

DEVELOPMENT OF AN EMPLOYER-SPONSORED
HEALTH AND WELLNESS PROGRAM

by

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DEDICATION

Throughout the completion of this project and degree, I have been supported by so many people who have each played a key role in my success. My parents, Mike and Kathy, and my sisters, Lauren and Hannah, whom have continually delivered support, knowledge, motivation, love, and many home cooked meals. They have always been excellent role models of the importance of hard work and dedication in achieving your goals. To my grandparents, Dick and Sharon, for their constant love and support. The relaxing and serene time spent at the Harmon Ranch over the last three years has been irreplaceable in maintaining my motivation and sanity. To my classmates in the inaugural DNP class at MSU. Together we survived a process that was not always smooth! Kate Taubert, you deserve special thanks for all of your support, editing, homework help, advice, and love. A lifelong friendship has been formed, and I am so grateful for that. Without your guidance and motivation, I am not sure I would've made it through this! I am very blessed with extended family and friends who are there whenever I need them, and I will forever owe them my thanks and gratitude.

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ABSTRACT

Obesity is affecting Americans at a higher rate and cost than ever before. This disparity does not evade those who work in hospitals or health professions, as the nursing profession is routinely statistically ranked in the top ten most obese occupations in the United States. Obesity, and its co-morbidities, such as depression, Type 2 diabetes, heart disease, sleep apnea, and chronic joint pain, are associated with higher rates of injury, absenteeism, and poor job performance. The purpose of this project was to analyze the current overall health status of the employees at a community hospital in Western Montana and to use this statistical information to develop a health and wellness program tailored to the identified deficiencies and problem areas. A total of 403 employees, 32% of the total population, participated in voluntary free health screenings. Results of the screenings indicated that 32.3% (n=130) of staff were overweight (BMI 25-29.9), and 25.6% (n=103) were obese (BMI >30). Additionally, 77.4% (n=312) of the screened population reported exercising less than five days per week, while 13.4% (n=54) reported not exercising at all. In regards to daily caloric intake, 63.3% (n=255) of employees are at increased risk for health issues related to poor food choices, while 28% (n=113) are at very high risk. Furthermore, when analyzing mental health, 31.3% (n=126) of employees indicated high levels of stress at work, 20.1% (n=81) indicated they are experiencing two or more major life events that were causing stress, and 16.4% (n=66) reported having a depressed mood, or feeling down, unhappy, and hopeless. These findings demonstrated that this setting is in need of overall health improvement. Through this project, a multifaceted health and wellness program was established to target the identified risk areas, as well as promote overall wellbeing at no cost to the employee. The conclusion of this project is that through the identification of problem areas and creation of the associated interventions, a health conscious work environment that promotes average BMI, healthy eating, balanced mental health, and physical activity provides multiple incentives and benefits to both the individual and the employer (CDC, 2014).

CHAPTER ONE

INTRODUCTION

Background

For the past fifty years, the prevalence of obesity in the United States has increased dramatically. Approximately two-thirds of Americans are overweight, with 34% being obese (CDC, 2014). Thirty eight states in the US report obesity rates greater than 25% (CDC, 2014). To place this growth into perspective, fifteen years ago, zero states had an obesity rate greater than 20% (Liebenson, 2010). Obesity and its myriad of associated co-morbidities have been estimated to cost nearly 200 billion dollars annually, which is predicted to rise to \$4.2 trillion annually by 2023 (Bonauto, Lu, & Fan, 2014). The detrimental effects of obesity not only affect the individual, but also taxpayers, employers, healthcare delivery systems, communities, and schools.

Businesses are affected by obesity both directly in healthcare costs through illness-and-injury leave, and indirectly by loss of productivity. Primarily due to obesity, employers have been forced to address the idea of presenteeism, or on the job productivity losses. Presenteeism is not malingering, or wasting time at work, but rather “the problem of workers being on the job, but, because of illness or other medical conditions, not fully functioning” (Widera, Chang, & Chen, 2010, p. 1244). Chronic pain, depression, Type 2 diabetes, coronary artery disease, sleep disorders, and high cholesterol are reported to be the top causes of presenteeism in US adults, all which have great potential to be influenced by obesity (Hemp, 2004).

The effectiveness of any organization is dependent upon the health and productivity of its employees (Wellspring Inc., 2015). The Surgeon General's Vision for a Healthy and Fit Nation published in 2010 includes recommendations for employers to create healthy worksites through promotion of physical activity and healthy eating in the workplace (Bonauto et al., 2014). Promoting intervention and initiative to protect and improve employee health is considered noble professional practice and pays dividends in lower health costs, less illness and work-loss time, improved productivity, and improved morale (Wellspring Inc., 2015).

Problem and Rationale for the Project

Being overweight or obese has been associated with higher rates of absenteeism and injury, as well as lesser productivity and poor job satisfaction. Unfortunately, this concern appears to affect healthcare workers at equal to higher rates than the national average. According to a study conducted by the Center for Disease Control (CDC) in 2014, healthcare services, including nurses and orderlies, were ranked as the fifth most obese profession in the United States. This is deemed to be statistically very significant, as obesity is associated with various additional factors that can have a negative impact on the quality and safety of patient care. In addition to bedside physical labor, patient education is considered an important aspect of the nursing profession. Unfortunately, patients are more willing to receive education and healthy living advice from a nurse that is of normal weight (Hicks et al., 2008). A health conscious work environment that promotes average BMI, healthy eating, and physical activity will provide incentives and

benefits to both the individual and the employer (CDC, 2014). Furthermore, medical costs for an employer decrease by approximately \$3.27 for every dollar spent on wellness programs, and absenteeism costs fall by approximately \$2.73 for every dollar spent (Baicker, Cutler, & Songer, 2010).

Healthy People 2020, a report published by the United States Office of Disease Prevention and Health Promotion, provided 10 year national health objectives with the following stated goals: encouraging collaborations across communities and sectors, empowering individuals toward making informed health decisions and measuring the impact of prevention activities (Department of Health and Human Services, 2015). One of the goals of this program includes increasing the proportion of worksites that offer an employee health promotion program, have nutrition or weight management classes or counseling, and have exercise facilities and classes (DPHHS, 2015). In addition to Healthy People 2020's objectives and the Surgeon General's Vision for a Healthy and Fit Nation, the Affordable Care Act offers \$200 million in wellness plan grants for small businesses through the Prevention and Public Health Fund. Despite these public policy and promotion efforts, incidences of obesity in the workforce continue to rise.

Purpose of the Project

The purpose of this project was to analyze the current overall health status of the employees at a community hospital in Western Montana and to use this statistical information to create a health and wellness program tailored to the identified deficiencies and problem areas. This intervention was evidence-based and focused on program

planning and initiation with secondary quality improvement being an effect of the interventions formed. By creating a healthier work force, it is believed that quality improvement is incidental in the following areas: patient satisfaction, patient education, job satisfaction and morale, productivity, and lesser total healthcare costs because of illness-and-injury leave.

