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UNIVERSITY OF SAN DIEGO
Hahn School of Nursing and Health Science
DOCTOR OF PHILOSOPHY IN NURSING

Nurse Manager Transformational Leadership Practices and Patient Outcomes Among
Magnet and Non-Magnet Hospitals

by

Bridgett Byrd Sellars, RN, MSN, MA, PhD(c)

A dissertation presented to the
FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE
UNIVERSITY OF SAN DIEGO

In partial fulfillment of the
Requirements for the degree
DOCTOR OF PHILOSOPHY IN NURSING

May 2012

Dissertation Committee

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Cynthia Connelly, PhD, RN, FAAN

Ann Mayo, DNSc, RN, FAAN

DEDICATION

This work is dedicated to my late grandparents, Cirl and Roetha Byrd who always encouraged me to do my best and instilled in me the value of hard work and dedication. Special thanks to my husband, Terrence Sellars, who has spent tireless hours listening to my thoughts and ideas about nurse leaders and research. Thanks for your relentless, consistent support. A special thanks to my sons, Jason and Jackson Sellars, who have selflessly given up time with their mom on weekends and late evenings so she could read, write, and study. I would also like to thank the special ladies that have encouraged me and prayed for me throughout the journey, my mother Zane Byrd Henry, my sister Monique Byrd Holmes, and my cousin Yvonne Hall. Last, but not least I give humble thanks to my Lord and Savior Jesus Christ who has been the source of my life, health, and strength. Without the blessings of God, and the love and support of my entire family this PhD would have never been possible. Thank you so much and God Bless.

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organizations worked with me to meet tight timelines and freely answered questions whenever I requested clarification or didn't understand the process. Their interest and genuine desire to help me as a PhD student allowed me to stay on track and meet important deadlines through my final stages of data collection.

ABSTRACT

In 2004 the Institute Of Medicine called for healthcare leaders to embrace and adopt transformational leadership practices to promote quality of care and favorable patient outcomes. Nurse managers are accountable for 24-hour operations of their departments and influence patient outcomes. The purpose of this research was to examine the relationships among nurse manager transformational leadership practices, patient outcomes and hospital types (Magnet, On The Journey, and Non-Magnet).

A correlational study examined relationships between self-reported transformational leadership practices of nurse managers and patient outcomes by hospital types. The study was conducted using a purposive sample of Association of California Nurse Leader membership database. In addition nurse managers at one San Diego based hospital participated in the study after IRB approval was received. The measurement tools utilized for this study include the Leadership Practices Inventory (LPI) and an investigator designed demographic questionnaire.

A One-Way ANOVA showed no statistically significant differences in transformational leadership practices of nurse managers among hospital types and patient outcomes. Levene's test confirmed that there were no differences in the mean variances between hospital types. Pearson's correlation was conducted and showed a positive correlation between the LPI sub-scale *Encourage Others to Act (EOA)* and patient falls that was moderate and statistically significant, $r(22)=.421$, $p<.05$; and a positive correlation between the LPI sub-scale *Inspire a Shared Vision (ISV)*, and hospital acquired pressure ulcers was moderate and statistically significant, $r(22)=.406$, $p<.05$.

A multiple linear regression analysis was conducted to explore to what extent the LPI total scores predicted patient fall rates and HAPU. Nurse manager experience and LPI scores did not account for a significant amount of variance in HAPU rates, $F=.666$, $p=.678$, $R^2=.190$. Nurse manager experience and LPI scores did not account for a significant amount of variance in patient falls, $F=2.446$, $p=.069$, $R^2=.463$.

Further research should explore transformational leadership practices of nurse managers assessed by the staff that report directly to the manager. Nurse managers should eliminate barriers to support the delivery of quality patient care utilizing transactional and transformational leadership practices. A larger sample size is needed to further explore impact of leadership practices and patient outcomes.

Table of Contents

Chapter 1: PROBLEM	Page
Introduction.....	1
Background.....	1
Significance of Study.....	4
Conceptual Framework.....	7
Purpose and Objectives.....	10
Aims and Questions.....	12
 Chapter 2: REVIEW OF THE LITERATURE	
Structure Process Outcomes.....	14
Transformational Leadership Practices.....	15
Leadership Model.....	20
Leadership and Patient Outcomes.....	26
Magnet Recognition Program®.....	37
Magnet Designation and Patient Outcomes.....	40
Influence of Magnet Designation	46
Literature Matrix of Constructs.....	50
 Chapter 3: METHODOLOGY	
Participants.....	52
Measurements.....	53

Investigator-Developed Demographic	
Questionnaire.....	53
Leadership Practices Inventory Instrument.....	54
Collaborative Alliance on Nursing	
Outcomes.....	56
Procedure.....	59
Data Analysis.....	59
Limitations.....	60
Protection of Human Subjects	61
References.....	63

Chapter 4: **RESULTS AND MANUSCRIPTS**

Results.....	69
Summary.....	81
Future Research Recommendations.....	82
Manuscript 1: Impact of Caring on Transforming Culture.....	96
Manuscript 2: Transforming Nursing Care: Nurse Leadership	
Alignment and Research.....	105
Manuscript 2: Abstract.....	106
Manuscript 2: References.....	128
Grant Application 1.....	131

List of Tables and Figures

Figure 1: Investigator-Designed Conceptual Model-SPO.....	4
Figure 2: Vito and Higgins Conceptual Model.....	26
Figure 3: Lukas' Transformation Model.....	36
Figure 4: Magnet Model®.....	40
Table 1: Literature Review of Constructs.....	50
Table 2: Demographics of Nurse Managers.....	70
Table 3: Comparison of Education Preparation by Hospital Types.....	71
Table 4: Correlation of Transformational Leadership and Patient Outcomes.....	73
Manuscript 2, Figure 1: Dynamic Research Process.....	110
Manuscript 2, Figure 2: Process Steps.....	122

