2014

Employer-Based Wellness Programs; Financial Value To The Organization

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EMPLOYER-BASED WELLNESS PROGRAMS: FINANCIAL VALUE TO THE ORGANIZATION

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A DISSERTATION

Submitted to the graduate faculty of the University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Science

BIRMINGHAM, ALABAMA

2014

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ABSTRACT

The health and wellness of employees is of strategic importance for healthcare organizations to achieve leadership in the current world of accountable care and health reform. This study sought to discover whether an organizational program, focused on health promotion and wellness for employees, has a value to the organization. This quantitative evaluation study examines the key success variables of a wellness program implemented at a medical facility in the United States by examining the medical costs incurred among 525 participants and non-participants of the facility sponsored fitness and wellness program known as Full Engagement Training (FET). The research questions allowed the dependent variables to include (a) allowed costs, (b) paid costs, and (c) direct paid costs. Using the descriptive and inferential statistical analysis, the study addresses the impact of participation the Full Engagement Training wellness program on medical costs for employees. The results of the study provide valuation evidence concerning teaching employees how to change their health outcomes through lifestyle change that drives the success of an organizational wellness program.

Keywords: Workplace, Wellness program, medical cost, evaluation, Full Engagement Training (FET)

ACKNOWLEDGEMENTS

Though only my name appears on the cover of this dissertation, a great many individuals have contributed to its completion. I have been amazingly fortunate to have a Chairman, Dr. Richard Shewchuk, who gave me the freedom to explore on my own, timely encouragement and practical advice as this dissertation took form. I am grateful to other Committee Members: Dr. Greg Carlson, Dr. Stephen O'Conner and Dr. Nancy Shepherd, for their insightful comments and constructive criticisms at different stages of my research. I am thankful for Dr. Haiyan Qu, who freely gave her time; patience and guidance that helped me overcome many crisis situations throughout the statistical analysis research. Additionally, my appreciation goes to Dr. Robert Hernandez who set high standards for us (students) and encouraged us to meet those standards throughout the course of study. Thank you Leandra Celaya for making it all come together.

I am indebted to the two institutions involved in this research, San Juan Regional Medical Center and Employee Benefits Consultants, who provided valuable assistance as well as permission to use the data. I am ever so appreciative of my classmates, who kept me focused and motivated to complete this dissertation. To my San Juan Regional Medical Center co-workers, thank you for your encouragement and understanding.

My deepest gratitude goes to my parents, Carter and Nugie Wallace, who from heaven, reminded me to *"do my best"* and *"always finish what you start"*. I miss you both. Finally, although she entered this journey later, thank you Karen for restoring my confidence and faith in love.

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LIST OF ABBREVIATIONS

ACA	Affordable Care Act
EBC	Employee Benefit Consultants
FET	Full Engagement Training
HPI	Human Performance Institute
ROI	Return on Investment
SJRMC	San Juan Regional Medical Center, Farmington, NM
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

Employment-based health promotion and wellness programs are designed to create awareness of health related issues along with empowering the health of employees through mutual initiatives (Berry, Mirabito, & Baun, 2010). Employees are one of the most valuable resources in organizations, and output of organizations is largely dependent upon the productivity of its employees. Employees maximize their contributions to an organization only when their health and mind are active and healthy. It can be assumed that an organization with an active and healthy workforce is not only more productive, but they also are generally a more genial place given the correlation between good health and good spirits (Buck, 1996). Most organizations have health care programs tailored to the needs and requirements of its employees. Some organizations have no such programs; some wellness programs aim to enhance the health of individuals, while others strive to enhance the group's health through mutual contribution and participation (Ivey, Ivey, Myers, & Sweeney, 2005).

Using the wellness program at the San Juan Regional Medical Center (SJRMC), this research study focused on evaluating if those employees enrolled in a wellness program have lower medical costs than those that are not. Because health care and wellness programs not only require significant investment but also quality initiatives to maintain the flow and benefits of the program in an efficient manner, it is important to assess the value of employee-based wellness programs by analyzing cost variables. Accurate evaluation of the fiscal impact of workplace wellness programs present some

challenges for employers as there is no one industry standard for measuring the costs related to a wellness programs (Baicker, Cutlet & Song, 2012). The analysis was conducted by comparing medical costs of employees at SJRMC enrolled in Full Engagement Training (FET) to medical costs of those not participating in the program.

Background

Over the past 25 years, wellness programs have been adopted by companies in an attempt to develop healthy functioning employees. Wellness programs sponsored by companies attempt to promote good health and/or identify and correct potential health related problems (Wolfe, Parker, & Napier, 1994). It is estimated that 90% of companies provide at least one subset of a wellness program for their employees (Aldana, Merrill, Price, Hardy, & Hager, 2005). A growing number of companies have committed to providing organizational wellness programs to improve the health of the employees, control health care, reduce absences and absenteeism costs, and provide additional benefits to employees (Bly, Jones, & Richardson, 1986).

America's workplaces have gradually transitioned from an emphasis on the medical model of disease treatment to a risk reduction and health promotion as a business strategy. An important factor associated with this model is a long-term approach that focuses on reducing health risks through continuously evolving initiatives. These initiatives should provide mutual value for the employees and the organization. The ever increasing cost of health care is a major factor driving an increased focus on employee wellness. The passage of the Patient Protection and Affordable Care Act adds urgency for wellness and prevention. The new law includes incentives such as premium discounts of

up to 30% of the cost of coverage for individuals who take an active role in their health management (Weiner, 2010).

There are many aspects regarding wellness programs that are outlined in the Health Reform Law, including grants for business employers to use in establishing wellness programs as well as providing technical assistance and other resources to evaluate employer-based wellness programs. The implications are manifold for hospitals as providers and as cornerstones of public health within the community; and just as significantly, as employers. Employers have been convinced of the financial advantage their companies can attain when presented with hard data demonstrating that healthy employees generally cost the company less (Aldana, 2001). Thus, wellness programs have become more common.

Companies with workplace wellness programs are improving employee health, decreasing absenteeism, and saving money (Nichols, 2007). A company investment of $100 to $150 per employee each year to participate in an employee wellness program can save companies between $300 to $450 for each employee every year (Goetzel, 2009). Additionally, companies who instituted employee health and wellness programs noted a 30% reduction in medical and absenteeism costs in less than four years (Anderson, 2001).

Goetzel et al. (2002) conducted a comprehensive study on the health and wellness program underway at Johnson & Johnson. The study assessed the effectiveness of the program by researching the reduction in health risks among the company's 4,586 employees who had signed up and participated in the program. The researchers also examined the high-risk intervention program's reduction of risk. The findings indicated that there was an overall statistically significant risk reduction in 8 out of 13 risk

categories for employees who participated in the program for at least one year (Goetzel et al., 2002). The researchers' study provided evidence regarding the ability of large-scale, comprehensive wellness programs to provide positive benefits for the health of an organization's employees.

The specific approaches to workplace wellness programs are proliferating almost as fast as the number of programs (Kasprzyk & Freeman, 1997). Unfortunately, there is little unequivocal research evidence that any specific health wellness or health promotion program or strategy is better than another (Kasprzyk & Freeman, 1997). Most wellness and health promotion guidelines recommend the use of a process to guide the company through development of a program tailored to meet the needs of its organizational philosophy, goals for health promotion, and employee health needs (Storlie, Baun, & Horton, 2009). Part of this process includes selecting a wellness model that provides the framework in which to incorporate various elements of interest and priority. SJRMC adopted the Full Engagement Training (FET) system as the workplace wellness and health promotion model as best aligned with SJRMC philosophy, core values, and long-term goals for employees and employer needs.

SJRMC is a regional medical center of 254-beds located in northwestern New Mexico. The medical center employs over one thousand and seventy employees, 88 physicians, and is associated with 250 volunteers and over 100 independent practicing physicians. SJRMC services a remote population area of 240,000 individuals covering the 'four corners' area of New Mexico, Arizona, Utah, and Colorado.

FET grew from the insights of Jim Loehr and Tony Schwartz, senior partners and other stakeholders of the Human Performance Institute (HPI). Loehr is a performance

psychologist who has coached hundreds of professional athletes, including tennis champion Monica Seles and Olympic speed skater Dan Jansen. Loehr's system evolved from his belief that corporate executives are under even more brutal competitive pressure than professional athletes, so the same concepts should be applicable. The result was the FET philosophy and model and its availability to SJRMC for every employee and physician.

SJRMC's FET model reflects a multi-focused program that is well integrated into the hospital's culture. Participants in FET become involved in six modules, which represent critical components for developing both personally and organizationally. The modules prescribed for all participants include the following: (a) getting fully engaged to build skills and capacity to perform at one's best regardless of the conditions, (b) facing the truth to confront the reality of all dimensions of individual engagements, (c) nutritional impact on energy, moods, ability to think clearly, metabolism, and individual performance, (d) movement to exercise strategically and maximize individual energy levels so one can be fully engaged in those things that really matter, (e) defining individual purpose to establish core values for the powerful "you" and advanced professional potential, and (f) taking action as a ritual to increase the flow of energy toward those things in one's personal and professional life that "you" want to develop to full capacity.

The program is focused on the value of managing energy, not time, as the key to enduring high performance as well as the key to healthy behaviors, choices, and life balance. The end result is the healthier employee. Quantifying the program and measuring the value of the SJRMC workplace wellness model, FET, will assist in

understanding the impact on organizational medical costs. This will also help in achieving the proposed aim and objectives of the research in a significant manner.