Significance of Problem to Nursing Practice

The focus of this problem is nurses and healthcare employees, thus it is obviously significant to the profession and its practice. It is estimated that approximately 55% of nurses in the US are overweight or obese (Zapka, Lemon, Magner, & Hale, 2009). High levels of stress, longer than average work hours, sleep deprivation, and alternative hours of shift work have been identified as potential influential factors on nurses' body weight (Marquez, Lemos, Soars, Lorenzi-Filho, & Morena, 2012). In nursing, concerns about staffing shortages and lack of individuals to care for the growing number of baby boomers continues to loom. A degree of the lack of workforce can be attributed to early retirement or change in profession due to inability to perform the physical demands of the nursing career. Immediate attention to this issue by all healthcare employers is crucial for the sustainability of the profession.

Obesity is a gateway condition, or a state in which an individual is at higher risk for more serious conditions such as heart disease, diabetes, hypertension, stroke, and certain types of cancer (Liebenson, 2010). In the United States, nurses employed full time spend one-third to one-half of their daily time at the workplace. This creates a unique

opportunity for employers to develop and foster a healthy workforce by providing nutritive food options, promoting physical activity, and overall employee wellness (CDC, 2014). Employers have multiple incentives to invest in their employees' health. Research indicates that work environments with greater amounts of obesity and its concomitant health conditions have higher insurance premiums, workers' compensation claims, and absenteeism, as well as lesser employee productivity (CDC, 2014). Healthcare employees, such as nurses, often work longer than average shifts and are required to do immense amounts of physical labor. Further, nursing is not only physically demanding, but also involves high levels of mental and emotional acuity. These requirements have been proven to be effected by obesity, causing presenteeism, which prevent employees from performing to their full potential due to physical or mental health issues. Numerous risk factors contributing to obesity are modifiable. Employers have the opportunity to improve employee health and financial performance of their organizations by developing wellness programs that are tailored to the needs of workforce.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This section contains information gleaned from literary research conducted on obesity and workplace wellness programs. Obesity is currently an epidemic in the United States, thus there are large amounts of information regarding this topic. However, there is very limited research published on the creation and development of workplace wellness programs set specifically in the rural hospital setting.

Search Methods

Databases

In order to conduct a comprehensive literature review, multiple online research databases were consulted, including PUBMED, CINAHL, COCHRANE LIBRARY, PSYCINFO, UPTODATE, and MEDLINE. There were no limitations set on the year of publication. All articles were in the English language. A total of forty-one studies were read.

Search Terms

Key words used for the literature search include: obesity; overweight; obesity statistics, obesity epidemic, nurses' health; nurses' obesity, hospital staff; obesity interventions, workplace wellness program, nutrition obesity; physical activity obesity;

depression obesity, hospital employee morale, presenteeism; hospital wellness; healthcare staff wellness; healthcare staff overweight; BMI; workplace exercise; calorie counting menus, hospital owned gyms; workplace health; job satisfaction; and healthcare sick leave.

Evidence Reviewed

Defining Obesity

Obesity is simply described as having excess body fat. In medical terms, obesity is defined using the body mass index (BMI) scale, which is a quantity based on the calculation of a person's height-to-weight ratio. The World Health Organization (WHO), described overweight in terms of a BMI of 25.0-29.9 kg/m², while a BMI greater than 30 kg/m² is defined as obese (WHO, 2015). BMI has been proven to be an accurate predictor of vital health outcomes like heart disease, cancer and diabetes, as well as providing a good estimate of overall body fat (Frenk, 2015). It is noted that BMI can show high results in individuals with large amount of muscle mass, when in fact they do not have excess fat tissue (National Institutes of Health (NIH), 2015). Despite this, BMI is considered the easiest, most inexpensive tool to measure body weight that can be used globally. Obesity is not only a problem in the United States, worldwide data estimates 1.5 billion adults are overweight or obese, with this number predicted to climb to 3 billion by 2030 (Frenk, 2015). Using BMI as common language to define this problem is a key step to controlling this epidemic.

Obesity in the Workplace

The relationship between worker health and productivity are becoming clearer as the obesity epidemic continues to grow in the United States and throughout the world. This concern is intensified when discussing occupations that are largely labor intensive. According to Y. Wang et al. (2011), “excess body weight is associated with negative effects on longevity, disability-free life-years, quality of life, and productivity” (p. 815). Obesity has serious consequences on an individual’s overall wellbeing, including increased risks for depression, Type 2 diabetes, hypertension, sleep apnea, chronic pain, stroke, infertility, arthritis, heart disease, cancer, and premature death (NIH, 2014). The causes of obesity are often multifactorial, including: the environment, genetics, individual behavior, and access to healthcare resources (Goetzel et al., 2010).

Regardless of the cause, employers are facing a financial burden imposed by obesity. Presenteeism - or being present at work, but limited in some aspects of job performance by a health problem - is often a hidden cost for employers and customers (Cancelliere, Cassidy, Ammendolia, & Cote, 2011). Obese workers are significantly more likely to report health related lost productive time than healthy weight individuals (Ricci & Chee, 2005). Potential risk factors contributing to presenteeism include being overweight, having poor diet, lacking exercise, enduring high stress and having poor relations with co-workers. Based on the 2008 National Health and Wellness survey, researchers predict a loss of 1.7-3 million productive person years in working US adults due to obesity per year (Wang, Mcpherson, Marsh, Gortmaker, & Brown, 2011). This

estimate amounts to an economic cost as high as \$390-\$580 billion in lost productivity for American companies per year (Wang et al., 2011).

In addition to loss of money due to diminished productivity, “the higher the percentage of employees whom are overweight or obese, the greater the use of health services, resulting in higher treatment costs for the many obesity related diseases” (Wang et al., 2006, p. 812). In obese patients, annual personal healthcare expenditure has been proven to rise in a near direct manner, with a \$120 increase in medical spending per unit increase in BMI (Goetzel et al., 2010). On average, obese and overweight workers are estimated to cost employers \$644 and \$201 more than healthy weight individuals per employee per year (Goetzel et al., 2010). By 2030, it is projected that there will be 65 million more obese adults in the USA, which is estimated to total \$48-66 billion in medical costs spent to treat this preventable disease and its comorbidities (Wang et al., 2011).

