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# Physician Well Being and Patient Satisfaction Among Employed Physicians

DeAnna Santana-Cebollero  
*Walden University*

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# Walden University

College of Social and Behavioral Sciences

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DeAnna Santana-Cebollero

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2014

Abstract

Physician Well Being and Patient Satisfaction  
Among Employed Physicians

by

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MA, Walden University, 2010

BS, Rollins College, 2005

Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy  
Organizational Psychology

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## Abstract

Understanding physician well-being may help prevent physician burnout, improve the quality of care they provide to their patients, reduce medical errors, and improve patient satisfaction. Using the biopsychosocial-spiritual theory as the conceptual framework, this quantitative study examined the relationship between: (a) physician well-being and patient satisfaction, (b) physician gender and physician well-being, (c) primary care providers' and specialists' well-being, (d) patient satisfaction based on physician specialty, and (e) the duration of practice and physician well-being. All of the 87 employed physicians in a Florida regional hospital were invited to respond to a physician well-being questionnaire; a response rate of 58.4% was achieved. Patient satisfaction information was obtained through archived data of 4,500 patient surveys. Data were analyzed utilizing linear regression to examine the relationship between patient satisfaction and duration of physicians' practice, with the dependent variable, physician well-being. Two logistic regression analyses were utilized to examine (a) differences between physician well-being, gender, and specialty; and (b) differences between patient satisfaction and physician specialty. There were no significant relationships evident; however, it was speculated that the nonsignificance may be due to the small available sample of physicians. Future research on physician well-being may use the current findings to refine the conceptual framework and increase the understanding of how physician well-being can prevent physician burnout, improve the quality of care they provide to their patients, reduce medical errors, and improve patient satisfaction. Future research in this area will have the potential to increase the quality of patient care that will address positive social change.

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## Dedication

This research is dedicated to so many people in my life. To God, for the strength and faith given to me to accomplish something that I never thought possible. To my daughters Brianna Isabella and Lilyanna Rose. You are my life, my heart, my sunshine. May you one day understand that everything I do, for this work, for what I push to be, was all for the two of you.

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## Chapter 1: Introduction to the Study

### **Introduction**

The study of physicians, their well-being, and how their patients perceive the quality of care they receive is important for everyone in and around the healthcare system. Understanding physicians' well-being should be a priority for any healthcare system employing them. Researchers have stated that physicians have a higher level of burnout than those with a Bachelor's, Master's or Doctoral degree (Shanafelt et al., 2012). Physicians in the front line (primary care physicians) are at a higher risk for burnout than other specialties (Shanafelt et al., 2012). With burnout comes an increase of risk for the patient, the physician, physician's family, medical staff, the healthcare organization, and the broader community.

This chapter provides the background of the study, including the problem statement. In addition, the purpose of the study is discussed along with an introduction to the research questions and hypotheses. Next, I review the theoretical framework along with the nature of the study. I then discuss definitions followed by the assumptions, scope and delimitations, and limitations of the study. Lastly, I conclude the chapter with a discussion of the study's significance and a summary.

### **Background**

Research on physician well-being is important to ensure that physicians are focused and healthy enough to provide high quality patient care. Physicians' satisfaction with their job is very important but is decreasing, which is also affecting their quality of

care (Dunn et al., 2007). Physicians' risk of burnout is extremely high and increases risk to their patients (Shanafelt et al., 2012).

This research study used the biopsychosocial–spiritual framework, which provides a more complete perspective with the inclusion of the spiritual component in discussing research with physician well-being. There are a few studies on whole person care of physician well-being. In addition, there is no literature examining the connection between physician well-being and patient satisfaction.

Learning more about the biological, sociological, psychological, and spiritual aspects of physician well-being may help researchers develop strategies to help promote improved physician health, welfare, and productivity. This study was also needed in order to better understand potential relationships between physician well-being and patient satisfaction. Having more knowledge about these relationships allow researchers to develop strategies to improve physician well-being. Doing so will improve patient satisfaction, which may lead a patient to continue receiving treatment from a provider and from the healthcare organization. Satisfied patients also refer their physician to others, which improves the healthcare organization's financial health and quality measures.

### **Problem Statement**

The state of physician well-being is important for healthcare organizations whose focus has been productivity (Dunn et al., 2007). Physicians' stressors have increased to include "time-constrained patient care, lack of resources, decline in compensation, malpractice litigation, and erosion of professional autonomy" (Dunn et al., 2007). They

contribute to decreased physician satisfaction and problems such as fatigue, anxiety, depression, suicide, substance abuse, cardiovascular disease, disability, broken relationships, exhaustion, inability to concentrate, insomnia, irritability, and the possibility of an increase in the use of alcohol or drugs (Dunn et al., 2007; Gundersen, 2001).

Many physicians tend to live their lives out of balance (Myers, 2001). The traits and characteristics that are perceived to indicate a great physician (e.g., control, perfectionist, and dedicated) are also the ones that make it difficult to maintain healthy relationships and their overall well-being (Myers, 2001). With the decline in physician satisfaction, there also comes a decrease in quality of the patient care provided. Decreases in patient care include an increase in medical errors and negative effects in doctor–patient relationships (Dunn et al., 2007). In addition, when the doctor–patient relationship deteriorates, studies indicate that patient compliance also decreases (Freeborn, 2001), thus affecting the patient’s health outcomes.

This study, applied the whole person care model to help understand physician well-being. There is nothing in the literature of studies concerning physician well-being utilizing the whole person care model, which is a biopsychosocial–spiritual approach. Additionally, physician well-being has never been a focus at any of the four Florida hospitals in the study. There was limited information on patient satisfaction among employed physicians as opposed to a few studies that focused on private practitioners. Hence, this research aimed to examine the relationship of physician well-being and their

quality of care as indicated by their patients' satisfaction surveys.

### **Purpose of the Study**

The purpose of this quantitative study was to first investigate the potential relationship of physicians' well-being and their patients' satisfaction. Next, the study examined the potential relationships between gender, practice specialty, duration in practice, and level of physician well-being. This study adds to the literature regarding physician well-being by utilizing the biopsychosocial–spiritual approach.

### **Research Questions and Hypotheses**

This study explored the following questions and hypotheses:

1. Is there a relationship between physician well-being and patient satisfaction?

$H_1$ 1: There is a significant relationship between physician well-being and patient satisfaction.

$H_0$ 1: There is no significant relationship between physician well-being and patient satisfaction.

2. Is there a difference between gender and physician well-being?

$H_1$ 2: There is a significant difference between gender and physician well-being.

$H_0$ 2: There is no significant difference between gender and physician well-being.

3. Is there a difference between primary care physicians and specialists in terms of well-being?

$H_13$ : There is a significant difference in well-being between primary care physicians and specialists.

$H_03$ : There is no significant difference in well-being between primary care physicians and specialists.

4. Is there a difference in patient satisfaction between primary care physicians and specialists?

$H_14$ : There is a significant difference in patient satisfaction between primary care physicians and specialists.

$H_04$ : There is no significant difference in patient satisfaction between primary care physicians and specialists.

5. Is there a relationship between the duration of practice and well-being?

$H_15$ : There is a significant relationship between physicians' years in practice and well-being.

$H_05$ : There is no significant relationship between physicians' years in practice and well-being.

6. Is there a relationship between physician age and well-being?

$H_15$ : There is a significant relationship between physician age and well-being.

$H_05$ : There is no significant relationship between physician age and well-being.



## **Theoretical Framework**

The research questions in this study primarily focused on physician well-being. The theoretical model in this research was the biopsychosocial–spiritual approach in a quantitative design (Salmasy, 2002). The rationale for using this model was to understand the well-being of physicians in a comprehensive manner. Well-being is best approached with a holistic view, so I used the biopsychosocial–spiritual model as it is holistic in nature. This model allows for greater understanding of physician health and well-being in four dimensions: biological, psychological, social, and spiritual. I discuss the biopsychosocial–spiritual model in more depth in the following chapter.

## **Nature of the Study**

The nature of this study was quantitative. This study examined the relationship of physician well-being and patient satisfaction using regression analysis. There were two sets of data: one for physicians and one for patients. The target population included employed physicians of the Florida Hospital Volusia/Flagler markets. These hospitals include: Florida Hospital DeLand, Florida Hospital Fish Memorial, Florida Hospital Memorial Medical Center, and Florida Hospital Flagler. There are approximately 110 employed physicians between these hospitals and include both primary care physicians (i.e., family medicine and internal medicine) and specialists (e.g., gastroenterologists, general surgeons, plastic surgeons, endocrinologists, ENT's, neurosurgeons, psychiatrists, and neurologists).

For the second data collection, I did not recruit patients but instead used the Press

Ganey Medical Practice Survey, which is sent out to patients on a quarterly basis. I extracted relevant data from those archived reports. Press Ganey keeps patient identity confidential; the reports provided by Press Ganey do not include any patient identifiers.

### **Definitions**

For further understanding of this study, the following definitions should help with clarifications.

*Well-being*: The extent to which an individual finds meaning, and is authentically expressive of their self, in their life and work, indicating an overall sense of satisfaction and balance in one's life (Wallace & Lemaire, 2007).

*Biopsychosocial–spiritual approach*: This approach allows physicians to assess and reflect on their own well-being in four domains: biophysical, psychoemotional, sociorelational, and religiospiritual (Salmasy, 2002). Distress in one aspect tends to infect the others and taking care of all components is important (Dodini, 2012). A physician's "understanding of physical, mental and spiritual suffering, and spiritual care which plays a role in providing care" (Anandarajah, 2008).

*Burnout*: A condition one reaches emotional exhaustion, depersonalization and decreased feelings of personal accomplishment" (Eckleberry-Hunt et al., 2009; Krasner et al., 2009; Shanafelt, 2009; Stordeur, D'hoore & Vandenberghe, 2000).

*Patient satisfaction*: A patient's perceived evaluation of the care they feel they received by their physician (Hekkert et al., 2009).

*Depersonalization*: When physicians begin treating their patients as objects and

not people (Krasner et al., 2009).

### **Assumptions**

This study included the following assumptions. The first was that both the physicians and their patients responded honestly to the questionnaires. Untruthful responses by physicians and patients may be a result of social desirability bias, or the tendency to answer questions in ways that may be deemed favorably to others. This may negatively affect the reliability and validity of the results, thus reducing their accuracy.

Another assumption was that physician well-being affects clinical practices and interactions with patients and the medical staff. This assumption was important because it was the basis of this study. If physician well-being has no influence on clinical practices and interactions with others, no statistically significant findings would be available.

### **Scope and Delimitations**

The delimitations in this study included the use of employed physicians in one of the five Florida Hospital groups and may not be representative of the entire population, which includes all physicians in the United States. Most of the 110 physicians (primary care and specialists) of the five Florida Hospitals in the Volusia/Flagler market were invited to participate in the study. Radiologists, anesthesiologists, and hospitalists were removed because they do not have Press Ganey patient satisfaction scores. Also, the patient population was limited to the region of these five hospitals and may not be representative of the entire population, which includes all physicians in the United States.

The process that Press Ganey utilized for their survey was to select a sample from a pool of the physician's patients; therefore, patients responding to the patient satisfaction questionnaire are of all ages, ethnicities, cognitive competencies, and severity of illness.

### **Limitations**

Typically, physicians are trained to care for their patients, and thus, a survey on how they care for themselves may have been a challenge. Social desirability bias may be a problem if the physicians wanted to convey that they practice self-care and are not at risk for burnout. To help prevent social desirability bias, the consents and survey instructions clearly indicated that data would be collected and stored anonymously and confidentially. Each of these physicians chose to be employed with these facilities in that region of Florida. These Florida Hospitals are part of Adventist Health System (AHS), which is a faith-based organization; thus, this organization may have attracted only a certain type of physician who finds such an environment to be desirable for employment. I will discuss this limitation and its possible effect on generalizability in Chapter 5.

