

Population and Sampling

The population targeted for this doctor of nursing capstone EWRP was chosen via a convenience sample of the HIM department of a health care organization in southeast Florida. This health care organization is located in Broward County and has 5 hospitals including a children's hospital, multiple outpatient facilities, hospice, and rehabilitation that is self-insured to over 9,500 employees. It is one of the largest hospitals in Florida and the second largest public health care system in the nation. It is highly regarded for its exceptional patient- and family-centered care and is recognized as a national leader in quality health care. This health care organization is committed to community-based health care and offers services and programs that reach more than 300,000 Broward County residents each year (A. Ponts, personal communication, September 20, 2013). Broward County is located in Fort Lauderdale, Florida and as of 2010 had a population of 1,748,066, making it the second most populated county in the state (United States Census Bureau [USCB], 2013). According to the USCB (2013), in 2010 Broward County was 55.57% White non-Hispanic, 11.74% Black, 34% Hispanic, with the median household income of \$41,691, and 11.5% of the population living below the poverty level. The population of the convenience sample was representative of the population described because most of the employees live and work in the same community.

Rosswurm and Larrabee (1999) discussed implementation of a program beginning with a pilot project to collect data to support a practice change. This convenience sample that was chosen for this capstone project consisted of employees who were clerical workers, information technicians, and health care workers. Research is often conducted to

determine if interventions are appropriate on a small scale, or pilot research, and is less expensive and time consuming with a lower dropout rate (Nash et al., 2011). The EWRP was pilot research that may be applied to the general population. Recruitment of individuals from a natural setting such as the workplace has been successful in research because people spend so much of their time at work (Burns & Grove, 2009).

The convenience sample in this HIM department employs approximately 400 people. The criteria for the target population included current, full-time, insured employees with a BMI > 30—which meets the criteria for obesity—who were currently enrolled in the EWP (CDC, 2012). Power analysis was conducted to determine sample size. Medium effect size power analysis for a dependent sample *t* test was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, a medium effect size ($d_z = 0.5$), and 2 tails; the desired sample size was $N = 34$ (Faul, Erdfelder, Buchner, & Lang, 2013).

Inclusion criteria were English speaking, full-time employees who were currently covered by the hospital health insurance plan and whose BMI was > 30. Exclusion criteria included non-English speaking employees, those who were not employed full time, those who were not covered by the hospital health insurance plan, and those with a BMI < 30. All of the HIM department employees were invited to participate in the EWRP. Based on feedback from the leadership team, I estimated that approximately 10% of the 400 employees (about 40 people) were eligible and available to participate. There were incentives offered including a snack during the lunch and learn sessions to diminish

attrition, and a \$10.00 gift certificate for a local organic grocer for completing 5 out of 6 classes.

Data Collection

Participants were recruited through work e-mail distribution and flyers posted in the workplace 2 weeks prior to the start of the class. Participants were directed to contact their employee wellness phone number and speak to a representative, and, once criteria were established, they were directed to contact me via phone. The identity of the potential participants remained anonymous, with no personal information exchanged. The criteria was verified by asking the potential participants if they were full-time employees, if they were enrolled in the employee insurance program, if they spoke English, and they were measured for a BMI > 30. I spoke with each potential participant on the phone to review inclusion criteria and explain the goals, objectives, risks, and benefits of participating in the EWRP. I answered any questions and let the participants know their involvement was strictly voluntary, that I had no supervisory role, and no penalty would be incurred if they declined participation.

Instruments

Utilization of a convenience sample may improve participation rate and diminish the potential for errors in data collection which improves the accuracy of the data (Hodges & Videto, 2011). Data collection of the convenience sample entailed characteristics of the population which included age, sex, race, which were coded as nominal for age, sex, and ordinal for race and the health risk assessment (HRA). The HRA tool was based on Wellsource, Inc. ("Personal Wellness Profile," 2013) with

permission obtained from Craig Gorton on September 12, 2013 (see Appendix A). The HRA tool was a 3 item questionnaire with the responses limited to closed questions, with a choice of fixed answers as shown in Appendix B. This helped to add to the integrity of the data analysis by identifying high-risk employees with poor health behaviors (Birdee et al., 2013). An advantage to a questionnaire is that it is easy to administer and is inexpensive (Coughlan, Cronin, & Ryan, 2007; Hodges & Videto, 2011; Polit, 2010). The EWRP began after participants responded to the flyer that was distributed via email and agreed to by the participants. On the first day of the program, which is described previously as Week 1, participants filled out by hand the HRA, along with demographic data, and were measured by the researcher and assistants for height and weight in which their BMI was then calculated. It is important to collect demographic data on the population being studied so that high-risk participants could be identified (Birdee et al., 2013). The data were transferred onto a computer Excel spreadsheet and stored on the researcher's password-protected laptop computer with original paperwork kept in researcher's locked file. The data were coded by numbers to match the last 4 digits of the participants' work phone extensions to compare pre- and postintervention while maintaining confidentiality.