The Nursing Profession and Obesity

According to a study conducted by the Center for Disease Control (CDC) in 2014, healthcare servicers, including nurses and orderlies, were ranked as the fifth most obese profession in the United States. The nursing profession is consistently physically demanding, and the effect that obesity has on job satisfaction, productivity, and patient care is becoming more apparent as the epidemic continues to grow (Gates, Succop, Brehm, Gillespie, & Sommer, 2008). Obesity reduces the quality of life for both men and women, which can intensify job dissatisfaction, and thus worsen relationships at home, in the workplace, and even the quality of patient care (Zapka et al., 2009). “Obese workers

are significantly more likely than their normal weight counterparts to report poor work ability or a limitation in the amount, type, or quality of work” (Ricca & Chee, 2005, p. 1227). Obesity places physical demands on an individual’s body that are associated with difficulty moving because of excess weight to carry, large body habitus, shortness of breath, fatigue, and chronic pain (NIH, 2014). Obesity consistently increases the time it takes an employee to complete active and physical tasks, which depicts a vast portion of nurses’ daily routines (Wang, Sereika, Styn, & Burke, 2013). An individual who is of poor overall health is predictably less efficient, which has potential to lead to mistakes, uncompleted tasks, less than average performance, and disgruntled co-workers (Goetzel, 2010). In the nursing profession, making errors can lead to the harm or death of a patient, which is tragic and unacceptable.

Minimal research was found on how obesity specifically effects the productivity of the nursing profession. Despite this lack of focused information, one is able to use research done in other physically demanding occupations and predict that obese nurses have potential for overall lesser productivity and effectiveness at work than a healthy weight nurse. This places a strain on the hospital as the employer responsible, but also on co-workers who must cover for work not being done, which creates frustration and discord among staff. According to the Center for Medicaid and Medicare Services (CMS), the need for an improvement in the quality of healthcare delivery is increasing. Patient satisfaction is a key determinant of quality of care and an important component of pay-for-performance metrics (Morris, Jahangir, & Sethi, 2014). As body weight influences a nurse’s ability to perform to the standards of the job, obese nurses will be

unable to meet patients' needs required for excellent care. Obesity will have detrimental effects on a nurse's overall health, ability to provide patient care, job satisfaction, hospital monetary reimbursement, and total productivity.

Education of patients is a vitally important role of nurses that does not require any physical activity. According to a recent study, patients are more willing to receive education and healthy living advice from a nurse that is of normal weight (Hicks et al., 2008). Patients instill more confidence in nurses whom are of healthy weight versus those whom are obese (Hicks et al., 2008). Despite knowing this information, nurses have been and continue to be one of the most obese professions in America. According to Nahm et al. (2012), "nurses are fully aware of measures that should be taken for healthy living. Their knowledge, however, has not been well translated into their own self-care. As nursing shortages loom, maintaining the health of the aging nursing workforce is essential to retention" (p. E23).

Workplace Wellness Programs

The effectiveness of any organization is dependent upon the health and productivity of its employees (Wellspring Inc, 2015). The association between excess body weight and the health and cost burden has a predictable time course. Workplace wellness programs improve productivity, job satisfaction, and overall wellbeing, as well as reduce healthcare cost, sick leave, disability, and workers compensation (Baicker, Cutler, & Songer, 2010). Medical costs for an employer decreases by approximately \$3.27 for every dollar spent on wellness programs, and absenteeism costs fall by approximately \$2.73 for every dollar spent (Baicker et al., 2010) . Obese individuals have

20% more doctor visits than normal weight individuals and 26% more emergency department visits (Goetzel et al., 2010). A normal weight, healthy individual is at less risk for chronic pain, work related injury, and both acute and chronic illness.

After implementation of a wellness program employees are reported to save an average of 1.9 absentee days per individual, or approximately \$309 per employee per year (Baicker et al, 2010). As more wellness programs are implemented, the fewer employees will require acute medical care, which has the potential to largely reduce overall healthcare expenditure. According to Anderko et al. (2012), “modifiable health risks that lead to disease can be decreased through workplace-sponsored health promotion and disease prevention programs” (p. 2). Wellness programs promote incentive for prevention of illness, which President Barack Obama has highlighted as a central component of health reform. Additionally, the importance of the worksite as an arena for health promotion is reinforced by its inclusion in Healthy People 2020.

Developing workplace wellness programs creates focus on improving the health and quality of people’s lives, which in turn will statistically increase the productivity and effectiveness of the corporation (Anderko et al., 2012). In order to be effective, a workplace wellness program must be comprehensive, supported by top management, tailored to the population, and creatively marketed (Wellspring Inc., 2015). One way to successfully market workplace wellness is to provide incentives for participation. According to Anderko et al. (2012), “economic incentives work an average of 73% of the time” (p. 3). Examples of simple economic incentives are cash, gift cards, coupons, and health plan benefit discounts. Another effective approach is to offer incentives that have a

daily influence on worker's everyday health, but that they otherwise would have limited access to while on shift, such as affordable, healthful food options. It is acknowledged that true health reform starts with prevention, although in the current state of nurses' health it is believed that something must be done to prevent obesity, but also to help those whom are obese to return to a healthy weight. According to Anderko et al. (2012), "combining healthy public policy with worker wellness initiatives could result in significant improvements in not only our nation's health but also our economy" (p. 4). Nurses are in an excellent position to lead this change, as this occupation contains approximately 2.8 million members and is consistently ranked as the most trustworthy profession in America (Laidman, 2012).

CHAPTER THREE

THEORETICAL UNDERPINNING

Introduction

In the development of a Doctoral Nursing project, the integration and use of nursing theory alongside research and clinical practice is key to success. According to Moran, Burson, and Conrad (2014), “Theory is used to guide nursing practice, and it provides an orderly way to view phenomena” (p. 95). When discussing phenomena in the nursing setting, it is understood that a phenomena is an idea that reflects on characteristics of health that are applicable to nursing practice (Moran et al., 2014). The phenomena chosen for this project is the effect of overweight and obese employees in the workplace, specifically within the healthcare setting. The end goal for this Doctor of Nursing Practice (DNP) project was to generate a practice change initiative by designing an employee wellness program for the staff of a community hospital in Western Montana.

The Theory

The theory chosen for this project was Nola Pender’s Health Promotion Model (HPM). Dr. Nola Pender, PhD, RN FAAN, originally authored this theory in 1982, with revisions made in 1996. The Health Promotion Model (HPM) is a middle range theory, based on the fact that a person’s health behaviors are influenced by many background factors (Pender, 2013). A middle range theory focuses on understanding nursing related ideas, and thus is viewed as very useful for a DNP project and future practitioner (Moran,

Burson, & Conrad, 2014). This model utilizes eight specific beliefs, which can be assessed by the nurse and are viewed as critical points for nursing intervention (Pender, 2013). One of the concepts key to the HPM and this project states, “Health is viewed as a positive dynamic state, rather than simply an absence of disease” (Nursing Theory, 2013). There are three specific components to the Health Promotion Model: individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes. Health promoting behavior was the desired outcome of both the theoretical model and this DNP project.