Another limitation included the type of patient that responded to the survey regarding their satisfaction. Patient responses may be inherently biased by the severity of their illnesses, which consequently may affect their perception of satisfaction in their dire need for comfort and relief, not healing altogether. Those with chronic illnesses may give higher ratings for patient satisfaction (Carlin, Christianson, Keenan, & Finch, 2012). Some patients may be fatally ill (e.g., recently admitted to hospice), so they may not have the desire or strength to complete a patient satisfaction questionnaire. Cognitive

competency is another factor that may have limited some patients from responding to a survey about their satisfaction with their provider. Individuals with IQs at the mentally retarded or borderline intelligence levels are likely not to be able to read or comprehend the questions on the survey. Pediatric patients are likely to have had their parents complete the satisfaction questionnaire. By doing so, the responses are based on the parents' perceptions rather than those of the children, the actual patients. I will also discuss these limitations regarding the type of person who responds to the satisfaction questionnaire in Chapter 5.

Patients may also perceive pressure to rate their physician positively if they believe their physician receives survey results. To help reduce the latter bias, the consents and instructions clearly state the confidential nature of the survey. A cover letter accompanied the survey to the patients informed the patients that survey responses are confidential and are presented in a summary to the physician and hospital administrations. Regarding the possible influence that patient illness has on patient satisfaction responses, I will discuss this limitation in Chapter 5.

### **Significance of the Study**

The importance of physician well-being is increasing, mainly due to how their well-being can affect the quality of care they provide to their patients (Hull et al., 2008; Linzer et al., 2000; Rosenstein, 2012; Tamblyn et al., 1997). In addition, organizations that employ physicians should be aware of their physicians' well-being to limit harm within the system, improve healthcare, and increase reimbursement.

The research findings can help hospital organizations create an environment of healthier lifestyles by ensuring physicians are not burned out. This could occur through new policies, such as ensuring that physicians take vacations in order to recharge and to ultimately better safeguard patient safety. This research also potentially contributes to positive social change by focusing on ways to improve physician well-being and ultimately increasing the quality of care that they provide to their patients.

### **Summary**

Research indicated that physicians have a high rate of burnout (Shanafelt et al., 2012). Stress and burnout influence interactions with patients and quality of care, which impacts the patient, the medical staff, and the healthcare organization. This study explored the relationship of physician well-being and their patients' satisfaction. I also assessed relationships between physicians' specialty, gender, age, and years in practice and patient satisfaction scores. This study strived to better understand these relationships in order to encourage further investigations in physician self-care, improve physician well-being, and increase the quality of patient care.

Chapter 2 includes a review of the current research on physician well-being and its impact on patient satisfaction. I will also review the strengths and limitations of the quantitative design. Chapter 3 includes an explanation of the methodology for this study's design. Chapter 4 includes a discussion of the research results and chapter 5 includes the interpretation of the findings and also includes the limitations, recommendations, and implications for social change.

## Chapter 2: Literature Review

Physicians have many stressors, including time-constrained patient care, demanding schedules, administrative duties, and financial concerns (Dunn, Arnetz, Christensen, & Homer, 2007). These stressors can take a toll on physicians and affect their work performance, personal lives, and overall well-being (Dunn et al., 2007; Gundersen, 2001)

The following literature review is an inclusive overview of literature found on physician well-being and patient satisfaction. Physician well-being has become an important focus; however, none of the research focused on well-being utilizing the biopsychosocial–spiritual theory (Salmasy, 2002). The literature review will begin with an overview of well-being and then focus on the well-being of physicians. Following this will be a summary of the effects of burnout in terms of behaviors and addictions and how it ultimately affects patient satisfaction. Next, there will be a discussion of the conceptual framework, the biopsychosocial–spiritual theory. The literature review concludes with a description of the importance of physician spirituality in terms of their well-being and the effects of patient satisfaction.

### **Literature Search Strategy**

The literature researched for this study came from peer-reviewed professional journals, online medical journals, and books on spirituality and medicine. Databases used for this review were Google Scholar, NCBI (National Center for Biotechnology Information), PubMed Central, PubMed, PsycINFO, PsycARTICLES, Medline, CINHL,

and, Academic Search Complete. Keywords and search strings used for this review included: *physician well-being, physician wellness, well-being, physician well-being AND patient satisfaction, physician well-being AND gender, physician well-being AND specialty, physician well-being AND burn out, Biopsychosocial–spiritual method, whole person care, mind-body-spirit, effects of patient satisfaction, physician well-being AND effects on patient satisfaction, spiritual well-being, physician spiritual well-being, length of practice AND physician satisfaction, and length of practice AND burnout.*

### **Theoretical and Conceptual Framework**

Physician well-being has become an issue that affects not only physicians but also their families and their patients. As a result, questions arise as to the wellness of these physicians in four dimensions: biological, psychological, social, and spiritual. In order to answer these questions, I used the biopsychosocial–spiritual theory in this study (Sulmasy, 2002).

### **Whole Person Care Model**

The study employed the Physician Well-Being Self-Assessment Test (PWSAT-40; Bogue & Hamilton, 2012), which is based on the whole person care model, and I explore the rationale for each factor in the model for their relevance to this study's research questions. Sulmasy (2002) expanded on the biopsychosocial model (Engel, 1977) to include the spiritual component of individuals. Engel's biopsychosocial model considered the biological, psychological, and social aspects of health. The biopsychosocial–spiritual theory states that the biological, psychological, social, and



spiritual are all components and are all important together as a whole, continuously interacting with one another (Dodini, 2012). Distress in one aspect tends to infect the others, so taking care of and focusing on all components is important (Dodini, 2012).

Biological influences come from (a) natural selection of adaptive traits, (b) genetic predispositions responding to the environment, (c) brain mechanisms, and (d) hormonal influences (Beardsley, 1994). Dodini (2012) stated that daily aspects like diet, exercise, sleep, and even medications can affect a healthy and balanced lifestyle.

The psychological influences include, (a) learned fears and other learned expectations, (b) emotional responses, and (c) cognitive processing and perceptual interpretations (Beardsley, 1994). This component refers to thoughts, feelings, and actions; thus, behaviors that form habits can deter someone from wellness (Dodini, 2012).

The social influences occur from (a) the presence of others, (b) cultural, societal, and family expectations, (c) peer and other group influences, and (d) compelling models, which can include the media (Beardsley, 1994). Quality of relationships is important for humans and affects the level of happiness experienced (Dodini, 2012).

The spiritual influences, defined by Meyers, Sweeney, and Witmer (2000) as the reason of existence, provide a meaning to life and motivate individuals in order to fulfill a mission and purpose in serving others. In addition, spiritual influence is a sense of meaning and purpose in life, faith, and comfort with existential concerns (Ben-Arye et al., 2006, p. 148), and having some kind of a value system (Dodini, 2012).

Little research has been conducted in regards to the biopsychosocial–spiritual theory among physicians. There were studies that did focus on physician well-being but utilized different frameworks (Dunn, Arnetz, Christensen, & Homer, 2007). The research that has been conducted on this theory was not based on the well-being of physicians, but that of patients and typically patients at the end of life (McClain, Rosenfeld, & Breitbart, 2003).

Research conducted by Ben-Arye et al. (2006) focused on patient care using the biopsychosocial–spiritual theory in cancer patients. A survey was returned from 203 patients and 48 healthcare providers regarding complementary and alternative medicine (CAM). Results indicated that patients did not associate CAM with spiritual concerns but did report that the healthcare providers should attend to their spiritual needs (Ben-Arye et al., 2006).

### **The Need for Physician Spirituality**

The biopsychosocial–spiritual model was utilized in this study to fill the gap of other studies that do not investigate the spiritual behaviors of physicians. Novack, Epstein, and Paulsen (1999) and Engel (1980) conducted research utilizing the biopsychosocial method, whereas this research focused on those three dimensions along with the addition of a fourth dimension, spirituality. Spirituality is an important aspect of well-being. Research indicates that there is a positive association between spirituality and medical outcomes (King, 2000). In addition, religion and spiritual behaviors are correlated to health (Koenig, 2004). Though research shows that spiritual behaviors

correlate to health, research primarily focuses on the outcomes of patients and not the health of physicians. Spiritual self-care refers to the care of the body and mind through a healthy diet, exercise, and social support (Anandarajah, 2008). When people exercise spiritual self-care, they can take into consideration their beliefs and values to bring them peace and tranquility (e.g., nature walk, prayer, meditation, church attendance, and yoga; Anandarajah, 2008, p. 451).

### **Well-Being**

Wellness is an awareness of one's choices and lifestyle balance to optimize health (Eckleberry-Hunt, Van Dyke, Lick, & Tucciarone, 2009). Well-being genuinely reflects the extent to which individuals find meaning in life, in work, and in their selves. It may be authentically expressive of their self, in their life and work, which may be shown by a sense of satisfaction and balance in life (Wallace & Lemaire, 2007). Well-being is not the lack of burnout (Eckleberry-Hunt et al., 2009).

Well-being includes a balance between several domains. These domains typically include professional satisfaction and accomplishment, coping, and a sense of self (Ratanawongsa, Wright, & Carrese, 2007). Well-being encompasses physical, mental, and spiritual health; a mentally healthy person has an interest in and engages with the environment (Warr, 1990). The World Health Organization (WHO) defined health as a state of complete physical, mental, and social well-being and not merely the absence of disease (Lovell et al., 2009, p. 2; Taub, Morin, Goldrich, Ray, & Benjamin, 2006, p. 77; WHO, 1948).

Physicians are finding it difficult to balance their personal and professional lives (Lovell et al., 2009). Physicians' careers tend to impact their lives even when they have left the office, causing difficulties in keeping planned engagements, family responsibilities, and ultimately affecting their overall health (Lovell et al., 2009). Studies do indicate that there is an association between the amount of patients seen by health care providers and patient safety, and in addition their working conditions may impact the providers' abilities to provide quality care (Lovell et al., 2009, p. 2).

### **Physician Well-Being**

The importance of well-being is growing, and the attention to physician well-being is becoming an important topic in healthcare today. Physicians are dealing with feelings of being overwhelmed from demanding workloads, the number of patients they are expected to see daily, the limited amount of time they must see those patients, and the little to no control these physicians possess (Wallace & Lemaire, 2007). There are so many changes that have occurred to the practice of medicine. These changes include an increase in patient care demands, the introduction and frequent updating of information technology, reimbursement issues, growing bureaucratization of medical practice, increased accountability, declining autonomy, and conflict between the needs of the organization and patients. These changes all contribute and threaten a physicians' well-being (Wallace & Lemaire, 2007, p. 2569).

Lovell, Lee, and Frank (2009) surveyed physicians about what causes their stress and what interventions the physicians thought should be created. This research was

conducted in a Canadian province with responses from 165 physicians. Work–life conflict received the most responses, while lack of resources in the practice was second. Recommended interventions included health promotion for work–life balance and the development of policies within the healthcare system. Such policies can include the physicians’ input in their schedules, minimizing paperwork, and increasing stress management practices.

The way physicians cope when stressed, overworked, or dissatisfied affects their mental health (Firth-Cozens, 2001; Wallace & Lamaire, 2007). In addition, physicians who employ avoidance or denial tend to have more serious outcomes (Firth-Cozens, 2001). The reality is that many physicians are living unbalanced lives (Myers, 2001), ultimately harming themselves, the patients they treat, and their neglected family. Studies show that physicians with low levels of well-being have higher risks of substandard care, while physicians who had higher levels of well-being tend to offer preventative measures (Taub et al., 2006). For instance, research indicates that physicians who ate low fat diets were more likely to counsel their patients on the benefits of eating less fat or to screen them for high levels of cholesterol (Frank, Rothenberg, Lewis, & Belodoff, 2000). In the same study, researchers stated that those who drank less alcohol tended to counsel their patients about alcohol abuse. The same was found regarding those physicians who received a flu vaccination, performed self-exams of their breasts, utilized sunscreen, and were smoke free. Thus, physicians utilize their own personal health behaviors for counseling their patients.