Study Purpose and Research Question

Research has shown that employers implement workplace wellness programs that encourage employees to adopt healthy lifestyle habits. The impact of wellness programs varies and can be difficult to measure, but well-designed programs can generate positive impacts for both employer and employee by lowering employer's expenses and improving the health of the employee. It was found that medical costs of employees could be reduced by approximately $3.27 for every dollar spent on workplace wellness and health promotions programs (Patel, 2011). Based on these findings and a strategy to expand the culture of wellness, SJRMC introduced the FET system in late 2004 as a wellness and fitness program offered at no cost to SJRMC staff and physicians. Since the adoption of the FET program, expenditures in support of staff participation, travel, training, tuition, logistics, administration, and service support have exceeded $1.85 million in the seven-year sponsorship of the program. Continuing FET into the future will only add to SJRMC expenditures. Is the value there? No cost/benefit review has ever been conducted, and no evidence exists that FET has had an impact on individual employees forming and maintaining healthy behaviors, reducing SJRMC medical costs, or modifying environment (workplace) for promoting health. Research is required to investigate the influence of the FET program on SJRMC workplace wellness and medical costs. The research study is designed to analyze whether FET participants have lower medical costs than non-participants.

The purpose of this program evaluation is to conduct a quantitative analysis between FET program participants' and non-participants' medical costs, that could benefit SJRMC by investing more into wellness programs, or perhaps reducing such investments. SJRMC understands that an employee wellness program encourages individuals to take measures to lead healthier lifestyles to prevent the onset or worsening of a disease. Less employee illness means SJRMC can reduce employee medical use, which reduces medical costs and consequentially reduces employee medical costs from the self-insured organization. The following research question will guide the proposed program evaluation:

Research Question: Is there a significant difference in the medical costs incurred between participants and non-participants of the FET program?

$H1_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2010.

$H1_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2010.

$H2_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2011.

$H2_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2011.

$H3_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2010.

$H3_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2010.

$H4_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2011.

$H4_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2011.

$H5_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2010.

$H5_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2010.

$H6_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2011.

$H6_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2011.

Limitations

There are a number of limitations for this study. First, over time there is a regression to the mean as the data only includes changes over two years with one year of baseline data. Because there are only baseline measurements on medical costs and no follow-up assessments in the data set, it is impossible to examine the efficacy of the FET program such as the change scores. Furthermore, this study did not track whether changes in FET participation were sustained by employees beyond the base-line years. Second, the data does not address costs and outcomes by chronic condition. For example, certain chronic conditions are considered ambulatory sensitive conditions, meaning that good outpatient care and self-management does reduce utilization impacting the variables of interest for this study. In addition, caution must be taken when examining cohort of

participants and non-participants for the years covered between 2010 and 2011, in that each year consisted of participants and non-participants that did not remain employed for the full period of analysis. A third limitation is the selection bias of who participated in FET since it was voluntary and no formal employer sponsored packages of incentives encouraged higher participation. Other wellness programs have experienced broader participation by providing incentives such as paid time off, reduced employee cash contributions to health benefits costs and non-monetary support via tee shirts, unit recognition and organizational publications. The overall savings, including startup costs, insurance benefit costs must be related to the actual costs associated with the FET program. The scope of the study will be limited, by need, to the SJMRC FET Wellness Program and the findings may not be generalized to other wellness programs.

Significance of the Study

The significance of this study can contribute to the literature by substantiating the cost savings of employee health and wellness programs. Cost containment is vitally necessary for financial survival of companies in a time of significantly rising health care costs (Anspaugh, Hunter, & Mosley, 1995; Reardon, 1998). Financiers of these costs are not only interested in, but also are demanding more attention to disease prevention and promotion of wellness (Murdaugh & Vanderboom, 2001). With research beginning to demonstrate cost savings to companies with healthier employees, more employers are seeking this advantage through the support of workplace wellness programs (Brown, Hilyer, Artz, Glasscock, & Weaver, 1998).

Definitions of Terms

The following term will be used throughout the remainder of the evaluation:

The Full Engagement Training (FET) program is one that provides participants wellness and health promotion assistance and is aligned with the SJRMC philosophy, core values, and long-term goals for employees and employer needs.

Allowed Costs is the total amount allocated for each individual in case of medical emergencies or to cover medical costs.

Paid Costs represents total incurred medical costs for each employee.

Direct Paid Costs pertains to the actual amount that was directly paid to the employee instead of to doctors or other medical institutions.

Plan of Work

This chapter provided a review of the proposed evaluation, including the problem, purpose, research questions, and the nature of the evaluation was discussed followed by definitions of key terms. The scope and limitations of the evaluation were also presented. The purpose of this proposed quantitative study will investigate the differences in FET program participation on the key variables of Allowed Costs, Paid Costs, Direct Costs, and Changes in Costs and the Difference in Allowed/Paid Costs. Chapter 2 will provide a literature review of the relevant studies and Chapter 3 discusses the methodology.

CHAPTER 2

LITERATURE REVIEW

Introduction

The research aims at identifying the importance and relevance of health care and wellness programs in enhancing the overall medical cost savings to the organization and employees in the context of the San Juan Regional Medical Center (SJRMC). It should be mentioned that health care and wellness programs not only require significant investment, but also quality initiatives to maintain the flow and benefits of the program in an effective and efficient manner. It is necessary to assess the importance and benefits of employee-based wellness programs by analyzing the nature, importance, advantages, and acceptance of these programs in the competitive business environment. The level of mutual participation and contribution needs to be analyzed and assessed for a better understanding of the research topic.

The research will be conducted in the context of the SJRMC for developing and implementing health care wellness programs in order to reduce medical costs along with enhancing the overall benefits and advantages associated with health care programs. Recent research has suggested that medical costs of employees could be reduced by approximately $3.27 for every dollar spent on workplace wellness and health promotions programs (Hartman, Martin, Nuccio, & Catlin, 2010). If so, this is a value-driven return on investment of the Full Engagement Training (FET) system introduced to SJRMC in late 2004, as a wellness and fitness program offered at no cost to SJRMC staff and physicians.

The Nature and Needs of the Modern Workplace

Efficiency drove reform efforts during the industrial age, and the factory system that developed in America was second to none. The tremendous success of the United States' factory model (scientific management) propelled America to the economic forefront of the Western World (Rousmaniere, 2007). Frederick W. Taylor became world-renowned for his ability to streamline production processes (Rousmaniere, 2007). In conjunction with streamlining processes, time management was seen as the key to maximizing potential.

As the industrial age gave way to the information age, business leaders began to see the limitations of traditional time management thinking. Stephen Covey (1989) drew attention to this line of thought with First Things First, which began as habit number three of his seminal work, *The Seven Habits of Highly Effective People* (1989). Covey's (1989) basic contention was that people spent so much time focused on climbing the ladder of success that they neglected to take the time to stop and consider whether the ladder was leaning against the right wall. Even when their goals were well thought out, they seldom considered whether their actions in that endeavor were relevant to the task at hand. Covey (1989) urged leaders to prioritize their daily activities according to their value systems, and then schedule those things that were most important to them before filling in the empty spaces in their day-planners with less important obligations. The more proactive one was in dealing with important matters, the less time one was obligated to spend on urgent – but less important – matters (Covey, 1989).

The information age is now transitioning into the digital age. Tasks and days have been carved into bits and bytes. Expectations are increasing as budgets have decreased, along with the funding necessary to retain support staff. People have responded by working more hours, ignoring personal needs, fueling-up with coffee, wolfing-down fast food, cooling-down with alcohol, and surviving on too little sleep. The constant demands placed on minds and bodies are overwhelming and debilitating, but modern-day executives feel trapped in a relentless cycle that controls their lives (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003). According to a 1999 government study, hours worked have steadily increased over the years. Today, American workers devote more hours in the workplace compared to other industrialized nations (American Institute of Stress [AIS], 2007).

Thanks to progressive executive coaches and organizations, such as LGE Performance Systems, executives are now being reinvigorated by holistic wellness training programs (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003). LGE Performance Systems help their clients maximize personal energy through the practice of rituals designed to enhance personal holistic wellness. According to Loehr and Schwartz (2001, 2003), energy is considered the primary currency of high performance.

The energy management approach does build upon the time management and activity management paradigms. People should manage their time and strive for efficiency in completing management tasks. They should empower those around them and delegate managerial duties as much as possible. But the real challenge occurs when people have streamlined their schedules and delegated their responsibilities as much as their budgets will allow. Performance psychologist James Loehr (1997) and physiologist

Jack Groppel (2000) have stated that by attending to their personal wellness, people can increase their energy capacity (ability to expend and recover energy) and, therefore, their effectiveness in dealing with the seemingly overwhelming workload that they are unable to delegate or dismiss. Every thought, feeling, and action has an energy consequence. Full engagement is then seen as a consequence of the skillful management of energy in all dimensions of wellness (Loehr & Schwartz, 2001, 2003).

By focusing on the improvement of their weakest dimensions of wellness, people can bring their bodies more into balance (homeostasis). When they are more balanced, they can summon more energy at any given time to address life's challenges. While they may not always be able to reduce the number or magnitude of the challenges they face, people can maximize the energy they bring to those challenges and, therefore, reduce the negative effects of stress and enhance the effectiveness of their personal and professional lives (Groppel, 2000; Loehr, 1997; Loehr & Schwartz, 2001; 2003).

