Walden University

College of Management and Technology

This is to certify that the doctoral study by

Kimberly Washburn

has been found to be complete and satisfactory in all respects,
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Walden University
2017

Abstract

Effects of Authentic Leadership Style and Nurse Engagement on Patient Satisfaction

by

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MM/HRM, University of Phoenix, 2012

BA, Colorado State University, 1985

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

October 2017

Abstract

Ineffective leadership and disengaged nurses reduce the quality of care and patient satisfaction in healthcare organizations. Healthcare leaders can benefit from understanding the factors that improve leadership ability and nurse engagement to improve healthcare outcomes. The purpose of this correlational study was to examine the relationship between the demonstration of authentic leadership characteristics and nurse engagement. The study's population comprised acute care registered nurses in a rural hospital in central Washington State. Authentic leadership theory and engagement theory constituted the theoretical framework. Independent variables were the 4 constructs of authentic leadership theory, self-awareness, balanced information processing, relational transparency, and internalized moral perspective; the dependent variable was nurse engagement. Three hundred sixty-nine registered nurses received 2 pen and paper, Likert-type scale surveys, the Authentic Leadership Questionnaire, and Utrecht Worker Engagement Scale- 9 item, to complete for data collection. Data were analyzed using multiple linear regression. There was no relationship between the 4 constructs of authentic leadership and nurse engagement. The coefficient of determination demonstrated only 11% variation in nurse engagement related to the independent variables. Healthcare leaders face significant challenges. With a better understanding of the factors that lead to higher nurse engagement, leaders can increase both nurse and patient satisfaction, leading to better healthcare outcomes.

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Dedication

I dedicate this work to all of the authentic leaders I have known. I dedicate this work to my mother and father, Jane and George, whose love and guidance have supported me throughout my life and this educational journey. I dedicate this work to my Great Aunt Ellen, who passed away during my undergraduate studies, but has always been an inspiration to me because of her focus on living life on her own terms and her true authenticity. I dedicate this work to my beautiful, bold, and audaciously authentic daughter Ellen, who inspired me to return to school for my Masters and has supported me through this long process of finishing this doctoral work. I dedicate this work to my loving and loyal husband, Patrick, who has been by my side throughout this long process. Finally, I dedicate this work to my Lord and Savior Jesus Christ, this work has been to honor Him and his focus on serving others as an authentic, moral, and inspirational leader.

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Section 1: Foundation of the Study

Background of the Problem

Nurses compose the largest group of healthcare professionals in the United States and are on the front-line of care for patients in hospitals (Bargagliotti, 2012). According to Simpson (2009), nurses' work performance and engagement increase the quality of patient care. Additionally, Stimpfel, Sloane, McHugh, and Aiken (2016) asserted better patient outcomes result from nurses working in a supportive environment. According to a Gallup (2005) study of patient outcomes in over 200 hospitals, increased nurse work engagement was a primary predictor of a reduction in patient complication rates and mortality variance among hospitals (as cited in Bargagliotti, 2012). Organizational leaders must demonstrate trust and autonomy to encourage nurse engagement, as these behaviors are congruent with intrinsically held nursing values (Bargagliotti, 2012).

Leaders have a significant role in creating an environment of trust and empowerment. Lewis and Cunningham (2016) described leaders as master influencers of the work environment. Wong and Laschinger (2013) proposed that leaders who demonstrate authenticity draw on their life experiences, psychological capacity, and moral perspective to create an organizational climate that promotes greater self-awareness and positive self-regulated behaviors. Additionally, Wong and Laschinger, and Bamford, Wong, and Laschinger (2013) concluded authentic leadership links to higher worker engagement. For example, Wong and Laschinger conducted research that demonstrated authentic leadership's role in increasing staff nurses' structural empowerment that in turn increased nursing satisfaction and performance. In this study, I

examined the relationship between authentic leadership characteristics, nurse engagement characteristics, and the effects of these on patient satisfaction scores at an acute care hospital in Washington State.

Problem Statement

As a result of the Patient Protection and Affordable Care Act (PPACA; 2010), Medicare payments to healthcare organizations shifted from *volume* to *value* resulting in rewards and incentives to hospitals that meet quality metrics (Dempsey, Reilly, & Buhlman, 2014; Steaban, 2016). Accordingly, 30% of Medicare payments became tied to quality metrics at the end of 2016, increasing to 50% by 2018 (Burwell, 2015). In 2014, the U.S. Government paid out $505B in Medicare payments (Henry J. Kaiser Family Foundation, 2015). Using these numbers, approximately $151.5B tied to quality metrics at the end of 2016, and $252.5B will do so by 2018 (Burwell, 2015). The general business problem is ineffective leadership and disengaged nurses reduce the quality of care and patient satisfaction in healthcare organizations. The specific business problem is health care leaders have limited information about the relationship among authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship among authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. The independent variables were authentic leadership characteristics and nurse engagement characteristics. The dependent variable was patient satisfaction. The target population included nurses in an acute care hospital located in

Washington State. The research results might lead to positive social change by providing health care leaders with information to develop strategies to improve leadership effectiveness, creating higher levels of nurse engagement that results in healthier patients, improved nurse retention, and an increase in referrals to healthcare services. These improvements may benefit society by decreasing medical errors, increasing the speed of patient recovery, and ultimately reducing the cost of healthcare.

Nature of the Study

The strategy selected for the research study was the quantitative method. Quantitative methodology measures and identifies numerical relationships related to business phenomena and analyzes these relationships through descriptive statistics (Bryman, 2016). Data from two instruments used in research studies on employee engagement and authentic leadership indicated whether relationships existed between the variables. The instruments are reliable and valid based on previous research studies as determined by de Bruin and Henn (2013), and Roof (2014). Qualitative study results typically include descriptions of lived experiences or specific phenomena of a small population and thus are difficult to generalize to larger populations (Bryman, 2016). The quantitative method was the best approach because the intent of this study was to analyze the data to generalize findings across the field of leadership effectiveness and nurse engagement in the healthcare industry. Therefore, I did not utilize the qualitative approach in this study. Because mixed methods research includes both quantitative and qualitative elements (Trochim, Donnelly, & Arora, 2016), the mixed methods approach did not apply to the research study as the focus was only quantitative in nature.

A correlational design was an appropriate approach for this study. The purpose of correlational research is to examine the relationship between or among two or more variables to determine if a relationship exists (Bryman, 2016; Trochim et al., 2016). According to Fassinger and Morrow (2013), the purpose of the correlational design is to establish the degree of the relationship between the predictor variables and the dependent variable. Consequently, a correlational design was the most appropriate design for the study, because the purpose of this study was to determine whether relationships existed between the characteristics of the predictor variables (authentic leadership style and nurse engagement) and the dependent variable (patient satisfaction).

Research is limited on the potential relationship between the three variables, so determining causality is premature. Experimental and quasi-experimental designs align with a research aim measuring causality (Bryman, 2016; Trochim et al., 2016). Additionally, controlling or manipulating variables in the field is difficult (Deck & Smith, 2013). Experimental design requires control of the independent variables and is seldom part of field research (Bryman, 2016). The focus of this research was to identify if a linear relationship existed between the characteristics of authentic leadership and nurse engagement and an increase in patient satisfaction scores; therefore, I excluded the experimental and quasi-experimental designs for this study.

Research Question and Hypotheses

The central question that guided the study was the following:

RQ: Does a linear combination of authentic leadership characteristics and nurse engagement characteristics significantly influence patient satisfaction?

H_o: The linear combination of authentic leadership characteristics and nurse engagement characteristics will not significantly influence patient satisfaction.

H_1: The linear combination of authentic leadership characteristics and nurse engagement characteristics will significantly influence patient satisfaction.

Theoretical Framework

Luthans and Avolio first introduced authentic leadership theory in 2003. Other researchers, Walumbwa, Avolio, Gardner, Wernsing, and Peterson, (2008), along with Avolio and Gardner (2005), built upon this initial work to develop the four constructs of authentic leadership theory. These constructs include (a) self-awareness, (b) relational transparency, (c) internalized moral perspective, and (d) balanced processing (Hannah, Avolio, & Walumbwa, 2011). The authentic leadership model captures behaviors not included in other leadership models, which results in a more comprehensive view of leadership (Bamford et al., 2013; Laschinger, Wong, & Grau, 2013). Authentic leadership links to follower ethical and positive social behaviors through moral courage acting as an intervening factor (Hannah et al., 2011).

Authentic leadership relates positively to follower organizational citizenship behavior (Hannah et al., 2011). Organizational citizenship behavior is an important factor in supporting employee engagement in the workplace (Anitha, 2014; Gupta, Argarwal, & Khatri, 2016; Kataria, Rastogi, & Garg, 2013). As applied to this study, authentic leadership theory and its constructs may influence employee engagement and patient satisfaction through the trusting relationships built by the leader demonstrating

authentic leadership; however, the results from this study did not reflect a relationship among the variables.

Kahn (1990) was one of the first researchers to explore the concept of engagement and disengagement within roles performed at work. Kahn performed two qualitative studies to look for the characteristics of personal engagement and disengagement. Schaufeli, Bakker, and Salanova in 2006 expanded upon the work of Kahn to create a more precise definition and outlined the constructs of engagement. An individual demonstrates engagement through an active and positive affiliation with the organization characterized by (a) dedication, (b) absorption, and (c) vigor in the work they perform (Bakker, 2011). Engagement includes both organizational commitment and extra-role performance (Schaufeli, 2015). As applied to this study, the goal was to examine engagement theory and its constructs regarding potential influence on patient satisfaction, because the behaviors demonstrated by an engaged nurse may increase a patient's satisfaction with the care provided by the nurse: however, the results from this study did not reflect a relationship among the variables.

Operational Definitions

Absorption: Absorption is a state of being unable to detach from a job because of immersion in a focused effort to complete a pleasurable task or series of tasks (Ariani, 2013).

Balanced processing: Balanced processing is a relatively unbiased method of processing information not subject to exaggerations, distortions, or denials (Fallatah & Laschinger, 2016).

Dedication: Dedication is a strong enthusiasm and immersion in work expressed in strong pride in the work accomplished (Ariani, 2013).

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey: The HCAHPS survey of patient satisfaction is a survey tool administered by the Centers for Medicare and Medicaid Services (CMS) to measure hospital patient satisfaction scores. The CMS enacted Value-Based Purchasing (VBP) in 2010, offering hospitals incentives for increasing these scores (CMS, 2013).

Internalized moral perspective: Internalized moral perspective refers to behaviors demonstrated by leaders guided by strong internal moral standards and values (Fallatah & Laschinger, 2016).

Relational transparency: Relational transparency refers to the leaders' behaviors that demonstrate the ability to share openly information and personal thoughts and feelings with followers that create positive relationships based on honesty and trust (Fallatah & Laschinger, 2016).

Self-awareness: Self-awareness refers the extent to which leaders demonstrates their understanding of their impact on others and possess knowledge about themselves to raise self-understanding regarding their strengths and values (Fallatah & Laschinger, 2016).

Vigor: Vigor is a demonstration of high energy and lack of fatigue following a prolonged investment in the effort required of a job (Ariani, 2013).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are items the researcher accepts as true and serve as a foundation for the research study (Nkwake, & Morrow, 2016). The first assumption was the study participants would answer the questionnaires honestly, and they represented the beliefs and experiences of the nursing population. The second was the study site organization would support its staff members participating in the research questionnaire process. The final assumption was because the survey instruments are reliable and valid, this study would help to further the academic understanding of the connections between authentic leadership, worker engagement, and patient satisfaction.

Limitations

Limitations include unmanageable risks to the validity of the study (Brutus, Aguinis, & Wassmer, 2013). A couple of potential limitations may have affected this proposed study. The first limitation could be the size of the study site organization. To mitigate this issue, the focus was on ensuring a high participation rate of the study participants who met the criteria for inclusion in the study. The second limitation could have been the location of the study site hospital. The hospital is a large hospital located in a rural setting in central Washington State. The results generated from the responses may not be generalized to hospitals located in large metropolitan areas.

Delimitations

Delimitations are the characteristics that define the boundaries and provide the scope of the research study (Newman, Hitchcock, & Newman, 2015). The scope of this

study included nurses employed at a hospital located in central Washington State. Nurses in the study organization completed a hard copy survey with the items from two survey instruments, the ALQ and UWES-9. Employees other than those in nursing roles did not participate in the study.

Significance of the Study

Health care leaders' challenges include developing engaged leaders and nurses to ensure patient care is of high quality. HCAHPS (2005) survey is the first nationally standardized, publicly reported survey instrument used to measure a patient's perception of care received in the hospital (CMS, 2013). CMS (2013) provides value-based incentive payments to acute care hospitals based on how well they perform on quality measurements, including scores received on the HCAHPS survey. Hospitals are under increased pressure to raise quality scores to maintain profitability (Burwell, 2015).

The findings from this study may help to improve business practices by providing health care leaders with the information to develop strategies to improve leadership effectiveness and staff engagement. Determining if a relationship exists between leaders who demonstrate authentic leadership traits and staff member engagement will provide the health care leader with this information. Bamford et al. (2013) suggested authentic leadership and nurse engagement strongly correlate and are enhanced through the enactment of specific leadership strategies. Some strategies include the implementation of 360-degree feedback systems to increase leader self-awareness, and the design of clear leadership role expectations to include fostering open and honest relationships with staff members (Bamford et al., 2013).

Health care leaders lack the information to develop strategies to improve the workplace environment to support the patient and employee. The findings from this study might lead to positive social change by providing health care leaders with information to develop strategies to improve leadership effectiveness, creating higher levels of nurse engagement that results in healthier patients, improved nurse retention, and an increase in referrals to healthcare services. These improvements may benefit society by decreasing medical errors, increasing the speed of patient recovery, and ultimately reducing the cost of healthcare.