List of Appendices

Appendix A: Participant Consent.....	83
Appendix B: Approval to Use LPI.....	85
Appendix C: Leadership Practices Inventory.....	86
Appendix D: Investigator-Developed Demographic Questionnaire.....	88
Appendix E: USD IRB Approval.....	89
Appendix F: Sharp IRB Approval.....	90
Appendix G: CALNOC Data Use Agreement.....	92
Appendix H: CALNOC Data Sharing Consent Form.....	93
Appendix I: ACNL Approval.....	95

Chapter 1

Introduction

The theoretical framework for this research is drawn from Donabedian's (1996, 2005) structure-process-outcomes (SPO) model and transformational leadership theory. The purpose of this descriptive correlational research study is to examine the self-assessed leadership patterns and unit level patient outcomes of ACNL member nurse managers in acute care environments of Magnet and Non-Magnet hospitals. This section will describe constructs associated with the research, including significance of the problem and the gap in the literature that exists as the impetus for this research, a general overview of the Magnet Recognition Program® , conceptual framework for the research. The purpose, specific aims and questions explored through the research will also be included in this section.

Background

Today's healthcare environment continues to be plagued with staffing challenges, budgetary constraints, and poor patient outcomes. The costs associated with providing safe, quality patient care can become burdensome and overwhelming for healthcare leaders. In order to manage these challenges effectively, it is essential for nurse leaders to consistently foster and support an environment conducive to providing quality

healthcare through the development of partnerships and collaboration among healthcare team members (Jackson, Clements, Averill, and Zimbro, 2009). *The Future of Nursing: Leading Change, Advancing Health* (Institute of Medicine, 2011) emphasizes leadership styles associated with improved patient outcomes, improved teamwork, and reduced medical errors are needed to change culture and transform the healthcare environment. Magnet designation positively impacts the clinical environment through transforming and reshaping a clinical environment that promotes exceptional patient outcomes and excellent nursing care (Wolf, Triolo, and Ponte, 2008). When hospitals are aligned with the core principles of the Magnet program, a synergistic environment of partnering and empowerment develops, while supporting the power of the nursing voice and encourages nurse's involvement in the clinical decision making process (American Nurses Credentialing Center (ANCC), 2008; Baggett, 2008; Kramer & Schmalenberg, 2005; Wolf, Triolo, and Ponte, 2008). Magnet designated hospitals promote a culture of patient safety and quality, improved staff satisfaction, decreased staff turnover (Aiken & Poghosyan, 2009; ANCC, 2008; ANCC, 2011; Drenkard, 2011). To be designated as a Magnet hospital denotes the highest international recognition for nursing excellence (ANCC, 2008). The Magnet vision, according to the Commission on Magnet Recognition (ANCC, 2008), states "Magnet organizations will serve as the fount of knowledge and expertise for the delivery of nursing care globally. They will be solidly grounded in core Magnet principles, flexible, and constantly striving for discovery and innovation. They will lead the reformation of health care; the discipline of nursing; and care of the patient, family, and community." This quote provides an encompassing

summary, describing what the purpose and philosophy of the Magnet Recognition Program® (ANCC, 2008; ANCC 2011). Dixon (1999) describes transformational leaders as those who empower and encourage their followers to give their best, while encouraging innovation to deliver quality patient care. Nurse manager development and commitment to transformational leadership are positioned to strategically maneuver through complex situations in an ever-changing healthcare environment to deliver safe patient care and improve patient outcomes (Murphy, 2005; Aiken & Poghosyan, 2009; Rosengren, Athlin, & Segesten, 2007; Lukas, Holmes, Cohen, Restuccia, Cramer, Shwartz, & Charns, 2007).

This research will examine the relationships among nurse manager transformational leadership practices, patient outcomes and hospital types (Magnet versus non-Magnet). As depicted in Figure 1, this study will identify the following: relationship of existing self-assessed transformational leadership practices and patient outcomes; differences in leadership behaviors of nurse managers working in Magnet, non-Magnet hospitals, and those on the Magnet journey; relationship of transformational leadership practices to education, experience, ethnicity, and age.

Figure 1. Investigator Designed Conceptual Model

Significance

Health care is experiencing intense, unprecedented reformation. The workforce has become increasingly diverse, dispersed, and more horizontally aligned, requiring more collaboration than competition (Kouzes & Posner, 2010). The Joint Commission (2009) emphasizes the expectation for leaders to serve as the role model and develop into transformational change agents to ensure safe patient environments. The Institute of Medicine (2004) has called for healthcare leaders to embrace and adopt transformational leadership practices to promote quality of care and favorable patient outcomes. Key

recommendations from this report, as well as others cited in the literature, include the need to create a collaborative work environment that supports patient safety and addresses leadership practices and processes (Institute of Medicine (IOM), 2011; Lukas et al, 2007; Dixon, 1999; Wong & Cummings, 2007; Aiken & Poghosyan, 2009). This recommendation includes supporting leadership practices that promote environments of engagement, collaboration, and modeling to achieve patient safety goals. Barker (1991) describes transformational leaders as those who actively engage in relationships with followers to the extent that the workplace and the meaning of work are transformed. The transformed workplaces are likely to become more flexible, strategic, and productive than their counterparts (Hater & Bass 1988; Bass & Avolio 1994).