Rationale

The Health Promotion Model was chosen for this project because this DNP student identified closely with the key components, definition, and assumptions of the model, as well as the personality and interests of Dr. Pender. According to Pender (2013), the purpose of the Health Promotion Model is to “assist nurses in understanding the major detriments of health behaviors as a basis for behavioral counseling to promote healthy lifestyles” (p. 2). With the implementation of the Affordable Care Act, and the nation-wide change in focus from treating illnesses to illness prevention, this model could not be more relevant than it is today. After evaluating the statistics relative to the growth of obesity over the last decade in the United States, it is reasonable to estimate that the number of overweight or obese nurses could currently be near 60% (CDC, 2014).

Chosen Theory Components

Due to the similarity between the nature of this project and the HPM, nearly all of the model components could be applied to this paper. In order to narrow the focus between the DNP project and the theoretical model, two of the model's fourteen theoretical propositions have been chosen. First, as stated by Pender (2013), "Situational influences in the external environment can increase or decrease the commitment to or participation in health-promoting behavior" (p. 5). When discussing the situation involving healthcare workers who are indeed not healthy, it is important to recognize that there are outside influences in the environment that play a role in the status of their well-being. Specifically for this DNP project, the focus was on the lack of an established employee wellness program. For the hard working healthcare employees of the hospital at the focus of this project, there was no framework in place to identify current health issues or to promote illness prevention. Wellness programs have demonstrated the ability to improve overall individual health and lower costs (Baicker et al., 2010). The challenge of this model and project was identifying which situational and external influences play the biggest role and which health promotion and motivational techniques would succeed in changing these behaviors.

The second theoretical proposition chosen from the HPM for this project states "Families, peers, and health care providers are important sources of interpersonal influence that can increase or decrease commitment to and engagement in health-promoting behavior" (Pender, 2013, p. 5). The importance and role of this theoretical proposition to the DNP project is two-fold. First, the DNP student believed that it was a

motivational factor to nurses when they were educated on how much their own personal health habits and body weight effect the patients they cared for. Secondly, due to the high incidence of longer than average shifts in the medical field, the time spent at work with co-workers, peers, and healthcare providers may surpass that of time spent with family on a daily basis. Thus, if 55-60% of co-workers are also overweight or obese, and if those who are of average weight do not have an employer-based incentive, the commitment to engage in health-promoting behavior is more than likely decreased. It is understood that nurses are highly educated individuals who possess the knowledge and access to resources related to the effects of obesity on their bodies and overall wellbeing. Additional intervention was required in order to combat this challenge and increase commitment and engagement in health promoting behaviors, using the visions of Pender as mentioned to guide the process.

CHAPTER FOUR

METHODS

Introduction

Free employee health screenings were offered to all employees, board members, and volunteers at the initiation of this project in order to obtain baseline health statistics and to guide the wellness committee in creating interventions to aid the areas of greatest need. Free employee health screenings had been done in the past, but not for the last seven years. Up to this point, the hospital has provided little to no health incentives, screenings, or education for staff. Of note, obtaining statistics and data collection was not the focus of this project. The screening and data collection was done prior to wellness committee formation by hospital employees to create baseline statistics and to identify the areas that needed the most focus. The goal of this project was to improve the overall health and wellness of the employees at a community hospital in Western Montana by designing and implementing an employer-sponsored health and wellness program.

Ethical Issues and Human Rights

Montana State University Institutional Review Board review and exemption was granted for project initiation. This student did not have any access to personal identifiable information related to the employee health screenings. The data was collected and stored by paid employees of the hospital Wellness Department who routinely conduct screenings of similar fashion. Participants in the health screenings read and signed

informed consent forms that were instituted by the hospital prior to participation. Privacy of information was of utmost importance, and Health Insurance Portability and Accountability Act (HIPAA) laws were strictly followed at all times. Participation in the screenings was 100% voluntary and no incentives, other than a free wellness screening, were provided. The risks included pain from the phlebotomy process and embarrassment or shame due to obesity, high blood pressure, or high weight circumference being measured by Wellness Department employees who may be co-workers or friends.

The data was computed and analyzed by Wellsource Incorporated, which is a professional, corporate wellness business based in Clackamas, Oregon. According to Wellsource Inc. (2015), the company “delivers easy-to-use wellness tools to organizations worldwide. Keeping evidence-based guidelines for disease prevention and health promotion resolutely at its core, Wellsource provides a visionary and proactive perspective on wellness solutions for the benefit of its clients.” (para 2). This company has been employed by the hosting facility in the past and possesses an excellent reputation in corporate wellness. Utilization of Wellsource Inc. provided the hospital opportunity to have an expert company compute data containing private health information of co-workers in a small community setting at an off-site location.

Sample and Setting

Location of Data Collection

The hosting facility was a non-profit community hospital in Western Montana. The hospital employs 1,250 paid professionals, 100 volunteers, and 15 board members.

All of these individuals were informed and had free access to the health screenings during January and February 2015.

Sample Characteristics

A total of 403 individuals volunteered for free wellness screenings. This represented 32% of the eligible population during January and February 2015. Of this total, 57 were male, and 346 were female. Participants' ages ranged from 18-85 years of age. The largest representation was 50-59 years old at 26.8%. Inquiry about race and ethnicity was included in the health risk assessment, although was not filled in by all. In reference to the demographics of the area, the large majority of residents are Caucasian, with a minority of Native American, Hispanic/Latino, Asian, and African American population.

Intervention Design

The Intervention

Development of an employer-sponsored health and wellness program was the goal of this project, based on the initial statistics gathered from the free employee health screenings of January-February 2015. A total of 403 employees, 32% of the total population, participated in voluntary free health screenings. Results of the screenings indicated that 32.3% (n=130) of staff were overweight (BMI 25-29.9), and 25.6% (n=103) were obese (BMI >30). Additionally, 77.4% (n=312) of the screened population reported exercising less than five days per week, while 13.4% (n=54) reported not exercising at all. In regards to daily caloric intake, 63.3% (n=255) of employees are at

increased risk for health issues related to poor food choices, while 28% (n=113) are at very high risk. Furthermore, when analyzing mental health, 31.3% (n=126) of employees indicated high levels of stress at work, 20.1% (n=81) indicated they are experiencing two or more major life events that were causing stress, and 16.4% (n=66) reported having a depressed mood, or feeling down, unhappy, and hopeless. These findings demonstrated that this setting is in need of overall health improvement.

The DNP student initiated a wellness committee, comprised of employees from various departments that would be willing to donate their time to meet monthly and participate in a group focused on creating better health for the organization. This committee began meeting in November 2014, and is continuing to meet monthly. The initial intervention in December 2014 was to meet with employees across the hospital to explain the free employee health screenings, what was involved, how to sign up, and answer any questions. The purpose was to educate the staff about the newly formed wellness committee, as well as attempt to increase participation in the health screenings. Despite the fact that this hospital employs several wellness employees who are experts at corporate wellness, the last time free health screenings were offered was seven years ago in addition to the lack of any wellness education or incentives.