A Review of the Professional and Academic Literature

The purpose of this quantitative correlational study was to examine the relationship between authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. The RQ explored in this study is: Does a linear combination of authentic leadership characteristics and nurse engagement characteristics significantly predict patient satisfaction? I used the four constructs of authentic leadership theory and the three constructs of engagement theory as the independent variables to determine if a relationship existed between them and the dependent variable, patient satisfaction.

The topics included in this literature review are authentic leadership theory and engagement theory, which provided the theoretical framework for this study; the constructs of the two theories; the instruments used to measure the constructs; information about patient satisfaction and the measurement tool; and a critical analysis of the two theories. My strategy for searching the academic and professional literature to

find peer-reviewed articles relevant to the study included conducting searches on the Thoreau database, ScienceDirect, and Google Scholar using the terms *authentic leadership theory*, *engagement*, *work engagement*, *nurse engagement*, and *patient satisfaction*. Additionally, a review of the bibliographies of the articles found through research netted additional articles for inclusion in the literature review. Appendix A includes an overview of references included in the literature review and the study.

This doctoral study includes 126 total sources, with 86 sources included in the literature review. Peer-reviewed sources constitute 110, or 87%, of the sources in the study, and 81 or 94% in the literature review. Doctoral studies must contain 85% references from current sources, defined as a source within 5 years of Chief Academic Officer approval. This study contains 107 current sources or 85%.

Authentic Leadership Theory

As a result of numerous corporate scandals in the early 2000s, corporate stakeholders became less tolerant of inconsistencies between a leader's espoused values and professional conduct. Stakeholders demanded leaders operate with higher levels of integrity, which increased the call for positive forms of leadership (Avolio & Gardner, 2005; Liu, Cutcher, & Grantm 2015; Luthans & Avolio, 2003; Walumbwa, et al., 2008). As a result, theorists developed authentic leadership theory. Authentic leadership theory draws on several fields of research including ethics, leadership, positive psychology, and philosophy (Avolio & Gardner, 2005; Walumbwa et al., 2008). Authentic leadership theory differs from other leadership theories because of its inclusion of an internalized moral perspective as one of its core constructs.

Authentic leadership theory emerged out of positive psychology, and the concept of self-awareness is a critical element of the theory. Carl Rodgers (1959) and Abraham Maslow (1968), two humanistic psychologists, focused their works on the development of self-actualized or fully functioning individuals who are in tune with their nature and can see themselves clearly and accurately (as cited in Avolio & Gardner, 2005). According to Avolio and Gardner (2005), the ability to be in tune with one's nature is critical to the understanding of authenticity as a construct. According to Kernis (2003), authenticity produces optimal levels of self-esteem, which includes the demonstration of an acceptance of one's strengths and weaknesses resulting in an ability to form open, close, and transparent relationships with others. Additionally, Walumbwa et al. (2008) asserted that the authentic leader genuinely desires a greater understanding of their leadership to serve others more effectively. Consequently, the authentic leader can form stronger relationships that support the development of effective teams.

To develop an understanding of authentic leadership theory, a researcher must review the core constructs contained within this theoretical framework. The demonstration of authenticity requires possession of advanced levels of emotional, cognitive, and moral development (Hannah et al., 2011; Walumbwa et al., 2008). Leaders exert significant influence over the lives of their followers; given this influence, the role of ethics lies at the core of authentic leadership (Hannah et al., 2011; Walumbwa et al., 2008). Self-awareness and ethics play a central role in authentic leadership. Authentic leadership is a behavior pattern that encourages and enhances both leader and follower self-development through its four constructs, (a) self-awareness, (b) internalized

moral perspective, (c) balanced information processing, and (d) relational transparency (Walumbwa et al., 2008).

Self-awareness is a core construct of authentic leadership theory and the first competency the authentic leader must develop (Walumbwa et al., 2008). Self-awareness refers to the leader's ability to understand his or her motivations, values, beliefs, ideals, strengths, and weaknesses (Hannah et al., 2011). Self-awareness is an emerging process that changes over time as leaders gain knowledge of their unique strengths as leaders through the relationships with their followers (Avolio & Gardner, 2005). This knowledge enhances the leader's ability to lead and develop followers (Hannah et al., 2011). Leaders who possess self-awareness understand the impact they have on others with whom they interact.

A key difference between authentic leadership theory and other leadership theories is its inclusion of an internalized moral perspective as a core construct. Internalized moral perspective refers to the leader's behaviors being driven by internalized values and moral standards rather than by external pressures from peers, society, or higher-level leaders (Hannah et al., 2011). Leaders who demonstrate an internalized moral perspective act by their stated beliefs and use their core values to drive decision making (Laschinger et al., 2013). The leader also expects others to act according to their own stated values and beliefs when performing job duties and making decisions (Laschinger et al., 2013). As a result, followers report the leader as authentic because of decision-making and actions consistent and congruent with the leader's stated

values (Hannah et al., 2011). Leaders who operate in alignment with their values and moral perspective act ethically.

Organizational leaders must gather information from multiple sources and perspectives to make effective decisions. Balanced information processing, the third construct of authentic leadership theory, involves the leader objectively and openly reviewing and analyzing all relevant information before making a decision (Hannah et al., 2011). The leader will take multiple perspectives under consideration before making decisions and seek out opinions and information that may challenge personal views on the topic under consideration to ensure the decision is bias-free (Bamford et al., 2013; Laschinger et al., 2013). By seeking input from others, the leader can ensure that others involved in the decision-making process understand the ethical nuances involved and engage the followers in the process (Hannah et al., 2011). The engagement of followers in the decision-making process builds trust and ownership of the decision, which ensures successful implementation of the decision.

The final of the four constructs, relational transparency, refers to the leader's ability to connect and relate to others in an open and honest manner. The lLeaders demonstrate relational transparency by being open about what they mean and admit mistakes honestly (Bamford et al., 2013; Laschinger et al., 2013). Relational transparency builds a strong social exchange between followers and leaders through the laying out of clear expectations regarding openness, accountability, and honesty between the two parties (Hannah et al., 2011). Leaders who demonstrate the four constructs

included in authentic leadership develop strong, productive, and engaged followers who produce results in alignment with stated objectives.

Authentic leadership development. When one reviews the components of authentic leadership, a question that arises is, how does one develop these characteristics? Is the authentic leader born or made? In one study, Pues, Wesche, Streicher, Braun, and Frey (2012) suggested before the leader can develop authentic leadership characteristics he or she must possess self-knowledge and self-consistency. Understanding both self-knowledge and self-consistency are antecedents of authentic leadership can help build the foundation for the development of authentic leadership (Peus et al., 2012; Vogelgesang, Leroy, & Avolio, 2013). This research aligns with Rodgers (1959) and Maslow's (1968) focus on the fully functioning individual who clearly understands his or her basic nature and acts in alignment with this understanding (as cited in Avolio & Gardner, 2005).

Authentic leaders demonstrate self-knowledge and self-consistency by behaving in manners that embody their true self (Kernis, 2003; Weischer, Weibler, & Petersen, 2013). The authentic leader is in tune with their emotions and to somatic queues in the body when interacting with the outside world (Weischer et al., 2013). This awareness assists the authentic leader in conveying credibility in interactions with followers and contributes to relational transparency, a key component of authentic leadership (Algera & Lips-Wiersma, 2012; Kernis, 2003; Weischer et al., 2013). An embodiment of the leader's true-self increases a follower's perception of the leader as authentic (Kinnunen, Feldt, & Mauno, 2016; Weischer et al., 2013).

Humility plays a key role in the development of the authentic leader. To gain increased self-knowledge and self-consistency, the authentic leader must be open to feedback that may be negative regarding his or her performance. The authentic leader is open to understanding his or her ambiguities, inconsistencies, and limitations to knowledge; demonstrates humility; and is open to learning and growth (Kernis, 2003; Leroy et al., 2015, Luthans & Avolio, 2003). Authentic leaders who demonstrate humility are more likely to take risks and fail without the fear of labeling himself or herself inauthentic (Leroy et al, 2015). The leader will use this experience to learn and grow as a leader, because without humility, the leader would not be open to exposing his or her vulnerabilities in new situations.

An authentic leader's personal history can impact the leader's ability to develop open and trusting relationships with followers. An individual's developmental history can affect the capacity for developing authentic relationships (Hinosa, McCauley, Randolph-Seng, & Gardner, 2014). The attachment of an infant to his or her primary caregiver would impact the individual's development of interpersonal relationships later in life (Hinosa et al., 2014). Attachment theory provides a lens for understanding the extent to which the leader and follower can form authentic relationships (Hinosa et al., 2014). A securely attached individual believes others are trustworthy, and open to forming relationships (Hinosa et al., 2014).

Authentic leadership effects on followers and work environment. A leader's demonstration of authenticity creates an environment in which followers express themselves more authentically (Dimtrov, 2015; Yagil & Medler-Liraz, 2014). One

construct of authentic leadership, relational transparency, has been demonstrated to increase the follower's feelings of belongingness and psychological ownership (Alok, 2014: Malik & Dhar, 2017). Furthermore, relational transparency increases the follower's self-awareness and authenticity since the environment created is supportive and conducive to these behaviors (Alok, 2014). The authentic leader creates an environment that supports high-quality relationships resulting in higher productivity, performance, and job satisfaction (Azanza, Moriano, & Molero, 2013; Kinnunen et al., 2016; Wong & Laschinger, 2013;).

The authentic leader impacts the development of an open and safe culture by modeling their internalized moral perspective through relational transparency with followers (Hannah et al., 2011). Positive modeling helps the follower to identify with the leader as a person, especially related to the demonstration of ethical behavior and moral courage (Alok, 2014; Hannah et al., 2011; Kinnunen et al., 2016). Followers report high levels of job satisfaction, and organizational commitment when both the follower and leader's levels of moral reasoning are congruent (Hannah et al., 2011; Walumbwa, Hartnell, & Misati, 2017). Leaders can influence the ways followers' process and react to ethical dilemmas, and encourage deeper and broader thinking about ethical issues (Hannah et al., 2011). The extent to which followers perceive the leader as ethical increases organizational commitment, job satisfaction, organizational citizenship behavior, voice, and the propensity to report issues (Hannah et al., 2011). Morality is integral to authentic leadership (Alok, 2014).

The authentic leader encourages followers to question decisions and creates an environment where the follower feels a sense of belonging (Alok, 2014). Authentic leadership significantly impacts trust, especially through consistency between words and actions of the leader (Wang & Hsieh, 2013). Authentic leaders enhance his or her authentic character through investing in the development of genuine and open relationships with followers (Cerne, Dimovski, Maric, Penger, & Skerlavaj, 2014). The importance of the leader-follower relationship is critical to authentic leadership, as it is a collective product created by leader-follower interaction (Cerne et al., 2014). Authentic leadership is integral to a dyadic relationship, resulting in high levels of employee satisfaction in congruence with the follower's perception of high levels of leader authenticity (Cerne et al., 2014; Kinnunen et al., 2016).

The authentic leader must demonstrate high levels of transparency and disclosure to promote the development of value congruence between the leader and follower to enhance trust within the relationship (Erkurtlu & Chafra, 2013). Trust is an important component in the development of behaviors and attitudes that support increased organizational commitment, organizational citizenship behaviors, and job satisfaction (Erkurtlu & Chafra, 2013; Pues et al., 2012; Walumbwa et al., 2017). As the follower increases their identification with the organization, this connection reduces the propensity for the follower to engage in behaviors that are counter-productive to the organization (Erkurtlu & Chafra, 2013). Trust is a binding force that links people and supports results (Wang & Hsieh, 2013). Trust is critical to the growth and development of relationships. A trusting connection between the leader and nurse supports organizational outcomes.

Authentic leaders increase follower's perceptions of authenticity by openly sharing his or her life stories (Weischer et al., 2013). The leader's sharing of life stories conveys personal values and convictions to the follower and demonstrates the leader's thought and decision-making process to the follower (Weischer et al., 2013). The leader demonstrates vulnerability and weakness by sharing sensitive personal information with followers, which increases the follower's perception of leader authenticity (Kinnunen et al., 2016; Weischer et al., 2013). Authentic leaders enhance the relationship with followers through the use of personal stories, as these stories create stronger connections between the leader and follower.

The demonstration of authentic leadership by the leader supports the development of increased employee psychological capital (PsyCap) and creativity in the workplace (Malik & Dhar, 2017; Rego, Sousa, Marques, & Pina e Cunha, 2012). Furthermore, the authentic leader facilitates an environment in which followers are encouraged to share ideas openly which yield more effective communication and decision-making and promotes innovation (Pues et al., 2012). This open and flexible environment promotes creativity and innovation that results in increased follower PsyCap, optimism, hope, resilience, and self-efficacy (Laschinger & Fida, 2014; Rego et al., 2012). The authentic leader creates an open and flexible environment through the enactment of relational transparency and balanced information processing.

A follower will perceive a leader as effective if the leader demonstrates behaviors that are in alignment with the follower's implicit leadership theory (Nichols & Erakovich, 2013). An individual's implicit leadership theory includes their beliefs regarding

leadership behavior and expectations of the leader (Nichols & Erakovich, 2013). Whether the follower perceives the leader as authentic is determined by the follower's implicit leadership theory. The authentic leader must ensure they understand the needs of the follower and the follower's expectations of the leader. Effective leadership can only occur when there is a strong and productive relationship between the leader and follower.

Authentic leadership and the healthcare work environment. Authentic leadership theory aligns with the core nursing values within a healthcare organization. According to the American Association of Critical Care Nurses, demonstration of authentic leadership by nursing and healthcare managers aligns with the five core values of nursing: a) human dignity, b) integrity, c) autonomy, d) altruism, and e) social justice (as cited in Nelson et al., 2014). Patients must trust the information that nurses and other healthcare workers provide to ensure the patient can make the best decisions for his or her care. The role of ethics within the healthcare environment is critical to the successful operation of a hospital. All of these core values align with the authentic leadership core construct of internalized moral perspective.