Improving the quality of care for patients begins with the creation of a strong leadership team that is committed to transforming the clinical environment into a safe, high-quality environment (Burritt, 2005). The nurse manager is a critical member of the leadership team, and is primarily responsible for ensuring favorable patient outcomes through supporting front-line staff to provide quality, efficient patient care. They make operational decisions that directly affect patient care and foster organizational commitment through clinical goal achievement at the department level. Leaders that expect excellence among clinicians, including nursing staff and physicians, build environments with excellent patient outcomes and less adverse events (McGuire, 2000). Nurse managers have been recognized for attributing to positive work environments and for the success of acute care environments (McGuire & Kennerly, 2006). This leadership culture of excellence and positive outcomes is initiated through front-line manager

training and development and essentially becomes the breeding ground for exceptional patient care delivery.

The Institute of Medicine (IOM, 1999) recommended that hospitals strive to transform their healthcare environment through creation of systems and processes that promote patient-centered, quality, effective, and safe care. To meet these recommendations, and in the spirit of addressing clinical and leadership needs in the healthcare environment, nurse managers must equip themselves with transformational leadership skills and strategies to maintain a productive, collaborative clinical work environment. The transformational leader develops clear goals and expectations of the staff and physicians to transform the clinical environment (Bartles, 2005). The influence of nurse managers and a transformational leadership style is a topic to be further explored and is the premise for this study. The study will seek to explore the relationship of nurse manager leadership behaviors and their influence on the clinical environment and patient outcomes.

The changes recommended by IOM (2004) necessitate transformational leadership practices that will support core principles of leadership leading to favorable patient outcomes. Leadership is defined by Huber et al. (2000) as a process of influencing people to accomplish goals. Furthermore, Kouzes and Posner (2002), describe transformational leadership as a process that occurs when people rise to higher levels of motivation and raise the level of ethical and moral conduct for themselves and in turn inspire the followers to do the same. Burns (1978) described transformational leader as those that facilitate major organizational change and higher levels of

organization performance because of their transformational attitudes, values, and behaviors that result from their interactions with their followers. The transformational leader identifies and communicates vision and values, then asks followers for their commitment to these same values as they collaborate towards a common vision. The nurse manager in a Magnet-designated facility focuses on strategic initiatives to support the nursing practice and convey a strong sense of advocacy for nursing staff (Wong & Cummings, 2007). Magnet encourages collaborative, best-practice environments where power distance among the nurse and physician is decreased and staff is empowered in their workplace. Therefore the Magnet environment lends itself to one that is ready for positive transformation and to deliver quality patient care. In order to meet, and ideally exceed, the recommendations from the Institute of Medicine report (2004), transformational leadership practices will need to be adopted and embraced in healthcare organizations and by nurse leaders.

Conceptual Framework

The conceptual framework for this study derives from the Donabedian's (1996, 2005) structure-process-outcomes (SPO) model and the transformational leadership theory developed by Kouzes & Posner (1987). These models will support the constructs for the study; nurse manager, hospital types (Magnet, On the Journey, and non-Magnet), and patient outcomes (fall rates and hospital-acquired pressure ulcer rates).

Donabedian's SPO model provides the framework for this study. The author describes quality as conceptual and operational, and notes that it is difficult to define and should be demonstrable with measureable actions. Empirical studies have concluded that measuring quality is multi-dimensioned and criteria should be stratified to promote consistency and accuracy (Kramer, et al 2007; Donabedian, 2005). The constructs for this research, based on the Donabedian SPO model, include: structure-nurse manager demographics, and hospital types (Magnet, On the Journey, and non-Magnet); processes-transformational leadership practices; outcomes-patient fall rates and hospital-acquired pressure ulcers. These constructs are also depicted in Figure 1. Prenkert and Ehnfors (1997) report that Donabedian's structure, process and outcome model is a frequently used approach to analyze patient outcomes in the healthcare environment, and seems to be a good fit for this research.

While there are many definitions of transformational leadership, the defining characteristics of this study focus on successful, transforming leadership practices, such as vision, engagement, and empowerment, defined by Kouzes and Posner's (1987) as those exemplary leadership behaviors that result in high levels of engagement, followership, and achievement of organization goals. These practices are synonymous with the Magnet program and culture of safety and excellence, which are important constructs of this study.

The conceptual framework for this study is strongly connected to this transformational leadership theory and will be measured using the Leadership Practices

Inventory (LPI). Although other researchers have defined transformational leadership, Kouzes and Posner's definition will be used because of their development of the LPI, which specifically measures these transformational leadership practices. The LPI instrument was based upon both qualitative and quantitative research studies of more than 1300 leaders, and is also the basis for their leadership theory. In-depth interview and written case studies from personal-best leadership experiences generated the framework, which consist of five leadership practice subgroups used to achieve organizational goals: *Modeling the Way, Inspiring a Shared Vision, Enabling Others to Act, Encouraging the Heart, and Challenging the Process*. The personal-best leadership behaviors associated with these five leadership practices were later translated into behavioral statements and refined into the LPI, an instrument that seeks to measure transformational leadership practices (Kouzes & Posner, 2002; Stout-Steward, 2005).

Kouzes and Posner (1987) describe *Modeling the Way* as a leader's ability to lead by example and be clear about their beliefs and values. Transformational leaders speak clearly about vision and values that are aligned with their behaviors and create standards of excellence for others to follow. The two main strategies for *Modeling the Way* are to set an example for others and celebrating wins that encourage and reward forward progress and build commitment (Isaksen, Babij, & Lauer, 2003).