After the screenings were completed, and the data was analyzed and dispersed by Wellsource Inc., the committee was faced with the task of developing interventions to help improve the obvious areas of need. The committee chose to focus on three main topics: (1) Poor nutrition and food choices, (2) Increased stress and poor mental health, and (3) Lack of health promotion and illness prevention.

Poor Nutrition. As time passes and the rates of obesity rise, Americans are consuming more calories away from home. According to the FDA (2015), Americans are currently consuming one-third of their calories away from home, which is interpreted as one or more meals per day. In the hospital setting, it is believed that this number is at least equal, if not doubled for many of the staff whom work 10-12 hour shifts. Nursing and ancillary hospital staff who work 12 hour shifts beginning at 0600 are found to eat breakfast and lunch at work, often with limitations on leaving the hospital campus, which leads to increased utilization of the hospital cafeteria for meals. The lack of nutritional and caloric information is seen as a detriment to employee health and overall workplace productivity.

Through the screenings, it was identified that 75% of the employees had nutrition that was either suboptimal or very poor. Posting calorie and nutritional information for consumers at restaurant chains has been proven to decrease the total caloric intake and aide individuals in making healthier meal choices (Bollinger, Leslie, & Sorenson, 2011). According to the Robert Wood Johnson Foundation (2013), “U.S. consumers continue to express a strong interest in having nutrition information, particularly calorie information, on restaurant menus or otherwise near the point of purchase” (p. 3). When no calorie label is present, a greater proportion of high calorie meals (more than 800 calories) are consumed (Ellison, Lusk, & Davis, 2013). Of the 403 hospital employees whom were screened, 86% were women. Women have been shown to perceive menu labeling as more useful than men and report being more likely to pay attention to posted calorie and nutrition information (Robert Wood Johnson Foundation, 2013). For the stated

population, this is seen as an additional beneficial factor for support of this intervention. There have been various controlled studies involving cafeterias, with results indicating that an increase in sales of healthier items compared to less healthy options occurs when calorie information is posted, along with a reduction of 10-60 calories per meal (Robert Wood Johnson Foundation, 2013). By requiring posting of caloric information, the hospital cafeteria is encouraged to be more creative and offer low-calorie items.

In order to ensure the calorie counts and portions were being calculated correctly, direction of the hospital registered dietician staff was required. The lead dietician was enrolled in the wellness committee, which led to the purchase of a computer-based calorie and nutrition information program called Nutritionist Pro. Through this program, the cafeteria staff were able to enter in the ingredients of the food offered and a nutrition label was printed out. In order for this to work best, the assigned registered dietician obtained the planned meal menu from the cafeteria manager one month in advance. This allowed enough time for the dietician to properly calculate the caloric and nutritional information to be posted, as well as provide feedback about possible changes that needed to be made. The caloric values of each meal, along with suggested serving sizes, were added to the existing chalkboard signs next to each entrée offering at the noon lunch meal, with the goal of adding it to more meals in the future. Additional nutritional information regarding sodium, fiber, protein, saturated and unsaturated fats, and various other food nutrients was available upon request. Those employees who requested this information were directed to the registered dietician staff, who were then presented with an opportunity for education and advanced dietary direction.

Increased Stress and Poor Mental Health. Of the screened employees, 15.6% reported high levels of stress at home, 31.3% indicated high levels of stress at work, 20% stated that they were experiencing two or more major life events causing stress, and 17% reported that they were feeling depressed, down, unhappy, or hopeless. This data was shocking and concerning to hospital management and the wellness committee. It was identified by committee members that the hospital had an Employee Assistance Program that included up to five free sessions with a licensed counselor. This process is kept very confidential and is reportedly underutilized. According to the Human Resources department, this intervention is available for each employee and their family members per issue or traumatic event, and can be used as many times as necessary per year. It was discovered through various discussions that the majority of employees were unaware of this available resource. Due to this, the committee created a publication for the weekly newsletter and sent out contact information for the counselor that the employee could contact on their own accord in privacy. Additionally, the DNP student wanted to provide education on stress and coping for the staff that would discuss ways to identify issues, resources, and strategies to help themselves as well as others. A hospital employee who specialized in stress and coping presentations was contacted and enrolled in the wellness committee. It was discovered that this person is paid by the hospital to travel around the state to do community outreach and give presentations on stress and coping, yet has never done it for the local hospital staff. Through collaboration with the hospital education department staff, presentations about stress and coping in the workplace were added to the annual mandatory RN education, and CEs will be offered.

Lack of Health Promotion and Illness Prevention. Prior to this DNP project, the hospital lacked any focus on employee wellness. During the health screenings in 2015, multiple employees were newly diagnosed with chronic diseases such as diabetes, thyroid disorder, hypertension, and obesity. Specific lab tests chosen for this screenings were: fasting blood glucose, thyroid stimulating hormone, and a complete lipid panel. The labs chosen were decided upon with consideration given to cost and effect. Fasting blood glucose is considered a standard laboratory test for the diagnosis of pre-diabetes and diabetes (National Institute of Diabetes, 2016). The lipid panel was chosen due to the accuracy of predicting heart disease and heart attack. This was considered important by the wellness committee because heart disease is the number one most fatal disease in women and men in the United States (National Heart, Lung, & Institute, 2016). It is recommended by the United States Department of Health Human Services that everyone over the age of 20 should have a complete lipid profile at least once every 5 years. Those whom are obese, have known cardiac disease, or are currently on medication to lower cholesterol should be monitored more closely (National Heart, Lung, & Institute, 2016). Thyroid stimulating hormone (TSH) evaluation was chosen due to the potential involvement of abnormal thyroid hormones in body weight and mood. TSH is involved in metabolism and cellular activity, and is known to cause weight loss, weight gain, and changes in mood when the activity of the thyroid gland is abnormal (Obesity Action Coalition, 2016). In addition, individuals have been found to blame overweight and obesity on thyroid disease, without diagnosis or evaluation (Obesity Action Coalition, 2016).

The inclusion of the chosen labs was believed to cast the largest net in order to diagnose the most potential problems for a relatively low cost. Attention was given to diseases that are known to be linked with obesity such as diabetes, heart disease, depression and thyroid disease due to the evidenced based research. All patients were reminded the day prior to ensure fasting protocol was followed, which was also required for accurate blood glucose and lipid panel results. Those who were identified to have critical lab values or vital signs were personally contacted by Wellness Department staff and advised to schedule close follow-up with primary care. Each employee had full access to all of their lab and health risk assessment reports both in print and via an email link that was locked by their personal password.

This intervention was identified by staff as not only a way to help improve wellness, but also made employees feel as if the hospital management was investing in their employment in a new way. This intervention helped the employees feel more valued, despite the fact that there was no incentive tied to this. In July 2015, the hospital management committed to offering free employee health screenings every year for multiple years to come. Additionally, \$100 incentives will be offered for continued participation. This will help gain more employee participation, which will annually provide improved data collection and guide interventions for health and wellness for years to come.