Employee Wellness

Wellness, when assessed in holistic terms, can be considered as the process of acquiring optimum health for an individual, and not a state in which the society perceives as healthy. As such, wellness is relative and an individual aspect (Powers, Myers, Tingle, & Powers, 2004). In addition, according to Zwetsloot and Pot (2004), wellness cannot be achieved overnight, as it is a process that should be given attention to by individuals continuously and consistently. Organizations to which the individuals belong tend to play a key role as well (Zwetsloot & Pot, 2004). According to Roslender, Stevenson, and Kahn (2006), when an individual or organization internalizes the objective of wellness,

wellness becomes an ability to create wealth and becomes an intellectual capital and an organizational asset that leads to wealth creation.

People in general, however, tend to view their self-knowledge in favorable light (Wilson & Dunn, 2004) when it comes to wellness. Students do not believe that a wellness course can be beneficial and think that their current knowledge level is already at par to the knowledge that they can obtain from the course. Mack and Shaddox (2004), however, claimed that students might not have a full understanding of wellness and its diverse components.

The World Health Organization (WHO) introduced the concept of lifetime wellness in 1947 by defining it as the "physical, mental, and social well-being, not merely the absence of disease" (Hattie, Myers, & Sweeney, 2004). Originally criticized for being excessively optimistic or "utopian," the WHO's definition has had a profound impact on societal conceptions of both health and disease (Becker et al., 2009).

The WHO's revolutionary approach to health is evident in the Leading Health Indicators, a list of ten high priority, public health issues listed by Healthy People (2010), which offered health promotion and disease prevention initiatives across the United States. The ten indicators are "Physical Activity, Overweight and Obesity, Tobacco Use, Substance Abuse, Responsible Sexual Behavior, Mental Health, Injury and Violence, Environmental Quality, Immunization, and Access to Health Care" (Healthy People, 2010).

The history of the definition of wellness can be characterized as moving through three paradigms: dichotomous, mulitdimensional, and holistic (Neuman, 1995). With the dichotomous paradigm, wellness represented an either/or proposition: there is either

disease or the absence of disease. In the multi-dimensional paradigm, wellness is represented as a continuum between disease on one end and wellness on the other. Finally, the holistic paradigm represented wellness as a continuous process that is interrelated with the environment. The holistic perspective is a dynamic, relational view of wellness in that the well individual is in the process of living or "becoming" (Buck, 1996).

Historically, the dominant model in medicine, the biomedical model, characterized wellness as dichotomous. With the biomedical model, wellness is described as either the presence or absence of disease. From the biomedical perspective, the emphasis has been on illness and the consideration of the body in terms of its isolated physiological symptoms (McSherry & Draper, 1998). Further, assessment and diagnosis was directed at detecting illness and its consequences (e.g., pathology and disability) (Larson, 1999). The assumptions of the dichotomous perspective were challenged by changes in society and science, where an alternative explanation of health evolved. Specifically, technological advances in medicine and society after WWII changed the health needs in the United States, and there was a corresponding need to expand the definition of health beyond merely the absence of disease (Seaward, 2004). Rather, chronic and lifestyle illnesses are linked with the stress of technology in the workplace became the primary factor in deaths.

With advances in medicine and technology, there was an opportunity for increased attention to wellness promotion and positive wellness. This marked the beginning of the multidimensional wellness movement. The multidimensional perspective of wellness acknowledged the influence of factors beyond the physiological

ones in the determination of health status. For example, mental and social factors were given serious consideration in a person's overall well-being. The notion of wellness was expanded from a dichotomous variable (disease or absence of disease) to a continuum ranging from wellness on one end of the spectrum to illness on the other. In the shift toward a focus on positive wellness, the definition of wellness was changed from one that was considered to be objective and emphasized disease toward one that was more subjective, with an emphasis on quality of life. The second change in the definition of wellness occurred when spirituality was introduced as a dimension in addition to the physiological (body) and psychological (mind) dimensions of wellness. The inclusion of spirituality as a dimension of wellness expanded the definition of wellness to be more relational in that it introduced the idea that all dimensions (body, mind, spirit) of the individual are interconnected. Myers et al. (2000) considered spirituality as "an awareness of a being of force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe". Rather than viewing the dimensions of wellness as fragmented, the inclusion of spirituality led to a consideration of the person as whole. Gross (1980) explained that holistic health proposes that one is "whole in the sense that a living entity is more than the sum of its parts". From a holistic perspective, spirituality was considered to be the core of wellness and interconnected with all other dimensions of well-being (Chandler, Holden, & Kolander 1992; Witmer & Sweeney, 1992). The holistic perspective shifted the definition of wellness from an elementalist, reductionist, and dichotomous perspective to one that is interdependent and relational. Although the biomedical model of health continues to dominate research and

practice in the United States, the holistic model is considered the most comprehensive perspective of health in the world (Larson, 1999).

The original model of holistic wellness, often referred to as the balanced integration of mind, body, and spirit, was first conceptualized by the Greek philosopher Aristotle over 2000 years ago (Ulrich et al., 2008). Bringing this theme into the modern age, Dunn (1961) provided that "the human body as a manifestation of organized energy . . . [with] body, mind, and spirit of man as an interrelated and interdependent whole . . . [in which the individual] strives to achieve his purpose in living and grows in wholeness toward the maturity of self-fulfillment". The World Health Organization (1958) as cited by Dunn (1961) posed a slightly different three-dimensional model (physical, mental, and social well-being) of holistic wellness. Although the literature has disagreed on the absolute number of wellness dimensions, there is universal agreement that there exists a dynamic relationship between the different dimensions; changes in any one affect all other dimensions of wellness (Ardell, 1988; Hettler, 1984; Hinds, 1983).

While the earlier Wheel of Wellness model hypothesized a hierarchical, circumplex construct (Witmer, Sweeney & Myers 1998), subsequent data analyses have revealed one overarching factor (wellness) with five components (Myers & Sweeney, 2005). No one component is considered more important than the other components of the model. This new model is appropriately named the Indivisible Self. Central to the idea of the Indivisible Self was the conviction that positive change in one area of one's being can have positive benefits in other areas as well. Self-care relates to concern and attention to one's well-being in all of its dimensions. Choosing to develop safety habits, including practicing preventative medical and dental care, wearing seat belts, and avoiding harmful

substances including those in the environment has improved quality of life and extended longevity. The practice of safety habits may be interpreted as behavioral evidence of an existential desire for living (Ivey et al., 2005). A high degree of self-worth results in the belief that one is unique, worthwhile, and deserving of all of life's benefits – while remaining confident when dealing with its disappointments. Faulty self-evaluation may be seen in behaviors that reveal a mindset devoted to excuses, blaming, complaining, and fears designed to avoid meeting life's most basic tasks (Ivey et al., 2005). Basic nutritional rules of thumb include eating breakfast every day, eating a variety of the food groups recommended, maintaining one's ideal weight and drinking water in sufficient quantities each day. Beyond proper nutrition and hydration, consuming one's calories in several small meals spaced throughout the day is more beneficial than eating two or three large meals. Wellness programs date back to the 1950s. Major corporations such as Ford, Kodak, Goodyear, and Xerox have had active programs for many years (Kaldy, 1985). The containment of and reduction in health care costs has been the main impetus behind the commitment organizations have made to wellness program development. Organizations that have implemented wellness programs for their employees have shown health-related cost savings such as reductions in insurance premiums and decreases in employee absenteeism and turnover (Violette, 1991). Additionally, organizations have reported that wellness programs are inexpensive benefits that produce enhanced recruitment ability, improved job attitudes, increased organizational loyalty, a familial concern for employees, and increased productivity (Falkenberg, 1987).

Wellness Programs

Over the past 25 years, companies have adopted wellness programs in an attempt to develop high functioning employees. It was realized that healthy employees would be able to offer their best along with being active throughout the year, eliminating the risk of absenteeism. Wellness programs are on-site or off-site services sponsored by companies that attempt to promote good health or to identify and correct potential health-related problems (Wolfe et al., 1994). It is estimated that 90% of companies provide at least one subset of a wellness program for their employees (Aldana et al., 2005). A growing number of companies have committed to providing organizational wellness programs to help improve the health of the employees, control health care, absence and absenteeism costs, and to provide additional benefit to employees (Bly et al., 1986).

America's workplaces have gradually moved from an emphasis on the medical model of disease treatment to a risk reduction and health promotion effort to decrease workforce morbidity and mortality rates. The most important fact associated with this model is a long term benefit that reduces the level of health risks through continuous health care initiatives along with adding mutual value. The ever-increasing cost of medical care has been a major factor implicating such a change. With the introduction of the Patient Protection and Affordable Care Act, there is an added urgency for wellness and prevention. The new law will permit rewards such as premium discounts of up to 30% of the cost of coverage for individuals who take an active role in his or her own health management (Watson & Gauthier, 2003). There are some positive attributes regarding wellness programs that were outlined in the bill that provide grants for business employers to use in establishing wellness programs, as well as provide technical

assistance and other resources to evaluate employer-based wellness programs. The implications are manifold for hospitals as providers and as cornerstones of public health within the community, but just as significantly, as employers. Employers have been convinced of the financial advantage their companies can attain when presented with hard data demonstrating that healthy employees cost the company less (Aldana et al., 2005). Thus, wellness programs have become more common in businesses and organizations.