Kouzes and Posner (2007) describe *Inspiring a Shared Vision* as turning possibility thinking into a shared vision. Leaders take action and determine what will be done next to reach the aspired goal. Essentials of inspiring a shared vision include a

leader's ability to imagine the possibilities and to find a common purpose with their followers.

Enabling Others to Act, as defined by Kouzes and Posner (2007), involves an ability to appeal to common ideals with followers and bring these ideals into conversation. Leaders must animate their vision and expand their communication with their followers to breathe life into their vision. Extraordinary achievement occurs as a result of follower involvement and camaraderie of aligned vision and purpose.

Kouzes and Posner (2005) defined *Encouraging the Heart* as an ability to sustain hope and determination with followers. Accomplishing extraordinary goals requires perseverance, dedication, and commitment. The main strategies for Encouraging the Heart are recognizing follower contribution to the success of the project and continuously celebrating team accomplishments.

Challenging the Process as defined by Kouzes and Posner (2005) requires leaders to search for opportunities, to experiment, and to take risks. The work of leaders requires that leaders actively seek ways to grow, innovate, and improve. Essentials for *Challenging the Process* include seizing the initiative and exercising oversight to actively seek innovate ideas from outside the boundaries of familiarity, therefore is a vital leadership strength for transformational leaders in complex healthcare environments.

Purpose and Objectives

The purpose of this descriptive, correlational study is to examine the self-perception of leadership patterns and behaviors of nurse managers and relationship to patient outcomes as reported by CALNOC in hospital types (Magnet versus Non-

Magnet). One of the major elements for evidence-based practice required by ANCC (2011) among all Magnet facilities is a transformational leadership model that aligns with exemplary leadership practices. These exemplary leadership practices are very similar to those identified by Kouzes and Posner (1995) and for this study will be measured using the LPI.

There are several factors that can be examined to explore the influence on Magnet-status on patient outcomes. For purposes of this study, the influence of transformational leadership practices on patient outcomes will be explored through using the Collaborative Alliance for Nursing Outcomes (CALNOC) database. The database will be used to aggregate data at the unit level, including rates for patient falls and hospital-acquired pressure ulcers. It is important to utilize a nursing quality database, such as the Collaborative Alliance for Nursing Outcomes (CALNOC), to insure standardized measurements. CALNOC (2011) currently has a membership of 225 hospitals from California, Oregon, Arizona, Nevada, Hawaii, and Washington. It is a joint venture between the Association of California Nurse Leaders and the California state affiliate of the American Nurses Association. The vision for CALNOC is to promote patient care excellence and to add value to participating hospitals by collaborating to support regional and national patient care safety, outcomes, and performance measurement initiatives. Although CALNOC monitors several difference nursing-sensitive measures, this study will explore patient falls including risk, incidence (rate per 1000 patient days), and consequences, as well as hospital acquired pressure ulcers.

This study will explore the relationship of existing self-assessed transformational leadership practices and patient outcomes; differences in leadership behaviors of nurse managers working in Magnet and non-Magnet hospitals; relationship of transformational leadership practices and nurse manager experience (Figure 1).

Specific Aims/Questions

The purpose of the research study is to examine the impact that transformational leadership practices of nurse managers have on patient outcomes in Magnet-designated hospitals. This research will focus on three variables: hospital types (Magnet-designated hospitals and non-Magnet hospitals), nurse manager self-reported leadership behaviors, and patient outcomes (patient fall rates and hospital-acquired pressure ulcers). The study will answer the following research questions: Is there a relationship between transformational leadership practices and patient outcomes?; Is there a difference in self-assessed transformational leadership practices for nurse managers at Magnet and Non-Magnet hospitals?; Is there a correlation between transformational leadership practices and select demographics, such as nurse manager experience and education of nurse managers?

To address these research questions, the following are the specific aims:

- (1) Examine the relationship between self-reported transformational leadership practices of ACNL member nurse managers and CALNOC reported unit level patient outcomes.
- (2) Explore the differences in transformational leadership practices of nurse managers and patient outcomes working between Magnet and Non-Magnet hospitals.

(3) Examine the relationship of transformational leadership practices, Magnet status, and select demographics (e. g., education, experience) to patient outcomes.

Summary

In summary, this section has identified the purpose of this research, as well as key concepts, the conceptual framework, and patient outcomes that will be explored in this study. Nurse manager leadership behaviors in Magnet-designated and non-Magnet hospitals will be explored to examine relationships and differences in patient outcomes. The next section will outline published literature and existing research that is associated with constructs of the research, which will support the impetus for expanded research in this area.

Chapter 2

Review of the Literature

Drawing from Donabedian's (1996) structure process outcomes (SPO) model, the purpose of this research is to examine the relationships among nurse manager transformational leadership practices, patient outcomes, and hospital types (Magnet versus non-Magnet). This section reviews the state of current literature related to this research topic.

Structure Process Outcomes Model

Donabedian's SPO model (1996, 2005) has served as the framework to guide research on quality and patient outcomes for more than three decades and will be the conceptual framework for this study. Donabedian's (1996) model is depicted as one with a linear design, assuming that structure affects process, and impacts outcomes. The objectives of this study are shown in Figure 1, and include to examine relationships between structure (nurse manager characteristics and Magnet status), process (leadership practices and behaviors), and outcomes (rate of hospital acquired pressure ulcers and patient falls). Processes for this study are further described as the transformational leadership behaviors within five subgroups outlined by Kouzes and Posner (2005). Patient outcomes included in this research will be patient falls and hospital-acquired pressure ulcers as reported by CALNOC. This research will explore the influence these structures will have on the outcomes, and will seek to explore the influence of

transformational leadership practices and behaviors of nurse managers on these patient outcomes.