Given decreased well-being, the proportion of physicians experiencing burnout increases from the rise of stress and the demands involved with patient care (Shanafelt et al., 2012). In fact, almost half of the physicians are in advanced stages of burnout and are twice as likely as nonphysicians to have fair to poor mental health (Krupa, 2012; Wallace & Lemaire, 2007). One study indicated that up to 60% of physicians are experiencing burnout (Krasner et al., 2009). Burnout and job dissatisfaction are often linked to a lower quality of care (Keeton, Fenner, Johnson, & Hayward, 2007). When physicians are impaired, there is a physical, mental, or behavioral disorder that will interfere with their ability to safely care for their patients (Taub et al., 2006). These disorders can include alcoholism, drug abuse, and addictions (Spickard et al., 2012).

Well-being and wellness can be maintained. Studies indicate that physicians who feel engaged or empowered within their role have higher levels of satisfaction and help maintain their well-being (Eckleberry-Hunt et al., 2009). Control over their work helps guard physicians against stress at work and can be highly associated to their health and well-being (Lovell et al., 2009). Research reveals that the loss of clinical autonomy due to restrictions such as government regulations and protocols (Lovell et al., 2009), along with the loss of control over their practice and administrative tasks is a large reason for physician burnout (Shanafelt, 2009). For instance, Shanafelt et al. (2009) stated that 75% of primary care physicians are reportedly dissatisfied with their administrative duties. The dissatisfaction occurs because so much time is wasted on paperwork, such as coding regulations necessary for payment (Behmann et al., 2012).

Studies also indicate that physician nutrition can affect physician cognition which then improves wellness and patient care (Lemaire et al., 2010). Unfortunately, proper nutrition at work tends to be neglected because of demanding work schedules and the attention to patient care (Lemaire et al., 2010). Physicians who maintain a nutritional balance at work have higher cognition. Cognition focusing on fine motor skills, such as memory and processing of information, helps physicians in their decision-making throughout the day (Lemaire et al., 2010).

Lemaire et al. (2010) measured physician cognition, glucose, and hypoglycemic symptoms in 20 physicians and assessed these factors after a nutrition-based intervention. The intervention focused on four important components: providing healthy nutritional choices, enforcing nutrition breaks, creating ease of accessing these foods, and offering the nutrition at no charge. Results indicated that workplace nutrition plays a role in improving physician cognition, which often leads to better patient care (Lemaire et al., 2010).

Having professional relationships with other physicians can also help maintain well-being and higher quality of patient care (Lovell et al., 2009). When physicians nurture their professional and even personal relationships, it helps them find meaning in their work. Through learning about the self-care practices of other physicians, they can develop their own philosophies in life and spiritual practices. A lack of professional relationships plays a vital role in patient dissatisfaction and adverse effects on the physicians' clinical performance (Lovell et al., 2009).

Wallace and Lamaire (2007) investigated the role of coworkers' social support in physicians' well-being. In this study, they utilized a mixed-methods approach to determine well-being through physician interviews and questionnaires. They conducted interviews with 54 physicians and, based on those responses, created a questionnaire that they then sent out. They received responses from 182 physicians. Results indicated that coworker support is important for the well-being of physicians.

Physicians who do not effectively communicate their emotional needs will increase their dissatisfaction (Eckleberry-Hunt et al., 2009). Many physicians suffer in silence due to shame (Myers, 2001). Physicians tend to be isolated, are taught to be in control, and do not show weakness, making it difficult for many of them to ask for help (Krupa, 2012). However, talking about their feelings and thoughts is important for physicians to help increase their well-being (Myers, 2001).

Another method of maintaining well-being is by taking time off (Eckleberry-Hunt et al., 2009). A study of oncologists indicated that insufficient time away from work (i.e., vacation, weekends, and evenings) was the cause of their burnout and dissatisfaction at work (Eckleberry-Hunt et al., 2009; Whippen & Canellos, 1991). Whippen and Canellos (1991) surveyed 598 oncologists and found that 56% were dissatisfied with their work life. Many of the respondents stated that they felt frustration and even a sense of failure. In addition, they felt that this occurred due to their inability to take vacations or have personal time away from the office (Whippen & Canellos, 1991).



The ability of physicians to recognize and acknowledge signs of burnout can help them maintain well-being (Eckleberry-Hunt et al., 2009). There are many signs of burnout that can be identified, including emotional exhaustion, cynicism, perceived clinical ineffectiveness, depersonalization with coworkers and patients, impaired job performance, poor health, headaches, heart conditions, irritability, fatigue, inability to sleep, anxiety, depression, marital difficulties, increased use of alcohol, and drug use (Spickard et al., 2002). By neglecting or ignoring these signs, physicians put their well-being aside, along with the well-being of the patients that they are caring for.

Physicians who recognize and accept humanity in themselves are more likely to maintain their well-being (Eckleberry-Hunt et al., 2009). Physicians tend to take less sick time than others because they feel they should not get ill (Hull, DiLalla, & Dorsey, 2008). Physicians are not known for taking care of themselves or asking for help given that they are the ones who are the caregiver. Out of fear of asking for help, physicians tend to deny their need. Physicians also tend to ignore their health and neglect getting medical treatment (Wallace & Lemaire, 2007). Physicians who do not have their own primary care physician for preventative care tend to self diagnose, self-medicate, or self-treat (Lovell et al., 2009; Myers, 2001; Taub et al., 2006). They also have a tendency to hide health and mental health problems because of the perceived social stigma that seems to be associated with them (Lovell et al., 2009).

Utilizing coping mechanisms can help increase well-being (Taub et al., 2006). Such coping mechanisms can include stress management resources, support through

family and friends, having hobbies, and the use of support groups. These coping mechanisms help the physicians maintain healthier lifestyles by reducing fatigue, stress, or burnout (Taub et al., 2006). These coping mechanisms are proactive ways for physicians to reduce the negative effects of the stress in their environment. Unfortunately not all work-related stress is controlled by the physician but occur because of hospitals or organizations that these physicians work for, making this initiative of well-being an important focus for these organizations (Taub et al., 2006).

Acquiring skills to improve well-being during medical training may help physicians once they are practicing medicine. Eckleberry-Hunt et al. (2009) developed a program that can be used in medical graduate training to promote wellness. The program starts with a change in the hospital's culture and creates a curriculum that promotes wellness. In the program, residents complete the Maslach Burnout Inventory (MBI) anonymously twice a year and discuss combined results at a residents only meeting conducted by the chief resident. Preventative measures are the focus of that meeting. In addition, residents listen to lectures on wellness, attend a resident physician support group, and receive a list of psychologists, psychiatrists, and social workers not associated with the program.

When physicians balance their lives, practices, families, and spirituality, they tend to have higher satisfaction because they are healthier, happier, clear minded, more energetic, and more accepting (Myers, 2001). Physicians reported that they felt well-being meant a higher quality of life. They felt that having other interests and hobbies

outside of their practice, spending time with their family, and having time for themselves would ultimately help them maintain healthier and more active lifestyles (Wallace & Lemaire, 2007, p. 2568). One physician stated that changes needed to occur in medicine where the norm is not to be a workaholic, but for physicians to have time away from practicing, to exercise, to engage in spiritual practices, and to maintain supportive relationships (Krupa, 2012). Physicians can find wellness through proper nutrition, nurturing personal and professional relationships, meaning in their work, self care, and the development of a life philosophy or spiritual practice (Lovell et al., 2009).

### **Effects of Burnout**

Burnout is defined as a state of emotional exhaustion, depersonalization, and decreased feelings of personal accomplishment (Eckleberry-Hunt et al., 2009; Krasner et al., 2009; Shanafelt, 2009; Stordeur, D'hoore, & Vandenberghe, 2000). Emotional exhaustion is the first step in burnout, leading to less concern for others and ultimately leading to feelings of failure or not being good enough (Stordeur et al., 2000).

Depersonalization then occurs, causing physicians to treat patients as objects and not as persons, typically increasing their negative attitudes toward those patients. When feelings of personal accomplishment decrease, physicians feel as though what they do is not helpful and sometimes not worth doing (Stordeur et al., 2000). One study stated that these three issues are also associated to low levels of confidence with their physician communication skills and expected higher negative outcomes (Travado et al., 2005). When physicians are burned out, they begin to experience increased negative feelings and

behaviors, such as fatigue, exhaustion, inability to concentrate, depression, anxiety, insomnia, irritability, use of alcohol or drugs (Gundersen, 2001), loss of enthusiasm (Shanafelt, 2009), auto accidents, and marital and family discord (Krasner et al., 2009). Depression and alcoholism have been found to be the most common issues experienced by physicians (Firth-Cozens, 2001). A study by Hull, DiLalla, and Dorsey (2008) found that 22.1% of physicians reported they drank more than three alcoholic beverages in a 4-hour time period at least once a week. In addition, a quarter of the physicians drank heavily two to six times a week. Physicians have higher rates of depression, suicide attempts, completed suicide, substance abuse (Hull et al., 2008, p. 31), and a higher intent to leave medical practice than nonphysicians (Shanafelt, 2009). Statistics also showed that physician suicide rates are two to four times higher than for nonphysicians (Krupa, 2012). Under such conditions it would be difficult, if not impossible, for these physicians to provide high quality care to their patients.

Physicians who are burned out are ultimately neglecting their own health (Gundersen, 2001) and providing suboptimal care to their patients (Langbelle et al., 2010) causing patient dissatisfaction, increased medical errors, lawsuits, and less ability to show empathy (Krasner et al., 2009). Increasing work demands also raise the level of stress and burnout within physicians. A survey of primary care physicians and subspecialists reported that 22% met the criteria for burnout (Ratanawongsa et al., 2008, p. 1581). Another study found that 45.8% of the physicians they surveyed reported that they had experienced at least one symptom of burnout (Shanafelt et al., 2012).

Furthermore, Lee, Lovell, and Brotheridge (2010) found that 48% to 56% of the physicians in their study from Canada also were experiencing advanced phases of burnout (p. 2319). In addition, two additional studies stated that 1 out of 3 physicians are dealing with burnout (Behmann et al., 2012; Shanafelt, 2009, p. 1338). The numbers are alarming, and such high burnout rates lead to numerous outcomes and issues.

Physicians who do practice healthy behaviors and maintain a healthy lifestyle are more likely to encourage their patients to live a healthy lifestyle through sharing their own experiences of healthy living (Hull et al., 2008). Research indicated that U.S. physicians had healthier habits than the general population and are likelier to encourage their patients to do the same (Lovell et al., 2009, p. 4; Frank, 2004;). For example, if physicians do not smoke, they would focus on advising smoking cessation. In addition, patients who saw a video of their physicians talking about diet and exercise reported that the physicians were more believable if they disclosed their health habits (Frank, 2004). One study of Four million men from the National Occupation Mortality Surveillance database, between the years of 1984 and 1995, found that physicians live the longest at 73 years of age, while lawyers lived to 72 years, all professionals to 71 years, and the general population to 70 years (Frank, 2004).

An important issue that arises with burnout is the decrease in job satisfaction that occurs (Firth-Cozens, 2001). Reduced job satisfaction affects the physicians prescribing behavior, patient compliance, patient satisfaction, quality of care (Linzer et al., 2000), and test ordering behavior (Taub et al., 2006).

Physicians who are dissatisfied also contain feelings of irritability, moodiness, anger, and hostility (Linzer et al., 2000). Their negativity diminishes not only their mood but also their job satisfaction (Hull et al., 2008). When this occurs, physicians tend to lose their empathy for their patients (Hull et al., 2008).

Another issue that arises when physicians are dissatisfied is negative impacts on their mental health. These mental issues can include depression, anxiety, or symptoms such as apathy, cynicism, and less interest in engaging in pleasurable or social activities (Linzer et al., 2000). Clinical errors may happen because physicians are stressed (Firth-Cozens, 2001). Physicians blame their lack of sleep and the amount of hours worked as being key contributors to patient injury and lower quality care (Firth-Cozens, 2001). Loss of sleep has been shown to be more incapacitation to physicians than high levels of alcohol in their blood (Taub et al., 2006). Physicians may turn to sleeping pills to help with their sleeplessness and take narcotics to deal with their headaches and pain (Krupa, 2012). Studies indicated that physicians also showed elevated symptoms of general psychological distress (Firth-Cozens, 2001) and tended to turn to addictive substances as an outlet (Taub et al., 2006).