Participants received the educational presentation using a PPP along with website sources on exercise and weight loss, diet and nutrition, healthy lifestyle choices, health promotion, and disease prevention. On the last day of the program, described above as Week 6, the researcher weighed the participants again and recorded the data on the same

form that was coded and the participants inputted their codes as from Week 1. This form was then used to transfer the data to an Excel spreadsheet for pre- and post-data analysis.

Protection of Human Subjects

Most organizations have an Institutional Review Board (IRB) whose main goal is to protect human subjects in the participation of research (Polit, 2010). This protection includes informed consent where the participant is made aware of all risk and benefits, autonomy, and confidentiality is secured (Hodges & Videto, 2011). This program was presented to Walden University IRB board with an approval number of 04-17-14-0329694.

I explained the project process to each of the participants and that there were no anticipated risks with this project and benefits of the program were explained. The benefit of this project was to learn and apply a variety of strategies to help lower the risk of chronic diseases caused by obesity. Another benefit was to gain information to develop similar programs to reduce the incidence of obesity within an EWP and in the community. I explained that data collection would be kept confidential in a password-protected computer with original paperwork locked in a file cabinet located in my home office; data would be coded with no identifying information such as name. Autonomy was respected so participants knew that their participation was strictly voluntary, and they are allowed to quit at any time for any reason without penalty; this was especially important in a workplace since participants may have felt an obligation to comply (Coughlan et al., 2007; Hodges & Videto, 2011).

Data Analysis

Reliability and Validity

Analysis of data is important in regards to reliability and validity. Analysis of the data needed to include consideration of design, bias or limitations which may affect the validity and reliability of the results (Hodges & Videto, 2011). Reliability and validity were measured by outcome; a successful outcome could be applied to future research (Anshel et al., 2010). Reliability is the extent to which research can be replicated to yield the same results on repeated trials (Polit, 2010). This EWRP was limited in reliability in that the intervention was only performed once. It is the researcher's hope that this project can be duplicated on a larger scale in the future. Confidence interval was determined, which is a type of interval estimate used to indicate the reliability of the population parameter (Polit, 2010). Confidence intervals are the estimated range of values within a population parameter calculated from a given set of sample data (Polit, 2010). In this research the confidence levels were 95% with 2 tails.

External validity refers to the extent to which the results of a study are generalizable (Polit, 2010). External validity or generalizability was limited in this project due to the convenience sample which may not represent the general population.

Analytic Techniques

This project was a Level III quasi-experimental evidence research project which, according to Melnyk and Fineout-Overholt (2005), is a well-designed controlled trial without randomization. Analysis of data was imperative to assess the analytic techniques and answer the research question. I evaluated BMI and the data analyzed was a

comparison from baseline and postintervention, using paired sample *t* test and utilizing SPSS data software for statistical analysis. The paired sample *t* test provided an interval level of measure which is the mean difference between pre- and postintervention. Statistically, there was 1 sample with 2 variables measured to analyze the relationship between the independent and dependent variable (Polit, 2010).

Demographics of the target population were collected and descriptive statistics utilized to analyze results. Descriptive statistics are used to describe and summarize data to make it more comprehensible (Polit, 2010). The descriptive data were presented in a narrative format. The descriptive statistics level of measurement was a nominal measurement for age and sex and ordinal measurement for race and HRA. In this project, a successful outcome was a significant change in participants' BMI following an EWP as measured by pre- and post-BMI. Therefore, the research question that was answered is as follows: Can obesity rates as measured by BMI be significantly changed through an Employee Wellness Program by implementing health promotion strategies? The researcher's goal was to decrease the BMI by at least 3-6% (Butcher et al., 2011; Zeratsky et al., 2012).

Summary

The purpose of this DNP EWRP was to affect obesity rates as evidenced by a reduction in BMI through health promotion strategies within an EWP. Participants were measured for height and weight the first week of the program and BMI was calculated pre-intervention and then measured again for weight at the end of the 6 week program for postintervention BMI comparison. Demographic data were collected such as age, sex,

and race. Participants also completed a HRA questionnaire and responses were compared pre- and postintervention.

Section 4: Findings, Discussion, and Implications

Introduction

The purpose of this research project was to evaluate the effect of an EWRP on BMI. EWP have been in place for decades and incorporate programs on weight management, nutritional education, and smoking cessation to reduce risk factors associated with chronic diseases. Lifestyle modifications that incorporate healthy choices are cost effective, can be sustained indefinitely, and are incorporated into health policy while effecting social change by supporting a culture of health and well-being. This DNP EWRP offered a 6-week program to employees of a HIM department of a health care organization in southeast Florida who had a BMI > 30. The project utilized a quasi-experimental 1 group, pretest-posttest design without randomization.