In 2009, the National Health Expenditures in the United States reached $2.6 trillion, up 5.7% from 2008 (CMS Actuary Projections, 2009). The health care share of GDP has jumped from 16.2% of GDP in 2008 to 17.3% in 2009, the largest one-year increase in history (CMS Actuary Projection, 2009). By 2019, the CMS Office of the Actuary projects that the U.S. health spending will reach $4.5 trillion or about 19.3% of the economy as measured by GDP (CMS Actuary Projections, 2009). Medical expenditures for employees have been continually on the rise, causing employers to seek ways to improve the bottom-line (Febbaro & Clum, 1998). Research supports the association between high medical costs and individuals at risk for health problems. Therefore, programs saving money for employers have generated much interest in the United States (Aldana et al., 2005).

The trend of the last decade in the United States has indicated overall improvements in health, increased life expectancy to 75.8 years, decreased health disparities between whites and African-Americans, declining poverty rates, and declining death rates for the three leading causes of death (Peterson & Seligmen, 2004). Despite this progress, morbidity and mortality rates have been heavily influenced by risk factors, many of which are modifiable. Modifiable lifestyle risk factors may account for 25% of

medical costs (Goetzel & Anderson, 1998). The Surgeon General has commented that medical care costs are substantially influenced by lifestyle factors (Purdy & Dupey, 2005).

A primary goal of workplace wellness programs is to create an environment where participants are empowered to develop an attitude that prompts healthy choices and lifestyle. These choices and ways of life will improve health and reduce or prevent disease and related costs. Significant improvements in blood pressure, serum cholesterol, behavior patterns, body weight, exercise activity, and morbidity and mortality rates have been reported in a health promotion program with 2,495 telephone company employees (Sullivan, 1987). Improved health-related and job-related attitudes were also formed among the study group. Bulaclac (1996) reported improved health and reduced sick leave in 233 hospital employees who participated in a workplace wellness program.

A review of 52 studies of United States workplace wellness and health promotion programs found strong evidence that such programs could improve individual fitness, healthy behaviors, and healthy choices of employees (Rodgers, Windsor, Caldwell, & Power, 2007). Cost outcomes are difficult to separate from health outcomes, where most studies reported monetary savings based upon improved health and decreased health risks. A study of 517 white-collar workers of Tenneco Inc., in Houston, Texas, reported lower absenteeism and lower health care costs for exercisers as compared to non-exercisers (Baun, Bernacki, & Tsai, 1986). This literature suggests that the wellness concept is effective. Thus, it appears that the real opportunity for SJRMC is to determine: (1) whether the FET program reduces medical costs for SJRMC, (2) how much is it saving SJRMC and (3) if not, why not?

The literature reveals a high interest in predicting and preventing disease, disability, and early death. Heart disease and cancer remain the two largest killers in the United States population. While the population is aging, a healthy and productive workforce is needed; and employers spend a significant amount of money on rising medical costs. There is substantive agreement on the prominent risk factors for disease, and some are modifiable while others are non-modifiable. Lifestyle choices have documented a large influence on potential risks related to physical activity levels, dietary practices, alcohol, tobacco, drug use, stress and coping mechanisms, safety practices, and medical care use. These choices and practices impact clinical measurements such as blood pressure, cholesterol, blood glucose, BMI, and weight and body fat percentages.

FET objectives serve as an impetus for SJRMC to support workplace wellness and health promotion. Research findings on both physiological and monetary outcomes of wellness programs or other health promotion activities have been a great interest to employers, educators, policy makers, and the medical community. There is a consensus that individuals with lower health risks have lower rates of disease, disability, and death and, therefore have fewer medical visits (Hood, 2005).

Employee wellness programs are offered by organizations to enhance organizational, environmental, and educational activities both within and outside of the organization along with taking care of minor and major health issues through efficient approaches. One of the major reasons behind the introduction of health care programs has been the rise of obesity in the US that compelled organizations to utilize a wide array of initiatives to tackle the issue in an effective manner. Obesity accounts for a number of health issues, and with proper regimens like physical activities, diet, and counseling,

positive outcomes can be achieved. According to the US Department of Health and Service, a number of organizations with exercise programs as a key component of their wellness program have reduced health care costs from 75% to 55%.

It should be mentioned that employee wellness programs have the ability to improve productivity, increase employee satisfaction by highlighting the employer's concern for employees, and improving the overall morale at the workplace. This is extremely important and necessary to create a favorable and sustainable environment where employees can achieve the objectives of the organization. This also creates a zealous environment, making employees feel valued.

There is no denying that employee wellness programs have been an important part of the organizations' initiatives in striking the right balance between the expense and benefits. Roscoe (2009) stated that organizations are desperate to add some value through employee wellness programs. However, with increases in operational and other expenditures, it is becoming increasingly difficult to analyze the cost benefit advantage. It is quite difficult to analyze the impact and influence of these programs, and oftentimes, return on investment seems a vague concept that is not only elusive but may seem enigmatic to many organizations. The political stance on improving health standards across the organizations in the US can be considered as a sort of pressure that is causing organizations to invest in useful wellness programs.

There are a number of organizations attempting to cut wide arrays of organizational costs through wellness programs IBM spent $1.3 billion on its employees, retired employees, and others in 2008 and still continues to add more value and benefits to existing wellness programs. PepsiCo is another organization that has been spending

heavily on employee wellness programs and this has affected the organizational culture and structure in a positive manner. It is difficult to analyze the overall return from such investments. IBM tapped into a consultancy to analyze the overall return, and results showed that the organization had been successful in saving $80 million in the form of reduced medical claims.

The analysis highlights the significance and acceptance of employee wellness programs in different organizations across the country. More importantly, there are not many instances when the overall return on wellness programs has been identified and analyzed.

The concept of employee wellness programs has been influencing a number of organizations across the world. Andrews (2010) stated that despite the introduction of health care programs and other initiatives, health care costs continue to rise, and most employees are not getting healthier or more health conscious. This is affecting the operational framework of organizations, as investments in current wellness and health care programs are not supporting the objectives of organizations. This has forced organizations to introduce health care programs as a business strategy. Organizations are taking strict steps to avoid any sort of passive attitude, along with empowering and rewarding employees who demonstrate high levels of proclivity towards the wellness programs. This has created a positive situation where employees focusing on the proposed health care goals of organizations are rewarded, while employees shrugging off those goals face a cut in their pay checks for not being accountable and responsible enough to take care of themselves and the objectives of the organization.

An improvement in the health of employees makes the organization more active

in terms of using the available sources and resources in a desired manner. Moreover, employee wellness programs have the ability to brighten the nation's health picture in a significant manner by enhancing the health of employees who in turn can motivate their families and friends. A number of organizations like IBM and Johnson & Johnson have certain medical tests and criteria that have to be fulfilled by employees. Employee wellness programs accomplish an increase or decrease in established medical standards. On a broader level, holistic employee wellness programs offer great benefits only when they are embraced by employees who understand the need and importance of health and are responsible and accountable to many.

Benefits of Wellness Programs

Companies with workplace wellness programs are improving employee health, decreasing absenteeism, and are also saving money (Myers & Sweeney, 2005). A company investment of $100 to $150 per employee each year to participate in an employee wellness program can save companies $300 to $450 for each employee every year (Gollwitzer & Brandstatter, 1997). Additionally, companies who instituted employee health and wellness programs noted a 30% reduction in medical and absenteeism costs in less than four years (Anderson et al., 2000). The next part of the discussion presents the research problem followed by the research aim and objectives.

Merrill, Aldana, Garrett, and Ross (2011) evaluated the effectiveness of a workplace wellness program using a within-group study design. They gathered 3,737 continuously employed individuals under a larger agribusiness company during the years of 2007 to 2009. At least 80% of the employees gave their consent and willingness to

participate in the program; the larger of the percentage was comprised of women. The researchers found that those who were underweight prior to the program, as well as those suffering from high systolic and diastolic blood pressure benefitted from the program. Those who were burdened with high total cholesterol, high low-density lipoprotein, low high-density lipoprotein, high triglycerides, and high glucose, which are triggers and determinants of serious and chronic diseases, enjoyed clinically significant improvements in their health after participating in the worksite wellness program under assessment. Moreover, those who were already obese experienced important improvements in specific mental health as well as dietary variables. The obese employees who participated in the worksite wellness program witnessed lowered levels of BMI, significant reductions in their fat intake, and an overall increase in positive variables such as frequency of aerobic exercise. They also generally became calmer, happy, less stressed, and more active (Merrill et al., 2011).

Makrides et al. (2011) assessed the relationship between health risks, absenteeism, as well as drug costs and participation in a comprehensive workplace wellness program. The researchers sought to understand how participating in a workplace sponsored comprehensive wellness program can reduce health risks and reserve high levels of absenteeism. Their goal was to evaluate how these programs could also lower drug costs. They calculated 11 types of health risks, changes in drug claims, short-term, and general illness for four groups categorized according to their risk levels. To assess for the wellness scores, the researchers used the instrument of the Wilcoxon test. To calculate the changes in costs, the researchers performed a regression analysis. The researchers found that 31% of the participants were at-risk, and 9 of the 11 risks were

linked to high levels of drug costs. More importantly, the researchers found that high-risk reduction as well as low-risk maintenance could be made possible by the workplace wellness program, and these were important for lowering or containing drug costs.