Instruments for Data Collection

Data collection was not the focus of this project, although it was utilized to help guide the aforementioned interventions that were the aim of this DNP project. This DNP

student did not participate in the collection of any data, nor did the student have access to any private health information. This DNP student helped promote the screenings which provided the data, initiated the wellness committee, and led the driving force behind using the data to form interventions to create a healthier workforce and environment.

The free employee health screenings involved the follow tools: BMI calculator, medical grade digital scale, height stadiometer, blood pressure cuff, waist circumference ruler, online health risk assessment, and phlebotomy. Fasting blood glucose, thyroid stimulating hormone (TSH), and a lipid panel were offered free through the blood draw. In addition, employees were allowed to bring orders from their regular physician and add on other laboratory tests at a low cost.

Steps of the Intervention

The DNP student was solely responsible for initiation of the wellness committee and the subsequent interventions. The DNP student recognizes that without the support of the hospital management and the passion of the committee, this project would not have been successful. Steps of the DNP project were as follows.

1. Initial meeting with hospital management about ideas and intent for project. Hospital Chief Operating Officer agreed with obvious need. Hospital COO initiated communication between DNP student and manager of the hospital Wellness Department. Wellness Department initiated plans for free employee health screenings.
2. Promote and educate about free employee health screenings to be offered Jan-February 2015.

3. Free employee health screenings offered at several locations in the hospital, as well as at outlying clinics. Evening sessions were offered for night shift staff as well.
4. Data analyzation completed by Wellsource Inc. and dispersed to DNP student and Wellness Department staff.
5. Obvious need for intervention identified, wellness committee formed by DNP student
6. Monthly wellness committee meetings, three top priorities identified.
7. Nutritionist Pro computer program and software purchased for hospital cafeteria.
8. Commitment from hospital management to offer free employee health screening again in 2016, and for many years to come. Additionally, finances being obtained to offer incentives for participation.
9. Stress and coping lectures set up through the work of the DNP student to be given to all nurses at annual education conference, hours of CE to be offered. Additionally, lectures being set up and offered for non-clinical staff.
10. Commitment from manager of the Wellness Department stating that the wellness committee will continue to meet and move ahead despite the completion of the DNP project. Hospital management providing continual support in attendance at meetings, as well as providing finances.

Expected Outcomes

The use of global and specific aims in the realm of a DNP project was helpful when attempting to define the overall goal and then what smaller steps needed to be

completed for project success. A global aim and theme usually end up with multiple specific aims, or smaller goals, linked to them (Nelson, Batalden, & Godrey, 2007). Specific aims offer more detailed focus about the overall goals and the work that needs to be completed in order to deem the project successful. The global aim stated below creates a big picture view for the expected outcome of this DNP project, while specific aims provided guidance for the specific interventions. The global aim was to develop an employer sponsored health and wellness program. Three specific aims included: (1) conduct an overall analysis and free screening of the current health of the employees at the community hospital, and continue to offer annually for improved health promotion and illness prevention; (2) provide education about mental health, stress, and coping in the workplace, as well promote available resources for employees and their families; and (3) provide educational and caloric information at the hospital cafeteria for the benefit of hospital employees, patients, and visitors.

Additionally, through use of nursing theory and the Health Promotion Model, it was expected that the various interventions would result in health promoting behavior. According to Pender (2013), the purpose of the Health Promotion Model is to “assist nurses in understanding the major detriments of health behaviors as a basis for behavioral counseling to promote healthy lifestyles” (p. 2). These health promoting behaviors should result in improved health, enhanced functional ability, and better quality of life (Current Nursing, 2012).

Analysis

Analytical Methods

Data collected from the wellness screenings were computed and analyzed by Wellsource Incorporated. The results were given back to the hospital in the form of an Executive Summary Report that provided the following: overall wellness rating and score, priority health recommendations, coronary risk, cancer risk, diabetes risk, osteoporosis risk, nutrition, fitness, stress and coping, safety, weight, chronic health conditions, health interests, demographics, references, and a glossary. This DNP project utilized both qualitative and quantitative data and methods in order to meet the global and specific aims. Quantitative data used included: height, weight, BMI, waist circumference, blood pressure, pulse, and laboratory results. Qualitative research methods were used in the form of the wellness committee small group meetings, personal discussions with staff, and self-reported health risk assessments.

Effect Size

The data collected and discussed throughout this project was to provide a baseline of the overall health and wellness of the employees at the hospital. In order to measure an effect size, a difference between two groups or more based on some treatment must be done. This process was not the intent of this project and was not done, thus an effect size cannot be measured.

Quality Assurance

In order to ensure quality and safety, the free employee health screenings were conducted by the same four Wellness Department staff every time. Each of the staff used the same model and type of equipment and were trained in the same methods and processes. In reference to the laboratory data, the blood samples were all run at the same laboratory site on the same laboratory machines. All of the data was analyzed by the same company, Wellsource Inc. Each wellness committee meeting was set up and run by the DNP student, who was the sole leader of this program and its associated interventions. Due to a methodical plan and program, variation was limited. Blinding was not warranted as part of this project. A total of 403 employees, volunteers, and board members were screened. This equated to 32% of the population, which met the initial goal of 30%. For the purposes of this project, this was considered a sufficient collection of initial baseline data, with the goal of 40% participation for 2016.

CHAPTER FIVE

RESULTS

FindingsResults and Benefit

The goal of this project was to create an employer sponsored health and wellness program. As a result of this DNP project, a hospital wellness committee was formed, statistics were analyzed and published about overall employee health, and interventions were created to help improve the overall health and wellness of the hospital employees. The wellness committee met every month for the year 2015, with plans to continue to meet after the completion of this project. Three major areas of need were identified, which included: poor nutrition, lack of health promotion, and prevention, as well as high levels of stress, depression, and burnout.

In order to address poor nutrition, a healthcare policy analysis was completed by this DNP student, which identified the benefit of posting nutritional facts and calorie counts on the menu of the hospital cafeteria. Computer software and a labeling module were purchased and installed at the cafeteria at a cost of \$3,325.05. This cost was covered through administrative budget. Posting calorie and nutritional information for consumers at restaurant chains has been proven to decrease the total caloric intake and aide individuals in making healthier meal choices (Bollinger, Leslie, & Sorenson, 2011). It is believed that this result can also provide lasting effects and benefits in the hospital cafeteria setting for employees, patients, visitors, and community members.