Summary of Findings

The purpose of this DNP EWRP was to affect obesity rates as evidenced by a reduction in BMI through health promotion strategies within an EWP. This project was a quasi-experimental controlled trial without randomization, evaluating the intervention of pre- and posteducation on participants with a BMI > 30 within an EWP. This EWRP consisted of educational strategies to address obesity and was administered weekly at the employees' workplace, in a classroom setting, for 6 weeks during lunchtime with each session lasting 50 minutes. Demographic data of age, sex, and race were collected along with administration of a 3 question HRA. Participants ($N = 23$) were measured for height and weight the first week of the program, and BMI was calculated preintervention and

then measured again for weight at the end of the 6-week program for postintervention BMI comparison.

An overview of the program began Week 1 with goals and objectives, along with the collection of demographic data and 3 question HRA form. The HRA was utilized so that high-risk participants could be identified and to compare the health risks before and after the intervention. Goals for the EWRP were to affect obesity rates through health promotion strategies within an EWP. On the first day of the program Week 1, participants filled out the HRA by hand, along with demographic data, and were measured by assistants and me for height and weight; their BMI was then calculated. The data were transferred onto a computer Excel spreadsheet and stored on my password-protected laptop computer with original paperwork kept in my locked file. The data were coded by a 4 digit number the participants received to compare pre- and postintervention, maintaining confidentiality.

Participants received the educational presentation over the 6 weeks using PPP slides along with website sources on exercise and weight loss, diet and nutrition, healthy lifestyle choices, health promotion, and disease prevention. On the last day of the program—Week 6—I weighed the participants again and had them answer the HRA form and input their codes from Week 1. This form was then used to transfer the data to an Excel spreadsheet for pre- and postdata analysis.

The project sought to answer the research question: Can obesity rates as measured by BMI be significantly changed through an employee wellness programs (EWP) by implementing health promotion strategies? The null hypothesis tested was that there is no

significant change in participants' BMI following an EWP. I evaluated BMI and analyzed the data to answer the research question as a comparison from baseline and postintervention, using paired sample *t* test, and utilizing SPSS data software for statistical analysis.

The demographics of this HIM department revealed the most frequent age of the participants was in the group 41-50 years of age as shown in Table 1, with all of the participants being female. The majority of the sample was represented ethnically as White and Hispanic as shown in Table 2. The demographics of race were comparable to the 2010 Broward County USCB (2013), which was 55.57% White compared to this project of 52.2%. In addition, 11.74% were Black compared to 8.7% in this project, and 30.54% Hispanic compared to 30.5% in this project. This similarity makes the results more generalizable in regards to demographics of the project population to the overall population of Broward County where the project was conducted.

According to the CDC (2013), obesity in relationship to age in children has shown that they have a 70% chance of becoming obese in their adult years; this increases to 80% if one or both parents are obese. Healthy habits form early in the family culture and continue to be influenced by school and work culture into adult years (Flegal et al., 2011). Obesity in relationship to gender is more common in women, particularly White and Hispanic women, than men (AHRQ, 2012), which is similar to this project. EWP continue to be successful at workplaces within the confines of an office setting where meetings or programs could take place, and these settings are usually female dominated (Baicker et al., 2010).

Table 1

Frequency Table for Age Range Distribution

Age Range in years	Frequency	Percentage
20-30	4	17.4
31-40	3	13.0
41-50	12	52.2
51-65	4	17.4

Table 2

Frequency Table for Race Range Distribution

Race	Frequency	Percentage
White	12	52.2
Black	2	8.7
Hispanic	7	30.4
Other	2	8.7

A subsequently paired sample t test was conducted to evaluate whether a statistically significant difference existed between the mean BMI, comparing the preintervention and postintervention using SPSS version 21 (see Table 3). The results of the paired sample t test were significant— $t(7.37)$, $p < .005$ —which supported the research question: Can obesity rates as measured by BMI be diminished through an EWP by implementing health promotion strategies? The paired sample t test provided an interval level of measure, which is the mean difference between pre- and postintervention. A $p < .005$ indicated there was a significant decrease in BMI from the preintervention to postintervention. Therefore, there was strong statistical evidence ($t =$

7.37, $p < .005$) that supported the EWRP intervention improved BMI. The mean difference was lower .834 to upper 1.49 with a 95% confidence interval. Confidence interval was determined. Confidence interval is a type of interval estimate used to indicate the reliability and is an estimated range of values within a population parameter calculated from a given set of sample data of the population parameter (Polit, 2010). In this project, the confidence levels were 95% with 2 tails. There was a significant decrease in BMI from preintervention to postintervention; therefore, I rejected the null hypothesis as the $p < .005$ was statistically significant.