Patel (2011), determined that workplace wellness programs can lead to immense benefits, not only for the employees, but also for the employers. In general, the benefits include reduction in absenteeism rates, lower turnover rates, and fewer medical claims. The programs also aid in improving employee satisfaction and productivity. The employers enjoyed greater return on investment (ROI) as a result. However, the researchers also put forward caution and care with regard to implementing these wellness programs. These programs are especially beneficial because they can lead to both financial and non-financial incentives, and increase the overall savings of the organization. The researchers performed a systematic review to garner these findings. This included a review of studies that evaluated the effectiveness of workplace wellness programs on improving employees' health and encouraging lifestyle changes. The studies that assessed either the financial and non-financial benefits associated with these types of programs were also included in the review. The researchers claimed that as employees enjoyed weight loss and improvement in their overall health status, they incurred less absences and medical claims. The researchers also found that financial incentives work best when encouraging employees to participate in wellness programs. Employers have important roles to play in ensuring higher participation rates in these wellness programs. With more healthy and effective employees, employers will find urging their employees to participate in these programs as a worthy investment strategy.

According to Berry, Mirabito, and Baun, (2010), while the traditional perception

was that employee wellness programs were only extra activities that employers provided their employees and not a strategic imperative, the data findings they garnered showed otherwise. According to Berry et al. (2010), return on investment can be very high, as high as 6 to 1 for the company that provides effective and well-developed employee wellness programs. The researchers also found that successful employee wellness programs adhered to six core pillars, which were "gauged leadership at multiple levels, strategic alignment with the company's identity and aspirations, a design that is broad in scope and high in relevance and quality, broad accessibility, internal and external partnerships, and effective communications." Those companies that developed programs based on these six pillars enjoyed great rewards in the form of lower health expenses, greater employee productivity, and higher morale among the workers.

Baicker, Cutler, and Song (2012), found that recent soaring health spending leads to higher emphasis in the development of workplace disease prevention and wellness programs to enhance health and reduce costs as a result. The researchers performed a critical meta-analysis of the literature that assessed costs and savings linked to these programs. They found that for every dollar invested in wellness programs, the companies enjoyed an average of a $3.27 reduction in medical costs and $2.73 on absenteeism costs. Even though more research is welcome and necessary, the researchers concluded that investing in wellness programs could prove to be beneficial for the firms because of how they can influence budgets and productivity of the firms, and how they shape overall health outcomes.

Research has found that employee health directly affects work performance, attendance, and productivity (Weshhon, 2012). Offering wellness programs enhances

company productivity by attracting better staff, lowering the rate of absenteeism and lost time, improving on-the-job utilization, and improving employee morale and lowering turnover. The Affordable Care Act encourages workplace wellness programs, chiefly by promoting programs that reward employees for changing health-related behavior or improving measurable health outcomes. Although there may be other valid reasons, beyond lowering costs, to institute workplace wellness programs, we found little evidence that such programs can easily save costs through health improvement without being discriminatory (Horwitz, Kelly & DiNardo, 2013). Evidence suggests that savings to employers may come from cost shifting, with the most vulnerable employees, those from lower socioeconomic strata with the most health risks, probably bearing the greater costs that in effect subsidize their healthier colleagues.

Theoretical Framework

As health care utilization is influenced by multiple individual and contextual factors, a reasonable starting point for analyzing health care utilization and costs is to define a theoretical framework. There are several explanatory frameworks identifying predictors of health care utilization and related costs (Ricketts & Goldsmith, 2005). One of the most comprehensive and widely used frameworks is the behavioral model developed by R. Andersen and J.F. Newman in 1973 (Andersen & Newman, 1973). The Andersen's Behavioral Model (Andersen, 1968) was created with the objective to empirically test the hypothesis that access to health care varied among the population in the USA. The model seeks to address the fact that various sectors and divisions among the population receive and utilize health care differently, each depending on and affected

by some factors otherwise regarded as the variables in this study, with some receiving less than their other counterparts. The model views the utilization of health services as a result of the decision made by the individual, which is in regards to their position in the society, their ability and financial status, accessibility to the health centers, family and society beliefs and availability of health care services among others. These are brought out as the main variables in the determination of the factors leading to discrepancies in the access and utilization of the health facilities.

The model groups these variables into three sets of predictive factors: predisposing characteristics, enabling characteristics, and need characteristics or factors. The model relies on the assumption that a sequence of factors determines the utilization of health services, the predisposition to use services, the ability to use services, and the need to use services. In the model, Andersen's (1968) first study focused on the family as the unit of analysis, and hence several family-level variables were used. Later, the versions of the model focused on the individual as the unit of analysis. (Andersen & Newman, 1973).

The predisposing characteristics are based on the fact that an individual's need to use and utilize health care facilities is based on the personal attributes of a person. These are divided into three sub-variables: demographic, social structure, and health beliefs (Andersen, 1968). Demographic factors include those individual characteristics such as age, gender, and family members. Youth tend to be less reluctant in visiting health facilities, while the elderly tend to visit more frequently. Gender also varies greatly, with studies showing that women visit outpatient services more than their male counterparts.

Health beliefs are affected by education standards, attitudes, customs and values, and knowledge. Utilization will, therefore, vary with different individuals and societies depending on the customs and beliefs they follow. Some individuals may believe in other means of health care such as faith in natural beings or other means of handling illnesses, and therefore fail to use the health facilities while their counterparts fully depend on health facilities for their illnesses. Education and knowledge of the need for health care pushes an individual to use this in case of any illness and to such, health care is paramount and not subject to bargaining.

The enabling factors include those individual characteristics that will assist the individual in utilizing the healthcare, given that they are willing to utilize access to the facility. Such enabling factors include material resources, having health insurance, and the availability and accessibility of community health services. Without the ability to access the health services, a predisposition by the individual will not necessarily translate into utilization of the facilities. Availability of finances and organization factors are the most considered factors in utilization of healthcare facilities. The income and wealth of the individual in addition to the ability to pay, serve as conditions that enable the utilization of health care services.

According to Andersen (1968), access to services is considered equitable if it can be predicted by immutable demographic characteristics such as age and gender (Andersen & Aday, 1978), or solely by the need factors, such as illness. However, access is considered inequitable if it can be predicted wholly or partly by variables such as enabling factors (Andersen & Newman, 1973). This provides the theoretical basis for using the Andersen (1968) model to study social inequalities in health service utilization.

It is worth noting that the Behavioral Model was originally put forward as a theoretical statement that was not comprehensive in scope to include all variables. Recent studies have been carried out with a wider scope and variables found to comprise more than just the three basic categories identified in the initial Behavior Study by Andersen (1968). The area has not been fully studied; therefore, there is need for a more in-depth study to further identify the independent and dependent variables among the identified. The independent variables should be comprised of the behavioral factors that are solely originating from a directly identifiable trait, while the dependent variables are often situational and are usually triggered by another factor that may not be superficial.

Relating Andersen's Model with Research Question

According to the Andersen`s model, the medical cost is one of the factors causing a discrepancy in the utilization of health care facilities among individuals. Various health care facilities charge different rates for the various health services offered. This influences the number and category of people utilizing services. Participants in FET are able to secure a cost advantage over the non-participants, and are more encouraged to seek medical attention as compared to their counterparts. This can be attributed to an FET focus on preventative philosophy. The impact of the varying costs is spread along enabling characteristics, which further explain the difference between the participants and the non-participants of the FET program. Therefore, in context to the Research Question, *Is there a significant difference in the medical costs incurred between participants and non-participants of the FET program?* The hypothesis tests true for the study as there is a statistically significant difference between FET Wellness Program participants and non-

participants with regard to medical costs incurred. Based on Andersen`s model, enabling factors such as, availability of health facilities, accessibility of health facilities, and financial resources; all are contained in the FET program which accords an advantage to participants over non-participants.

Andersen`s model asserts that there are various behaviors that limit the utilization of the health care facilities in the population, these include; demographic, social culture and health beliefs. Most of these behaviors have a negative influence on the accessibility and utilization of the health care facilities. In the context of the Andersen's model, individuals' use of services is a function of their predisposition to use services, factors that support or impede use, as well as their need for health care. Predisposing variables pertain to socio-demographic (e.g. age, gender, education, marital status) and belief characteristics (e.g. values concerning health and illness measured in consequence to smoking behavior, alcohol consumption, or body mass index) while enabling factors are those that support or impede health care service use (Heicdler, Matschinger, Muiller, Saum, Quinzler, Haefeli, Wild, Lehnert, Brenner & Konig, 2014). The FET Wellness Program enhances the utilization of health facilities through providing educational and other informative programs that ensure that there is appropriate health facility access and utilization by participants. Lack of access to FET Wellness Program educational and informational resources limits non-participants access to the health facilities. This causes a significant difference in costs between participants and non-participants in the FET Wellness Program.

CHAPTER 3

METHODOLOGY

Introduction

The primary purpose of this study is to contribute to the literature by substantiating the cost savings of employee health and wellness program as part of SJRMC's overall strategic direction. Cost containment is necessary for the financial survival of companies in a time of significantly rising health care costs. This quantitative research utilized the SJRMC workplace wellness model, the FET, and measured its impact on organizational medical expenditures. All members of SJRMC self-insured health plan were eligible for the wellness program, which included a health information web portal, a Health Risk Assessment, and a variety of lifestyle management programs.

The methodology of this research study is designed to support or reject the research question and hypotheses. The applicability of quantitative research methodology articulates the appropriateness of the method and the case study approach that this study uses. In addition, Chapter 3 restates the research question, discusses the data gathering procedures, study population and selection, sampling identification, specific research instrumentation, factors affecting internal and external validity, data coding, data analysis and the quantitative analytic software, as well as the issues associated with participant confidentiality.