Patient safety can be affected by physician burnout which is related to other concerns such as difficulty making decisions, communicating effectively with others, and increased risk of medical errors (Rosenstein, 2012, p. 31). Research also found a trend of shorter office visits due to time constraints put on the physicians, ultimately resulting in their prescribing of incorrect medication (Linzer et al., 2000). Tamblyn et al. (1997)

studied 112 physicians in a blinded study and found that in 41.7% of patient office visits, there were unnecessary prescriptions written in combination of those shorter office visits and misdiagnosis. Physicians are overwhelmed with the responsibility of life-or-death situations and decisions, keeping up with new information, new studies and new regulations. Unfortunately their worries need to include the possibility of being sued or being reported to medical licensing boards (Krupa, 2012, para. 10). When these complaints occur, physicians experience stress, guilt, depression, and a reduction in enjoyment of practice (Lovell et al., 2009). Research also finds that it negatively affects quality care, damages trust, and increases defensive medicine (Lovell et al., 2009). Thus physicians' self-care and wellness are important to the safety of their patients (Hull et al., 2008).

Interpersonal difficulties can also affect burnout and job dissatisfaction (Firth-Cozens, 2001). Many physicians are too busy to maintain healthy and intimate relationships (Myers, 2001). For physicians, work is important and tends to impede on personal time causing an insufficient work–life balance. Physicians are torn between the needs of their spouses or partners and the needs of their patients (Myers, 2001). Relationships require care and nurturing, neither of which can be done if the physician is absent from the home due to conflicting needs (Myers, 2001).

### **Physician Gender and Well-Being**

Research indicates that gender has affected burnout within physicians, thus affecting their overall well-being. The number of female physicians is on the rise

(McMurray et al., 2000). Female physicians tend to go into primary care specialties and tend to focus on preventative care, health education counseling, and the psychosocial requirements of their patients. In addition, female physicians have a communication style that is found to improve their patients' health outcomes, draw more female patients, and result in a lower chance of lawsuits (McMurray et al., 2000). Ozyurt, Hayran, and Sur (2006) found that female physicians scored significantly lower on the depersonalization scale of the MBI than do male physicians. Physicians with the above qualities are vital for any organization, and it is thus important to understand the well-being of female physicians.

Female physicians not only have to manage their work life, but also have to juggle their roles as physician, mother, daughter, and volunteer (Myers, 2001) and are thus found to have higher burnout scores than their male counterparts (Ratanawongsa et al., 2008). When juggling these roles, there is no time for them to refuel (Myers, 2001). One study found that female physicians had 60% greater odds of indicating burnout than male physicians (McMurray et al., 2000). Female physicians were also found to have higher levels of burnout based on work-to-home conflicts (Langballe et al., 2010; Wallace & Lamaire, 2007). Work-to-home conflicts are conflicts in which the demands of one domain (e.g., work) are not compatible with the demands of the other domain (e.g., home) (Langbelle et al., 2010). After a long day of work, many women must go home and care for their children and manage the household (Spickard et al., 2002). This can ultimately cause burnout faster in women than men (Spickard et al., 2002) due to the



complexity of their dual roles (Gross, 2010). Work-to-home conflicts are more highly related to the well-being of physician mothers than they are for physician fathers. In addition, the work-to-home conflicts are less for physicians who do not have children, regardless of their gender (Wallace & Lemaire, 2007).

Although research found that female physicians had a higher burnout rate than male physicians, one study did indicate that male physicians' work-to-home conflict was also high. However, burnout and exhaustion were higher from demanding work duties, such as treating more patients, spending less time examining individual patients, and maintaining necessary documentation in patients' records (Langbelle et al., 2010). Houkes, Winants, Twellaar, and Verdonk (2011) focused on general practitioners in the Dutch community and found that female physicians tend to become emotionally exhausted while their male counterparts tend to be depersonalized in the burnout process. Overall, both genders seem to have high burnout rates, but females have higher levels than their male counterparts (Langbelle et al., 2010).

Research also indicates that female physicians are likelier to have higher levels of depression and complicated psychosocial issues than their male colleagues (McMurray et al., 2000, p. 373). In addition, single female physicians are said to be vulnerable to burnout and risk dissatisfaction because of the lack of faculty role models, experiences of isolations, and even sexism (Lovell et al., 2009, p. 4). Also, Houkes et al. (2011) stated that female physicians tend to have less effective professional networks, have to endure negative stereotypes, and have a high workload aside from the inequality.

### **Physician Specialty and Well-Being**

Burnout rates and physician satisfaction rates vary across specialties. Low job satisfaction leads to higher burnout rates at a quicker rate. Female pediatricians had the lowest burnout rate of any physicians in a study by McMurray et al. (2000, p. 378).

General internal medicine physicians had the lowest job satisfaction rate according to research of HMO physicians (Linzer et al., 2000). However, the physicians considered to be in the front line of patient care have a higher risk of burnout. These specialties include family medicine physicians, general internal medicine physicians, and emergency medicine physicians (Krupa, 2012). However, Lovell et al. (2009) stated that family medicine physicians had the most negative experiences. Physicians of emotionally demanding specialties, such as oncologists and critical care, may experience burnout and job dissatisfaction given the high rates of patient death and suffering (Lovell et al., 2009). General practitioners were found to have significantly lower satisfaction than did specialists and subspecialists (Ozyurt, Hayran, & Sur, 2006). Surgeons may also face burnout from the physical demands of having to stand for long periods of time in sometimes painful and uncomfortable positions, thus affecting physicians' stress levels (Lovell et al., 2009).

### **Physician's Duration of Practice and Well-Being**

Information on the length of practice and physician satisfaction or burnout is limited. One study indicated that physicians who have been in practice over 10 years had slightly lower satisfaction than those physicians who had been in practice less than 10

years (Behmann et al., 2012). However, older physicians were slightly less satisfied in their autonomy of professional activities than younger physicians (Behmann et al., 2012), although the authors did not discuss a rationale for the difference.

Results from another study, which was conducted by Peisah, Latif, Wilhelm, and Williams (2009), suggested that older physicians experienced less psychological distress and burnout than do younger physicians. The reason was determined to be the lessons these older physicians had experienced during their years of practice (Peisah et al., 2009).

Researchers in a third study found that physicians who were younger than 29 years of age scored significantly higher than older physicians on the emotional exhaustion and the depersonalization scales of the MBI (Ozyurt et al., 2006). In addition, the younger physicians scored significantly lower on personal accomplishment and satisfaction scales of the MBI than their older colleagues. Thus, the researchers concluded that younger physicians encounter high levels of burnout with low levels of job satisfaction (Ozyurt et al., 2006).

### **Patient Satisfaction**

Patient satisfaction is a key indicator in the quality of healthcare (Hekkert, Changir, Kleefstra, van den Bert, & Kool, 2009). Organizations can utilize patient satisfaction ratings to evaluate and improve their systems (Hekkert et al., 2009). This is important because they reflect patients' personal evaluation of the care they received (Hekkert et al., 2009) while in a physician's care or within a hospital. These feelings of satisfaction lead the patient back to that physician or healthcare system to receive

additional health care services. In addition, patients are more compliant with their medical treatment plans, continue to maintain their physician–patient relationship, and will more likely recommend the physician and healthcare system to others who are in need of such services (Hekkert et al., 2009). However, the relationship between a patient and physician is also strongly related to the physician’s satisfaction (Lovell et al., 2009).

Patient satisfaction can help health care systems stand out above the rest of the competition, which helps patients and health insurance companies make an informed decision on the best places for healthcare (Hekkert et al., 2009). Patients are becoming more and more aware and educated on the quality of care they want and are provided. Health care organizations are now focused on patient satisfaction, as would any organization would focus on consumer satisfaction. With changes in Medicare payment, healthcare systems are needing to focus their efforts on the quality of care they provide and how satisfied those patients are after their hospital stay. When patients are misinformed, there are high numbers of patients to be seen, there are increasing wait times and are continuous delays that contribute to adverse emotions that are experienced by both the patient and their physician (Lovell et al., 2009, p. 2.).

Patient satisfaction is important, and many patients feel as though the healthcare system that provides this care is impersonal and leaves them vulnerable (Anandarajah, 2008). However, patients are becoming more empowered to seek out physicians through physician rating websites (Haas et al., , 2000; Lagu, Hannon, Rothberg, & Lindenauer, 2010).

When physicians are stressed, their attitudes become more cynical and their feelings towards their patients become detached, known as depersonalization or disengagement (Langbelle et al., 2010; Lee et al., 2010; Travado et al., 2005). Physicians also face formal complaints if a patient is disgruntled, causing more of a strain in the doctor–patient relationship (Lovell et al., 2009; Travado et al., 2005). In turn, patients are treated with suboptimal care (Langbelle et al., 2010, p. 74).

Most importantly, the communication between the physician and patient is the basis of their relationship (King, 2000). Results of one study indicated that high quality of communication by the physician influences patient satisfaction, along with patient compliance and the recall of information the physician gave them (Ratanawongsa et al., 2008). In addition, when communication between the physician and patient increases, it also improves the patients' chronic disease health outcomes, including emotional health, functioning, symptom resolution, blood pressure, and glucose control. High quality communication can help patients improve their health through compliance. When physicians build rapport with patients, patient satisfaction is increased. Thus, physician burnout leads to a low quality of communication and overall patient satisfaction.

Patient care can be diminished as physician stress levels increase (Firth-Cozens, 2001). This can cost organizations money or patients their lives (Hayashino et al., 2012). Unfortunately, many physicians do not have their own physician and tend to self-medicate, according to Firth-Cozens (2001). Because of this, physician performance is deficient, causing more mistakes in patient care. Some studies indicate that the true

number of patient injuries may never be known; however, measures that can be reviewed include complaints, claims, and medication errors that arise. Another study estimated that up to 50% of patients who are hospitalized have been affected from medical errors (Hayashino et al., 2012). In the same study, 21.9% of the physicians self-reported that they had at least one major medical error in the past year (Hayashino et al., 2012).

Some of the deficiencies that patients can face tend to occur from high patient volumes (Lovell et al., 2009). This occurs because physicians are rushing from one patient to another. When this is done, patients are misinformed and are angered by their long wait times, causing frustration on both sides (Lovell et al., 2009). The relationship between physician and patient becomes strained, patient no-show rates increase, and treatment compliance falls (Firth-Cozens, 2001).

### **Summary**

Physician well-being will continue to be an issue for everyone including the physician, their family, coworkers, staff, patients, and patients' families. The level of burnout is at an alarmingly high level because of longer work days than for the average individual (Shanafelt et al., 2012), with female physicians at a higher risk of job stress (McMurray et al., 2000). Such decreases in well-being correlate to a decrease in the quality of patient care these physicians provide (Langbelle et al., 2010). The gaps found in the literature are based on the conceptual framework; none of the research conducted on physician well-being has used the biopsychosocial–spiritual theory. In addition,

research on spirituality and whole-person care focuses on the patient and not on the health or well-being of the physician (Anandarajah, 2008; Koenig, 2004).

Thus, based on this literature review, this study explored the gaps in the literature. The first area of exploration was whether there is a significant relationship between physician well-being and patient satisfaction. In addition, this study investigated relationships between patient satisfaction and physician gender, physician specialty, and the number of years in practice.

The following chapter describes the sample group, instrumentation, study variables, and research design that were utilized in the study. Next, there is a description of how the data were collected and analyzed. Lastly, I review the role of the researcher along with the threats to validity and ethical considerations.

## Chapter 3: Research Method

### **Introduction**

This chapter includes a discussion of the research methodology used to determine the correlation between physician well-being and patient satisfaction. The purpose of this quantitative study was to investigate the relationships of physician well-being with patient satisfaction, and understanding the associations between physicians' well-being and gender, age, specialty, and duration in practice. Data for this research were gathered using an instrument, the PWSAT-40, that measures physician well-being using the biopsychosocial–spiritual model. The PWSAT-40 survey was sent out by Courageous Healthcare via e-mail and United States Postal Service to each employed physician. Press Ganey sent out the patient satisfaction survey to their selected sample using the United States Postal Service.