To address the lack of health prevention and promotion, the hospital management has agreed to offer free employee health screenings in January-February 2016, as well as for multiple years to come. The screenings offer free fasting blood glucose, thyroid stimulating hormone, complete lipid panel, vital signs, BMI, and a health risk assessment. In addition, if an employee wanted additional lab work done, they were able to request it through this lab draw and the hospital offered this at cost. The total cost of the screening per employee was estimated at \$30, which totaled to \$12,090 for 2015. The wellness committee has set a goal of 500 participants for the 2016 screenings which would cost approximately \$15,000. After the screenings were completed, the Wellness Department employees were responsible for calling any employees who were identified to be at risk. The Wellness Department also aided any employee in referral to a primary care doctor if warranted. All physicians within the hospital and clinic network had access to their patients' lab work, measurements, and vital signs. Six months after the screening, emails were sent out to all participants reminding them of their results and identifying areas that needed improvement. Eventually the goal of the wellness committee is to have incentives tied to improvements in BMI, waist circumference, blood pressure, cholesterol, and smoking cessation which will reward those who show positive change, or remain healthy.

Wellness screenings were offered January-February 2016 with a total of 514 participants. This represents an increase in 111 individuals screened when compared with 2015. A total of 514 employees screened indicates 41% of the eligible population, which is a 9% increase from last year. Of the 514 individuals screened, 227 participated in 2015, while 287 were involved for the first time. Although not specifically studied, it is

indicated that this increase in participation was widely due to offering incentives and an increase in employee awareness after the 2015 screenings. By gaining more participants in the wellness screenings, it is indicated that more employees are becoming interested and educated about their health, as well as providing the wellness committee with a more broad view of the overall health picture. Wellsource Incorporated recommends a participation goal of 85%, which shows a large opportunity for improvement.

To address high levels of stress, burnout, and poor coping mechanisms, the wellness committee identified various in-house resources that were being underutilized. For multiple years, the hospital has employed a licensed counselor on an as needed basis solely for support of employees who are in need. This is offered to employees free of charge, up to five sessions, for the employee and all of their family members per problem. Additionally, if more than five sessions are needed for an issue, the service is offered at a reduced cost. It was identified that many employees were unaware of this benefit; thus, it was advertised in email and hospital newsletter with basic information and contact numbers for help if needed. In addition to this, educational lectures regarding stress, burnout, and coping in the workplace have been added to annual mandatory nursing education, as well as offered at various brown bag lunch sessions for business staff. These lectures were free of cost to the hospital, as the speaker is a current employee of the Behavioral Health Unit.

Overall, the effectiveness of organizations depends on the health and productivity of the employees. The general health and wellness of individuals in the workplace plays a large part in their ability and willingness to be productive and successful. In the

healthcare field, poor overall employee health could translate to poor productivity, safety concerns, and dissatisfied patients and co-workers. For purposes of this degree, this DNP project has been deemed successful by wellness committee members, executive management, and hospital employees. It is noted that in order for this success to continue, there are important steps that need to occur which include: continued communication with employees about program goals and benefits, accessibility and alignment with employee needs, support of executive leaders and managers, creative use of resources, and continuous program analysis and improvement (Mattke et al., 2013). By doing this, corporate wellness programs have been deemed successful in improving overall workforce health as well as fiscally responsible for the business.

Harm, Problems, and Failures

The design of this project was primarily program development, with the secondary effect being quality improvement; thus, minimal risk for harm was involved. Participation in the wellness screenings was 100% voluntary. The risks involved were: pain from the phlebotomy process and embarrassment or shame due to obesity, high blood pressure, and high weight circumference being measured by Wellness Department employees who may be co-workers or friends. One employee did present to human resources concerned that their information was being publicized. This employee was educated about the process of data collection and informed that there was absolutely no personal information being publicized, as well as the fact that the company in charge of computing the data was in Oregon. The employee had also previously signed the waiver prior to getting a free health screening that detailed her information would be used

anonymously in population based statistics to help improve the overall health of the hospital employees as a whole. The DNP student and this project were greatly supported by management and executive leaders throughout this project which helped eliminate project failure.

CHAPTER SIX

DISCUSSION

Introduction

This project aimed to develop a multifaceted health and wellness program for employees with the understanding that different interventions would appeal to certain personalities and health issues. To guide this process, the Health Promotion Model (HPM) was used. This nursing theory focuses on three general aspects: individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes (Nursing Theory, 2013). These set of variables and experiences are believed to have significant effect on the level of motivation for change, as well as cognitive recognition of issues. In this theory, it is recognized that the final demand for change is either inhibited or fueled by other competitive demands and the learned preferences of the individual. The end goal of this theory is health promoting behavior (Nursing Theory, 2013). These theoretical statements agree with the research done throughout this project surrounding the stated problem. Nurses do not perceive that their overall health is poor, typically do not commit to engaging in health promoting behavior, and are often bombarded with other situational influences at work and at home that they perceive as more important than their own health. In addition, implementing this project provided the opportunity to form interprofessional relationships with many people throughout the hospital which was of great future benefit to the DNP student.

Strengths

The success of this project was largely due to support from executive leaders and management of the hospital, as well as willingness of staff to volunteer their time as part of the wellness committee. Wellness committee meetings took place on weekdays, typically during lunch hour. Staff who participated in the committee volunteered their time for lunch hour meetings, and were paid for any meetings that took place during their regular work day. The willingness to promote and improve the health and wellness of the employees by these committee members was a great strength and key to success. Through collaboration between the DNP student, the wellness committee, and the key stakeholders involved in each particular intervention, all aims of this project were met. It is noted that the DNP student was familiar with many of the involved wellness committee members prior to participation in this program, which helped facilitate effective communication as well as efficient process and intervention planning. Finally, support and feedback of professors and classmates helped the DNP student to continually evolve the project and construct a paper that would provide benefit to the healthcare community.

Comparison of Outcomes with Literature

There is very limited information published on wellness programs tailored to hospital employees and healthcare workers. That being said, the results of this project were similar to information published regarding both statistical information, and development of wellness programs in other professional arenas. The statistics that were provided from the employee health screenings done in January-February 2015 indicated

that the incidences of obesity and overweight in the hospital employees of this location were very much alike the national average. It is noted that the national average of obesity rates in the United States are significantly higher than the rate of obesity in Montana. Montana is the 10th fittest state in the United States with a reported obesity rate of 26.4% (CDC, 2014). Although Montana is currently seen as a state with a lower incidence of obesity compared to many others, it is reported that a current rate of 26.4% is high compared to 15.6% in 2000 and 8.4% in 1990 (Robert Wood Johnson Foundation, 2015).

With the use of thorough literary research, it was identified that wellness programs are not effective when they are not tailored to specific needs of the current population. Thus, the development of this program was focused on just this, and was similar to what evidence-based research reported was effective. According to Mattke et al. (2013),

We find that lifestyle management programs as part of workplace wellness can reduce risk factors, such as smoking, and increase healthy behaviors, such as exercise. We find that these effects are sustainable over time and clinically meaningful. This result is of critical importance, as it confirms that workplace wellness programs can help contain the current epidemic of lifestyle-related diseases, the main driver of premature morbidity and mortality in the United States (p. 106).