Table 3

Paired Sample Statistics for BMI Pre-Intervention and Postintervention

Test	Mean	SD	Std. Error Mean	Sig. (2 tailed)
PreBMI	36.69	4.78	.99	.000
PostBMI	35.53	4.50	.94	.000

The HRA was a 3 item questionnaire identifying high-risk employees with poor health behaviors, with responses limited to closed questions with a choice of fixed answers as shown in Table 4. The HRA was conducted the first day prior to the beginning of the class, preintervention, and then 6 weeks later at the end of the last class, postintervention. 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 postintervention 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 3 to 5 servings of fruits and vegetables daily from 1 to 2 servings daily. The number of participants eating 5 or more servings per day remained the same both pre and postintervention. 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.

Table 4

Health Risk Assessment Questions

Stem/Question	Response options	Pre	Post
Physical Activity	None	13	2
How many days per week do you engage in exercise of at least 20-30 minutes duration	1-3 days a week	10	21
	4- 7 day a week	0	0
Diet	None	2	0
How many serving of fruits and vegetable do you eat daily	1-2	10	2
	3-5	7	17
	5+ daily	4	4
Health Status	Poor	0	0
Complete the following statement “In general my health is...”	Fair	10	0
	Very Good	13	23
	Excellent	0	0

Discussion of Findings in the Context of Literature and Framework

The current literature shows that successful EWP have been in place for decades. Corporations have encouraged their employees to make better lifestyle choices to prevent the development and progression of chronic diseases (Birdee et al., 2013; Carter et al., 2011; Chaudhry et al., 2009; Kurec, 2009). Corporations with successful EWP have reaped the benefits of a healthier work culture (Anshel et al., 2010; Birdee et al., 2013; Carter et al., 2011; Edries et al., 2013). The results of this DNP project revealed a statistically significant decrease in the BMI of participants pre- and postintervention of the EWRP within the context of an EWP.

According to Keas (2013), obesity costs employers an estimated 150 billion in lost productivity, obese workers miss 450 million more days per year than non-obese employees, and employers pay 42% more in medical cost for obese employees than non-obese employees. Pender's theoretical framework of self-management theory evaluates the experiences of health maintenance through increased awareness and education allowing for empowerment (Evans, 2010). In regards to Pender's theory to empower people to take responsibility for their health by making better lifestyle choices (McEwen & Wills, 2011), the results of the HRA support this by the increase in exercise and dietary intake of fruits and vegetables after the education program.

A major contributor to obesity is a sedentary lifestyle and poor nutritional habits of a majority of the people (Benavides & David, 2010). The results of the HRA in regards to physical activity and nutrition revealed the majority of participants increasing the number of days per week they exercise, along with more participants eating more daily

servings of fruits and vegetables after the intervention, support Pender's theory of self-management by making healthier lifestyle choices. The ability to keep employees healthy is paramount to the financial success of organizations, along with a work culture that supports healthy lifestyle choices.

Implications

Implications on Practice and Action

The AMA recently classified obesity as a disease, so now there may be the potential for increased public awareness, government funding, and policy development (CNN, 2013). APN such as DNP are in the best position to provide leadership in the development of health promotion and disease management through EWP programs (IOM, 2010; Laureate Education, 2011b). APN will be able to work with the obese population to monitor their health, provide health care standards and guidelines, and promote healthy behaviors (AHRQ, 2012; IOM, 2010). This intervention could be adapted to other EWP as well as the general population to diminish the prevalence of obesity and its associated comorbidities.

Pender (1997) describes elements of the professional nurses expertise as applicable to health promotion which makes nurses highly qualified to lead much needed health promotion activities (Chaska, 2001). These health promotion activities include holistic assessment, patient teaching, behavioral change, and impact of health policies on clients (Chaska, 2001). EWP are designed to focus on health promotion by helping employees take onus of their health by incorporating healthy lifestyle choices to prevent obesity and the development and progression of chronic diseases (Birdee et al., 2013;

Carter et al., 2011; Chaudhry et al., 2009; Kurec, 2009). The results of the HRA support participants making better lifestyle choices by increasing their physical activity and improved nutrition after the intervention. In addition, participants viewed their health status as very good after the intervention which for almost half was an improvement from fair.

According to Yin Kwan Ho et al. (2010), the more successful a patient is at achieving a particular behavior the more likely the patient is to continue to positively demonstrate and commit to the behavior. Evans (2010) also utilized the concept of self-management through health promotion and empowerment which allows patients to manage their chronic diseases and maintain optimal levels of wellness. The results of the HRA support participants taking more control over the management of their health by an increase in exercise and improved nutrition, in addition to describing their health status as very good after the educational intervention.