This chapter describes the sample group, instrumentation, study variables, and research design that were used. In addition, there is a description of how the data were collected and analyzed. Lastly, I review the role of the researcher along with the threats to validity and ethical considerations.

### **Research Design**

This survey research study used questionnaires to obtain information from physicians and patients. Survey research is a useful method of collecting information about internal experiences that are difficult to directly observe (Myers & Hansen, 2002). The questionnaire that was administered to physicians is the Physician Well-Being Self-



Assessment Test (PWSAT-40). The PWSAT-40 is a 40-item measure assessing physician well-being in terms of the four dimensions of the biopsychosocial–spiritual model (biological, psychological, sociological, and spiritual). Patients responded to a patient satisfaction questionnaire developed by Press Ganey called the Medical Practice Survey. Both questionnaires utilize closed-ended questions for respondents to answer.

This study assessed five different relationships or differences. The first assessed the relationship between physician well-being and patient satisfaction. In order to investigate this relationship, the predictor variable of physician well-being was measured by the PWSAT-40 that was developed by Courageous Healthcare and the outcome variable of patient satisfaction was measured by a the patient satisfaction survey (Medical Practice Survey).

The second relationship assessed the difference between physician well-being and gender. Gender was the predictor variable and physician well-being was the outcome variable. These variables were obtained through demographic data and PWSAT-40, respectively.

Physician well-being and the physicians' specialty was the third difference that was assessed. The predictor variable of physician specialty was acquired through demographic data, and the outcome variable of physician well-being was obtained through the PWSAT-40.

The fourth relationship that was assessed was between physician duration of practice and physician well-being. Duration of practice was the predictor variable and

was acquired through demographic data. Physician well-being was the outcome variable and obtained through the PWSAT-40.

The last relationship assessed is the relationship between physician age and well-being. The predictor variable of age was acquired through demographic data, while the outcome variable of physician well-being was obtained through the PWSAT-40.

## **Methodology**

### **Participants**

The participants for this study included physicians employed at one of the four Florida Hospitals in Volusia county or Flagler county. All employed physicians were invited to participate in the study except for those who would not have a Press Ganey score to correlate. Thus, radiologists, anesthesiologists, and hospitalists were not included in the study. The participating physicians comprised diverse specialties including: interventional cardiologists, neurologists, psychiatrists, general surgeons, family practice primary care, internal medicine primary care, endocrinologists, otolaryngologists (ENTs), hematology-oncologists, gastroenterologists, podiatrists, pediatrics, infectious disease, uro-gynecologists, orthopedic surgeons, vascular surgeons, neurosurgeons, and plastic surgeons.

### **Sampling Procedures**

The results of this research will inform a new initiative by Florida Hospital's leadership team focusing on the well-being of physicians and, if necessary, possible initiatives or institutionwide programs to increase the well-being of those physicians.

Thus, this study was introduced to the employed physicians by the market CEO. The initiative and study were introduced as voluntary and focused on the benefits of understanding a physician's well-being through information from the survey results. All physicians who were employed at one of the four Florida Hospitals in Volusia or Flagler at the onset of the study were approached to participate so the most sound sample size was possible for this research and initiative. This convenience sample was selected because I, the researcher, am employed with Florida Hospital and was granted permission by hospital administrators to utilize the hospitals' data from the well-being survey to the physicians and review patient satisfaction scores.

### **Participation Recruitment and Data Collection**

I used archival data to complete this study. Data were collected for Florida Hospital through third party organizations, Courageous Healthcare and Press Ganey. For the physician well-being survey, Courageous Healthcare sent out an e-mail to all of the employed physicians of Florida Hospital DeLand, Florida Hospital Fish Memorial, Florida Hospital Memorial Medical Center, and Florida Hospital Flagler. Surveys were completed through a link found on the e-mail. The cover e-mail stated the purpose of the study and that all data would be kept confidential. Paper surveys were sent out 18 weeks after the first e-mail survey. By entering the website or by completing the paper survey and mailing it back to Courageous Healthcare, physicians provided implied consent. All questions related to the study were directed to Courageous Healthcare. The data from the survey were online or via paper survey and then downloaded for analysis or entered into

the database by Courageous Healthcare. In addition, demographic information was included prior to the start of the PWSAT-40, so the physician could enter additional information about their age, gender, specialty, and their number of years in practice.

Patient satisfaction surveys are administered for the hospital on a quarterly basis through Press Ganey. Each physician receives an overall patient satisfaction score that will be utilized to determine a relationship. Individual patient scores will not be used, as individual patients are not identified in the patient satisfaction survey. This is to maintain confidentiality. Press Ganey sent out a survey via United States Postal Service to patients recently seen. The surveys are returned to Press Ganey where the data are compiled, and physician score cards are sent out to the organization to distribute and discuss with the physician. These surveys are kept confidential from the physician in terms of the patients who responded. The physicians only see their overall scores, and there is no breakdown by patient provided to the physician or to the hospital organization. A physician must have at least five surveys to create the data results.

For both surveys, the physicians' name were included when the survey was sent out. Once the PWSAT-40 was completed, the physicians' names were converted to codes by Courageous Healthcare. The survey by Press Ganey leaves the physician's name on it as the person being surveyed about and only keeps the patient who filled out the survey confidential.

### **Data Collection Procedures**

I provided Courageous Healthcare (the third party for data collection) with the e-mail of each employed physician within the four Florida Hospitals in the Volusia and Flagler markets. An e-mail was sent to these physicians by Courageous Healthcare. The e-mail discussed the purpose of the survey and provided their contact information should there be any questions related to the study. Participating physicians completed a demographic section that was embedded into the PWSAT-40 survey. The demographics included: gender, age, the number of years in practice (not including training, e.g., residency and fellowship), and the physician's specialty. The physician continued by filling out the remaining questions on the PWSAT-40. Courageous Healthcare then received responses from all participating physicians via the online survey or paper survey. Archival data were provided to me as the researcher to correlate up with the physicians' patient satisfaction results.

Physician's PWSAT-40 survey results were kept confidential from all employees of Florida Hospital, excluding the researcher. I am not a manager of any of the participants, and I will provide results of this study in bulk and will not identify any employee individually.

A summary of the research findings will be available for physicians should they be interested. The informed consent form provided the physician with Courageous Healthcare's e-mail address should they request well-being survey results. At completion of the study, the research findings or a copy of the dissertation will be available. In

addition, should they have any questions or concerns regarding the study, they may contact Courageous Healthcare. All contact information was provided on the e-mail and/or letter they received.

## **Instruments**

### **Physician Well-Being Self-Assessment Test**

This study employed an objective instrument, the PWSAT-40 (Bogue & Hamilton, 2012). The instrument measured well-being of physicians according to four dimensions: biophysical, psychoemotional, sociorelational, and religiospiritual. From this assessment, an overall well-being score was derived as well. A higher score indicated greater well-being. This self-reported survey measured physician wellness. There were a total of 40 items with a 9-point semantic differential scale. Ten items focus on the biophysical aspect (BIO), 10 items focus on the psychoemotional aspects (EMO), 10 items focus on the sociorelational aspects (RELA), and 10 items on the religiospiritual (SPIR). I obtained permission to use the PWSAT-40 for this study (Appendix B).

The scoring for the PWSAT-40 items varies. Some items are reverse scored such that the scale scores and all analyses will be based on the principle that higher values always mean higher well-being (R. Bogue, personal communication, March 12, 2013). Reverse scored items is obvious because someone who answers “*totally true of me*” for something likely to be harmful is associated with negative experience or outcomes (R. Bogue, personal communication, March 12, 2013). Physician well-being was utilized with the four scale scores of the PWSAT Survey: bio-physical (BIO), psycho-emotional

(EMO), socio-relational (RELA), and religio-spiritual (SPIR) and the overall score.

Cronbach's alpha scales were used to measure internal consistency. When alpha ( $\alpha$ ) is  $\geq .70$  the measure was considered adequate, when  $\alpha \geq .80$  the measure was considered good, and when  $\alpha \geq .90$  the measure was considered excellent. Three studies utilizing the PWSAT-40 demonstrated a generally strong reliability: (Bogue, R., personal communication, March 26, 2013). Biological measures ( $\alpha = .678$  to  $.840$ ), emotional measures ( $\alpha = .846$  to  $.883$ ), relational measures ( $\alpha = .700$  to  $.795$ ), and spiritual measures ( $\alpha = .771$  to  $.873$ ). Table 1 reflects a summary of the reliability results for those three studies that utilized the PWSAT-40 (Bogue, R., personal communication, March 25, 2013).

Table 1

*Reliability of the Physician Well-Being Self-Assessment Test*

	Study1		Study2		Study3		G
	Avg r	$\alpha$	Avg r	$\alpha$	Avg r	$\alpha$	
BIO	.640	.840	.592	.807	.352	.678	.675
EMO	.695	.883	.662	.859	.546	.846	.837
RELA	.577	.795	.572	.762	.367	.700	.501
SPIR	.652	.843	.569	.771	.582	.873	.908

Note. PWSAT-40 is the long form version with 40 items, 10 for each of the four scales: Bio-Physical (BIO), Psycho-Emotional (EMO), Socio-Relational (RELA) and Religio-Spiritual (SPIR).

Study1: The 120 physician attendees to the 2012 National Physician Well-Being Conference were invited to participate online before coming to the conference (N = 81; 2012).

Study2: The 1200 members of a Religiously-Affiliated Health System Medical Staff were invited to participate online before attending a conference (N = 150; 2012).

Study3: National Study on Physician Well-Being randomly sampled 1615 physicians nationwide (N = 225; 2012).

Avg r = Average item-scale correlation. All items have  $r > .30$  on their respective subscale.

$\alpha$  = Cronbach's Alpha measures a scale's internal consistency ( $\alpha \geq .70$  is considered adequate;  $\alpha \geq .80$  good; and  $\alpha \geq .90$  excellent).

G = Guttman Split Half assesses the correlation of half the items with the other half.

### **Patient Satisfaction Survey**

The Press Ganey Medical Practice Survey was developed to measure patient satisfaction and is utilized by all four participating hospitals. It is sent to the physician's patients, thus it is written at a sixth grade reading level (Press Ganey Associates, Inc., 2010). Patient satisfaction surveys are mailed out on a quarterly basis by a third party organization, Press Ganey, and the data is then provided to the Hospital organization and are distributed to the physicians. These surveys are mailed out to patients and they select from a 5-point Likert scale (very poor, poor, fair, good, or very good) for each item (Appendix A). There are ten items about the patient's experience with a physician, such as whether the physician was friendly and courteous, their explanation of the condition or problem the patient is having, the concern by the physician of the patients concerns, the



effort to include the patient in their decisions, whether information was provided about medication and instructions for follow up, whether the physician spoke clearly, the time spent with the physician, the patients' confidence in their physician, and finally the likelihood of recommending the physician. The responses provide the organization with the physicians overall percentage. Results of these items were summed for a total score. The results were utilized by the current research to determine the physicians' patient satisfaction scores. Permission has been granted by Florida Hospital to use the archived data (Appendix B).

The Press Ganey Medical Practice Survey showed high levels of predictive validity. A multiple regression analysis showed significant predictors of patients' reported likelihood to recommend their physicians [ $F(23, 949) = 326.15, p < .001, R^2 = .89$  (adjusted  $R^2 = .89$ )] (Press Ganey Associates, Inc., 2010). In addition, the survey is said to be highly predictive of patients' likelihood to recommend the practices [ $F(23, 949) = 156.33, p < .001, R^2 = .79$  (adjusted  $R^2 = .78$ )] (Press Ganey Associates, Inc., 2010). This means that approximately 89% of the variance is explained in patients' likelihood to recommend their care provider and that approximately 79% of the variance is explained in patients' would recommend the practice (Press Ganey Associates, Inc., 2010).

The scoring for the Press Ganey Medical Practice Survey scores do indicate that the higher the percentage, the higher the satisfaction with the physician. Patient satisfaction was measured with the Press Ganey Medical Practice Survey utilizing the

overall percentage score for the care provider. Percentages range from 0% to 100% in satisfaction scores.