Kunkel, Rosenqvist, and Westerling (2007) studied the importance of process and outcomes on the structure of quality systems at 386 hospital departments in Sweden. A questionnaire was developed and distributed to a randomized sample of 600 hospital departments, with a 75% response rate, or 386 departments, participating in the study. Confirmatory factor analysis, exploratory factor analysis, and structural equation modeling was used to analyze the data. The Donabedian SPO model was utilized as the framework for this study and was used to describe and compare various quality systems. The results showed a strong correlation among structure and process (0.72) and outcome (0.60), with all relationships showing statistical significance ($p < 0.05$). The results of this study support the researchers' hypothesis that relationships between structures, process, and outcomes exist within the context of quality systems (Kunkel et al, 2007).

Transformational Leadership Practices

Transformational leadership behaviors motivate and inspire followers, promoting a collegial work environment where individuals achieve more than they think is possible. As described by Kanter (2003), leaders that turnaround, or transform, organizations and departments are able to empower employees, spark internal initiative, and develop a sense of trust and respect amongst followers leading to achievement of high levels of success. The topic of transformational leadership has been well researched in corporate work environments; however there is limited research published specific to the nurse manager in hospitals and patient outcomes. The literature continues to evolve regarding

nurse manager's ability to transform the work environment, and the impact of that transformation on patient outcomes. Nurse managers that demonstrate transformational leadership behaviors, including modeling, inspiring, enabling, encouraging, and challenging, promote an environment of quality, effective, collaborative care (Murphy, 2005; Aiken & Poghosyan, 2009; Rosengren, Athlin, & Segesten, 2007; Lukas, Holmes, Cohen, Restuccia, Cramer, Shwartz, & Charns, 2007).

Isaksen, Babij, and Lauer (2003) investigated the relationship between two measures utilized to support transformation efforts. The two models were the Kirton Adaption-Innovation Inventory and the LPI. The Kirton inventory explores the style and manner of problem solving and cognition and the LPI measures leadership practices and behaviors. The study included 179 participants from a diverse group of companies, including a multinational direct mail company, a manufacturing company of household goods, and an international accounting firm. The results reported a statistically significant correlation between challenging the process ($r=.58$, $p<.001$), inspiring the vision ($r=.42$, $p<.001$), and Kirton adaption-innovation total scores. The researchers reported that the other subscales of the LPI, modeling the way, enabling others to act, and encouraging the heart, did not show a statistically significant relationship to the Kirton adaption-innovation model and was unrelated to cognition and problem-solving. One of the limitations of the study was the small sample size, which limits the ability to generalize research findings to the broader population. Analysis designs that involve broad, randomized sampling will allow full representation and minimize instrument skewing of scores. The research implies that leaders who inspire their followers and

challenge the status quo tend to seek out opportunities for improvement and focus on new, innovative, creative strategies in hopes of making things better. Constructs and findings from this research translate nicely into the nurse leader realm, prompting leaders to partner with staff to improve the patient experience and strive for better patient outcomes in the healthcare environment through innovation and vision.

Patient outcomes are directly impacted by the manager's ability to lead their department in a manner that prioritizes safe patient care (The Joint Commission, 2009). Managers that are engaged with their staff are perceived as advocating for quality nursing care and supporting collaborative nursing practice. When staff feels supported in their clinical practice, they become advocates for providing safe patient care and improving patient outcomes (IOM, 2004). When employees believe they have been heard by a manager, they are more committed and focused on exceptional patient outcomes promoting a sense of team and focus on patient care.

The *Future of Nursing* (IOM, 2011) report highlights the experiences of healthcare professionals who have been successful in transforming their clinical environment and makes the call for strong leadership to transform the U.S. health care system. A transformed healthcare system requires engaged and motivated nurse leaders who are willing to allow and enable their clinicians to become active partners in improving healthcare. The nurse manager in a Magnet-designated hospital conveys a strong sense of advocacy, engagement, empowerment, and encouragement on behalf of the clinical staff and patients (American Nurses Credentialing Center, 2008).

McNeese-Smith (1999) showed that nurse manager's motivation for achievement and power influence staff, and are positively correlated with patient satisfaction. The study was conducted in a large Los Angeles county hospital collecting data from 19 nurse managers, 285 nurses, and 299 patients. All nursing managers, the full-time registered nurses that were their direct reports, and patients from each of the participating units were selected for the study. Patients were selected based on inclusion criteria and those who were available and agreeable to be interviewed. Seven instruments and a demographic questionnaire were used to collect data for this research. Data was reportedly analyzed through Statistical Analytical Software (SAS), using frequencies, means, correlation techniques, regression, and analysis of variance. For purposes of this research paper, only those related to the current research topic will be discussed here. Motivation of the nurse manager was measured using the Job Choice Exercise (JCE), with internal consistency reliability reported at 0.75 to .82 and test-retest reliability correlations ($p < 0.001$) for power at 0.76 to 0.89. JCE was reported as highest in motivation for achievement ($x = 0.45$), second in motivation for power ($x = 0.34$). Motivation by power correlated positively ($r = 0.45$, $p = 0.055$) to the manager's LPI-self score for leadership. A second method for measuring manager motivation was used, which entailed a nurse being asked to divide 100 points to indicate manager's use of power for the following reasons: to influence the activities of the staff; to accomplish goals; to establish collaborative relationships with others. Test-retest reliability was reported at $r = 0.75$ for power; $r = 0.59$ for achievement; and $r = 0.88$ for affiliation. The LPI-self and other were both used to measure the manager's use of leadership behaviors as perceived by self (LPI-self) and by

the staff nurse (LPI-other). For this study, internal consistency was reported (Cronbach's $\alpha=.98$ for LPI-other; 0.84-0.85 for the subscales). The Job-in-general (JIG) scale was used to measure overall nurse job satisfaction. Internal consistency reliability was demonstrated, using Cronbach's α (0.90). Convergent validity was demonstrated with four other job satisfaction scales ($r=0.66$ to 0.80).