Research Question

According to Creswell (2005), research questions "narrow the purpose statement to specific questions that researchers seek to answer". In particular, this quantitative research study method will be used to explore the answers to the following question and respective hypotheses:

Research Question: Is there a significant difference in the medical costs incurred between participants and non-participants of the FET program?

$H1_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2010.

$H1_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2010.

$H2_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2011.

$H2_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Allowed Costs for 2011.

$H3_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2010.

$H3_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2010.

$H4_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2011.

$H4_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Paid Costs for 2011.

$H5_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2010.

$H5_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2010.

$H6_N$: There is no statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2011.

$H6_A$: There is a statistically significant difference between FET program participants and non-participants with respect to Direct Costs for 2011.

Study Population and Data

The participants in this study are composed of archival data covering 2010 and 2011 program for SJRMC self-insured plan members. The data was derived from Employee Benefit Consultants (EBC), who is the third party administrator for the SJRMC health benefits plan. The data set is entitled the SJRMC Health Risk Data Base, which was designed and built by EBC.

From the collected data, a total of 525 employee data points were achieved but with only 46 of them participating in an FET program. Despite the small percentage of FET participants among the study sample, all 525 data points were used in order to not compromise the power of the study.

Operationalization of the Variables

The study utilized archival data from the EBC dataset. The purpose of gathering the archival data is to check if there are statistically significant changes in a span of one

year's time regarding the cost behaviors of the participants. The study allowed for the following operationalization of the key variables:

Dependent variables. The following are the dependent variables of the study:

Allowed Costs (2010 and 2011) – Allowed costs for both years was operationalized as a continuous variable. It is the total amount allocated for each individual in case of medical emergencies or to cover medical costs.

Paid Costs (2010 and 2011) – Paid costs for both years was operationalized as a continuous variable. It is the total amount that was actually paid to the individual during the specified years. It represents total incurred medical costs for each employee.

Direct Paid Costs (2010 and 2011) – Direct paid costs for both years was operationalized as a continuous variable. This pertains to the actual amount that was directly paid to the employee instead of to doctors or other medical institutions.

Independent variable. Independent variable is participation in FET Wellness Program. This is operationalized as a categorical variable where employees are classified according to whether they participate in the program or not. The independent variable was used as the basis to determine if there are changes in the medical costs of the participants as an influence of the wellness program in the hospital.

Methods of Analysis

Data was gathered from 2010 and 2011 to examine whether the wellness program made significant differences to the participants across the categories of cost. The data was transferred into an electronic Excel and SPSS database by the researcher with password protection only known to the researcher. Backup copies were made and stored appropriately in regards to fire, damage, theft, and confidentiality. "Descriptive and inferential analysis was used to organize all data analysis; all of the analyses was conducted using SPSS Version 17.0. Frequency distributions were used to show the distribution of the scores and the population" (Salkind, 2006). The main focus in this study was to determine if there are statistically significant differences in the FET program participants across the categories of cost (allowed, paid and direct paid).

As part of the data analysis procedures, distributions of the cost variables were examined. A Kolmogorov-Smirnov Test was performed to determine if the variables follow normal distributions for both participants and non-participants of FET program subgroups. In the case that both do, independent sample *t*-tests (which assume normality of the variables being compared) were employed to determine significant differences between the mean costs incurred. In the case that one distribution significantly differs from a normal distribution, Mann-Whitney U-Tests (which does not assume anything on the distributions of the variables being compared) were employed to determine significant differences between the median costs incurred. These were conducted for both the 2010 and 2011 data.

Test results were then based on *p*-values obtained from either the independent sample *t*-test *t*-statistic or the Mann-Whitney U-Test, whichever applies. This means that if there is a significant difference between the two groups with respect to a certain dependent variable, then the *p*-value must be less than the significance level 0.05. The sign of the test statistic (positive or negative), conversely, determined that for a dependent variable being explored, which of the participants had a score higher or lower across the two groups (Creswell, 2009).

Chapter Summary

Chapter 3 discussed the research methodology used in the current study. The research methodology was a quantitative research design based on Anderson's Behavioral Model of Utilization as its main framework. The described design was used to determine the differences between costs incurred between participants and non-participants of the FET program. A quantitative research design is more appropriate for the proposed study than a qualitative design because a qualitative design would not allow the assessment of a direct relationship between two variables (Cozby, 2001).

The general population for the study was collected in an archival data from Employee Benefits Consultants (EBC). The research study will allow San Juan Regional Medical Center to identify the value of providing the FET program for their employees. In order to obtain the sample of these participants, a random sampling strategy within the EBC archival data was conducted. Chapter 3 also contained information on the data collection process and the statistical analyses procedures conducted on the data, which

mainly included Kolmogorov-Smirnov Tests (to test for the distribution of the dependent variables across the two groups) and independent samples *t*-tests or Mann-Whitney U-Tests (to test for the differences of the dependent variables across the two groups). The data for this study was coded through a Microsoft Excel program. The coded files were then transferred to SPSS 17.0 for conducting different analyses that are appropriate to answer the research questions posed at the outset of the study.

CHAPTER 4

RESULTS

Introduction

The main purpose of this study was to explore the value of the FET Wellness program to San Juan Regional Medical Center (SJRMC) employees. In line with this, one research question was investigated, namely "Is there a significant difference in the medical costs incurred between participants and non-participants of the FET program?"

To address this research question, archival data was retrieved from Employee Benefit Consultants (EBC), who is the third party administrator for the SJRMC health benefits plan. The data set was entitled the SJRMC Health Risk Data Base, which was designed and built by EBC. In this data, 525 employee responses were obtained, from which 46 (8.76%) were FET Wellness Program participants and 479 (91.24%) were not FET Wellness Program participants.

Participation in the FET Wellness Program served was used as (independent variable) for this study, while data related to costs served as the dependent variables. Immediately following the introduction section is the evaluation of the research question. All statistical analyses were performed at a significance level of 5%, i.e. probability of Type I error is 0.05 and using SPSS 17.0. Finally, the chapter ends with a summary of the obtained results.

Data Management

As an initial step, existing outliers in the data were examined. Outliers are defined as a value or an observation that is distant from other observations. To address this

problem, the data concerning costs was transformed into standardized scores ([observed value-average value]/standard deviation). After transformation, an observation is considered an outlier if the standardized score is not within the -2 to +2 interval. Allowed costs, paid costs, direct paid costs for both years (2010 and 2011) as well as the total costs were examined to detect outliers. From the participants of FET program, ID 578 has existing outliers for all the variables (2010 Allowed Paid Costs = 5.29, 2010 Paid Costs = 5.43, 2010 Direct Paid Costs = 6.46, 2011 Allowed Paid Costs = 5.50, 2011 Paid Costs = 5.62, 2011 Direct Paid Costs = 6.80, Total Allowed Costs = 5.86, Total Paid Costs = 5.97, and Total Direct Paid Costs = 6.93). On the other hand, ID 678 has an outlier under 2011 allowed paid costs with a standardized value of 2.01. Finally, employee with ID number 937 revealed that an outlier under 2010 allowed paid costs, 2010 paid costs, total allowed paid costs, and total paid costs; exist with standardized values of 2.50 and 2.26, 2.23 and 2.05 respectively.

Value of the FET Wellness Program

Prior to conducting the data analysis required to resolve the research question, the researcher conducted a descriptive analysis of the demographic data on the sample. The results are summarized below in Table 1. Only 46 out of 525 participants (8.76%) were enrolled in the FET program. The results of the analysis indicate that for the total data set, the average age is 48.2 years (SD = 11.2). Compared to the non-FET participants (M = 48.5, SD = 10.9), FET participants are younger on the average (M = 46.0, SD = 12.9). For both FET and non-FET participants, the majority are females and unmarried. Table 2 contains the results of the descriptive statistics analysis on the enabling and need-related

characteristics of the sample, segregated into two groups: participants vs. non-participants. The data in the table includes information on the current health status and other health-related behaviors of the participants.