The Press Ganey Medical Practice Survey also showed high levels of reliability. All scales exceeded the .70 standard for reliable measures. All scales reliability ranged from .81 to .97 (Table 2). For the ‘Your Care Provider’ scale used by this study, the reliability score is strong ( $\alpha = .97$ ; Press Ganey Associates, Inc., 2010).

Table 2

*Press Ganey Medical Practice Survey Reliability Estimates by Scale.*

<b>Scale</b>	<b>Alpha</b>
Access	<b>.81</b>
Moving Through the Visit	<b>.86</b>
Nurse/Assistant	<b>.92</b>
Your Care Provider	<b>.97</b>
Personal Issues	<b>.91</b>
Overall Assessment	<b>.82</b>

### **Demographic Variables**

A summary of how each demographic variable was measured is included below:

1. Gender was measured by the response of male or female.

2. The physician's duration of practice was measured by number of years they reported practicing.
3. Each physician's specialty was provided to us by the physician (e.g. Family Medicine, General Surgeon).
4. Age was obtained through a response of entering a number.

This information was obtained through demographic questions on the PWSAT-40. Physicians were told that information would be kept confidential from Florida Hospital, their employer, prior to entering the site. In addition, due to lack of response, the researcher sent out the surveys in paper format with a stamped, self addressed envelope for easy returns. Other forms of reminders came via e-mail, U.S. mail, and via the staff of the employed physicians.

### **Data Analysis**

The software utilized to analyze the data was the SPSS program. In addition, the researcher cleaned the datafile in order to omit any incomplete data.

Analytical strategies were based on each research question.

A linear regression analysis was used for the following two research questions:

- Is there a relationship between physician well-being and patient satisfaction?
  - $H_1$ : There is a significant relationship between physician well-being and patient satisfaction.
  - $H_0$ : There is no significant relationship between physician well-being and patient satisfaction.

- Is there a relationship between the duration of practice and physician well-being?
  - $H_1$ : There is a significant relationship between physicians' years in practice and well-being.
  - $H_0$ : There is no significant relationship between physicians' years in practice and well-being.

A logistic regression analysis was used for the following research questions:

- Is there a difference between gender and physician well-being?
  - $H_{12}$ : There is a significant difference between gender and physician well-being.
  - $H_{02}$ : There is no significant difference between gender and physician well-being.
- Is there a difference in well-being between primary care physicians and specialists?
  - $H_1$ : There is a significant difference in well-being between primary care physicians and specialists.
  - $H_0$ : There is no significant difference in well-being between primary care physicians and specialists.
- Is there a difference in patient satisfaction between primary care physicians and specialists?
  - $H_1$ : There is a significant difference in patient satisfaction between

primary care physicians and specialists.

- $H_0$ : There is no significant difference in patient satisfaction between primary care physicians and specialists.
- Is there a relationship between physician age and well-being?
  - $H_1$ : There is a significant relationship between physician age and well-being.
  - $H_0$ : There is no significant relationship between physician age and well-being.

### **Threats to Validity**

Threats to the validity of this research included both internal and external and are described below.

#### **Threats to Internal Validity**

The threats to internal validity in this research included selection bias, standardization, and the Hawthorne effect.

**Selection bias.** Data collection was voluntary, so there is no guarantee that all physicians or patients participated. This raises the possibility that the physicians and patients who returned their questionnaires may be different, in some important way, to those who did not return their questionnaires. Patients may have completed and returned the surveys because they were either more satisfied or dissatisfied with the service they received. Physicians may be more motivated to understand their practice of medicine. There may be a group of physicians who may be innately inclined to participate in

research activities that may help them increase their self-awareness, especially in the area of well-being. To minimize selection bias, the Administration presented their sponsorship of this study in an open and non-threatening manner, reassuring participants that their responses will be treated with confidentiality, identities were coded, and only group summaries were reported.

**Standardization.** Even though subjects received identical instructions, there is no guarantee that all subjects fully comprehended the purpose and process of data collection. For example, a participant may not have completed all items or marked all items with the same response. This may have some effect on the assessment of the variables, as the responses are not truly reflective of participant perceptions. To maximize standardization, instructions were brief and clear, as patients may not be familiar with taking surveys.

**The Hawthorne effect.** Participant responses may also be biased due to the Hawthorne Effect, which occurs when participants' responses are altered because they are aware that they are being studied in a company sponsored project. Since the questionnaires were not disguised in any manner, there was no control for participants to respond in a more socially acceptable way.

To minimize the Hawthorne Effect, physicians were encouraged by Florida Hospital (FH) Administration to respond to the assessments as candidly as possible. The subjects were also reassured that the FH Administration will have no access to the data in any manner. In addition, patients may have responded favorably if they think their

physicians will look at their responses, thus, Press Ganey informs patients that their physicians will only see their scores and not who responded to the survey.

### **Threats to External Validity**

The threats to external validity in this research included: testing reactivity, limited population, and cultural bias.

**Testing reactivity.** All participants were fully informed that they were participating in an institutional initiative. This may have changed the way they responded to the assessments. Consequently, the results may not generalize to the real world where people are not part of a study or an institutional initiative, and thus their behaviors and perceptions are not affected.

To minimize testing reactivity, the data was collected in a manner that they can respond in their own comfort and convenience. Physician surveys were completed online, making the web-based survey accessible at any time. Patient surveys were sent via United States Postal Service and completed in the convenience of their own homes.

**Limitation types of population tested.** This study employed a convenience sample group and thus, rises the question as to what extent do the FH physicians represent the general physician population. This study attempted to survey a wide range of specialists, which may be generalizable to other medical centers. Limitations to generalizability will be discussed in depth in chapter 5.

**Cultural bias.** The sample group of physicians were made up of various cultural groups, which may have affected the way they responded to the questionnaires. In the

instruments employed for this study, there were no items that would put those from other than the American Culture at any disadvantage.

### **Ethical Procedures**

Ethical procedures were reviewed and approved by Walden's IRB, approval number 10-02-13-0145596, and have been taken into consideration in order to provide minimal risk to the participants. Implied informed consent was obtained once the physician entered the website to the physician well-being survey.

Anonymity and confidentiality were kept as a third party organization, Courageous Healthcare, received the data and provided Florida Hospital with data that contained codes and no identifying information of the physicians. All data collected by Courageous Healthcare were housed in a password protected cloud service. In addition, the researcher stored data and all study material on her computer that is password protected and has all study files encrypted. The researcher will ultimately be utilizing archival data. There will be no deceptive practices in the research and at any time the physician participants were able to withdraw.

An ethical challenge that may have been faced in this research was the use of employees who may have felt obligated or pressured to participate. To minimize coercion, Florida Hospital explained that participation was completely voluntary.

Thus, ethical procedures that were followed included: (a) the completion of informed consent in order to participate, (b) participants were identified with ID numbers



in lieu of names to protect identity, and (c) results were presented in group summaries to the researcher and dissertation committee.

### **Role of Researcher**

The researcher's role was to acquire archival data that was collected by Courageous Healthcare. Courageous Healthcare administered the PWSAT-40 survey. The researcher reviewed the reliability and validity of the instrument. Patient Satisfaction scores were obtained through Press Ganey and provided each physician's scores. Press Ganey automatically sends out these surveys on a quarterly basis. The data received by the hospital is utilized to measure the patient satisfaction scores by physician. I did not collect the data from Press Ganey but from the hospital administration that receives the data. These data are considered archival data.

The researcher performed the data analysis and interpretation of results. In addition, the researcher's dissertation committee on all research procedures and data analysis in this study have completed audits.

### **Summary**

In summary, this chapter provided an overview of the quantitative study. It discussed the research methodology that was used to determine the relationship between physician well-being and patient satisfaction and which physicians were most vulnerable to a reduced sense of well-being based on their gender, age, specialty and duration in practice. The independent variables included: physician well-being, gender, age, physician specialty and the duration of practice. Dependent variables included patient

satisfaction and physician well-being. This chapter described the sample group, instrumentation, study variables and research design that were used. In addition, an overview of how the data was collected and analyzed were discussed. Lastly, the role of the researcher along with a discussion of the threats to validity and ethical considerations were reviewed.

## Chapter 4: Results

### Introduction

The purpose of this study was to identify whether there was a relationship between physicians' well-being and their patients' satisfaction with the care they received.

The research questions and hypotheses included the following:

1. Is there a relationship between physician well-being and patient satisfaction?

H<sub>1</sub>1: There is a significant relationship between physician well-being and patient satisfaction.

H<sub>0</sub>1: There is no significant relationship between physician well-being and patient satisfaction.

2. Is there a difference between gender and physician well-being?

H<sub>1</sub>2: There is a significant difference between gender and physician well-being.

H<sub>0</sub>2: There is no significant difference between gender and physician well-being.

3. Is there a difference between primary care physicians and specialists in terms of well-being?

H<sub>1</sub>3: There is a significant difference in well-being between primary care physicians and specialists.

H<sub>0</sub>3: There is no significant difference in well-being between primary care

physicians and specialists.

4. Is there a difference in patient satisfaction between primary care physicians and specialists?

H<sub>14</sub>: There is a significant difference in patient satisfaction between primary care physicians and specialists.

H<sub>04</sub>: There is no significant difference in patient satisfaction between primary care physicians and specialists.

5. Is there a relationship between the duration of practice and physician well-being?

H<sub>15</sub>: There is a significant relationship between physicians' years in practice and physician well-being.

H<sub>05</sub>: There is no significant relationship between physicians' years in practice and physician well-being.

6. Is there a relationship between physician age and physician well-being?

H<sub>15</sub>: There is a significant relationship between physician age and physician well-being.

H<sub>05</sub>: There is no significant relationship between physician age and physician well-being.

This chapter will begin with an overview of how the data was collected and a description of the sample group. In addition, this chapter will provide an overview of the results, and will conclude with the summary.

### **Data Collection**

Data was collected in 26 weeks. After sending out online surveys and online reminders for 18 weeks, paper surveys were mailed out to those who had not yet completed the survey. After 3 weeks, a paper reminder was sent out.

The recruitment of participants was from a convenience sample. Physicians who were employed to one of the four Florida Hospital locations by November 2013 were included in the study, except for those who did not have Press Ganey Patient Satisfaction Surveys sent out on their behalf. These physicians would include the radiologists, and pathologists, who do not have patient contact, along with the hospitalists, who did not have a Press Ganey survey utilized for their satisfaction surveys.

The response rates for the well being surveys were 58.4%. Of the 87 physicians that were sent a survey, 52 responded by completing the survey, either through an online link or through paper. One survey was returned with all neutral responses, which was too patterned to take as an actual response.

The archival data came from the Press Ganey survey, which provided the patient satisfaction scores. The number of surveys completed by patients and included in the scoring ranged from 4,250 to 4,750, which provided the archival data of the physicians' patient satisfaction scores.

The plan was to gather data from all of the employed physicians. The total number of subjects eligible for this study was 87. The data was collection over a period

of 26 weeks, which included 10 reminder e-mails, one hard copy distribution of the survey and a final reminder on paper; the final sample size was 52 respondents.

### **Results**

The results of the study are discussed below. The descriptive statistics characterize the sample group that was utilized. The information provides details of the physician's gender, age, primary care or specialty, and the number of years the physicians has been in practice. A priori power analysis indicated that with power at .85, and with an alpha at .05, the minimum sample size required participants for a correlational design is 293. Thus, it is unlikely, given the much lower number of subjects available that significance can be reached in the study. Of the 52 physician respondents, 35 (67.3%) were male and 17 (32.7%) were female. The population included 63 males and 24 females. The age of physicians ranged from 28 to 74 years old. The mean age was 49.21 with a standard deviation of 10.061. The number of primary care physicians was 26, and the number of specialists was 26, resulting in a percentage of 50% of respondents from each category. The number of years in practice, ranged from 1 year to 43 years, with a mean of 16.31 years and a standard deviation of 9.877.

*Null Hypothesis 1:* There is no significant relationship between physician well-being and patient satisfaction.