Due to fact that this project was focused on gathering of information and development of a new program, it was not possible to analyze the effects of the interventions, as this will be done in one year's time. At that point, the interventions and incentives will be analyzed and catered to the necessary areas as the database continues to grow and health issues change over time.

In order to create a successful wellness program, it was identified in the literature that certain aspects must be present, including: “effective communication with employees about program goals and benefits, accessibility and alignment with employee needs, leadership support, creative use of resources, and continuous program improvement” (Mattke et al., 2013, p. 107). Each of these characteristics were put in place throughout this DNP project, and will continually be evaluated by wellness committee staff as the program continues to evolve.

Financial Implications

In order to successfully implement this project, finances were graciously made available by the hospital administration. To offer free employee wellness screenings on an annual basis, the total cost for approximately 500 participants is \$15,000. This includes the cost of running bloodwork at the laboratory, accessing an online health risk assessment, paying Wellsource Inc. to analyze the data, and paying the Wellness Department employees for their hours worked. The executive leaders of the hospital have committed to offering this to employees for several years to come, which will lead to an annual expense of around \$30 per participant.

In order to post accurate calorie and nutritional information at the cafeteria in a way that was legible and reasonable for the employees' time, a computer software program titled Nutritionist Pro Diet Analysis and Food Labeling Network was purchased. The cost of the computer software, a new computer for nutrition staff, and label printer was \$3,325. With labor and IT assistance, the cost was calculated at around \$5,000. It is

understood that this was a one-time, up-front cost that does not require any further annual expenditure.

In the year 2016 the hospital management agreed to provide incentives for employees to participate in the wellness screenings, as a way to obtain more people for data collection, as well as to re-analyze those who participated last year to see if any change as occurred. For those who participated last year, the incentive will be a wellness associated gift of their choice valued at \$100. Last year, there was 403 participants, leading to a cost of approximately \$4,000. For this years' new participants, a water bottle or sweat-wicking t-shirt valued around \$5 a piece will be offered. This is estimated to cost \$1000 or less.

The stress and coping presentations are to be given by an employee that is already paid by the hospital, so this is not calculated as an additional cost. In total, this project cost the hospital an estimated \$25,000. Prior to the conclusion of this project, hospital executive management committed to spending \$100,000 on employee health and wellness for this project, and interventions to come in 2016.

Limitations

An obvious limitation of this DNP project was that it eventually had to have an end time in order to complete the requirements of this paper and graduate. This aspect was frustrating to the wellness committee, as the DNP student was attempting to wrap things up, and the committee members were wanting to keep working. That being said, this limitation has turned into a strength, in that the wellness committee that was formed

through this project decided to add additional members, and continue to meet after project completion. The fact that there was only one lead investigator is a limitation for both time and bias. Bias is a limitation and variable that must be considered in any scholarly project. Measures were taken in attempt to avoid this. The selection of articles and research for the literature review, the interpretation of the data, and the development of certain interventions had potential to be influenced by the DNP student's personal bias. Lack of experience can also be considered a limitation. This is the first large-scale scholarly project that this DNP student has completed, thus leaving areas for mistakes or missed opportunities. Finally, generalizability and external validity must be considered. The basis and goals of this project could be generalized to any setting, although the interventions were tailored to this specific population. It is understood that this type of study could be duplicated in most any population setting, as long as health screenings were completed first and the data was analyzed to identify the areas for needed intervention.

CHAPTER SEVEN

CONCLUSION

Implications and Suggestions for Future Studies

This study has opened the door to identifying and treating the obesity epidemic that affects not only a large portion of Americans, but more specifically, hospital employees. The lack of productivity and the effect that obesity has on the overall health of employees that have been discussed throughout this paper will continue to become more important as more healthcare delivery is being graded and reimbursed by the patient based upon their satisfaction. There is evidence reporting that patients perceive the information and care provided to them as higher quality when delivered by a healthy weight nurse versus an obese nurse. This evidence is partially based simply on the appearance of obesity, and does not include the physical or emotional effects that obesity and its comorbidities can have on an individual who is employed in a very physically demanding job, such as nursing. That being said, more research is needed on the nursing profession alone and why the incidence of obesity is so high in an occupation that focuses on the health and wellness of others. Minimal research has been done on the cost effectiveness of wellness programs, and how much money spent per employee is considered financially responsible. Additionally, a long follow-up period of multiple years will need to be completed in order to capture the full effect of health outcomes and cost. A broader sample would allow for generalization to a larger population of employers.

In addition, sleep deprivation was identified to be a widespread problem in the analyzed population. Future research and project development could help analyze the causes of this deficit, including the possibility of sleep apnea. Sleep apnea is a known co-morbid issue of obesity, which can cause high blood pressure, heart disease, stroke, automobile accidents caused by falling asleep at the wheel, diabetes, depression (American Sleep Apnea Association, 2016).

Practical Application and Dissemination

The effectiveness and success of any corporation is dependent upon the health and wellness of its employees. The application of this project was based on evidence-based research, and thus was considered practical and very useful prior to initiation. Guidelines for project implementation and success previously researched and published by various cited sources was followed to an extent, with variations due to change in setting and identified needs. It is the hope of the DNP student that this project could be used as background information, research, and project development for many hospitals of the same size. It is identified that an initial health screening of the employees at any location prior to development of a wellness program is imperative to success. This aides in statistical identification of the most crucial health issues and also provides an avenue for annual evaluation of program effectiveness, which is imperative to practical application both in reality for the employees involved, as well as in finances for the business.

It is understood that hospitals in other locations may not be able to spend \$25,000 to initiate a program, which is a limitation to the practical application of this exact

project. That being said, the number of total individuals employed will vastly effect the total cost of implementing a wellness program, and smaller locations would not have to spend as much, where larger businesses would be required to spend more. Again, the financial implications are entirely dependent on chosen interventions and available resources.

This project was implemented in a community hospital in Western Montana with approximately 1,259 total employees, board members, and volunteers. Results from this project will be shared with hospital management and executives, wellness committee members, and any other employees upon request. Posters, emails, pay-check inserts, and flyers have already been placed around the hospital for the last year and will continue to be done in order to ensure effective communication and publication about the program. A short presentation will be given to hospital managers and leaders in April 2016 after completion of the second round of free employee health screenings. After presentation of the project and paper to the College of Nursing at Montana State University for requirements of graduation, it is a possibility that this project will be presented at the next Montana Nurses Association annual convention. The topic of this scholarly project and the information provided have the ability to be applicable in any healthcare setting across the country. The DNP is open to presenting this project nationally, as it is understood that dissemination of this information is key to solving the obesity problem. The project and paper will be provided by request to any hospitals that are interested in developing wellness programs.

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