Table 1. *Results of Descriptive Statistics Analysis – Demographics.*

Variables and Measurement		Total (n=525) N (%)	Enrolled (n=46) N (%)	Not enrolled (n=479) N (%)
Predisposing Characteristics				
Age, *mean (SD)*		48.2(11.2)	46.0(12.9)	48.5(10.9)
Gender	Female	413 (78.50)	37(80.4)	413(78.7)
	Male	103 (21.50)	9 (19.6)	112(21.3)
Married	Yes	330 (62.9)	25(54.3)	21(45.7)
	No	195(37.1)	305(63.7)	174(36.3)

Table 2. *Results of Descriptive Statistics Analysis – Enabling and Need-Related Characteristics.*

Variables and Measurement		Total (n=525) N (%)	Enrolled (n=46) N (%)	Not enrolled (n=479) N (%)
Enabling Characteristics				
Personal physician*	Yes	487 (92.8)	37(80.4)	450(93.9)
	No	38(7.2)	9(19.6)	29(6.1)
Need-Related Characteristics				
Obese (BMI≥30)	Yes	239(45.6)	27(58.7)	21(44.4)
	No	285(54.4)	19(41.3)	266(55.6)
Health symptoms	Yes	114(21.7)	11(23.9)	376(78.5)
	No	411(78.3)	35(76.1)	103(21.5)
Regular physical checkup	Yes	465(88.6)	40(87.0)	425(88.7)
	No	60(11.4)	6(13.0)	54(11.3)
Regular dental checkup	Yes	415(79.0)	32(69.6)	383(80.0)
	No	110(21.0)	14(30.4)	96(20.0)
Annual flu shot	Yes	420(80.0)	37(80.4)	383(80.0)
	No	105(20.0)	9(19.6)	(96(20.0)

Healthy diet	Yes	367(69.9)	31(67.4)	336(70.1)
	No	158(30.1)	15(32.6)	143(29.9)
Prescribed medication*	Yes	473(90.1)	45(97.8)	428(89.4)
	No	52(9.9)	1(2.2)	51(10.6)
OTC medication	Yes	338(64.4)	27(58.7)	311(64.9)
	No	187(35.6)	19(41.3)	168(35.1)
Smoking	Never	341(65.0)	24(52.2)	317(66.2)
	Quit	140(26.7)	18(39.1)	122(25.5)
	Smoker	44(8.4)	4(8.7)	40(8.4)
Exposed to cigarette smoking*	Yes	215(41.0)	25(54.3)	190(39.7)
	No	310(59.0)	21(45.7)	289(60.3)

Table 3 provides a summary of medical costs incurred in the year 2010 by the SJRMC employees included in this study, presented by group as defined by participation and non-participation in the FET Wellness Program. As seen from the table, FET Wellness Program participants had an average of $5,521.30 allowed medical cost, while non-FET Wellness Program participants had an average of $7,230.10. Taking their differences into consideration, it can be observed that FET Wellness Program participants, on average, had $1,708.80 less allowed medical cost than their non-participant counterparts. In comparing the medians, the difference between the allowed costs of the two groups was calculated to be $96.10. As also seen from Table 3, paid medical cost exhibited the same trend across the two groups as with the allowed medical cost. That is, FET Wellness Program participants, on average, had $1,678.40 less paid medical cost than their non-participant counterparts. Differences between the median were calculated to be at $191.30. Finally, it can also be observed from the data in Table 3 that the trend for direct paid medical cost was observed to behave inversely compared to allowed and paid medical costs. That is, FET Wellness Program participants, on average, had $966.60 more direct paid medical cost than their non-participant counterparts. In

comparison of the medians, FET Wellness Program participants had $41.10 more direct paid medical cost.

Based on the data on the 2011 costs, the behavior of all three medical cost variables (allowed, paid, and direct paid) behaved the same way as their respective counterparts in the year 2010, albeit differences in numerical values. That is, FET Wellness Program participants, on average, had $692.00 less allowed medical cost than their non-participant counterparts. However, in comparison of the medians, FET Wellness Program participants had $322.60 more allowed medical cost. Meanwhile, for paid medical cost, FET Wellness Program participants, on average, had $664.70 less than their non-participant counterparts. As with the allowed costs, a comparison of the medians indicated that FET Wellness Program participants had $417.40 more paid medical cost. Lastly, FET Wellness Program participants, on average, had $435.70 more direct paid medical cost than their non-participant counterparts. In comparison to the medians, FET Wellness Program participants had $48.00 more direct paid medical cost.

Table 3 *Medical Costs Incurred by the Employees in Year 2010 and 2011 by Participation (n=525).*

Participating FET		Mean	SD	Median	Min	Max
Non-FET participant	2010_Allowed	7230.1	16845.9	2740.8	75.0	298976.0
	2011_Allowed	4859.2	10868.8	1716.0	8.9	144110.9
	2010_Paid	6748.6	16443.3	2477.1	0.0	295196.0
	2011_Paid	4536.3	10561.7	1553.7	0.0	142124.6
	2010_Direct_Paid	740.7	3053.9	130.4	0.0	36654.0
	2011_Direct_Paid	759.5	5826.3	103.0	0.0	115952.4
FET participant	2010_Allowed	5521.3	8951.8	2644.7	105.9	51827.7
	2011_Allowed	4167.2	6152.4	2038.6	161.0	36210.9
	2010_Paid	5070.2	8661.1	2285.8	95.9	51019.2
	2011_Paid	3871.6	6069.3	1971.1	0.0	36180.9
	2010_Direct_Paid	1707.3	7732.9	171.5	0.0	50456.3
	2011_Direct_Paid	1195.2	5442.1	151.0	0.0	36105.5
Total	2010_Allowed	7078.5	16302.1	2731.6	75.0	298976.0

2011_Allowed	4799.5	10542.9	1755.6	8.9	144110.9
2010_Paid	6599.7	15908.9	2464.8	0.0	295196.0
2011_Paid	4479.0	10249.5	1596.2	0.0	142124.6
2010_Direct_Paid	826.4	3710.4	130.4	0.0	50456.3
2011_Direct_Paid	797.1	5790.4	105.7	0.0	115952.4

The results of the Kolmogorov-Smirnov tests performed to test the data for normality indicated that the data set significantly varied from a normal distribution. As a result, Mann-Whitney tests were conducted to resolve the research question. However, none of the individual Mann-Whitney U-Tests resulted in the rejection of the null hypotheses (i.e., *p*-values were all greater than 0.05. Hence, the observed differences between individual costs, as presented in the discussion of Table 3, were found to be statistically insignificant.

Table 4. *Mann-Whitney Tests on the Differences in the Medical Costs Incurred.*

Year	**Costs**	**P-value**
2010	Allowed	0.5920
	Paid	0.4430
	Direct Paid	0.2800
2011	Allowed	0.8890
	Paid	0.8460
	Direct Paid	0.1330

Hypothesis Testing Results

Kolmogorov-Smirnov tests were performed as a one-sample test to determine whether the sample cumulative distribution for a field is homogenous with a uniform or exponential distribution. In this test, the null hypotheses tested pertain to the sameness of the distribution across categories of participation in the FTE, for the allowed, paid and direct paid costs for 2010 and 2011. The results, as summarized in Figures 1 and 2 show

that for the years 2010 and 2011, there were no significant differences between the distributions of allowed, paid and direct paid costs to participants and non-participants in the FTE program. Therefore, based on these results, it is recommended that the null hypotheses be retained.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of 2010_Allowed is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.676	Retain the null hypothesis.
2	The distribution of 2010_Paid is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.495	Retain the null hypothesis.
3	The distribution of 2010_Direct_Paid is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.371	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 1. Difference in 2010 costs between FET participants and non-participants using Mann-Whitney U Test.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of 2011_Allowed is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.491	Retain the null hypothesis.
2	The distribution of 2011_Paid is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.646	Retain the null hypothesis.
3	The distribution of 2011_Direct_Paid is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.312	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 2. Difference in 2011 costs between FET participants and non-participants using Mann-Whitney U Test.

Table 5 provides a summary of the individual differences of medical costs incurred in the years 2010 and 2011 by the SJRMC employees included in this study, presented by group as defined by participation and non-participation in the FET Wellness Program. However, several issues on the data should be noted. First, it is emphasized that the number of FET participants is significantly less than the number of non-FET participants. Second, there is a paucity of information on the nature and extent of the participation in the FET program. Third, the comparison of costs is hindered by the lack of data on participants prior to 2010. Lastly, the unavailability of data presents a challenge to determine the total cost of the program. This is an issue that can be explored

by further researchers, and will be included as part of recommendations for future studies in the last chapter of this study.

Calculations were based on the available data. For each cost variable, the difference was calculated by subtracting the incurred cost in 2010 from the incurred cost in 2011, i.e. a positive value would mean increase in cost incurred in one year while a negative value states otherwise. Noticeably, with respect to the means, all three medical cost variables (allowed, paid, and direct paid) had decreased in average values in one year among the FET Wellness Program participants. The same was observed among the non-participants, except with direct paid cost, in which virtually no change happened. The same conclusions can be made in comparing the medians, except that numerical values were smaller. Comparing the two groups with respect to the mean changes in cost, FET Wellness Program participants had decreased their allowed and paid costs by $419.04 and $429.89 less than their non-participant counterparts, respectively. However, the opposite was observed when comparing the two groups with respect to the median changes in cost, i.e. FET Wellness Program participants had decreased their allowed and paid costs by $89.47 and $113.24 more than their non-participant counterparts, respectively. For direct paid cost among FET Wellness Program participants, direct paid cost decreased by an average of $492.63 and a median of $46.62 in one year.

Table 5. *Medical Costs Incurred Differences (Year 2011 – Year 2010) by Participation.*

Costs	Mean	Median	Std. Deviation	Skewness
(*with FET Participation)*				
Allowed	-1,542.86	-623.46	5,195.15	-0.908
Paid	-1,374.58	-606.04	4,825.55	-0.824
Direct Paid	-492.63	-46.62	2,864.74	-3.923
(*without FET Participation)*				

Allowed	-1,961.90	-533.99	17,850.72	-6.277
Paid	-1.804.47	-492.80	17,436.04	-6.477
Direct Paid	2.87	0.00	5,498.80	16.898

An analysis was also performed on the cost differences for each group. Again, findings from the Kolmogorov-Smirnov tests showed that the data set for the cost difference variables were found to seriously depart from the normal distribution. Hence, Mann-Whitney U-Tests were performed individually to compare the differences in the cost differences incurred between participants and non-participants of the FET Wellness program. The *p*-values of the tests are given in the last column of Table 5. None of the individual Mann-Whitney U-Tests resulted in the rejection of the null hypothesis (i.e., *p*-values were all greater than 0.05). Hence, as seen in Figure 3, the observed differences between individual cost differences, as presented in the discussion of Table 5, were found to be statistically insignificant.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Difference in Allowed b/w 2011 and 2010 is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.773	Retain the null hypothesis.
2	The distribution of Difference in paid b/w 2011 and 2010 is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.796	Retain the null hypothesis.
3	The distribution of Difference in Direct paid b/w 2011 and 2010 is the same across categories of Participating_FTE.	Independent-Samples Mann-Whitney U Test	.157	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 3. Cost differences between FET participants and non-participants using Mann-Whitney U Test

Chapter Summary

The main purpose of this study was to explore the value of the FET Wellness program to SJRMC. To achieve this, archival data (consisting of 525 responses) was retrieved from Employees Benefit Consultants (EBC), who is the third party administrator for the SJRMC health benefits plan. The obtained data were then analyzed and compared across groups defined by participation in the FET Wellness Program.