Ethical decision-making is a core element of the nurse's job. The nurse must operate in a manner that maintains high ethical standards. Shapira-Lishchinsky (2014) found the role of ethics and ethical conduct in the nursing profession directly affects the quality of care provided to the patient. Most ethical decisions made by a nurse relate to professional standards, patient care, and duty to report (Shapira-Lishchinsky, 2014). The core constructs of authentic leadership support the nurse and nurse manager in performing his or her duties in a productive, open, and ethical manner (Fallatah &

Laschinger, 2016; Shapira-Lishchinsky, 2014). Nurses and leaders who demonstrate integrity are more successful over time than those who do not demonstrate integrity (Laschinger et al., 2013).

The authentic leader's demonstration of self-awareness and decision-making based upon balanced processing facilitates the creation of an environment that increases the nurses' ability to do his or her best work. These behaviors increase the development of structural empowerment in the workplace. Structural empowerment is the development of social structures that facilitate nurses' access to information, training, resources, and development opportunities that assist in taking care of the patient (Wong & Laschinger, 2012). Huddleston (2014) builds upon Wong and Laschinger's (2012) point about leaders providing structural empowerment to the nurse work environment to build nurse autonomy, self-efficacy, and organizational commitment. The leader plays a significant role in developing an organizational climate supportive of the nurse and their ability to provide excellent care to the patient.

Structural empowerment is a cornerstone of a healthy work environment within the healthcare facility. Authentic leadership plays a critical role in the development of an empowering and healthy work environment (Fallatah & Laschinger, 2016; Huddleston, 2014; Laschinger et al., 2013). In 2005, the American Association of Critical Care Nurses developed six standards for establishing and supporting a healthy work environment (Huddleston, 2014). These six standards include (a) skilled communication, (b) collaboration, (c) effective decision-making, (d) appropriate staffing, (e) meaningful recognition, and (f) authentic leadership (AACCN, 2005, as cited in Huddleston, 2014).

All of these standards provide a strong structure to support providing high-quality patient care. As a result, healthy work environments support fewer patients with adverse events, better patient outcomes, and shorter lengths of stay (Pelletier & Stichler, 2014).

Measurement of variables. For this study, I will be using the Authentic Leadership Questionnaire (ALQ) developed by Avolio, Gardner, and Walumbwa in 2007. The researchers developed items for the ALQ using deductive and inductive approaches assessing how leaders exhibit authentic leadership in the workplace (Walumbwa et al., 2008). Originally five characteristics were core constructs of the theory. However, Walumbwa et al. combined two original constructs, internalized regulation processes and authentic behavior, to create internalized moral perspective. Researchers tested validity and reliability of the ALQ in three studies using populations of university students in the United States, manufacturing employees in China and the United States, and various multinational employees of organizations based in Kenya (Walumbwa et al., 2008). The results of these initial studies provided evidence to support the ALQ's reliability and validity across three cultural settings (Walumbwa et al., 2008). Roof (2014) conducted a review of the literature and found good Cronbach alpha values across a variety of study populations, which provided consistent and broad support for reliability characteristics.

Of the 30 articles included in this section related to authentic leadership, 15 studies use the ALQ as a measurement instrument. The participants in these studies include university employees in Portugal and Turkey (Erkutlu & Chafra, 2013; Rego, Vitoria, Magalhaes, Riberio, & Pina e Cunha, 2013), public school employees in Portugal

(Seco & Lopes, 2013), nurses in Canada (Laschinger et al., 2013; Nelson et al., 2014; Wong & Laschinger, 2013), commerce employees in Germany (Pues et al., 2012), members of the military in the United States (Hannah et al., 2011), employees of private firms in Spain (Azanza, et al., 2013), commerce employees in Portugal (Rego et al., 2012), manufacturing employees in Taiwan (Wang & Hsieh, 2013), commerce employees in Israel (Yagil & Medler-Liraz, 2014), and professional employees in India (Alok, 2014). The ALQ has been used widely in numerous countries with varied types of employees and organizations.

In my review of the research, there is another instrument that measures authentic leadership, the authentic leadership inventory (ALI) created by Neider and Schriesheim in 2011. This instrument seems to have good validity and reliability based on the researchers testing. However, there was only one other study that used the ALI in measuring authentic leadership. Because use of this instrument is limited, I eliminated the ALI from consideration for use in the study, and chose the ALQ because of its extensive use in previous research.

Critical analysis of authentic leadership theory. Numerous contrasting views exist regarding the effectiveness of authentic leadership within organizations. Several themes emerged from the literature including leader identity struggles with authenticity, follower engagement, and organizational support. The leader struggles with the concept and ideals of authenticity because of their conception of the meaning of authenticity (Nyberg & Sveningsson, 2014). These conceptions could conflict with the organizational leadership norms and demands, which creates conflict within the leader as they try to

resolve this conflict. Algera and Lips-Wiersma (2012) asserted that authentic leadership is a utopian view of leadership. Through the lens of existentialism, authentic leadership does not address the inevitability of inauthenticity, which is a natural state (Algera & Lips-Wiersma, 2012). Because authentic leadership theory stems from positive psychology, the theory does not include the role of inauthenticity and the struggles a leader deals with as a result of this focus solely on the positive aspects of authenticity (Algera & Lips-Wiersma, 2012). While many examples exist of positive results of authentic leadership in the literature, little research exists to demonstrate the long-term effects of authentic leadership in organizations.

Authentic leadership theory focuses on the leader and their development of the four characteristics self-awareness, internalized moral perspective, balanced processing, and relational transparency. From the perspective of existentialism, authentic leadership lives within the individual leader and is an individual process of finding the meaning of one's existence and accepting responsibility for one's life (Algera & Lips-Wiersma, 2012). Because of the individual nature of authenticity, followers do not need the leader to influence the development of authenticity within, as the capacity to develop this is already within the individual follower (Algera & Lips-Wiersma, 2012). Authentic leadership theory fails to take into account the power differential between the leader and the follower, which influences the follower to do what the leader demands. Follower and leader values and goals cannot be assumed to align, which creates unrealistic expectations between leaders and followers resulting in inauthenticity (Algera & Lips-

Wiersma, 2012). Additional research must focus on the relational aspects of authentic leadership and take into account the dyadic nature of the leader / follower dynamic.

While the leader has a key role in the development of the culture of the workplace, he or she is not the only player in the design of the culture and norms of the organization. Stakeholders and other leaders in the organization may not be supportive of the principles and ideals of authentic leadership theory. Some research highlighted the obstacles that organizational culture placed in the way of the leader being truly authentic and effective (Nyberg & Sveningsson, 2014; Seco & Lopes, 2013). Organizational complexities can obstruct and contradict authentic leadership ideals (Nyberg & Sveningsson, 2014). For authentic leadership to be supported by the organizational culture, leaders and stakeholders must align, and agree to engage the principles of authentic leadership within the organization. This alignment may help to minimize the conflict between key organizational players if all move in the same direction and focused on the same vision.

Engagement Theory

Engagement theory is a useful concept to consider when determining the motivation behind an employee's commitment to a job and an organization. Engagement theory has its roots in social exchange theory, but Kahn (1990) expanded and clarified the concept of engagement. From Kahn's perspective an individual harnesses his or her cognitive, emotional, and physical self during role performances, and engages or disengages from work depending upon the task's meaningfulness and the safety of the work environment. Engagement is the boundary between who the individual is and the

roles occupied by the individual (Kahn, 1990). The individual will jump into a role with his or her whole self if the task and the environment are supportive of the psychological needs and safety of the individual (Kahn, 1990). Engagement theory explains the mechanisms at play to the individual who demonstrates full involvement in the performance of a work role (Bakker, 2011; Schaufeli, et al., 2006).

Researchers expanded upon Kahn's original work to develop a more refined definition of engagement and a tool to measure engagement within individuals. An individual demonstrates engagement through an active and positive affiliation with the organization characterized by (a) dedication, (b) absorption, and (c) vigor in the work performed (Bakker, 2011; Schaufeli et al., 2006). The three characteristics Kahn described as necessary components to engagement, (a) meaningfulness, (b) availability, and (c) safety, align with the emotional, cognitive, and behavioral components of Bakker's definition (Bakker, 2011; Kahn, 1990). Both Kahn and Bakker's research studies to describe and measure employee engagement created a framework for researchers to study engagement within the workplace.

While Kahn (1990) and Bakker (2011) approached the definition and elements of engagement differently, all elements align regarding emotional, cognitive, and behavioral components. From the review of the literature, meaningfulness related to dedication as emotional elements; availability aligns with absorption as cognitive elements, and safety maps to vigor as behavioral elements of the engagement definitions. Meaningfulness relates to work aspects that act as incentives or disincentives to fully engage in the work (Kahn, 1990), just as dedication relates to strong immersion in the work that elicits pride

(Ariani, 2013); both are emotional elements. Availability relates to some distractions or preoccupations a person possesses while performing work (Kahn, 1990), while absorption relates to immersion in the work (Ariani, 2013), both are cognitive elements. Safety involves the social structures that create predictability (Kahn, 1990), furthermore vigor refers to the investment of effort in the work (Ariani, 2013); both are behavioral elements. Aligning the two definitions with the emotional, cognitive, and behavioral elements demonstrates the complexity and completeness of the components of engagement.

Development of work engagement. Several qualities are antecedents to engagement. These qualities include psychological empowerment (Quinones, Van den Broeck, & De Witte, 2013), authentic functioning (Leroy, Anseel, Dimitrova, & Sels, 2013), and job resources (Bakker & Demerouti, 2007). Psychological empowerment is a motivational concept that encompasses four dimensions including competence, choice, meaning, and impact, considered a personal resource (Quinones et al., 2013). Jobs that include the worker's ability to use autonomy in carrying out tasks fosters psychological empowerment, resulting in higher engagement (Quinones et al., 2013). Psychological empowerment is an important element in creating work engagement.

Authentic functioning is an additional antecedent to work engagement. Authentic functioning relates to how one interacts with others and oneself in an open, direct, and non-defensive manner (Leroy et al., 2013). The individual who acknowledges, embraces, and expresses the true self can deal with relational demands and become more autonomous internalizing external role demands (Leroy et al., 2013). From this

perspective, the authentic functioning individual understands who they are and what fuels them, so can fully engage in the work based on their needs and wants.

Job resources are an important element for successful job performance and having access to them is an antecedent to work engagement. Job resources are physical, organizational, and social aspects of a job and include items such as job control, feedback, and social support (Schaufeli & Taris, 2014). Furthermore, job resources support both the extrinsic and intrinsic motivational process (Schaufeli & Taris, 2014). Job resources provide extrinsic motivation for fostering the willingness to expend compensatory effort towards work goals (Schaufeli & Taris, 2014; Tims, Bakker, & Derks, 2013). The intrinsic motivational role job resources play include the satisfaction of needs including relatedness, competence, and autonomy (Schaufeli & Taris, 2014). Worker engagement occurs when resources are high in the workplace (Bakker & Demerouti, 2007). An employee's possession of job resources supports and enhances engagement within the job and the organization.

The social and structural elements are important components of job design in organizations. Job demands and resources are pieces of the both the social and structural elements of the organization. Job demands relate to the aspects of the job that involve physical or psychological effort or skills (Bakker & Demerouti, 2007) and include such things as complexity, performance demands, responsibility, risks and hazards, time pressure, and working conditions (Schaufeli & Taris, 2014; Tims et al., 2013). The job demands- resources (JD-R) model illustrates the potential effects that both job demands and job resources have on the individual (Bakker & Demerouti, 2007). The JD-R model

is motivational in nature, as it describes the process that can balance the interaction between demands and resources (Bakker & Demerouti, 2007). While demands are not inherently negative, they can turn into stressors, to ensure that resources play an important role in balancing out demands (Bakker & Demerouti, 2007). All of the above play an essential role in the development of work engagement in the organization, which supports many critical outcomes important to organizational success and sustainability.

Several research studies highlight the powerful relationship between the JD-R model and work engagement. Work engagement positively associates with several personality-based resources including autonomy, self-esteem, self-efficacy, and conscientiousness (Airila et al., 2014; Bakker 2011; Seppala et al., 2015). Personality-based resources reciprocally and positively relate to an individual's organizational commitment, job performance, workability, and perception of working conditions (Airila et al., 2014; Seppala et al., 2015). An engaged individual will demonstrate an ability to control and impact his or her work environment, which predicts motivation, job performance and satisfaction (Bakker, 2011). Personal resources are an important component in contributing to worker engagement.

Effects of work engagement in the work environment. Work engagement is a distinctive concept and encompasses an active focus when considering other behaviors within the workplace. Work engagement elicits alertness, excitement, elation, and enthusiasm, whereas job satisfaction focuses on calmness, serenity, relaxation, and contentment (Schaufeli, 2012). Work engagement is the positive antithesis to burnout (Schaufeli, 2012; Schaufeli, 2015). Work engagement supports the development of

prosocial behaviors that increase an employee's organizational commitment, reduce intention to quit, and increase organizational citizenship behaviors (Keyko, 2014). The engaged worker embodies emotional attachment to the organization that results in a strong commitment to the workplace and the work.

Strong worker engagement results in some positive organizational outcomes including increased workability, worker self-management and resourcefulness, and job performance. Workability refers to the ability of the worker to meet job demands (Airila et al., 2014). Work engagement promotes workability through the moderation of psychological resources and job demands (Airila et al., 2014), which is especially important in physically demanding jobs. A worker's demonstration of self-management supports the increase of personal initiative, job resources, resourcefulness, and extra-role performance by the engaged worker (Breevaart, Bakker & Demerouti, 2014; Dasgupta, 2016). Building social systems to support work engagement increases the engaged employee's energetic involvement with work, which supports increased job performance and satisfaction (Simbula & Guglielmi, 2013). The interplay of job demands and resources in the work environment play a key role in support of the worker engaging in the job and organization.

An employee satisfied with the work they perform includes a higher commitment to the organization, as well as providing excellent service to customers. Work engagement has a significant positive influence on an employee's job satisfaction, and the employee reciprocates by providing enhanced job performance and strong organizational commitment (Biswas & Bhatnagar, 2013; Simbula & Guglielmi, 2013).