Implications for Future Research

Obesity is the most prevalent preventable chronic disorder worldwide and is a risk factor for heart disease, stroke, type 2 diabetes, sleep apnea, certain cancers, and is associated with multiple comorbidities (Burke & Wang, 2012; CDC, 2010; NRCIOM, 2013). According to the CDC (2013), health promotion and disease management through educational strategies are effective treatment for obesity. Over 30% of American adults are obese, the significance of this disease is ubiquitous and impacts health care now and in the future and furthermore highlights the importance of the obesity epidemic as a focus for policy, national initiatives, and topic for future research (Hammond & Levine, 2010).

EWP are in alignment with our national goals of “Healthy People 2020” (2011) which promotes healthy lifestyle modifications through policies that incorporate healthy lifestyle choices such as nutrition and exercise in the workplace. Healthy People 2020 supports research and initiatives for preventative health programs similar to this EWRP aimed at health education and prevention of obesity which is also in alignment with other government programs through Medicare/Medicaid (AHRQ, 2012; Benavides & David, 2010; Carter et al., 2005; Lankford et al., 2009). It is the researcher’s goal to continue this project long term with more participants to continue to affect and lower BMI in the obese population through educational health promotion programs.

Implications on Social Change

Walden University (2011) along with the AACN (2006) proposes that the essentials of DNP-prepared practitioners affect social change by becoming involved proactively in policy change at all levels and advocate for equitable health care (AACN, 2006). Lifestyle modifications that incorporate healthy choices are cost effective and are incorporated into health policy that affect social change and support a culture of health promotion.

Programs such as this EWRP address the epidemic of obesity in our nation by providing health promotion education to assist people to take control of their health by making better lifestyle choices. Empowering people with knowledge to make better lifestyle choices to treat obesity will help to prevent the development and progression of chronic diseases (Birdee et al., 2013; Carter et al., 2011; Chaudhry et al., 2009; Kurec, 2009).

EWP have proven significant financial benefits as measured in ROI (Benavides & David, 2010; Berry et al., 2010; Carter et al., 2011; Kurec, 2009; Morse, 2011; Zeratsky et al., 2012). According to the AHRQ (2012), obese people on average spend \$738 more each year on medical expenses and are more likely to have one or more chronic diseases such as diabetes, heart disease, or pulmonary disease (Butcher et al., 2011; CDC, 2010; Kramer et al., 2011). The social implication of this project of providing primary prevention to reduce the obesity epidemic includes the reduction of medical costs incurred along with supporting a society that values healthy lifestyles.

Project Strengths and Limitations

Strengths

The major strength of this DNP evidence-based project was providing education and knowledge to participants within an EWP promoting the utilization of health strategies. Apparent success of the EWRP was noted through a statistically significant reduction in from pre- to postintervention BMI. Another strength of this project was the results of HRA which strengthened the integrity of the data analysis by identifying high-risk employees with poor health behaviors (Birdee et al., 2013). 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 health status of very good after the EWRP.

Limitations and Recommendations

This project had several important limitations. This EWRP was limited in validity in that there was no control group; a randomized controlled study would include a group

of employees that did not receive the intervention of the education program (Anshel et al., 2010). There was no control group in this pilot project since it is not in alignment with the goals and mission of the health care organization and the IRB would not support excluding or not offering the educational intervention to all employees. Further studies are needed to confirm the significance of the intervention. A recommendation would be to have a longitudinal study to evaluate the effective long-term results on additional biometrics such as blood pressure, blood sugar, and lipids.

The small sample size ($N = 23$) was a significant limitation, along with the demographics of an all-female group making it difficult to generalize. Although the education intervention was offered to all 400 employees, it was voluntary and there was no penalty for non-participation. The sample size was relatively small; however, this was designed to be a pilot project. A larger sample size results in a higher level of power for the project (Burns & Grove, 2009).

There was a similarity in the demographics of the project population to the overall population of Broward County where the project was conducted; however, to make it more generalizable, further studies need to be done with larger sample sizes along with more diverse populations including men participating in the program. The demographics of the HIM department were limited in that out of the approximately 400 employees only about 5% are male. External validity or generalizability was limited in this project due to the convenience sample which does not represent the general population (Polit, 2010). This EWRP was limited in reliability in that the intervention was only performed once; it is the researcher's hope that this project can be duplicated on a larger scale.