A comparison of the medical costs incurred in the years of 2010 and 2011 revealed that for both years, the average allowed and paid costs of the FET participants were less than the average allowed and paid costs for non-FET participants. However, for

both years, the direct paid costs of FET participants were higher than those of non-FET participants. However, the results of the Mann-Whitney tests indicated that statistically, these differences were found to be not significant. Therefore, none of the null hypotheses were rejected. Nevertheless, the value of the program cannot be discounted since the tendency observed was that participants of the FET program still incurred less medical costs.

CHAPTER 5

CONCLUSIONS and RECOMMENDATIONS

Introduction

The purpose of this quantitative study was to determine the value of employee health and wellness program within the overall strategic direction of SJRMC. Specifically, the study demonstrated that reducing health care expenditures can lower costs per employee to companies with healthier employees to show the advantage through the support of workplace wellness programs. As a quantitative study, the researcher examined the effects of the FET program program's value. Using SJRMC workplace wellness model, the study examined the beneficial side of the equation in determining the difference in FET program participants across the categories of costs. This study answered the following research question *is there a significant difference in the medical costs incurred between participants and non-participants of the FET program?*

Chapter 5 contains five sections. The first section summarizes the purpose and research question that the study intends to address. The second section determines the significance of the findings within the body of scientific studies and the operational decisions of the organizations. The third section details the conclusions and a discussion of the findings of the study. This section summarizes the findings of the study as it relates to the current literature of employees' wellness programs. The fourth section articulates the recommendation for the management that intends to use the program for the benefit of the employees and the organization. The fifth section provides the methodological limitations of the study, which form the basis for future research.

Assessment of the Significance of the Findings

This study provided evidence regarding the degree of value of the SJRMC's wellness program on the chosen variables: allowed costs, paid costs, and direct paid costs. These variables are important to be quantified in the context of analyzing the benefits of employee-based wellness programs in general and in the implementation of FET in particular.

Cost containment is virtually necessary for financial survival of companies in a time of significantly rising health care costs (Anspaugh et al., 1995; Reardon, 1998). The empirical evidence provided in this present study supports the need for decision-makers to expand evaluating the cost of implementing and the considerations of the program designs and activities to promote wellness among the employees (Murdaugh & Vanderboom, 2001). Further, with the present study, organizational leaders may take the opportunities to implement a similar program or a hybrid wellness customized for the health needs of their employees (Brown et al., 1998). Additional explanation for the findings of this study is that it takes more than three years for a wellness program to realize its benefits on reductions in costs and utilization, meaning the current analysis period may not be sufficient to detect significant changes in outcomes (Liu, Mattke, Harris, Weinberger, Serxner, Caloyeras & Exum, 2013).

Conclusions & Discussion

Several organizations designed and implemented employment-based health promotion and wellness programs to address health related issues through awareness building and empowering the health of employees through mutual initiatives (Berry et al., 2010). As valuable asset of the organization, productivity as it relates to healthy functioning of the physical and cognitive level, are the foremost concern of management such that every organizations strives to create and implement different health care programs (Buck, 1996). Among other companies, the wellness program at the San Juan Regional Medical Center strived to determine the value to the organization Based on the archival data retrieved from the EBC, a contractor for the SJRMC health benefits plan, the research question was answered. An unresolved conclusion about the study is the value of FET in its current implemented state over the long term. The analysis used the median data to provide better statistical measures with regards to the medical cost associated with the implementation of the program. The data revealed that paid medical costs tend to be lesser than the incurred cost of the non-participants of the FET program. Between the years 2010-2011, the data indicated a cost of $200 - $350 per employee less than who did not participate in the program. Potentially additional value can occur with a definitive participation criteria and incentives of motivation from the employer. Compliance to FET and commitment to participate requires management attention and investment in incentives, participation encouragement, and consistency in measurable goals and outcomes. For example, there are organizations that have technology that assists in individual measurement and tracking of wellness program participation and individual goals and outcome measurement.

While the differences between the two groups are not significantly significant as expected, a moderate reduction of medical costs for participants is an outcome that management had to consider in qualitatively determining whether the wellness program for employees did have positive outcomes as designed and implemented (Aldana et al., 2005). The results partially support the value that the FET provides to the company as well as the individual medical cost of employees, which contribute to the reduction of stress associated with the incurred medical cost (Bly et al., 1986). However, selection biases may have contributed due to the fact individuals self-select into FET, and they perhaps are more generally healthier.

The answer to the research question supports earlier studies that show the financial advantage of companies with employees who are generally fit and productive in their regular work (Aldana, 2001, Nichols, 2007). Although the present study demonstrated savings of $200 - $350 per employee contrary to the savings of $300 to $450 observed from the study of Goetzel (2009), this does provide some financial benefits to SJRMC. However, when including the costs of implementing the FET program from inception, the actual savings is greatly reduced. This analysis would be an opportunity for management to identify the true financial impact of FET on SJRMC, even though the strategic value to the organization in wellness promotion currently holds precedence. An overall conclusion of the study indicates that while there are differences in terms of the associated medical costs of participants versus non-participants examined in this study, the data are not statistically significant. The discrepancy between these findings and those of prior studies may be due to the difference in intervention intensity or program implementation. Added value may evolve from the using the Health Risk

Scoring measurement tool, similar to how *Technogym*, an Italian Company that sells exercise equipment where participants can insert a key that tracks participation, calories burned, length of exercise session, and other customized measurements is used as a predictor of health outcomes. Also, in *Businessweek.com* (2014) a description of Carolinas Health System success in using data and predictive models to evaluate population health drilling down to individual health levels.

The Anderson Healthcare Utilization Model (Andersen & Newman, 1973), can provide a theoretical framework for further examining relationships between predisposing, enabling, and need for care factors and healthcare utilization (Mutran & Ferraro, 1988). Andersen's Model could be useful for understanding FET participation or non-participation, and the costs incurred by FET participants and non-participants.

Recommendations for the Management

The overall results of the study shows that while the hypotheses failed to provide a statistical significant differences in cost among the non-participant and participant of the FET program, the results suggest the relative reduction of participants' medical costs does warrant additional senior management attention to program design, implementation and opportunity funding. The results implicated the required support of the management to finance as well as improve the strategies applied in the current program to generate positive effects on the other variables examined in this present study. This means that the management has to include other stakeholders responsible in shaping changes of behavior and attitudes concerning health, resulting in health promotion activities designed to reduce health risk and improve health, to include managing medical conditions such as

disease management and individual chronic disease conditions such as diabetes or asthma through supervised lifestyle changes. This would further indicate the inclusion of support system such as the families and friends of the FET program participants in order to provide distinct differences on lifestyle in comparison to their counterparts.

Recommendation for Future Research

A significant methodological limitation of the present study is that other important variables have not been explored. These variables include absenteeism, productivity of the participants, and other organizational performance variables that are assumed to be associated with the wellness of employees. Future research may expand on methods that could find a valid instrumental variable that is correlated with the decision to participate in the program but not with health outcomes or medical costs. Additional research to identify program design or implementation features that will promote FET as an employee paid benefit to encourage more voluntary participation. Incentives that reward positive wellness outcomes based on predetermined goals would be valuable; for example, reduced co-pay amounts for the chronic disease the individual has cited as a necessary goal, increase individual premium contributions for those individuals identified with a manageable health risk, but chooses not to participate in the FET program. Program adherence is a must for future individual and organizational success. FET will define the “adherence formula”, covering expectations such as: sign up for a minimal FET participation for 12 months, participating in organized sessions at a minimum of three times per week, at 60 minutes intervals. Meeting these predetermined expectations

will allow the individual employee to be eligible for incentives such as the reduced co-pay, reduced insurance deductibles to recognition in weekly publications and employee celebrations of success.

FET must evolve its philosophy to gain increased participation. SJRMC must accommodate the multiple work schedules of its employees to encourage the participation. The making time available for on duty "workouts" could play an important role, as well as, a defined workout schedule for those who are unable to take time out of the day to workout, i.e. nursing staff. Such a strategy will attract employee interest and once involved in the program, the FET goals and individual outcomes must be consistently reinforced.

Chapter Summary

The chapter reviewed the purpose and research questions and evaluates the accomplishment of the data collection and analysis in the achievement of the aforementioned study objectives. Chapter 5 detailed the findings of the study relative to what were known in the current literature. The chapter also discussed the significance of the findings to the organizations that determines their strategic choices against numerical quantification of program outcomes. The methodological limitations as well as recommendations were also discussed in the current chapter.

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