Engagement supports the demonstration of proactive behaviors, and positive emotions, which help build service climate within the environment (Bakker et al., 2012). Worker engagement supports increased job performance, customer service, and organizational commitment.

An engaged employee's commitment to the organization brings with it numerous benefits. The engaged worker experiences not only job satisfaction but personal fulfillment that provides positive organizational outcomes including increased effectiveness (Kataria et al., 2013). Engaged employees bring dedication, enthusiasm, and involvement to invest the whole self in fulfilling organizational goals, which enables the organization to produce better quality goods and services with an adaptable and flexible workforce (Kataria et al., 2013). Organizational citizenship behavior is a supportive behavior demonstrated by the engaged worker, which supports and improves the functioning of the organization (Dasgupta, 2016; Keyko, 2014). Employee engagement is one of the most important determinants of the employee's overall contribution to the organization (Keyko, 2014). The impacts of employee engagement in the organization are numerous and positive; engagement supports organizational effectiveness.

The engaged worker is resourceful and creative in designing a role he or she can excel through the process of job crafting. Job crafting is a self-initiated process the engaged worker performs to change the demands and resources of the job to create an optimal work environment (Tims, Bakker, & Derks, 2015). The engaged worker is not a passive recipient of the work environment and will engage in this bottom-up behavior to

create a more optimal person-job fit (Lu, Wang, Lu, Du, & Bakker, 2014; Tims et al., 2015). Furthermore, the engaged worker mobilizes resources to ensure more challenging demands are part of the work, which further enhances the worker's engagement (Tims et al., 2013). Additionally, engagement is an indicator of ability to successfully adapt to change, which is an essential behavior in constantly changing environments (Schaufeli, 2015). Providing an environment where the engaged worker can thrive is an important responsibility of the leader.

While much of whether the employee is engaged in the work relies on the individual, the leader does play a significant role in creating an environment supportive of the engaged worker. The leader who demonstrates behavioral integrity through the use of communication transparency increases worker engagement (Vogelgesang et al., 2013). Additionally, the leader who supports, encourages, and facilitates participative decision-making provides an empowering environment resulting in employees demonstrating autonomy and increased engagement in the work (Schaufeli, 2015). Leaders build the social support system and define and shape the work environment to ensure workers can fully engage in the work (Breevaart et al., 2014). Furthermore, the leader must possess the right abilities to build engagement in the workplace, as the leader with the wrong abilities will decrease engagement in the workplace (Leary et al., 2013). The leader plays an important and significant role in developing an environment supportive of worker engagement.

Work engagement and the healthcare work environment. Nurses play an important role in the healthcare system. Accordingly, nurse engagement is a critical issue

to the effective functioning of the system. Nurse managers have a unique role in creating and supporting a work environment that builds both their engagement and that of those nurses they manage. An organizational culture that supports managers and employees developing strong interpersonal relationships built on trust, integrity and ethical principles provides an environment in which engagement can grow (Bamford et al., 2013; Keyko, 2014). Nurse managers who display integrity and act in alignment with their moral principles support the development of higher nurse engagement which results in better patient outcomes, including safer and higher quality patient care (Bamford et al., 2013). Bamford et al. (2013) demonstrated a strong relationship between nurse manager's internalized moral perspective, a component of authentic leadership, and nurse work engagement. A nurse manager who demonstrates authentic leadership behaviors not only increases nurse engagement, but also increases nurse job satisfaction, nurse retention, and promotes better patient outcomes (Bamford et al., 2013; Van Bogaert et al., 2017). The nurse manager has a significant influence on the development of a culture and environment supportive of nurse engagement.

An individual enters the nursing field typically because of a need to be of service to help and care for others. A focus on service climate and quality are important in the development of healthcare organization practices focused on patient-centered care (PCC) (Pelletier & Stichler, 2014). A focus on PCC contributes to key organizational outcomes, including patient satisfaction, organizational efficiencies, and reduction in healthcare delivery costs (Pelletier & Stichler, 2014). A program focused on increasing patient safety and care in the United Kingdom called Productive Ward demonstrated the link

between nurse engagement and improvements in healthcare delivery (White, Wells, & Butterworth, 2014). An engaged nurse is an important element in improving healthcare delivery.

Organizational managers and nurse managers have a role in creating a supportive nurse practice environment. The nurse practice environment consists of the relationships between the nurse and physician, organizational managers, nurse managers, and organizational support structures (Dasgupta, 2016; Van Bogaert et al., 2014). Nursing teams affect nurse-sensitive patient outcomes related to safety and quality. Nurse manager effectiveness and a supportive organizational culture predict nurse job satisfaction and favorable quality of patient care (Van Bogaert et al., 2014). Nurse burnout, the antithesis of work engagement, results in unfavorable patient outcomes (Kirwan, Matthews, & Scott, 2013; Van Bogaert et al., 2014). Organizational characteristics can constrain or support the nurse practice environment that will either result in nurse burnout or nurse engagement.

Creating an organization supportive of nurse engagement is strategically important to healthcare managers and leaders. Two organizational characteristics emerge as being most critical to supporting nurse engagement, trust, and autonomy (Bargagliotti, 2012). The nurse must be free to decide autonomously several aspects of patient care including time, task, technique, and team (Bargagliotti, 2012). Trust is a fundamental expectation in a healthcare environment because of the ethical and legal implications of the work (Bargagliotti, 2012). A nurse who trusts the organizational context in which he or she practices is freed up intellectually to focus on the work instead of worrying about

protecting him or herself from poor decisions of others (Bargagliotti, 2012). The nurse can fully engage in the work of patient care in a trusting environment that supports autonomy.

When organizational leaders build an environment supportive of nurse engagement the JD-R model is another important factor to consider. The emotional demands of the nursing job act as a challenge demand for the nurse, while time pressure and workload act as hindrance demands (Bakker & Sanz-Vergel, 2013; van Mol, Nijkamp, Bakker, Schaufeli, & Kompanje, 2017). Bakker and Sanz-Vergel (2013) determined that challenge demands have a positive relationship to nurse work engagement; however, hindrance demands undermine quality patient care. Several personal resources have a positive relationship to nurse work engagement including self-esteem, self-efficacy, regulation of emotions, and locus of control (Bakker & Sanz-Vergel, 2013). Additionally, nurses felt more engaged when both personal resources and challenge demands were high (Bakker & Sanz-Vergel, 2013). Many factors are required to build a strong organizational culture supportive of nurse engagement.

Measurement of variables. For this study, I will be using the Utrecht Worker Engagement Scale, nine-items (UWES-9) developed by Schaufeli, Bakker, and Salanova, an amended version of the original UWES 17-item scale developed by Schaufeli, Martinez, Pinto, Salanova, and Bakker in 2002. Originally, the UWES had 24 items measuring the three dimensions of engagement, vigor, dedication, and absorption. However, seven items were unsound and eliminated from the survey (Schaufeli et al., 2006). Currently, the UWES contains nine items including three per dimension

(Schaufeli, et al., 2006). Factor correlations between the three dimensions were very high prompting Schaufeli to recommend an interpretation of the total work engagement score versus separating out the three subscales (de Bruin & Henn, 2013). According to de Bruin and Henn (2013), vigor, dedication, and absorption lack discriminant validity. Consequently, the variables should not be separated and the construct used as a whole. Because of its construct validity and its use in numerous studies in various occupations and industries, included in the study is the UWES-9 scale.

Forty of the articles reviewed related to work engagement, 18 studies use the UWES-9 as a measurement instrument. The participants in these studies include information technology workers in India (Kataria et al., 2013), teachers in Italy (Simbula & Guglielmi, 2013), firefighters in Finland (Airila et al., 2014), nurses in The Netherlands, Canada, and China (Bamford et al., 2013; Breevaart et al., 2014), dentists in Finland (Seppala et al., 2015), hospital employees in Chile (Quinones et al., 2013), chemical plant employees in The Netherlands (Tims et al., 2013; Tims et al., 2015), high technology employees in China (Lu et al., 2014), nurses and nurse managers in Belgium (Van Bogaert, 2017), and managers in Finland (Makikangas, Feldt, Kinnunen, & Tolvanen, 2012; Makikangas, Schaufeli, Tolvanen, & Feldt, 2013). The use of the UWES-9 has been widespread in numerous countries with varied types of employees and organizations. The UWES-9 will be used in this study because the use of the UWES-9 has been widespread regarding locations and types of occupations, the construct validity is good, and studies have highlighted that participants with different occupations have

interpreted the items and scales similarly (Seppala et al., 2009). I will be using work engagement as a whole construct versus separating out by its three dimensions.

Critical analysis of engagement theory. Two psychological states have been compared and contrasted to work engagement in the literature, burnout, and workaholism. Originally work engagement was the antithesis of burnout. Work engagement and burnout share two similar dimensions, energy and identification (Makikangas et al., 2012). Energy relative to engagement relates to vigor and with burnout, it relates to exhaustion (Makikangas et al., 2012; Taris, Ybema, & van Beek, 2017). Identification regards an individual's attachment to the organization and shows up as dedication with engagement; alternatively, burnout reflects as cynicism (Makikangas et al., 2012). Makikangas et al. (2012) found that the absence of burnout symptoms does not indicate an engaged individual, as both are distinct constructs. Identification is a vital component of feeling connected to work and demonstrating engagement or feeling disconnected and burned-out.

Workaholism is a unique and distinct concept in relation to burnout and engagement. Workaholism is distinguished by the tendency of the individual to work excessively hard and compulsively while demonstrating obsessiveness towards work (Makikangas et al., 2013). High pleasure and activation in work characterize engagement. Alternatively, high displeasure and activation characterize workaholism (Makikangas et al., 2013). Based upon Makikangas et al. (2013) study findings engagement and workaholism are empirically different and uncorrelated constructs (2013). van Beek, Taris, Schaufeli, and Brenninkmeijer (2013), found workaholism

relates with high levels of introjected regulation, while engagement relates with high levels of intrinsic regulation, and burnout relates to low levels of intrinsic regulation. Workaholics focus on external motivation and engage in work for instrumental value, whereas the engaged worker's focus is on the genuine satisfaction of working hard because work satisfies innate needs (van Beek et al., 2013). Workaholism and burnout are distinctly different from engagement and are unique concepts.

Employee well-being is an important indicator of workplace culture. All three psychological states predict individual well-being within the workplace both positively and negatively (Schaufeli, 2015). Workaholism and burnout create many negative health effects including increased stress, health complaints, negative self-worth, and exhaustion (van Beek et al., 2013). Alternatively, engagement increases an individual's satisfaction, promotes positive well-being, and increases commitment and performance (van Beek et al., 2013). The effects of an engaged workforce enhance workplace culture.

Some disagreement exists in the literature whether engagement and burnout are distinct concepts. In a review of the literature, Saks and Gruman (2014) study findings suggest that measuring engagement using the UWES-9 overlaps significantly with the burnout measurement tool, Maslach Burnout Inventory (MBI). When Maslach, Jackson, and Leiter (1996) first studied burnout, they concluded that engagement was at the opposite end of a common continuum with burnout (Saks & Gruman, 2014). However, Schaufeli and his colleagues disagreed with the idea that engagement and burnout were on a common continuum and created a unique definition and the UWES to measure engagement (Saks & Gruman, 2014). Saks & Gruman (2014) contended that because of

the overlap and similarities in the definitions of burnout and engagement, further research should be conducted that focuses on Kahn's original definition of engagement as it is distinctly different from burnout. While knowing potential challenges with using the UWES-9 for the study is important, I used the UWES-9, as other researchers found it to be reliable and valid.

Patient Satisfaction

Patient satisfaction is an increasingly important area of focus for healthcare leaders as a result of the PPACA of 2010 which instituted financial incentives for those organizations who improve performance in clinical outcomes and patient experience. A component of the PPACA works to shift the focus from volume to value. CMS instituted a program called vVBP that provides incentive payments to healthcare facilities based upon performance on specific quality measures, including patient satisfaction (Dupree, Neimeyer, & McHugh, 2014). Beginning with the fiscal year 2013 (10/1/2012-9/31/13), inpatient prospective payment systems (PPS) hospitals experienced a 1% reduction in reimbursements from CMS to create an incentive pool for the VBP program, estimated to create $850 million dollars (Dupree et al., 2014). This reduction in payments to PPS hospitals will increase .25% per year until the amount reaches 2% in 2017, which will be the maximum amount withheld for the incentive pool (Aroh, Colella, Douglas, & Eddings, 2015). Healthcare reform remains in the transition towards creating higher quality and reducing costs in the healthcare system.

Medicare and Medicaid cover over 100 million Americans (CMS, 2016) which is managed by CMS. Therefore, the organization has incredible leverage to affect change

in the healthcare system. The focus of PPACA is to increase access to, and quality of healthcare in the United States and its goals are to incentivize coordination and quality of healthcare delivery, increase information for clinical decision-making and provide tools to consumers and providers to make decisions regarding value (Aroh et al., 2015; Mkanta, Katta, Basireddy, English, & deGrubb, 2016). Under the VBP program, incentive payments rely on total performance score (TPS) that includes two components, clinical process of care (70%), and patient experience (30%) (Burwell, 2015). Two of the factors taken into consideration in clinical processes of care are a reduction of hospital-acquired conditions, and re-admissions that result from preventable complications within a short-time frame of discharge from the hospital facility (Aroh et al., 2015). The HCAHPS survey measures patient experience, which is 30% of the TPS. HCAHPS survey results are available on the hospitalcompare.gov website.