A Pearson r correlation was employed to examine the relationship between overall well-being and care provider score ( $r(36) = -.265, p > .05$ ). The results failed to

achieve statistical significance. Therefore, the null hypothesis is retained and no conclusion can be drawn.

*Null Hypothesis 2:* There is no significant difference between the physician's well-being and male and female physicians.

An independent t-test examined differences in well-being for males ( $M = 6.337$ ;  $SD = .11$ ) and females ( $M = 6.398$ ,  $SD = .99$ ;  $t(48) = -.194$ ,  $p > .05$ ).

*Null Hypothesis 3:* There is no significant difference between the physicians' well-being of primary care physicians and specialists.

An independent t-test examined differences in well-being for primary care physicians ( $M = 6.4882$ ;  $SD = 1.0$ ) and specialty physicians ( $M = 6.2266$ ,  $SD = 1.1$ ;  $t(48) = .886$ ,  $p > .05$ ).

*Null Hypothesis 4:* There is no significant difference between patient satisfaction of primary care physicians and specialists.

An independent t-test examined differences in their patient satisfaction scores for primary care physicians ( $M = 95.09$ ;  $SD = 3.1$ ) and specialty physicians ( $M = 94.82$ ,  $SD = 3.0$ ;  $t(36) = .276$ ,  $p > .05$ ).

*Null Hypothesis 5:* There is no significant relationship between physicians' number of years in practice and their well-being.

A Pearson r correlation was employed to examine the relationship between physicians' years in practice and the physician's overall well-being ( $r(50) = .093$ ,  $p > .05$ ).

The results failed to achieve statistical significance. Therefore, the null hypothesis is retained and no conclusion can be drawn.

*Null Hypothesis 6:* There is no significant relationship between physician age and physician well-being.

A Pearson r correlation was employed to examine the relationship between physician age and overall well-being ( $r(50) = .098, p > .05$ ). The results failed to achieve statistical significance. Therefore, the null hypothesis is retained and no conclusion can be drawn.

### **Summary**

In summary the results of the study indicate the following: There is no significant relationship between physician well-being and patient satisfaction. There is no significant relationship between the number of years the physician has been in practice and their well-being. There is no significant difference between physician gender and physician well-being. There is no significant difference in well-being between primary care physicians and specialists. There is no significant difference between patient satisfaction of primary care physicians and specialists. Finally, there is no significant relationship between physicians' age and physicians' well-being.

In the following chapter, the interpretation of the findings is described, along with the limitations found in the study. A summary of recommendations and implications for positive social change will follow.



## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The purpose of this study was to identify whether a physician's well-being had a relationship to their patients' satisfaction of care they received. This study was conducted to better understand whether physician well-being was a predictor for high customer satisfaction, an important focus for healthcare organizations, physicians and their families, and more importantly for the health outcome of their patients.

None of the results reached statistical significance. This chapter will focus primarily on the interpretation of the findings in this study. In addition, a review of the limitations, recommendations, and implications will follow which will be rounded out with the conclusion.

### **Interpretation of the Findings**

Because no statistical significance was achieved in any of the analyses, no conclusions or interpretations can be drawn from these results. Findings in this study were not consistent with the literature discussed in Chapter 2.

For the first hypothesis regarding a relationship between physician well-being and patient satisfaction, the literature found that physicians found it difficult to balance their work and personal lives (Lovell et al., 2009). The findings of this study failed to support what the literature reported. These results cannot confirm the correlation between physician well-being as measured by the PWSAT and patient satisfaction as measured by

the Press Ganey survey. This indicated that physicians may have found it difficult to balance their work and personal lives.

The range of scores in the physician well-being survey (PWSAT) is from 4.45 to 8.53 (on a scale of 1 to 10), with a mean of 6.36 and standard deviation of 1.04.

Therefore, about 2/3 of the sample scored within 4.31 to 7.39, which are not very high scores, when the PWSAT is scored on a scale of 1 to 10

Physician well-being scores in the study were not very high, nor was the physician well-being that was found in the literature review. The physicians' patient satisfaction scores were 88.3 to 100 with a mean of 94.95 and a standard deviation of 3.02, only 36 (69%) of the sample group provided data for both variables. The results may be different if all provided data on both assessments, thus resulting in different outcomes.

For the second hypothesis regarding a difference between a physician's gender and physician well-being, the literature found on gender stated that female physicians tend to have higher burnout than their male colleagues due to their demanding professional and personal lives (Langballe et al., 2010; Myers, 2001; McMurray et al., 2000; Wallace & Lamaire, 2007).

The number of females to respond were 17 and the amount of males to respond were 35, so there is quite an imbalance of group size which may have influenced each of the statistical significance in the difference of their well-being scores. Basically, one group is twice the size as the other. The mean female well-being scores were 6.398 with

a standard deviation of .99, while the mean male well-being scores were 6.337 and a standard deviation of .11; scores were very similar and thus it would take a very large sample to pick up differences.

For the third hypothesis regarding a difference between primary care physicians and specialists in terms of well-being, the literature review determined that satisfaction rates varied across the different specialties (McMurray et al., 2000). For instance the literature review found that General Practitioners tended to have a lower satisfaction than specialists (Ozyurt, Hayran & Sur, 2006), however surgeons face high burn out (Lovell et al., 2009) and emotionally demanding specialties, such as oncologists and critical care physicians tend to experience high levels of burnout as well (Lovell et al., 2009). In addition, research also indicated that front line specialties, which include Family Medicine, General Internal Medicine, and Emergency Medicine physicians, had the higher risk of burnout. The results in the current study indicated that both primary care physicians and specialists scored about the same level for their well-being, which is at 6.5 (primary care) and 6.2 (specialists), respectively. These numbers fall in the middle of the well-being range of scores of the PWSAT. The working environment is quite similar in the outpatient offices for specialists and primary care physicians. The call schedule is light, typically 1 in 4 weeks. Therefore, both groups, which are employed at one of the four Florida Hospital organizations, can be concluded to be working under the similar conditions.

For the fourth hypothesis, regarding a difference of patient satisfaction between primary care and specialists, the literature review in chapter 2 indicated that patient satisfaction was strongly related to the physician's satisfaction (Lovell et al., 2009). The current study found specialists and primary care scored about the same level for their patient satisfaction, which is at 95.09 (primary care) and 94.82 (specialists) with a standard deviation of 3.1 and 3.0, respectively. Again, the working environment is quite similar in the outpatient offices for both the primary care physicians and specialists, thus working under similar conditions and indicating no significant difference in patient satisfaction between the two physician groups.

For the fifth hypothesis, regarding a relationship between the duration of practice and physician well-being, literature was sparse, but some literature did indicate physicians who were in practice more than 10 years had a slightly lower level of satisfaction than those who practiced less than 10 years (Behmann et al., 2012). The duration of the current physicians ranged from 1 to 43 years, with a mean of 16.31 and standard deviation of 9.88 years. This suggests a large variance in the data and also that the data are moderately skewed to the positive (.612), which indicated that there were more physicians with longer duration.

For the sixth hypothesis regarding a relationship between physician age and physician well-being, the literature review found that older physicians experienced less psychological distress and burnout than their younger counterparts (Peisah et al., 2009) due to the "lessons learned" in their years of practice, while younger physicians seemed

to encounter high levels of burnout and low levels of job satisfaction (Ozyurt et al., 2006).

Looking at the fifty physicians who provided their age, the well-being scores again range between 4.45 and 8.53 with a mean of 6.36 and standard deviation of 1.04, yielding a coefficient of variance at 16.35%. Therefore, there is not much variance in the well-being score of these physicians to detect significant correlation with age. A larger sample may have provided more definitive results. Likewise, the ages ranged from 28 to 74, with a mean of 49.21 and standard deviation of 10.06, yielding a coefficient of variance at 20.44%. Both variables did not provide large enough variances in the data to detect significant shared differences. Therefore, this may explain why the study failed to detect any significant correlation.

### **Limitations of the Study**

Since the physicians are employed by one of the four Florida Hospitals, it is not certain that they responded to the well-being survey candidly for a number of reasons. 1) The physicians may have felt pressure to respond to the survey items in a socially desirable way, even though confidentiality was assured. 2) There were many reminders to collect data and some physicians may have responded out of the pressure to participate. 3) There was no obvious benefit to the physicians to participate in this study, which may have negatively affected their motivation to complete the survey. Had a larger sample been utilized, significant results may have been evident between overall well-being and the care provider's score, and the patient satisfaction survey.

## Recommendations

I recommend that further research be done on physicians in private practice to compare physicians who are employed by an organization to determine if there is a difference in well-being. This can be done by using a larger samples size and by utilizing a sample of voluntary physician participants without them feeling coerced because of repeated reminders by their employing organization. In addition, instead of measuring physician well-being, it is worth serious consideration to conduct a study using physician engagement as the independent variable.

Looking at each dimension of the PWSAT and their correlations with the variables care provider score, years in practice, and age (variables analyzed in null hypotheses 1, 5, and 6). Two correlation coefficients are worth examining further due to their obtained p-value. More specifically, the obtained correlation between care provider score and psycho-emotional wellbeing dimension ( $r = -.284$ ,  $n = 38$ ) is .084, which can be considered a trend (and may reach significance with a larger sample). The obtained negative correlation suggests that the lower the psycho-emotional well-being score is, the higher the care provider score tends to be. This is an interesting trend that may stem from the typical work habits of physicians. It has often been observed that most physicians tend to display high dedication to their patient care, which may be at the expense of their own emotional well-being and interpersonal relationships (Myers, 2001). Their apparent dedication to patient care appeared to be appreciated by the patients and thus the high provider score.

Additionally, the obtained correlation between age and bio-physical wellbeing dimension ( $r = .243$ ,  $n = 51$ ) is .086, which is a trend, which may result in significance with a larger sample. The positive obtained correlation coefficient implies that the older a physician is the higher is the bio-physical well-being score. This trend may suggest that physicians do pay attention to their physical well-being and therefore the longer they participate in a physically healthy lifestyle the higher is their sense of physical well-being.

### **Implications**

The implications for positive social change are quite important in this study. Positive social change would be ultimately to find ways to increase physician well-being in all aspects. Thus, it is recommended that physician would live a balanced life, focusing on their well-being in the biological, psychological, social, and spiritual aspects. With increased physician well-being, physicians will be focused and clear-minded when treating and creating health plans for their patients. This focus would then decrease their patients' morbidity and mortality rates. This decrease alone would be positive for the patients, their families, the healthcare organizations, the physicians, and the physician's family.

There are no statistically significant findings and therefore no definitive conclusions or implications can be drawn from the results. A larger sample, however, may have found significant results.

## **Conclusion**

In conclusion, it was hoped that this study would help clarify the relationship between physician well-being and patient satisfaction. While it is important to have a physician who is available and focused on seeing a certain number of patients, it is equally important for these physicians to focus on their own health and well-being. In addition, the healthcare organization that employs such physicians will have an increase in satisfied patients. Satisfied patients share with family and friends the kind of healthcare they received increasing the bottom-line of the organization, a decrease in malpractice against the physician and the healthcare organization, and increase in employee satisfaction.

Finding ways to help increase physician well-being will ultimately increase the quality of care and effectiveness of the physician. Patients will have better outcomes; a decrease in morbidity and mortality rates will benefit all parties, and trust in the healthcare system can be restored as person focused. In the effort to maintain a high level of quality from employed physicians, a focus on physician engagement may yield significant results.



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Appendix A: Press Ganey Patient Satisfaction Questionnaire.

SAMPLE

 **A Place for Women**  
FLORIDA HOSPITAL MEDICAL GROUP

## MEDICAL PRACTICE SURVEY

We thank you in advance for completing this questionnaire. When you have finished, please mail it in the enclosed envelope.

Please rate your visit on the following date: **Precode 3**  
Please rate your visit with the following provider: **Precode 4**

### BACKGROUND QUESTIONS

1. If someone other than the patient is completing this survey, please fill in circle:

2. Was this your first visit here? ...  Yes  No

3. How many minutes did you wait after your scheduled appointment time before you were called to an exam room?      minutes

4. How many minutes did you wait in the exam room before you were seen by a doctor, physician assistant (PA), nurse practitioner (NP), or midwife?      minutes

**INSTRUCTIONS:** Please rate the service you received from our practice. Select the response that best describes your experience. If a question does not apply to you, please skip to the next question. Space is provided for you to comment on good or bad things that may have happened to you.