In this study (McNeese-Smith, 1999) the patient satisfaction scale was used to determine patient satisfaction with nursing care. Questions were presented on a 5-point Likert-type scale. Internal consistency was reportedly demonstrated with Cronbach's $\alpha=0.85$ for this study. Patient satisfaction scores were reported at an overall mean score of 4.15 on a scale of 1 to 5. A strong, positive correlation was reported between the mean patient satisfaction score and the perception that one nurse was in charge of the patient's care ($r=0.46$, $p=0.001$) and the patient's acquaintance with the nurse manager ($r=0.17$, $p=0.01$). The manager's motivation for power (JCE) was positively correlated with the mean patient satisfaction score ($r=0.32$, $p=0.0001$) and all five questions regarding patient judgments of nursing care ($r=0.21$, 0.23 , 0.45 , 0.28 , and 0.21 , $p<0.002$).

The researcher reported a negative correlation between manager's motivation for power, as rated by nurses, and all of the leadership behaviors (overall $r=-0.28$, $p=0.0001$; *challenging the process*, $r=-0.23$, $p=0.0007$; *inspiring a shared vision*, $r=-0.25$, $p=0.0002$; *enabling others to act*, $r=-0.37$, $p=0.0001$; *modeling the way*, $r=-0.19$, $p=0.0006$; *encouraging the heart*, $r=-0.27$, $p=0.0001$). McNeese-Smith (1999) also reported significantly positive relationships between the motivation for achievement and leadership scores (overall $r=0.26$, $p=0.0001$; *challenging the process*, $r=0.31$, $p=0.0001$;

inspiring a shared vision, $r=0.27$, $p=0.0001$; *enabling others to act*, $r=0.19$, $p=0.0004$; *modeling the way*, $r=0.27$, $p=0.0001$; *encouraging the heart*, $r=0.19$, $p=0.004$). Positive relationships were also reported between manager's motivation for achievement, measured by JCE, and patient satisfaction mean score ($r=0.19$, $p=0.004$). Numerous other relationships were explored and reported by the researcher, however only those related to this research study are reported here. The findings in this study revealed strong relationships between manager's motivation for power and motivation for achievement with patient satisfaction scores. The findings reportedly imply that motivation for power and nurse managers with transformational leadership behaviors, as identified by the LPI, resulted in better care on the unit and more satisfied patients. The author further explains that managers motivated by power were more likely to conduct patient rounding and introduce themselves to patients (McNeese-Smith, 1999). However, further research is needed that includes larger populations of nurse managers to examine questions regarding conflicts between motivation for power and achievement. Additional research will allow comparison of individual nurse satisfaction, and organizational commitment to satisfaction scores of patients care for by the individual nurse.

Leadership Model

The transformational leadership model for this study derives from the five practices of exemplary leadership developed by Kouzes & Posner's (1987). They developed their original concept of leadership based on 38 initial in-depth interviews and written case studies from personal-best leadership experiences (Kouzes & Posner, 1988, 1992). They believed that there were patterns within leadership excellence, and these

transformational practices could be identified through five common practices of extraordinary, transformational, leadership achievements. These leadership practices were divided into 5 subgroups: *Modeling the Way*, *Inspiring a Shared Vision*, *Enabling Others to Act*, *Encouraging the Heart*, and *Challenging the Process* (Kouzes & Posner, 1988, 1992).

Kouzes and Posner (1987) describe *Modeling the Way* as a leader's ability to lead by example and be clear about their beliefs and values. The two main strategies for *Modeling the Way* include setting an example for others, and celebrating wins that encourage and reward forward progress and build commitment (Isaksen, Babij, & Lauer, 2003). Transformational leaders speak clearly about vision and values that are aligned with their behaviors, and create standards of excellence for others to follow. Values are important as they help influence how followers respond to the transformational leader. The credibility of the leader is determined by their values and how they set the example through alignment of values in their everyday works (Kouzes & Posner, 2007). This practice builds a firm foundation through consensus building among the teams, and encourages alignment of values (Vito & Higgins, 2010). Transformation leaders have an innate ability to clarify values through finding their own voice and affirming shared ideals amongst the team. An exemplary leader first set the example, and furthermore demonstrates their deep commitment to their beliefs by their behaviors. Research supports that organizations with a solid corporate culture, which are based on a foundation of shared values, outperformed other firms by a huge margin and support organizational effectiveness (Kouzes & Posner, 2007; Dixon, 1999; Bowles & Bowles,

2000). In summary, *Modeling the Way* is the ability of the transformational leader to earn the right and respect of the follower to direct individual engagement and action, leading to favorable outcomes and successful leadership.

Kouzes and Posner (2007) describe *Inspiring a Shared Vision* as turning possibility into reality through shared vision. Leaders take action and determine what will be done next to reach the aspired goal. To enlist followers in a vision, the leader gets to know their constituents and understands their needs, and strives to energize and motivate them. Through intimate knowledge of visions, values, and aspirations, transformational leaders are able to engage their followers through discussion about strategies and outcomes. Leaders partner with their followers in a way that forges them forward unifying purposes and dreams for the common good of the group. Transformational leaders ultimately elevate ethical aspirations and human behavior of their followers, as well as themselves. This style of leadership creates a synergy of excellence and higher levels of exceptional results (Burns, 1978). *Inspiring a Shared Vision* challenges leaders to imagine the possibilities, while thinking beyond normal paradigms, to find a common vision with their followers (Kouzes & Posner, 2007; Bass, 1985).