Measurement of patient satisfaction in the healthcare facility. Organizations in most industries solicit input from customers to ensure the services or products offered meet the needs of the client, healthcare organizations are no exception. CMS developed the HCAHPS survey to ensure standardization in the measurement of inpatient care resulting in the ability to make cross-industry comparisons in service quality (Westbrook, Babakus, & Grant, 2014). The HCAHPS survey contains eight domains including, (a) communication with nurses, (b) communication with doctors, (c) staff responsiveness, (d) pain management, (e) communication about medications, (f) discharge instructions, (g) cleanliness and/or quietness of the facility, and (h) overall rating of the hospital and willingness to recommend hospital to family or friends (Iannuzzi et al., 2015). Hospital

staff members conduct the HCAHPS survey with patients that have been discharged from the hospital following a minimum of a one-night stay and includes patients from medical, surgical and maternity wards (CMS, 2015). Posted quarterly, HCAHPS survey scores are located on the Hospital Compare website and individuals can use this information to compare facilities in the region and make informed decisions regarding where to seek care.

Nurse communication is an important element of patient satisfaction and is one of the areas measured in the HCAHPS survey. Three questions on the HCAHPS survey specifically relate to nurse communication including how often did nurses treat you with respect and courtesy, how often did nurses listen carefully to you, and how often did nurses explain things in a way you could understand (Kennedy, Craig, Wetsel, Reimels, & Wright, 2013). Several studies indicate nurse communication measurements is the variable most highly correlated with overall hospital rating, and likelihood to recommend (Iannuzzi et al., 2015; Kennedy et al., 2013). Nurses play an important role in providing quality healthcare and impacting patient satisfaction.

While the HCAHPS (2005) survey seems to be a useful tool to gather standardized data across the healthcare industry, several concerns regarding the structure of the survey and its psychometric properties exist. The HCAHPS survey is a quantitative measurement tool; however, some patients not only provide ratings on the survey items but also include anecdotal information to clarify responses provided on the rating scale (as cited in Huppertz & Smith, 2014). HCAHPS scores may underestimate the feelings of individual's that provide negative comments on the survey (Huppertz &

Smith, 2014). Another concern about the HCAHPS survey is poor reliabilities for the domains discharge information and physical environment, suggesting these items may not need to be included in the survey (Westbrook et al., 2014). Westbrook et al. (2014) also expressed concern regarding potential reliability and validity of the HCAHPS survey and advocate for addition studies to confirm reliability and validity since the survey will be used by CMS to make reimbursement decisions to the hospital. Although there may be some issues with aspects of the HCAHPS survey, because of its use throughout the healthcare industry, I will be using the HCAHPS survey scores of the facility under study for this study.

Effects of patient satisfaction in the healthcare environment. The effects of patient satisfaction in the healthcare environment are significant as it improves not only patient outcomes but also increases financial reimbursement to the healthcare facility. Nurses play a key role in creating a positive experience for the patient in the healthcare setting. The nurse who demonstrates a friendly and positive attitude with the patient increases the patient's perception of professionalism, service quality, and trust in the provided care (Chang, Chen & Lan, 2013). Patients who experience courtesy and friendliness from nursing staff score this category the highest on the HCAHPS survey (Abrahamson, Hass, Morgan, Fulton, & Ramanujam, 2016). High-quality patient experiences with nursing staff result in improved health and patient outcomes (Protomastro, 2016). Furthermore, increased patient satisfaction rates are associated with a decrease in readmission rates, which is a key measurement in the VBP program (Protomastro, 2016). Treating patients

with care and respect results in better patient outcomes, increased satisfaction, and increased financial reimbursements.

Transition

In Section 1, I presented the foundational elements of my doctoral study, including the problem and purpose statements, research question, theoretical framework, and a comprehensive review of the literature related to authentic leadership theory, engagement theory, and patient satisfaction. Section 1 served as an overview regarding the possible relationship between authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. Section 2 includes the approach to researching the relationship between the three variables and includes my role as the researcher, discussion regarding research method and design, target population, ethical considerations, and validity and reliability of the research study.

Section 2: The Project

Section 2 includes the logistics involved in conducting the research study. The logistics include a restatement of the purpose statement; details regarding the role of the researcher, design, and method; and a discussion of the selected sample population for the study. I present the data collection instruments as well as the methods for data collection, data analysis, and study validity.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship among authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. The independent variables were authentic leadership characteristics and nurse engagement characteristics. The dependent variable was patient satisfaction. The target population included nurses of an acute care hospital located in Washington State. The findings from this study might lead to positive social change by providing health care leaders with information to develop strategies to improve leadership effectiveness, creating higher levels of nurse engagement that results in healthier patients, improved nurse retention, and an increase in referrals to healthcare services. These improvements may benefit society by decreasing medical errors, increasing the speed of patient recovery, and ultimately reducing the cost of healthcare.

Role of the Researcher

The researcher is responsible for many items in the research process. Maintaining safety for participants in the research study is the most important responsibility of the researcher. In 1976, a conference was held by a commission formed by the U.S.

Department of Health and Human Services to enact principles to be used by researchers when conducting studies on human subjects. The Belmont Report resulted from this conference and outlined three ethical principles to follow while conducting research, (a) respect for persons, (b) beneficence, and (c) justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral, 1978 Research). Respect for persons requires participants enter the research project with adequate information about the study and the knowledge that participation is voluntary (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Beneficence relates to maximizing the benefits of participating while minimizing risks, and limiting the risks of the individual while participating in the study (Federal Register, 2015). The principle of justice focuses on ensuring fairness in the selection of participants (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). I met all three requirements by providing participants with the opportunity to decline or withdraw from participation and by holding myself accountable to the assurances provided through the informed consent process.

Not only are the ethical considerations outlined in the Belmont Report important to the researcher, but the researcher must keep personal biases, beliefs, and perceptions out of the work. Researchers must be sure to treat participants with respect and honesty to gain trust and engagement in the research process (Fassinger & Morrow, 2013). Researchers can engage in self-reflection and articulate personal experiences to ensure transparency in the research process (Fassinger & Morrow, 2013). As described by Jukola (2016), setting aside personal beliefs, principles, and values during the research

process was very important to ensure objectivity. Additionally, use of a quantitative study ensured objectivity and impartiality during the research process (Bryman, 2016). As a result of using the strategies and techniques described above, potential bias was reduced in the study.

With more than 25 years of experience in human resources, seven of these in the healthcare industry, I regularly interact with healthcare leaders and nursing staff members. Initially my study site was not my employer; however, just prior to collecting data, my job changed. My new job was at the facility of the study, but my participants were not in my direct supervision and were in a different division of the workplace. Several of the human resources leaders at the research facility were colleagues; however, these individuals were not direct supervisors of the research population. Even with specific knowledge about the healthcare workplace, my focus was on remaining objective in the process to minimize reliance on personal beliefs and opinions.

Participants

The research study location was in a regional hospital in Central Washington State. Nurses working in medical/surgical, critical care, and intensive care units were eligible participants in this study. Several studies related to authentic leadership and engagement include registered nurses as participants, including Bamford et al. (2013), Kirwan et al. (2013), and Van Bogaert et al. (2014). Kirwan et al. and Van Bogaert et al. demonstrated a link between nurse engagement and favorable patient outcomes. I gained access to this study population through my relationship with key human resource (HR) personnel at the selected hospital. Working with HR and nurse leadership team members

to establish a strong relationship created support for this study within the organization. Because encounters with the participants would be nonexistent, building relationships with key HR team members and nursing leaders helped to provide greater access to the participants in the workplace.

To form a limited relationship with the study participants, a statement in the participant consent form was included regarding my background, the focus of the study, and the rights they have as willing and voluntary participants in the research process. The data collection process took place through the mailing of survey packets to nurses who met the study criteria. I received a list of nurses from the human resources department and supplied each participant with a survey packet that was distributed to them through interoffice mail. Each participant received a copy of the consent form along with the two hard copy surveys and a self-addressed stamped envelope. The participant had the choice whether to complete the surveys, and only those who chose to return the completed surveys were included in the participant pool. A demeanor of openness and approachability was maintained to ensure participants felt safe and comfortable as described by Daniel, Cross, Sherwood-Johnson, and Paton (2014) and Marlett, Shklarov, Marshall, Santana, and Wasylak (2015) because each participant had my contact information and could reach out to me if they had questions.

Research Method and Design

Research Method

I selected the quantitative method of research for the study because the problem and purpose statements aligned with the positivist worldview. The positivist paradigm

aligns with quantitative research using numbers to study a phenomenon or issue (Luft, & Shields, 2014). Positivist researchers focus on finding a single truth through the use of objective data (Luft, & Sheids, 2014; Yilmaz, 2013). Quantitative methodology is often used to identify numerical relationships related to business phenomena and to analyze these relationships through descriptive statistics (Bryman, 2016). As the subject matter related to softer management topics such as leadership, employee engagement, and patient satisfaction, the focus was on quantifying the relationships between these variables through the use of numerical data. The use of numerical data to establish a relationship between these variables will be of interest to number-oriented healthcare leaders.

The quantitative method's numerical data led to accepting the null hypotheses. The quantitative method was an objective means to study this information. The usage of quantitative methodology allows the researcher the ability to control study variables while guarding against subjectivity influencing the data, which, as suggested by Yilmaz (2013), is common in qualitative research. The focus of the qualitative method is on seeking deeper meaning about a phenomenon and creating multiple truths about the issue (Yilmaz, 2013). Seeking deeper meaning was not the aim of this study. The aim was to determine if there was a relationship between the three variables of authentic leadership, nurse engagement, and patient satisfaction, not to seek deeper meaning about a phenomenon.

Research Design

A correlational design was an appropriate approach for this study. Correlational research is used to examine the relationship between or among two or more variables, to determine if they are related (Bryman, 2016; Trochim et al., 2016). A correlational design was the most appropriate for the study because the purpose of this study was to determine whether relationships exist between the characteristics of the predictor variables (authentic leadership and nurse engagement) and the dependent variable (patient satisfaction). Determining the degree of causality is premature as limited research exists demonstrating a relationship between the three variables. According to Fassinger and Morrow (2013), the purpose of this design is to establish the degree of the relationship between the predictor variables and the dependent variable.

Experimental and quasi-experimental designs are appropriate when the research aim is to assess a degree of causality (Bryman, 2016; Trochim et al., 2016). Furthermore, the experimental design requires control of the independent variables, which is seldom part of field research (Bryman, 2016; Deck & Smith, 2013). The focus of this research was to identify if a linear relationship existed between the characteristics of authentic leadership and nurse engagement and an increase in patient satisfaction scores; therefore, the experimental and quasi-experimental designs were not appropriate designs for this study.

Population and Sampling

In 2015, the Bureau of Labor Statistics reported over 2,745,000 registered nurses working in the United States, while over 1,587,000 worked in medical/surgical hospitals

(U.S. Department of Labor, Bureau of Labor Statistics, 2015). Accordingly, in Washington State, there were more than 52,000 registered nurses (U.S. Department of Labor, Bureau of Labor Statistics, 2015). The data collection site was a hospital with a population of 702 registered nurses, according to the hospital's HR department. To minimize bias, all nurses were included as the population for the study. Because this study's focus was to determine if a relationship existed between authentic leadership and nurse engagement and patient satisfaction scores, the population I used closely aligned with this focus.

I used G*Power software version 3.1.9.2 to determine the appropriate sample size for the research study. G*Power is a statistical software package used to conduct an a priori sample size analysis (Faul, Erdfelder, Buchner, & Lang, 2009). Assuming a medium effect size ($f = 0.15$), $\alpha = 0.05$, with two predictor variables, G*Power indicated a minimum sample size of 43 participants needed to achieve a power of 0.80. Increasing the power to 0.99 increased the sample size to 107 participants. Therefore, the sample size range was between 43 and 107 participants for this study (see Figure 1). The use of a medium effect size ($f = .15$) was appropriate for this study; the use of this effect size was based on the analysis of several studies where patient satisfaction was the outcome measurement (Abrahamson et al., 2016; Chang et al., 2013; Nelson et al., 2014).

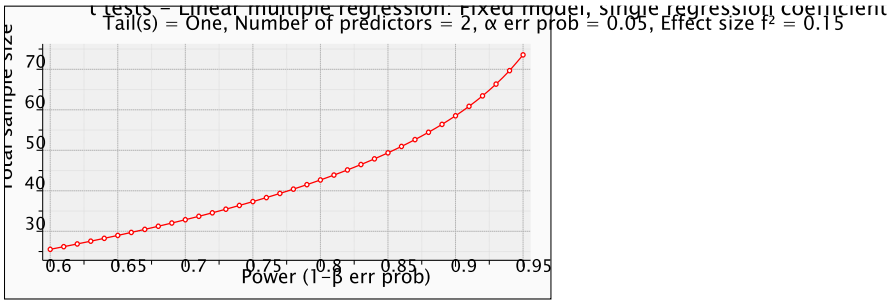

Figure 1. Power as a function of sample size.

I kept the research question and population in mind in determining the appropriate sampling method for the proposed study. Expert sampling is a nonrandom selection technique (Bryman, 2016). I used this method of sampling because of the need to survey individuals with expertise in nursing. One disadvantage of using nonprobability sampling is the potential to limit the generalizability of the proposed research (Acharya, Prakash, Saxena, & Nigam, 2013). The use of nonprobability sampling was not to gain more knowledge of the entire population of nurses related to the research question, but to deepen and extend knowledge of the sample itself related to the question. Uprichard (2013) described the assumptions related to nonprobability sampling are to extend and deepen the knowledge about the sample. As described in the literature review, little previous research exists on the study of the potential links between authentic leadership characteristics, nurse engagement, and patient satisfaction; therefore, this study was

important to deepen knowledge about a specific sample of nurses before pursuing this question to a larger population of nurses

Ethical Research

Ethical issues are of critical importance in the research process, especially when the process involves human subjects. Research participants must be aware that participation in the research project is voluntary and that they can withdraw from the study at any time without consequence (Bryman, 2016). Participants must not be harmed and must feel safe during the research process (Smoyer, Rosenburg, & Blankenship, 2014). Informed consent is an important component of the data collection phase of the research project and involves a complete description of the research topic, the data collection process, the potential risks the participant may experience, and the right of the participant to not participate and to withdraw (Bryman, 2016). If a participant decided to withdraw following the data collection session, they have been provided with my Walden University email address via the participant consent form, and could have emailed me and requested the completed survey be excluded from the study.