Please use black or blue ink to fill in the circle completely. Example:

### ACCESS

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Ease of getting through to the clinic on the phone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Our helpfulness on the telephone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Our promptness in returning your phone calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Convenience of our office hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Ease of scheduling your appointment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Courtesy of person who scheduled your appointment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Ability to see the care provider of your choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Courtesy of staff in the registration area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience): \_\_\_\_\_

### MOVING THROUGH YOUR VISIT



	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Degree to which you were informed about any delays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Wait time at clinic (from arriving to leaving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Speed of the registration process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Length of wait before going to an exam room	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Waiting time in exam room before being seen by the care provider	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience): \_\_\_\_\_

### NURSE/ASSISTANT

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Friendliness/courtesy of the nurse/assistant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Concern the nurse/assistant showed for your problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience): \_\_\_\_\_

12216316  123456789  continued

SAMPLE

**SAMPLE**

**CARE PROVIDER**

very poor poor fair good very good  
1 2 3 4 5

DURING YOUR VISIT, YOUR CARE WAS PROVIDED PRIMARILY BY A DOCTOR, PHYSICIAN ASSISTANT (PA), NURSE PRACTITIONER (NP), OR MIDWIFE. PLEASE ANSWER THE FOLLOWING QUESTIONS WITH THAT HEALTH CARE PROVIDER IN MIND.

- 1. Friendliness/courtesy of the care provider.....  1  2  3  4  5
- 2. Explanations the care provider gave you about your problem or condition.....  1  2  3  4  5
- 3. Concern the care provider showed for your questions or worries.....  1  2  3  4  5
- 4. Care provider's efforts to include you in decisions about your treatment.....  1  2  3  4  5
- 5. Information the care provider gave you about medications (if any).....  1  2  3  4  5
- 6. Instructions the care provider gave you about follow-up care (if any).....  1  2  3  4  5
- 7. Degree to which care provider talked with you using words you could understand.....  1  2  3  4  5
- 8. Amount of time the care provider spent with you.....  1  2  3  4  5
- 9. Your confidence in this care provider.....  1  2  3  4  5
- 10. Likelihood of your recommending this care provider to others.....  1  2  3  4  5

Comments (describe good or bad experience):

**BILLING PROCESS**

very poor poor fair good very good  
1 2 3 4 5

- 1. Courtesy of insurance/billing personnel.....  1  2  3  4  5
- 2. Clarity of billing statements.....  1  2  3  4  5
- 3. Accuracy of billing statements.....  1  2  3  4  5
- 4. Promptness with which questions or problems about your bill were resolved (if you had any).....  1  2  3  4  5
- 5. Handling of insurance/billing questions.....  1  2  3  4  5

Comments (describe good or bad experience):

**PERSONAL ISSUES**

very poor poor fair good very good  
1 2 3 4 5

- 1. How well staff protected your safety (by washing hands, wearing gloves, etc.).....  1  2  3  4  5
- 2. Our sensitivity to your needs.....  1  2  3  4  5
- 3. Our concern for your privacy.....  1  2  3  4  5
- 4. Cleanliness of our practice.....  1  2  3  4  5
- 5. Likelihood that we greeted you with a smile.....  1  2  3  4  5
- 6. Ease of obtaining referrals for specialty care.....  1  2  3  4  5
- 7. Ease of obtaining test results.....  1  2  3  4  5

Comments (describe good or bad experience):

**OVERALL ASSESSMENT**

very poor poor fair good very good  
1 2 3 4 5

- 1. How well the staff worked together to care for you.....  1  2  3  4  5
- 2. Likelihood of your recommending our practice to others.....  1  2  3  4  5
- 3. Overall rating of the staff's introduction of themselves.....  1  2  3  4  5

Comments (describe good or bad experience):

Patient's Name: (optional)

Telephone Number: (optional)

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**PRESS GANEY**

123456789

**SAMPLE**



## Appendix B: Permission Letters

Permission to Use the PSWAT-40

-----Original Message-----

**From:** Richard J Bogue (RBA) [[rjb@richbogue.com](mailto:rjb@richbogue.com)]

**Sent:** Monday, July 01, 2013 03:16 PM Eastern Standard Time

**To:** Santana, Deanna

**Subject:** RE: Letter

Hello Deanna Santana!

Looking forward to next phases. Meantime, here is my note, which I hope meets your needs:

Adventist Health System Sunbelt, d/b/a/ Florida Hospital, and Richard Bogue & Affiliates have an exclusive distributor agreement covering the Physician Well-Being Self-Assessment (PWSAT). This agreement was duly reviewed by AHS legal and executed by Sy Saliba and Richard Bogue. I service PWSAT through Courageous Healthcare at my discretion. Here are portions of this agreement that seem pertinent to this request. Let me know if you need something different.

## **EXCLUSIVE DISTRIBUTOR AGREEMENT**

THIS AGREEMENT is made this \_\_\_\_\_ day of February 2012, by and between

Adventist Health

System/Sunbelt, Inc. dba Florida Hospital, with its principal place of business located at

601 E Rollins St.,

Orlando, FL (the "Company") and Richard Bogue & Affiliates 1429 E Gore St., Orlando,

FL (the

"Distributor") (Contact: Richard Bogue, 407-895-8626, [rjb@richbogue.com](mailto:rjb@richbogue.com)).

NOW, THEREFORE, in consideration of the promises hereinafter made by the parties

hereto, it is agreed as

follows:

### **ARTICLE I**

#### **APPOINTMENT OF DISTRIBUTORSHIP**

Printable Format [https://my.campuscruiser.com/printable\\_area.html?07010402](https://my.campuscruiser.com/printable_area.html?07010402)

1 of 2 7/2/13 7:44 AM

Section 1. Distribution Right. The Company hereby appoints and grants Distributor the

exclusive and

non-assignable right to license the right to use the following questionnaires of the

Company ("Questionnaires")

and any materials developed therefrom:

a. **Physician Wellness Self-Assessment Tool and its versions** (PWSAT-Students,

PWSAT-Residents, and  
WSAT, for general populations), as in Bogue RJ, Fisak B, Lukman R. (2011). *Becoming, being and excelling as a physician: Physician motivation, satisfaction, wellness and effectiveness*. In B Kirkcaldy, (Ed.), *The Art and Science of Medicine: Guidelines for the human physician*. Göttingen, Germany: Hogrefe Publishing.

Section 5. Ownership. The Company retains ownership of the Questionnaires and the related User's Manuals. It is understood and agreed by the parties that the Company and its affiliates may continue to use the Questionnaires for its and their own internal purposes without any obligation to Distributor. However, Distributor shall not be obligated to provide any support services to Company in connection with the Questionnaires, and any such services provided shall be subject to the execution of a separate services agreement between the parties.

#### **ARTICLE IV**

##### **PROPRIETARY RIGHTS**

Section 2. Copyright Notice. Notice of the Company's copyright of the Questionnaires must be provided in the

User's Manual for each Questionnaire. It is not required that each page of the Questionnaires themselves carry this copyright notice. Authorized legend for notice of copyright for the Questionnaires shall be the following:

**Copyright 2011 by Adventist Health System/Sunbelt, d/b/a Florida Hospital.**

Section 4. Branding Questionnaires. Company hereby authorizes Distributor to use Distributor's branding information, such as insignia or lettering, for marketing, sales and which will be on the Questionnaires and the User's Manuals at the time of the delivery. The insignia and/or lettering used will be determined by Distributor.

**From:** Santana, Deanna [mailto:Deanna.Santana@fhdeland.org]

**Sent:** Monday, July 01, 2013 9:55 AM

**To:** [rjb@richbogue.com](mailto:rjb@richbogue.com)

**Subject:** Letter

Hi Dr. Bogue,

I'm sure you are busy – but the URR at the school wants a letter or the invoice stating that we have

permission to use the PWSAT tool. Is it possible for you to send that over today?

Unfortunately, my e-mail

from you with the invoice is so old that the attachment is not on there to forward to them.

Any help you

could offer would be great. I just don't want to delay. Thanks.

*DeAnna Santana*

*Physician Recruiter*

*Florida Hospital DeLand*

*Florida Hospital Fish Memorial*

*Office: 386-917-5853*

*Fax: 386-917-5855*

*Our Mission: To extend the healing ministry of Christ.*

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2 of 2 7/2/13 7:44 AM

Permission to Use the Press Ganey Patient Satisfaction Survey





**FLORIDA  
HOSPITAL**

Marketing Department  
500 Windsor Place  
Suite 1200  
Orlando, FL 32761  
407-200-2000

June 28, 2013

Re: Deanna Santana

To Whom It May Concern:

As Vice President of Strategic Planning for the Florida Region of Adventist Health System, I have approved Deanna Santana to utilize the results from the Medical Practice Survey provided to our organization by Press Ganey. The appropriate Florida Hospital facility will provide these results to Deanna for her research study.

If you have any questions or need additional information, please feel free to contact me.

Regards,

Belinda Grant  
Vice President  
Strategic Planning  
Florida Region of AHS

Office: 407-200-2615  
Mobile: 407-489-9342  
Fax: 407-200-4994  
Email: [belinda.grant@ahss.org](mailto:belinda.grant@ahss.org)

## Curriculum Vitae

DeAnna Santana-Cebollero, MS

---

**Education** February 2011 – Present Walden University Minneapolis, MN (On-line)  
**In Progress: Doctorate – Organizational Psychology**  
 G.P.A 3.9

August 2008 – Nov. 2010 Walden University Minneapolis, MN (On-line)  
**Degree Obtained: Master of Science in Psychology – Health Psychology**  
 G.P.A. 3.88

March 2007 – August 2007 TechSkills Maitland, FL  
**Certification Obtained: Certified Medical Transcription**

- Awarded for “Above and Beyond”
- Awarded for “Mastering” the program
- G.P.A. 3.8

May 2003 - 2005 Rollins College Winter Park, FL  
**Degree Obtained: Bachelors of Arts - Organizational Behavior / Business Administration**

August 1998 - 2001 Valencia Comm. College Orlando, FL  
**Degree Obtained: Associate of Arts - Business Administration**

**Memberships** June 2010 – Present  
**Psi Chi – The International Honor Society of Psychology**  
 March 2011 – Present  
**Association of Staff Physician Recruiters (Associate)**  
 May 2012 - Present  
**SIOP (Student Member)**

**Professional Experience** October 2012 – Present Adventist Health  
 Team Leader - Adventist Onboarding Program  
 Physician Recruiter Sub-Committee

September 2012 – Present Adventist Health  
 Committee Member - Adventists Onboarding Program

January 2011 – Present Florida Hospital DeLand DeLand, FL  
 Physician Recruiter

February 2008 – January 2011 Florida Hospital Orlando, FL  
Internal Medicine Program Coordinator

January 2008 Freelance Medical Transcription Orlando, FL  
Medical Transcription

May 1996 – January 2008 David Weekley Homes Orlando, FL

- Design Consultant
- Assistant Area Coordinator
- Project Coordinator
- Assistant Division Coordinator
- Summer Intern

**Volunteer**

2005 – February 2013  
Church Clerk and Secretary – Vineyard SDA Company

**Awards**

David Weekley Homes, Team Member of the Year  
Florida Hospital, Role Model, 2009 & 2010

**Relevant Skills**

Proficient in Microsoft Word, Excel, Outlook, Power point, Lotus Notes,  
JD Edwards, SunPort, New Innovations, and Internet Explorer  
Knowledge in Medical Terminology and Anatomy & Physiology  
Responsible and Efficient  
Excellent Listening, Written and Verbal Communication  
Accurate, Thorough and Precise  
Strong Organizational Skills with Attention to Detail  
Strong Research Skills, Analytical and Problem-Solving Skills  
Strong Grammar and Punctuation Skills  
Excel in Customer Satisfaction and Relations  
Sales and Results Oriented