Enabling Others to Act, as defined by Kouzes and Posner (2007), fosters collaboration through trust-building, developing relationships, and strengthening others. *Enabling others to act* is an ability to appeal to common ideals with followers, and bring these ideals into conversations, ultimately allowing followers to move towards a common goal and vision. Leaders and followers experience extraordinary achievement when

followers are involved and are empowered to share their ideas and vision (Isaksen, Babij, & Lauer, 2003).

Kouzes and Posner (2005) defined *Encouraging the Heart* as an ability to sustain hope and determination with followers. Accomplishing extraordinary goals requires perseverance, dedication, and commitment. The main strategies for *Encouraging the Heart* are recognizing follower contribution to the success of the project and continuously celebrating team accomplishments while creating a spirit of oneness and community (Kouzes & Posner, 2007). Vito and Higgins (2010) report that transformational leaders value the importance of recognizing their followers and consistently expect the best while acknowledging exceptional performance. Leaders engage their followers through consistently promoting hope and determining the needs of their team members. This encourages followers to maintain high standards and promotes accountability within the team members. Celebrating success reaffirms values, keeps the passion alive, and motivates followers to achieve exceptional success and accomplishments (Vito & Higgins, 2010).

Challenging the Process allows followers and leaders to explore opportunities to challenge the status quo and seek opportunities for innovation and creativity (Kouzes & Posner, 1995, 2010). There are two essentials for *Challenging the Process*; seizing the initiative and exercising oversight to actively seek innovative ideas beyond the boundaries of familiarity. Through challenging the process, leaders and followers seek out opportunities to experiment, and take risks, possibly resulting in improvements in outcomes and the work environment (Doran et al, 2004; Kouzes & Posner, 1995, 2010;

Wong & Cummings, 2007). The work of transformational leaders involves constant change. This constant cycle of change requires leaders to become innovative vessels for improvement and to partner with their team members to develop creative strategies for better outcomes and collegiality (IOM, 2004, 2011; Kouzes & Posner, 2010; Wong & Cummings, 2007). Seizing opportunities for improvement, and seeking ways to make the work environment better for followers are primary goals for successful leaders.

Transformational leaders engage their followers in this process, with a goal of consistently garnering wins and successes along the way, and developing innovative processes that help to strengthen the environment, followers, as well as the leader (Bass, 1985; Bass, & Avolio, 1994; Burns, 1978; Kouzes & Posner, 2010; Lukas et al, 2007; Wong & Cummings, 2007).

Vito and Higgins (2010) examined the validity of the Leadership Challenge inventory as it relates to police managers and their leadership practices. There were 576 participants in the study, including 493 observers and 83 self-reporters. The study compared opinions provided by the Southern Police Institute Officers (the self group) and their identified observers. The researchers sought to validate the LPI utilizing confirmatory factor analysis through structural equation modeling. Their analysis was presented through 5 stages noting several important key findings from their research. A combination of model fit and large factor loadings was conducted and supports evidence of convergent validity for police managers using the LPI. The subscale *Enabling Others to Act* was the dominant leadership practices from the self-reported LPI, thus reporting that police managers empower their direct reports and support their development and

success as high-performers. Figure 2, illustrated d by Vito and Higgins (2010), shows one example of how leadership behaviors could be depicted in a theoretical model. They point out in their literature that the model may not be useful with every organization. Although Figure 2 is depicted by Vito and Higgins (2010) as a model for transformational leadership, there are limited details about the model in the author's publication. The authors fail to describe the rationale for the arrows below each LPI subscale, however their publication shows a subsequent figure which presents factor loadings for each of these subscales. Factor loadings support evidence of convergent validity, and the results were reportedly favorable when using the LPI to explore police manager leadership behaviors. Bivariate correlations were reported between .57 and .75 for all subscales, indicating strong correlations between the subscales and leadership indicators. The confirmatory fit index (0.99) and squared error of approximation (.07) were reported as acceptable and an acceptable fit as a model to measures police manager's leadership practices.

Figure 2. Vito and Higgins Conceptual Model

Leadership and Patient Outcomes

Leaders that transform others have an ability to engage followers in a way that raises their morality to higher levels (Bass, 1985; Bowles & Bowles, 2000; Dixon, 1999; Kouzes & Posner, 2007; McGuire & Kennerly, 2006; Prenkert & Ehnfors, 1997). According to Bass (1998), transformational leaders are highly regarded and emulated by followers. The transformational leader communicates vision and values in a manner that engages followers to commit to these same values as they work collaboratively to achieve common vision and goals. Transformational leaders redirect their priorities to address

follower's wants, needs, motivations, as well as their own, supporting mutual purposes and goals (Jackson, Clements, Averill, & Zimbardo, 2009). Through the role of educating leaders about the impact of transformational leadership, nurse managers are shaped to elevate and motivate the goals and values of followers resulting in improved patient outcomes and collaborative work environments (Burns, 1978). When exploring the role of transformational leadership in healthcare organizations, researchers describe the components involved in the transformation as well as the outcomes experienced within these organizations (Bass, 1985; Bowles & Bowles, 2000; Dixon, 1999; Kouzes & Posner, 2007; McGuire & Kennerly, 2006; Prekert & Ehnfors, 1997).