The protection of the participants and the organization's identity in this study was of vital importance. The concepts of anonymity and confidentiality are means to this end. Since the surveys were mailed to the participants of the research, the concept of anonymity was used for this project and confidentiality will be maintained in this study as described by Bryman (2016). Participant anonymity and confidentiality will be assured because the participant had full control over whether or not he or she would return the survey and the return envelope was not coded. Organization confidentiality was assured

by only referring to the organization as an acute care hospital located in Central Washington State. Documents collected during the survey process are stored in a locking filing cabinet and shredded 5 years after the collection of the data. The spreadsheets used to analyze the data are password protected, to ensure I will be the only one able to open the spreadsheet.

Participants did not receive any incentive or inducement to participate in this study. As suggested by Smoyer et al. (2014) and Wallace and Sheldon (2015), an environment of safety, comfort, and support of the participants' needs existed during the data collection process. The Walden University Institutional Review Board approved data collection for this study granting a permission number 11-17-16-0384567. I completed the certification course offered by the National Institute of Health to protect the rights, dignity, and privacy of my research participants during my research process (see Appendix B). While no research study is entirely risk-free (Wallace & Sheldon, 2015), the developed structures support the needs of the participants and create the protections to ensure safety, dignity, and privacy of the participants.

Data Collection Instruments

I used two survey instruments to collect data on authentic leadership characteristics and work engagement characteristics, the Authentic Leadership Questionnaire (ALQ) and the Utrecht Worker Engagement Scale (UWES). Avolio, Gardner, and Walumbwa developed ALQ in 2007, and Mind Garden Inc. distributes ALQ. I selected the ALQ because of its prior validation and widespread use in research, especially in healthcare environments with nurses as in studies by Laschinger et al.

(2013), Nelson et al. (2014), and Wong and Laschinger (2013). The instrument contains 16 statements that relate to the four constructs of authentic leadership theory, (a) transparency, (b) moral / ethical, (c) balanced processing, and (d) self-awareness. Since its development, Mind Garden, Inc., the publisher of the ALQ assists researchers in the fields of education, healthcare, nursing, financial services, manufacturing, and the military in the study of authentic leadership within organizations (Erkutlu & Chafra, 2013; Hannah et al., 2011; Laschinger et al., 2013; Nelson et al., 2014; Pues et al., 2012; Seco & Lopes, 2013; Rego et al., 2013; Wang & Hsieh, 2013; Wong & Laschinger, 2013).

The ALQ uses a 5-point Likert-type scale, an ordinal scale ranging from 0=*Not at all* to 4=*Frequently, if not always.* Five items measure transparency, including *My leader says exactly what he or she means* (Avolio et al., 2007). Three items measure balanced processing; including *My leader analyzes relevant data before coming to a decision* (Avolio et al., 2007). Four items measure self-awareness and moral/ethical characteristics, including *My leader seeks feedback to improve interactions with others,* a self-awareness item (Avolio et al., 2007). The raw scores for each characteristic are totaled and averaged by characteristic for separate scores for each dimension. Each of these scores can be totaled and averaged for a composite score. This composite score is the preferred measurement of authentic leadership because the four dimensions combine to define authentic leadership (Walumbwa et al., 2008). According to Avolio et al. (2007), the self-administered survey takes between 5 to 10 minutes to complete.

Validity and reliability of the ALQ were originally tested in three studies using populations of university students in the United States, manufacturing employees in China and the United States, and various multinational employees of organizations based in Kenya (Walumbwa et al., 2008). The results of these initial studies provided evidence to support the ALQ's reliability and validity across three cultural settings (Walumbwa et al., 2008). Roof (2014) conducted a review of the literature and found good Cronbach alpha values across a variety of study populations, which provided consistent and broad support for reliability characteristics. Appendix C includes permission from Mind Garden, Inc. to use the ALQ. Raw data will be made available upon request.

Schaufeli and Bakker developed the UWES in 2003, and Schaufeli distributes UWES free for use in non-commercial scientific research. I selected the UWES because of its prior validation and widespread use in research, especially in healthcare environments with nurses in studies by Bamford et al. (2013), and Breevaart et al. (2014). The instrument contains nine statements that relate to the three constructs of work engagement theory, (a) dedication, (b) vigor, and (c) absorption. Since its development, the UWES assists researchers in the fields of technology, education, healthcare, nursing, firefighting, and dentistry in the study of work engagement within organizations (Airila et al., 2012; Airila, 2014; Bamford et al., 2013; Breevaart et al., 2014; Kataria et al., 2013; Seppala et al., 2015; Simbula & Guglielmi, 2013).

The UWES uses a 7-point Likert-type scale, an ordinal scale ranging from 0=*Never* to 6=*Every day.* Three items measure dedication, including *When I get up in the morning, I feel like going to work* (Schaufeli & Bakker, 2003). Three items measure

vigor, including *At my job, I feel strong and vigorous* (Schaufeli & Bakker, 2003). Three items measure absorption, including *I am immersed in my work* (Schaufeli & Bakker, 2003). The raw scores for each characteristic are totaled and averaged by characteristic for separate scores for each dimension. Each of these scores can be totaled and averaged for a composite score. This composite score is the preferred measurement of work engagement because the three dimensions individually lack discriminant validity. Therefore the combined score must be used (de Bruin & Henn, 2013). According to Schaufeli et al. (2006), the self-administered survey takes between 5 to 10 minutes to complete.

Researchers used the UWES-9 in numerous countries with varied types of employees and organizations. Because the use of the UWES has been widespread regarding locations and types of occupations, the construct validity is good, and studies have highlighted that participants with different occupations have interpreted the items and scales similarly (Seppala et al., 2009). Factor correlations between the three dimensions were very high prompting Schaufeli to recommend an interpretation of the total work engagement score versus separating out the three subscales (de Bruin & Henn, 2013). According to de Bruin and Henn (2013) vigor, dedication, and absorption lacks discriminant validity so they should not be used as separate independent or dependent variables, the construct work engagement should be used as a whole. According to de Bruin and Henn (2013), the Cronbach's coefficient α for the total score was .92 and demonstrates good reliability of the measurement tool. Raw data will be made available upon request. Appendix D contains the UWES survey.

Data Collection Technique

Data was collected using a pen and paper survey with both the ALQ and UWES questions duplicated on each side of the paper. The participant received a packet with the consent form, the two survey documents, and a self-addressed stamped envelope. The participant had the option to complete and return the surveys via U.S. Mail or not complete the surveys. If enough participants had not participated, I would have sent a follow up email with the consent form and survey and a request to return the completed materials via fax or a scanned copy in an email. Participants returned enough completed surveys to meet the GPower number during the three week survey window, therefore the previous step was not required.

Advantages and disadvantages exist for the pen and paper data collection technique. One advantage includes control of the survey environment (Shawver et al., 2016), this control includes access to the survey instrument, the opportunity for monitoring the participants, reduction of distractions, and the ability of the researcher to clarify ambiguity (Tella, 2015). An additional advantage includes reduction of potential selection bias, as electronic survey methods may limit participation due to lack of Internet access or computer anxiety (Shawver et al., 2016; Tella, 2015; Weigold, Weigold, & Russell, 2013). Disadvantages include the cost of collecting data in-person, more time consuming regarding the collection and entering raw data into software for analysis, and lack of flexibility for the participant, as they must complete it at the data collection site (Shawver et al., 2016). Notwithstanding, the advantages far outweigh the disadvantages, and this data collection method supports the study.

Data Analysis

RQ: Does a linear combination of authentic leadership characteristics and nurse engagement characteristics significantly influence patient satisfaction?

H_o: The linear combination of authentic leadership characteristics and nurse engagement characteristics will not significantly influence patient satisfaction.

H_1: The linear combination of authentic leadership characteristics and nurse engagement characteristics will significantly influence patient satisfaction.

Multiple regression was the most appropriate statistical test for this study. Multiple regression analysis describes linear relationships between two or more variables (Green & Salkind, 2014; Rovai, Baker, & Ponton, 2014); this study included three variables. The scales for authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction are all ordinal in nature. As the research question focuses on whether or not there is a linear relationship between three variables (Rovai et al., 2014), other statistical tests were not selected because the requirements for conducting them were not met by the variables or research question under consideration. According to Becker, Ringle, Sarstedt, and Volkner (2015), a standard use of multiple linear regression in social sciences is to test connections between multiple variables. Additionally, analysis of variance statistical tests determine differences between groups (Laerd Statistics, 2015). I was not looking at differences between groups in this study; the focus was to determine if a relationship exists between authentic leadership, nurse engagement, and patient satisfaction.

Missing Data

Participants answered all questions on the survey forms. The participant informed consent form provided to the participant provided instructions to complete all 25 questions without skipping any question (see Appendix C). The consent form also indicated confidentiality for the participant's responses, so there was no reason to skip questions on the questionnaire. However, the ALQ and UWES provided a composite score based upon responses to all questions on the instrument, any surveys with missing data were excluded from the respondent pool. All returned surveys were complete; therefore no surveys were excluded.

Assumptions of the Statistical Model

Laerd Statistics (2015) identified six assumptions commonly associated with multiple linear regression including (a) independence of observations, (b) a linear relationship between the dependent and each of the independent variables, (c) no multicollinearity between variables, (d) homoscedasticity of residuals, (e) no significant outliers, and (f) errors are approximately normally distributed. Laerd Statistics (2015), Rovai et al. (2014), and Green and Salkind (2014) offered solutions to mitigate issues related to not meeting the assumptions. The following contains descriptions of these assumptions and the solutions to mitigate issues.

The first assumption was an independence of observation, which means the observations are independent from the others. Observations could be related if data is collected over a period with the same participants, however, the completed study was not a time study, and data were collected at one point in time. If there is concern regarding

autocorrelations, a Durbin-Watson test could demonstrate whether adjacent observations are independent or not (Laerd Statistics, 2015; Rovai et al., 2014; Triola, 2018), however, because this data was gathered via survey the use of the Durbin-Watson test was not relevant (Laerd Statistics, 2015). The first assumption of independence of observation exists in this study.

The second assumption was the data must be linearly related. Testing for linear relationships between the variables is a two-part process (Laerd Statistics, 2015). The first step was to establish the relationship between the dependent and independent variables collectively using a scatterplot (Laerd Statistics, 2015; Triola, 2018). The second step was to establish the linear relationship between the dependent variable and each of the independent variables using partial regression plots (Laerd Statistics, 2015). However, if the relationship between variables is not linear, the results may underestimate the true relationship between variables (Rovai et al., 2014). The scatterplots did show a linear relationship between the variables.

The third assumption in the use of multiple regression was no multicollinearity exists between the independent variables. According to Becker, et al. (2015), there is some degree of collinearity when using multiple linear regression. However, technical issues arise when one runs the multiple regression model if two or more independent variables are highly correlated with each other (Laerd Statistics, 2015). Multicollinearity results in problems understanding which independent variable contributes to the variance explained in the dependent variable (Laerd Statistics, 2015). I detected no multicollinearity by inspecting the correlation coefficients results. Jadhad, Kasid, and

Kulkarni (2014) suggest the use of a biased estimator to overcome multicollinearity, such as the ordinary ridge regression (ORR) estimator. Alternatively, more data can be obtained to produce more accurate parameter estimates, as suggested by Rovai et al. (2014). The independent variables in the study did not violate this assumption.

Multiple linear regression analysis relies on the assumption that the data shows homoscedasticity of residuals or equal error variances (Laerd Statistics, 2015; Rovai et al., 2014). I checked to ensure this assumption was met by reviewing the plots used to determine linearity. The study also included review of the variances to make sure they follow the line of best fit consistently as they move along the line (Laerd Statistics, 2015). The data did reveal a linear relationship between the variables.

Outliers pose a potential threat to multiple linear regression. Outliers result in a negative effect on the regression equation used to predict the value of the dependent variable (Laerd Statistics, 2015). Outliers pull the trend line away from the rest of the data set (Green & Salkind, 2014; Rovai et al., 2014; Triola, 2018). I checked for outliers using the scatterplots run during the multiple regression analysis. As the data was evenly spread throughout the plot, no outliers were present.

The final assumption was residuals or errors are normally distributed. Errors must be normally distributed to run inferential statistics to determine statistical significance (Laerd Statistics, 2015). I tested this assumption by inspecting the histogram for each variable with a superimposed normal curve to ensure a normal distribution and run a P-P plot as suggested by Green and Salkind (2014), Laerd Statistics (2015), and Rovai et al. (2014). Based upon my review of the histogram and P-P plot, there was

normal distribution. Finally, to combat possible influence of assumption violations, the study incorporated bootstrapping using 1000 samples. Bootstrapping results are in the presentation of the findings in section three.

Multiple Linear Regression Analysis

Multiple linear regression included selection to test the study's hypotheses. SPSS version 21 processed the data analysis as suggested by Green and Salkind (2014), Laerd Statistics (2015), and Rovai et al. (2014). Several tests were run on the data to determine how well the multiple regression equation fits the data and the significance of the results. Correlation testing using R, R^2, and adjusted R^2 ensured fit of the data to the test. R is the Pearson correlation coefficient and measures the strength of the linear relationship between variables (Rovai et al., 2014). R^2 is the multiple coefficient of determination and represents how well the multiple regression equation fits the sample data (Green & Salkind, 2014; Rovai et al., 2014; Triola, 2018). R^2 values close to a value of 1 indicates perfect fit, while a value close to 0 indicates poor fit (Laerd Statistics, 2015; Rovai et al., 2014). R^2 unfortunately, is not a perfect test when sample size increases, so an adjusted R^2 test adjusted was used for the number of variables and sample size as Rovai et al. (2014) suggested. The adjusted R^2 test also determines an estimate of effect size (Rovai et al., 2014). T-tests were run to determine if the relationships are statistically significant as described by Green and Salkind (2014). A small *p*-value indicates a good overall significance and is useable for predictions (Rovai et al., 2014). A *p*-value of < 0.05 is statistically significant. The *p*-value of the data was > 0.05, which was not statistically significant.