Analysis of Self

Scholar

Bunkers (2000) describes the nurse scholar as being on a dynamic journey of constant knowledge development. This DNP project has been a journey in which this researcher feels she has truly evolved into a scholar. Chism (2013) identifies several skills important to the development of a nurse scholar such as the ability to understand, critically appraise, interpret and synthesize literature, along with effectively communicating orally and written. This project and the researcher's journey through this program have been the culmination and refinement of these skills. The experience in the online classes along with the development of a scholarly proposal has provided an opportunity to critically appraise, interpret, and synthesize the literature in writing. The experience of developing a project gained at the researcher's practicum site helped to verbally communicate and the synthesis of the literature.

Practitioner

Walden University (2011) is committed to social change and its vision and mission is to produce practitioners that can effect positive social change. Evidence-based practice research supports a change in practice and establishes an intervention that is better than the current guidelines. Evidence-based practice takes the synthesis of the literature and evaluates the outcome (Oermann & Hays, 2011). The essentials of DNP VII supports the *Clinical Prevention and Population Health for Improving the Nation's Health* (AACN, 2006), which advocates the reduction of the incidence of obesity through clinical prevention of programs similar to this project's EWRP. The researcher applied

these essentials of the DNP project to the community through an active adult population program in partnership with the YMCA and plans to continue to apply this EWRP to similar programs.

Chism (2013) discusses the role of the DNP graduate as educator. Even though the *Essentials of Doctoral Education for Advanced Nursing Practice* does not address the educator role, there are competencies in every essential that are important and germane to nurse educators (AACN, 2006). This researcher also intends to disseminate this project outcome along with the synthesis of the current literature to support patient education and advocacy through her role as a clinical educator of nursing students.

Project Developer

The design phase of a research project is critical and provides the foundation of the project. Included in the design phase are the community and cultural needs and experiences of the health care organization, along with perceptions which can help with the success of the design of the program and lead to sustainability (Laureate Education, 2011a). The experience of developing and implementing a DNP project has enhanced the ability of this researcher to identify the requisites of a program through a needs assessment, and develop and implement a project along with critical evaluation of the findings. Experiences including reviewing and synthesizing current clinical practice guidelines, and implementation of the project along with evaluation of the results, have given the researcher confidence to continue to develop and implement similar health promotion programs for employees, patients, and the community.

Summary

The results of this educational intervention demonstrated that health promotion strategies implemented by an APN can affect obesity rates. These types of EWRP programs may diminish obesity rates and support better health initiatives and social change with the community. This pilot project was limited in size and demographics, so additional longitudinal studies are recommended. The focus on social change and the promotion of health strategies are in alignment with the national health goals as outlined in “Healthy People 2020” (2011). Healthy People develops policies and makes recommendations that promote healthy lifestyle modifications that incorporate eating a balanced diet and maintaining a healthy body weight in settings such as workplaces, health care organizations, schools, and communities. Healthy People 2020 also supports preventative health programs aimed at prevention of obesity through programs similar to EWP (Carter et al., 2005).

APN such as DNP are in the best position to provide leadership in the development of health promotion and disease management through EWP programs (IOM, 2010; Laureate Education, 2011b). APN will be able to work with the obese population to monitor their health, provide educational programs, and promote healthy behaviors (AHRQ, 2012; IOM, 2010). These interventions are population-based strategies that improve physical as well as social environments to promote healthy living, and are complementary to primary prevention and disease management interventions that are included in treatment programs for obesity (CDC, 2010; Flegal et al., 2011; Kramer et

al., 2011). This intervention could be adapted to other EWP as well as the general population to diminish the prevalence of obesity and its associated comorbidities.

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Appendix A: Permission to Use Wellsource, Inc. Instrument

You are certainly welcome Barbara! You may use those questions as long as you reference Wellsource. And yes, we would love for you to share up your research with us. Please let me know how else I may be of assistance to you.

Craig Gorton
Southeast Business Development Manager. Wellsource, Inc.
(503) 557-9535

On Thursday, September 12, 2013, barbara siebold wrote:

Craig,

Thank you also for taking the time to present Wellsource Personal Wellness Profile HRA. I will log in and navigate through the website as you suggested, I was very impressed with all the educational material available to your users, since this is the focus of my DNP project on disease prevention and wellness education as we discussed.

At your convenience please let me know the status of utilizing your tool: 5 of your 39-item questions from your Personal Wellness Profile questionnaire. I plan on administering it to participants pre and postintervention of the educational training, and will be happy to share my paper with you upon completion I am hoping to conduct this class in the upcoming fall or winter as I am still in need of IRB approval etc. I found this tool when conducting my literature review in the Journal of Occupational and Environmental Medicine / American College of Occupational and Environmental Medicine, by Dr. Birdee and associates.

Thank you in advance for your time and consideration.

Barbara Siebold
Adjunct Nursing Professor

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www.wellsource.com

The Value of a Wellness Program

Man does not drift into goodness (or health) -- the chance port of an aimless voyage. He must fight ever for his destination. William George Jordan

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.3408 / Virus Database: 3222/6661 - Release Date: 09/12/13

Appendix B: Health Risk Assessment (HRA) Tool and Demographic Data

Instructions; please fill in blank or circle best response

Participants Age _____ **Sex** ___ M ___ F _____

Race White/Caucasian Black/African American Hispanic Other

Item	Stem/Question	Response options
Physical activity	How many days per week do you engage in exercise of at least 20-30 minutes duration	None 1-3 days a week 4- 7 day a week
Dietary intake of fruits and vegetables	How many serving of fruits and vegetables do you eat daily	None 1-2 3-5 5+ daily
Health Status	Complete the following statement “In general my health is...”	Excellent Very good Fair Poor

To be filled out by researcher

Height _____ **Weight** _____ **BMI** _____ **Code** _____

Appendix C: Resources and References for EWRP

Week 1

- Introductions PPP 1
- Explain EWRP goals, objectives and overview PPP 2-4
(<http://www.cdc.gov/leanworks/build/healtheducation.html>)
- Collect demographic data
- Review “know your numbers” review of BMI, blood pressure, cholesterol, obesity and correlation to chronic diseases
(<http://www.cdc.gov/VitalSigns/CardiovascularDisease/index.html>)

Week 2

- Keep it simple, meal planning with the plate method
(https://diabetesatwork.org/_files/learn_more/meal_planning_with_the_plate_method_eng.pdf;
https://diabetesatwork.org/_files/learn_more/seven_ways_to_size_up_your_vegetables_eng.pdf; <http://www.cdc.gov/nutrition/professionals/researchtopractice/>)
- Exercise Plan
http://win.niddk.nih.gov/publications/physical.htm#Physical_Activity_and_Weight_Control; http://journals.lww.com/acsm-healthfitness/Fulltext/2013/05000/HIGH_INTENSITY_CIRCUIT_TRAINING_USING_BODY_WEIGHT_.5.aspx).

Week 3

- Healthy lifestyle open discussion
- Introduce health promotion model PPP 5
- Healthy practices to follow everyday PPP 6,
- Healthy eating at home, work, and on the go

(https://diabetesatwork.org/_files/learn_more/guidelines_for_healthy_meetings_ndep.pdf)

https://diabetesatwork.org/_files/learn_more/making_healthy_choices_when_eating_out_ndep.pdf; <http://www.livestrong.com/slideshow/1001780-28-eating-secrets-lose-weight-and-save-money-too/>)

Week 4

- Emotional Wellbeing PPP 7
- (<http://www.cdc.gov/leanworks/build/behavioral.html>)
- Share experiences and solutions to common issues and concerns

Week 5

- Get moving and small steps for getting physically active
- (https://diabetesatwork.org/_files/learn_more/get_moving...getting_started.pdf)
- Incorporating family and culture into a healthy lifestyle PPP 7
- (<http://www.cdc.gov/leanworks/resources/communityguide.html>)
- Review goals, plan and new routines

Appendix D: Assent Form

Memorial Support Services Employees
Special Opportunity for Employees:
Simply Healthy Program offering
“Spring into a Healthier You”

FREE Health and Wellness informational sessions Gift Certificates and Snacks will be provided for participants



Learn how to incorporate healthy lifestyle choices to optimize your health

Presented by Barbara Siebold Doctor of Nursing (DNP) student

You are invited to take part in this voluntary research study which will be a wellness promotion program focusing on healthy eating, exercise, and lifestyle to optimize your health and weight management. This is part of a DNP research project and all data collected will be kept confidential. The benefit of this study is to learn and apply a variety of strategies to help you lower your risk of chronic diseases. **Gift certificates** will be offered for your time and participation; feel free to contact me directly with any questions 954-663-8088

Lunch and Learn on Wellness Wednesday

When: Every Wednesday for 6 weeks beginning April, 16, 1210-1pm

Held at MSS (room to be determined)

bring your lunch healthy snacks will be provided

RSVP

If you are interested in participating please email simplyhealthy@mhs.net or call 954-276-3293 by Tuesday **April 1, 2014** with your name and best phone number to contact you

Curriculum Vitae

BARBARA M. WALSH-SIEBOLD, R.N., M.S.N.**EDUCATION**

- 2012-current Walden University
 Minneapolis, MN
 Currently seeking: Doctor of Nursing Practice
 Focus: Wellness Promotion and Disease Management
 Expected graduation: November 2014
- 1999 Barry University
 Miami Shores, FL
 Master of Science in Nursing
 Specialization: Nursing Education
- 1984 Loyola University of Chicago
 Chicago, Illinois
 Bachelor of Science in Nursing

PROFESSIONAL EXPERIENCE:

- 2011-current DNP student
 Walden University
- DNP project research on application of primary prevention of an education program within an employee wellness program and its effect on BMI
- 2006-current Adjunct Faculty
 Nova Southeastern University
- NUR 3029: Foundations of Health Assessment; classroom didactic and hands on demonstration to successfully perform head to assessment in the clinical.
- NUR 3000: Transition to Baccalaureate Nursing Education; classroom instruction for adult learner making the

transition to the university setting and the role of the nursing student.