Study Validity

Several threats to study validity exist, including external, internal, and statistical conclusions. External validity relates to the generalizability of study results across populations and relates to people, places, or time (Rovai et al., 2014; Trochim et al., 2016). A method to mitigate this potential threat is to use a random sampling method to select participants for the study (Trochim et al., 2016). This study did not use the random sampling method because the secondary data (HCAHPS scores) used to measure the dependent variable was relevant to the study site. Additionally, nurses were surveyed, as they are the groups relevant to this study, therefore random distribution of the survey did not meet the needs of the study as suggested by Bryman (2016). However, because the type of people and place, nurses, and acute care hospital, can be replicated in other studies, this study's results may be generalizable to similar populations. Furthermore, random selection within the research sample may be employed to increase the ability to generalize study results to nurses in acute care hospitals as suggested by Rovai et al. (2014).

The research question answered by this study did not focus on causality but on determining if a relationship exists between the variables. Given this condition, the threat to internal validity was not a concern for this study, as internal validity relates to the truths about inferences regarding causal relationships (Trochim et al., 2016). According to Trochim et al. (2016), internal validity is only relevant in studies trying to establish causality.

Statistical conclusion validity relates to factors that can lead to incorrect conclusions regarding the relationships between variables in the research study. Type I error occurs when the researcher concludes there is a relationship between the variables when none exists (Bradley & Brand, 2016). Type II error occurs when the researcher concludes there is no relationship between the variables when one does exist (Bradley & Brand, 2016; Rovai et al., 2014; Triola, 2018). A couple of strategies can help to mitigate both of these errors including using a larger sample size to increase the statistical power of the results, and ensuring the instruments used to measure the variable are reliable (Rovai et al., 2014; Suter & Suter, 2015). Regarding ensuring a large sample size, the G*Power software recommended use of a sample size of 107 to achieve .99 statistical power, while the actual number of potential participants at the site is over 600 individuals. The statistical power of results can be increased by including more than 107 participants in the survey, however, only 62 participants returned the surveys. Furthermore the ALQ and UWES are reliable instruments, which will minimize the potential for errors.

Transition and Summary

Section 2 of the study included additional and expanded detail regarding the rationale for selection of the quantitative correlational design for this study. Additionally, Section 2 includes (a) details of the population to be used in this study, (b) my role as the researcher, (c) the sample and participants, (d) ethical research considerations, (e) my data collection method and instrumentation, and (f) methodology of the analysis of data. As I have completed my data collection, Section 3 contains (a) the results of the analysis,

(b) my interpretation of the research findings, (c) application of the research findings to the research context, (d) recommendations for action and future research, (e) implications for social change, and (f) reflections on the doctoral study process

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlational study was to examine the relationship among authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. I was not able to correlate the independent variables of authentic leadership characteristics and nurse engagement characteristics to the dependent variable of patient satisfaction because the HCAHPS scores could not be tied to individual nurses within the study population. Unfortunately the discovery of the design flaw was found when running the multiple linear regression on the data. Because the data from the participants was collected anonymously, with no tracking of which nurse served which patient, there was no way to tie the patient satisfaction data to individual nurses who responded to the surveys. Instead of being able to run multiple linear regression on the two independent variables of authentic leadership characteristics and nurse engagement characteristics on the dependent variable of patient satisfaction, I ran the regression on the four characteristics of authentic leadership to the dependent variable of nurse engagement to determine if a relationship existed between the characteristics of authentic leadership on nurse engagement. The following presentation of findings outlines the results of multiple linear regression on the independent variables relational transparency, self-awareness, moral perspective, and balanced processing on the dependent variable, nurse engagement. According to the results, self-awareness, internalized moral perspective, balanced processing, and relational transparency of the leader did not statistically predict nurse engagement.

Presentation of the Findings

The statistical test applied for data analysis was multiple linear regression. Patient satisfaction scores were not used as the dependent variable because it was not possible to relate the patient satisfaction score to the individual nurses who participated in the study. Instead, multiple linear regression was run on the four characteristics of authentic leadership, self-awareness, balanced processing, internalized moral perspective, and relational transparency as independent variables, and nurse engagement became the dependent variable. Registered nurses returned 62 completed surveys from the 369 surveys distributed to the survey population for a 17% response rate. The descriptive statistics of the independent variables and dependent variable are presented in Table 2. While the response rate is low, the G*Power calculation for sample size indicated a sample size of 43 would provide a power of 0.80; with 62 responses, the power was approximately 0.90.

Table 2

Descriptive Data of Independent and Dependent Variables

Variable	N	Mean	Std. deviation
Balanced Processing	62	2.9035	.84781
Relational Transparency	62	3.2484	.69252
Internalized Moral Perspective	62	3.2177	.75407
Self-Awareness	62	3.0242	.84995
Engagement	62	4.1185	1.10348

I tested the assumptions necessary to run multiple linear regression by reviewing the scatterplots, histogram, P-P plot, and correlation coefficients to ensure multiple linear regression was the correct statistical test to use on the data. The scatterplots (see Figures 2 – 5) indicated there is homoscedasticity among the variables. The histogram (see Figure 6) and the P-P Plot (see Figure 7) show standardized residuals are normally distributed.

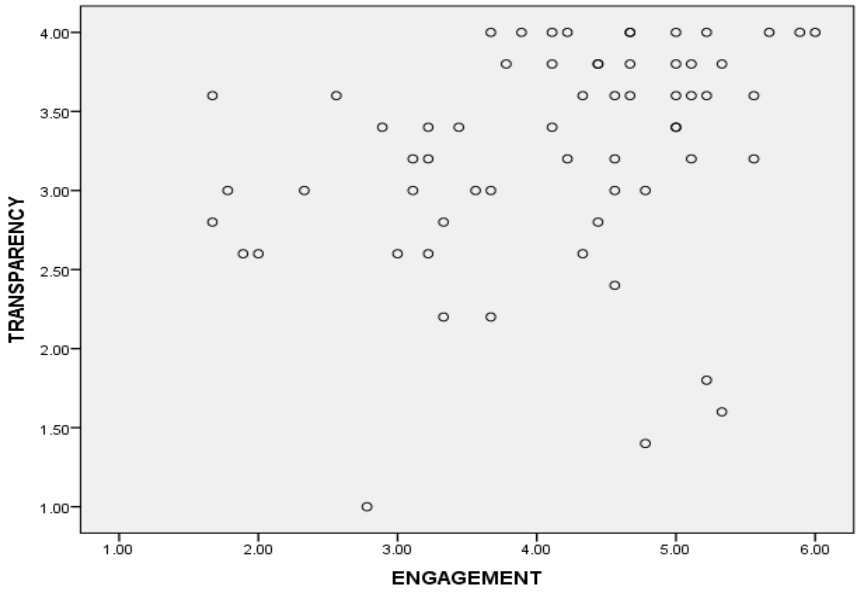

Figure 2. Scatterplot of relational transparency to engagement.

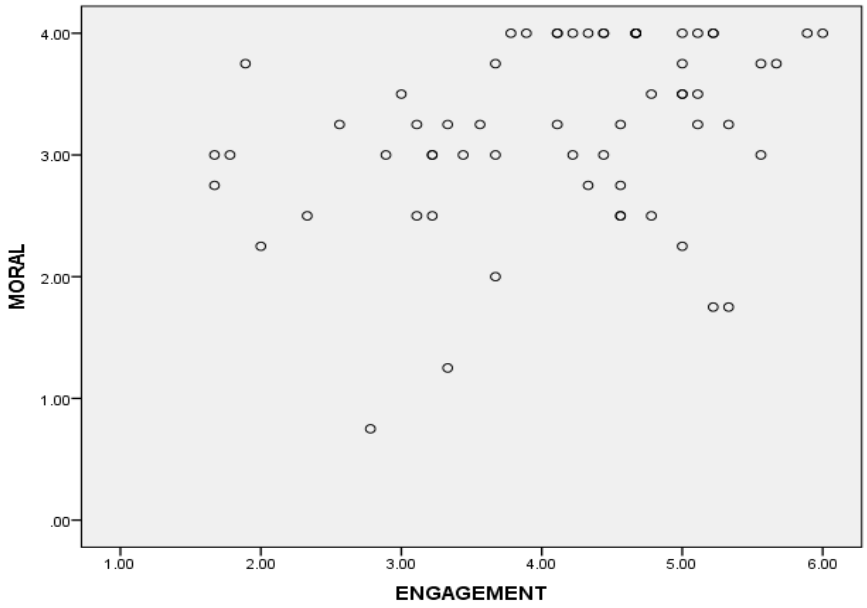

Figure 3. Scatterplot of internalized moral perspective to engagement.

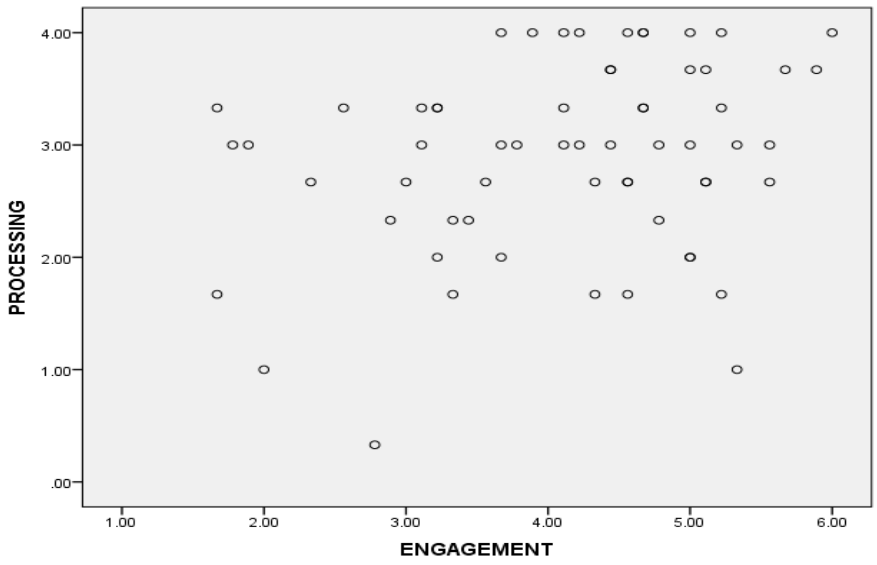

Figure 4. Scatterplot of balance information processing to engagement.

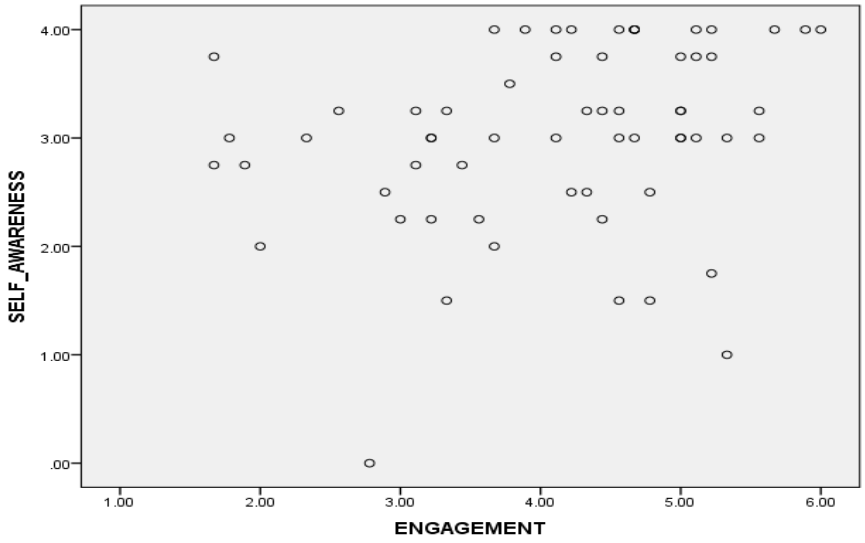

Figure 5. Scatterplot of self-awareness to engagement.

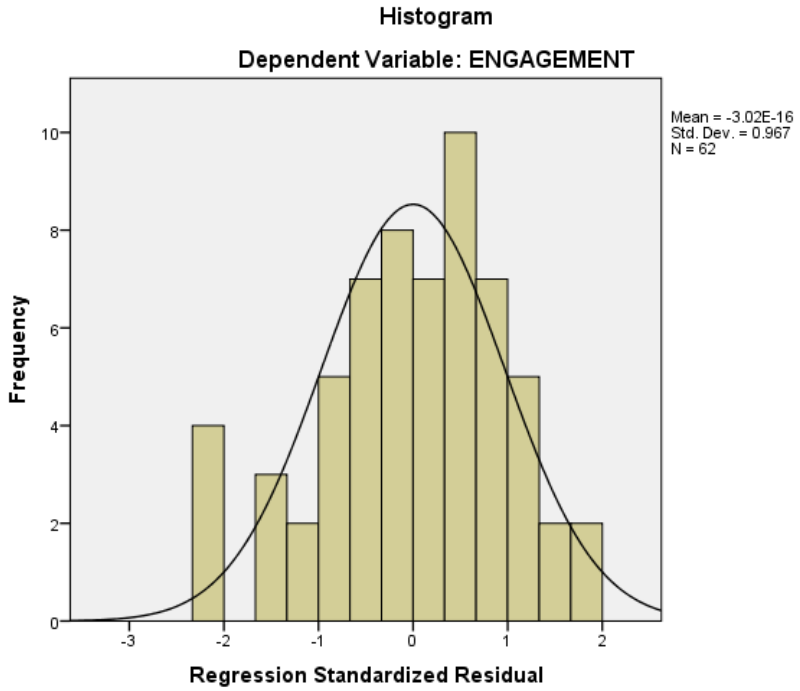

Figure 6. Histogram (test of normally distributed residuals).