Course objectives include demonstrating the ability to write a scholarly paper that meets the APA guidelines. Identify tools used by professional nurses to access guidelines for evidence-based practice. Identify a system for prioritizing the responsibilities of a nursing student. Apply technology tools to enhance learning, increase productivity, and promote creativity.

Clinical instructor for adult medical surgical including foundations, primary and advanced concepts and practicum courses. Clinical instructor for community nursing.

Coordinate patient assignments of nursing students on medical surgical units, telemetry, MICU, SICU, cath lab, ER, PACU, OR, endoscopy. Supervise patient care, conduct pre and post conferences, and evaluate achievement of objectives. Complete clinical evaluations of senior students in their practicum. Supervise, coordinate, and debrief student's simulation experience. Evaluate students on clinical competency in lab. Facilitate students experience in the community with community assessment along with teen, adult and elderly population health promotion and management education.

2011

Bernard Mevs Hospital

Haiti, Port au Prince

Project Medishare/University of Miami

Volunteered for one week at hospital, teaching Haitian nursing students and coordinated their clinical care in triage, ER, adult medical surgical, spinal cord unit, pediatrics, NICU, clinic

1999-2010

Adjunct Clinical Instructor

Barry University

Clinical instructor for maternal-child nursing, and adult medical surgical nursing students. Basic option and accelerated nursing students. Coordinate patient assignments, supervise patient care, conduct pre and post conferences, and evaluate achievement of objectives.

- 1997-1998 Adjunct Clinical Instructor
Broward Community College
- Clinical instructor for medical-surgical nursing. Students included generic and LPN transition. Coordinated patient assignments, supervised patient care, conducted pre and post conferences, and evaluated achievement of objectives.
- 1990-1996 Senior Organ Procurement Coordinator
Loyola Cardiothoracic Transplant Program
Loyola University Medical Center
Maywood, Illinois
- Functioned on a twenty-four-hour "on call" basis. Responsibilities include donor evaluation and management, coordinating transportation of organs and transplant team, assist in surgical recovery and preservation of organs. Implementation of marketing and educational presentations to public and professional sectors on the benefits of organ donation and transplantation. Foster research activities which enhance organ procurement and transplantation.
- 6/95 - 2/96 Clinical Research Associate
Loyola Cardiothoracic Transplant Program
Loyola University Medical Center
Maywood, Illinois
- Coordinate data collection of CardioWest Total Artificial Heart.
- 4/89 - 11/90 Clinical Application Specialist
Hewlett Packard Company
Medical Division, MW Sales Region
Naperville, Illinois
- Responsible for marketing, customer training, education, and support on computerized monitoring systems. Prepared and presented application and demonstration seminars to multidisciplinary hospital personnel. Provided twenty four-hour applications assistance to customers for trouble-shooting over the phone covering a thirteen state area in the Midwest.

Actively involved as member of sales team in pre-sales demonstrations.

4/89 - 11/90

Registry Float Pool

Loyola University Medical Center
Maywood, Illinois

Registry nurse on prn basis assigned to all critical care areas; responsible for direct patient care in SICU, MICU, CCU, PICU, Bone Marrow Transplant Unit, Burn Unit, Trauma ICU, Neuro ICU.

1986-1989

Staff Nurse, Cardiovascular Intensive Care Unit

Loyola University Medical Center
Maywood, Illinois

Staff/Charge nurse of 16 bed cardiovascular I.C.U. Responsible for primary care of general post-op surgery, coronary artery bypass, cardiac transplantation, ventricular assist device and Jarvik-7 total artificial heart patients. Preceptor for experienced nurses and new graduates. Coordinated patient care assignment transfer and admission into the unit based on patient acuity and available personnel.

1984-1986

Staff Nurse Medical/Surgical Telemetry Unit

Our Lady of the Resurrection
Chicago, Illinois

Staff/Charge nurse of 24 bed medical/surgical unit and 12 bed surgical surveillance unit, with telemetry monitoring. Practiced team nursing care, work with LPN's and NA's.

CERTIFICATIONS:

8/92

Certified Procurement Transplant Coordinator (C.P.T.C.)

8/95

Recertified

7/88

Certified Critical Care Registered Nurse (C.C.R.N.)

3/12

Basic Cardiac Life Support Instructor
American Heart Association