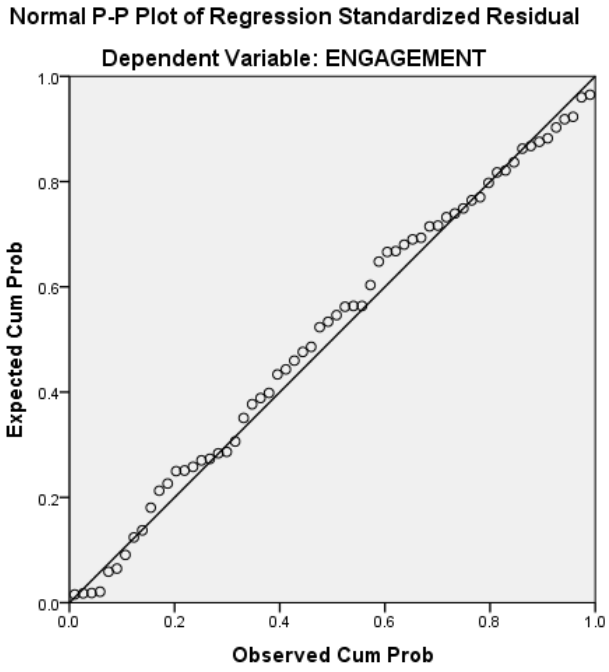

Figure 7. P-P plot of regression.

Table 3 presents the results of the multiple linear regression of the dependent variable nurse engagement to the independent variables, the characteristics of authentic leadership. According to the results, self-awareness, internalized moral perspective, balanced processing, and relational transparency of the leader did not statistically predict nurse engagement, $F(4,57) = 1.753$, $p > 0.05$. The coefficient of determination, also known as the R^2 value, is 0.110. This means 11% of the variation in the dependent variable nurse engagement is a result of the independent variables of self-awareness, internalized moral perspective, balanced processing, and relational transparency of the leader. Among the four independent variables, none significantly predicted nurse engagement.

Table 3

Multiple Linear Regression of Dependent Variable to the Independent Variables

Variable	B	SE(B)	Beta	*p*
Constant	2.406	.699		.001
Relational Transparency	.249	.462	.156	.593
Internalized Moral Perspective	.401	.377	.274	.292
Balanced Information Processing	.015	.331	.012	.964
Self-Awareness	-.141	.401	-.109	.729
N	62			
F	1.753			.151
R^2	.110			

While neither of the hypotheses developed at the beginning stages of this study could be evaluated due to the inability to relate the completed nursing surveys with patient satisfaction data, the data did not demonstrate a relationship among the authentic leadership characteristics and nurse engagement. This result is surprising, as many of the studies included in the literature review did report a relationship between authentic leadership and nurse engagement. According to Bamford et al. (2013), nurse managers who demonstrate integrity and act in alignment with an internalized moral perspective, one of the components of authentic leadership, increase the engagement of the nurses on their units.

Ethical decision-making is a core element of the nurse's job. The nurse must operate in a manner that maintains high ethical standards. Shapira-Lishchinsky (2014) found the role of ethics and ethical conduct in the nursing profession directly affected the quality of care provided to the patient. Most ethical decisions made by a nurse relate to professional standards, patient care, and duty to report (Shapira-Lishchinsky, 2014). The core constructs of authentic leadership support nurses and nurse managers in performing their duties in a productive, open, and ethical manner (Shapira-Lishchinsky, 2014).

The authentic leader's demonstration of self-awareness and decision making based upon balanced processing facilitates the creation of an environment that increases the nurses' ability to do their best work. These behaviors increase the development of structural empowerment in the workplace. Structural empowerment is the development of social structures that facilitate nurses' access to information, training, resources, and development opportunities that assist in taking care of the patient (Wong & Laschinger, 2012). Huddleston (2014) built upon Wong and Laschinger's (2012) point about leaders providing structural empowerment to the nurse work environment to build nurse autonomy, self-efficacy, and organizational commitment. The leader plays a significant role in developing an organizational climate supportive of the nurses and their ability to provide excellent care to their patients.

Nurse managers have a unique role in creating and supporting a work environment that builds both their engagement and that of the nurses they manage. An organizational culture that supports managers and employees developing strong interpersonal relationships built on trust, integrity and ethical principles provides an

environment in which engagement can grow (Bamford et al., 2013; Keyko, 2014; Warshawsky, Havens, & Knafl, 2012). Nurse managers who display integrity and act in alignment with their moral principles support the development of higher nurse engagement, which results in better patient outcomes, including safer and higher quality patient care (Bamford et al., 2013). Bamford et al. (2013) demonstrated a strong relationship between nurse manager's internalized moral perspective, a component of authentic leadership, and nurse work engagement. The nurse manager has a significant influence on the development of a culture and environment supportive of nurse engagement.

Applications to Professional Practice

The results of this study might prompt healthcare leaders to take a closer look at their own leadership perspectives and philosophies and how they demonstrate relational transparency, self-awareness, moral perspective, and balanced information processing in their work and on the teams they manage. While the results of this study may not show a relationship between the characteristics of authentic leadership and employee engagement in this population of nurses, there are numerous studies included in the literature review that did highlight a relationship. Healthcare leaders must focus on the relationships they build with the individuals they influence to ensure they provide team members with the resources and support needed for them to perform with excellence every day with every patient. The healthcare leader must invest the time and energy in sustaining open and clear communication channels with direct reports to ensure all share the same understanding and are moving in the same direction.

Implications for Social Change

Healthcare leaders are facing several significant challenges including an aging population with increased healthcare needs and a sicker population with increases in people experiencing diabetes, heart disease, and cancer, as well as increased employee turnover and decreasing employee engagement. Healthcare leaders must enlist new strategies to manage that over which they have control: the employee population and creating a workplace that supports increased worker engagement and reduced turnover. Nurse dissatisfaction and lack of engagement impact healthcare significantly because of the key role the nurse plays in the care of the patient. If the healthcare leader is able to create an engaged workforce focused completely on the needs of the patients, better outcomes result. If all healthcare leaders focused on building strong engaged teams of healthcare professionals, they could potentially build strong systems that create better outcomes for their patients. Support for these recommendations is found in the comprehensive literature review in Section 1.

Recommendations for Action

Based upon this research, my recommendation to healthcare leaders is for more focus and dedicated resources to building an organizational culture that supports the demonstration of the key characteristics of authentic leadership, especially internalized moral perspective. Organizational and educational leaders must work on creating structures and curriculum building in the important ethical components critical to caring for patients. Healthcare leaders should focus on building tools to evaluate for these characteristics in the hiring and performance appraisal processes used in the healthcare

system. Educational leaders should build in curricula to ensure the new nursing professionals have the ability to define and live their ethical principles in the work they are being trained to perform. Creating systems to support ethical climates in healthcare organizations could only help to increase the demonstration of these behaviors in both the leader and the nurse to ensure people and patients are handled in a compassionate, fair, and ethical manner. A focus on ethical climates could help to bring about sustainable change in the healthcare field. The recommendations are drawn from the study findings outlined in the literature review.

Recommendations for Further Research

My recommendations for further study are for researchers to use several other leadership theories in order to determine if those theories correlate to employee engagement. Engagement is an important topic, and my belief is the leader has a significant influence on the engagement of the members of the team. Additionally, there might be another leadership theory that does have a direct correlation to engagement. Authentic leadership theory is an interesting theory, and my expectation was it would correlate to engagement; other studies did demonstrate that relationship. My recommendation is to conduct this study again with a larger population or a different population of nurses in another facility to determine if there is a relationship between authentic leadership and nurse engagement. My population may have been too small, so redoing the study with a larger population of nurses in a larger system might bring different results. To gather information regarding the relationship between engagement and patient satisfaction, the study would have to be designed to ensure engagement data

could be linked between one nurse to one patient; there has to be a connection, and my design did not enable a review of this potential relationship.

Reflections

My belief at the beginning of the study process was a potential relationship existed between all three of my variables, authentic leadership, nurse engagement, and patient satisfaction. After running my multiple linear regression on my original three variables and finding out the results could not be produced because there was not a one to one relationship between all three, one nurse to one patient, I was devastated. After putting a few years into this work of running the tests and collecting the data, to have them fail was a heart stopping moment. That moment set my writing and completion process back a few months because I was not sure how to recover from this design error. Several statistics tutors and my chair told me to hold my head high and present my findings. While unable to run my data the way I originally intended, I do have gratitude for going through this process. My learnings include how to conduct research, and this has been a valuable lesson, one that will benefit my current and future work endeavors. Leadership is an interesting and growing area of study. This experience will inform my work with healthcare leaders to help them to lead using the principles of authentic leadership theory to build great teams and create high engagement.

Conclusion

Nurses and healthcare workers play a key role in the sustainable health and well-being of patients seeking care in our healthcare system. Leaders must support the needs of these professionals to ensure they are able to provide excellent care to the patient.

Awareness of the key characteristics of authentic leadership and the ability to master these can help the healthcare leader to build and grow an organizational culture that supports the healthcare worker in being engaged in this important work. When leaders are able to create a supportive and sustainable positive organizational climate, everyone wins.

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Appendix A: Breakdown of References

Table A1

Breakdown of References

Source	Quantity	Percent of total
Peer-reviewed publications	110	87%
Non-peer-reviewed publications	8	6%
Books	4	3%
Government websites	4	3%
Age of resources		
Current within 5 years (2013-2017)	107	85%
Noncurrent (>2012)	19	15%
Total	126	100%

Appendix B: National Institute of Health Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Kimberly Washburn** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 11/04/2013.

Certification Number: 1318831.

Appendix C: Permission to Use the ALQ

Permission to use the ALQ instrument granted from Mind Garden, Inc.

Kimberly Washburn

mind garden

To whom it may concern,

This letter is to grant permission for Kimberly Washburn to use the following copyright material for his/her research:

Instrument: ***Authentic Leadership Questionnaire (ALQ)***

Authors: ***Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa***

Copyright: ***2007 by Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa***

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Mind Garden, Inc.
www.mindgarden.com

Appendix D: Work and Well-Being Survey (UWES)

Questions from the UWES Survey and Permission for use

Work & Well-being Survey (UWES) ©

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ At my work, I feel bursting with energy
2. _____ At my job, I feel strong and vigorous
3. _____ I am enthusiastic about my job
4. _____ My job inspires me
5. _____ When I get up in the morning, I feel like going to work
6. _____ I feel happy when I am working intensely
7. _____ I am proud of the work that I do
8. _____ I am immersed in my work
9. _____ I get carried away when I'm working

Notice for potential users of the UWES and the DUWAS – From http://www.wilmarschaufeli.nl/downloads/test-manuals/

- You are welcomed to use both tests provided that you agree to the following two conditions:

1. The use is for non-commercial educational or research purposes only. This means that no one is charging anyone a fee.

2. You agree to share some of your data, detailed below, with the authors. We will add these data to our international database and use them only for the purpose of further validating the UWES (e.g., updating norms, assessing cross-national equivalence).

- Data to be shared:
  For each sample, the raw test-scores, age, gender, and (if available) occupation. Please adhere to the original answering format and sequential order of the items.
  For each sample a brief narrative description of its size, occupation(s) covered, language, and country.
- Please send data to: w.schaufeli@uu.nl. Preferably the raw data file should be in SPSS or EXCEL format.
- **No explicit, personal permission is required — and will be given — as long as both previously mentioned conditions are fulfilled.**
- **By continuing to the TEST FORMS you agree with the above statement.**

Appendix E: Approval Letter from Study Location

Wednesday, January 11, 2017

Kimberly Washburn

Attn: Kimberly Washburn

APPROVAL OF INITIAL STUDY REQUEST **FULL BOARD REVIEW**

Study Title: Effects of Authentic Leadership Style and Nurse Engagement on Patient Satisfaction

Risk Value: Low

Dear Kimberly Washburn,

Entity

Thank you for submitting the above-captioned study proposal. On 1/11/2017 the [redacted] Institutional Review Board (IRB) convened for their regularly scheduled meeting and reviewed and approved the study documentation submitted. You can now feel free to proceed with your research study as detailed below:

The purpose of the proposed quantitative correlational study is to examine the relationship among authentic leadership characteristics, nurse engagement characteristics, and patient satisfaction. The independent variables are authentic leadership characteristics and nurse engagement characteristics. The dependent variable is patient satisfaction.

Locally Enrolled: N/A; Nationally Enrolled: N/A; Accrual is Open.

This letter shall serve to confirm that I have now received and reviewed the following Consent Form(s):Version 2016.11.1.
Please be advised of the following stipulations of continuing approval:
- Review/Continuation of Study forms need to be timely submitted to the IRB three (3) weeks prior to the review date noted above and you will receive a reminder notice in advance of the deadline for submission.
- Any changes in this study must be promptly submitted to the IRB and approved by the IRB prior to their implementation.
- Any unanticipated risks and new relevant information that may impact the risk/benefit ratio of the test article for the subject must be reported to the IRB within ten (10) calendar days; and
- Any internal (local) unexpected serious adverse event including a life-threatening event or study related death must be reported within 24 hours, with written notification to the IRB within five (5) working days. Less serious unexpected adverse reactions must be reported to the IRB within five (5) working days.
- Any external (non-local) unexpected serious adverse event including a life-threatening event or study related death must be reviewed at a fully-convened meeting within 60 days of receipt of notice by the Investigator.
This approval is granted, as stated in the IRB procedures and required by FDA regulation, based on the risk value of your study. The IRB maintains the authority to terminate or suspend approval of research that is not being conducted in accordance with stated IRB requirements or that has been associated with unexpected serious harm to subjects. The IRB operates in compliance with 21Code of Federal Regulations ("CFR") Part 56 and 45 CFR Part 46.

Should you have any questions, feel free to contact me directly or contact Toni [redacted] IRB Coordinator, at [redacted]

Sincerely,

[redacted] 1/11/17

Chairman - Institutional Review Board
IRB 0000[redacted]
FWA 0000[redacted]