A transformational leader is one that inspires and motivates others to achieve more than the follower through was possible. Transformational leaders are further described by Kouzes and Posner (2002), as well as others, as an individual who interacts with people in a way that inspires them to elevated levels of morality and motivation (Bass & Avolio, 1994; Jackson et al, 2009; Kanter, 2003; McNeese-Smith, 1999). This feeling of heightened morality and motivation raises the standard of human behavior and performance, leading to high ethical aspirations for both the leader and the follower. Murphy (2005) describes transformational leadership as a domino-like, cascading chain reaction. The charismatic transformational leader stimulates intellectual capacity beyond follower's consideration and empowers clinician to provide better care leading to better patient care outcomes. Empowered clinicians are advocates for evidence-based practice and deliver more effective patient care (Murphy, 2005). When leaders successfully

empower staff it stimulates a culture of trust and collaboration in the work environment, and fosters loyalty to the organizational goals and commitment to quality patient care.

Transformational leadership involves front-line clinicians in the decision making process, as noted by the Magnet program, which supports a higher level of collaboration by including the nurse within the healthcare team (Wolf, Triolo, & Ponte, 2008). Kramer and Schmalenberg (2005) point out that in the past nurses were accustomed to being task-oriented and doing what they were told. The 21st century has proved to be different and requires a different communication style and a more collaborative environment. The ANCC (2008) surmises that the Magnet program encourages collaborative, best-practice environments where the power distance among the nurse and physician is decreased and staff is empowered in their workplace, supporting an environment that is ready for positive transformation. The Magnet philosophy supports input from nurses and clinicians when given all directions from administration and physicians. The shared governance model supports nurse autonomy and their ability to have input into decisions within the organization (ANCC, 2008). The priority is not only to include staff nurses on all committees, but to lead committees involved in making decisions about nursing practice and the clinical environment based on best practices and methods to provide the best patient outcomes (ANA, 1998). This level of staff involvement supports better patient outcomes, and emphasizes the importance of the clinician's voice to improve patient care.

Leadership characteristics and clinical outcomes continued to be explored through the research by Xirasagar, Samuels, and Stoskopf (2005). The study explored the

relationship between medical director's leadership effectiveness and behaviors and achievement of clinical objectives hypothesizing that the medical director would demonstrate more transformational leadership behaviors than transactional and laissez-faire leadership behaviors. Executive directors were asked to evaluate the medical director's leadership behaviors using the Multifactor Leadership Questionnaire (MLQ). Medical directors completed two surveys, a demographic questionnaire and a survey of the center's clinical goals. More than 660 executive directors at primary care community health centers were asked to rate their medical director's leadership behaviors using the Multifactor Leadership Questionnaire. The authors hypothesized that transformational leadership would be more positively associated with executive director's ratings of satisfaction with the physician leader, ratings of effectiveness, subordinate extra effort, and community health center's clinical goal achievement. The study's objective was also to identify the leadership styles associated with positively affecting clinical outcomes. Leadership styles explored included transactional, transformational, and laissez faire.

Results of the study by Xirasagar, Sammuels, and Stoskopf (2005) showed that these three variables explained 68% of the variance in rated effectiveness, 66% of subordinate satisfaction with the leader, and 71% subordinate extra effort (model $R^2=.68$, $.66$, and $.71$ respectively, all showing statistical significance ($p<.001$)). There was a dominance of the transformation leadership practices, with a mean=2.95, followed by transactional leadership, mean=2.50, and laissez-faire, mean=1.31. Separate ordinary least squares regressions were used to examine each of the effectiveness measures. Linear multiple regression analysis was used to examine clinical goal achievement. The

community center's clinical goals and achievements were mostly disease management related and were analyzed through self-reported clinical data submitted by the medical director. The selected clinical goals for this study included those that would require changes in behaviors of the provider to influence clinical outcomes. The mean degree of clinical goal achievement was reported at 91.5%, indicating that only 8.5% of the patient population for the community centers that were surveyed did not meet the clinical objectives. The researchers reported that medical director transformational leadership style was positively associated with effectiveness, showing the largest effect size of all three leadership styles. Transformational leadership accounted for 21% of the explained variation in rated effectiveness, 26% of subordinate extra effort, and 31% of satisfaction. As a result of the small sample size, the specific sub constructs of transformational leadership that possibly evoke greater followership could not be explored, and was reported as a limitation by the researcher. The findings documented a significant association between clinical effectiveness of physician practice behaviors at community centers and transformational leadership behaviors. These findings suggest that medical directors with transformational leadership styles were rated as more effective and may help improve the quality of patient care.

Capuano, Bokovoy, Hitchings, and Houser (2005) conducted research exploring the impact of leadership resources, nurse staffing workload, work environment, staff expertise, and staff ability on nurse-sensitive patient outcomes. The study was conducted at Lehigh Valley Hospital and Health Network (LVHHN), a Magnet designated hospital, utilizing two instruments, the Leadership Practices Inventory (LPI) and the Work

Environment Scale (WES). A random sample of 283 nurses completed the survey among thirty-four LVHHN units. The initial results were analyzed, then nurse leaders tested various relationship hypotheses associated with variables in their study. The authors found a statistically significant correlation between patient outcomes and leadership, which resulted in them promoting management talent, and reinforcing strategic goals to recruit and retain good talent. Path coefficients reported in their structural equation model, when variables were entered into multiple linear regression model, showed a significant relationship between leadership and staff expertise ($f=2.681$, $p<.05$), indicating that more experienced staff were working on departments with strong leaders. LVHHN leaders had strongest scores on the LPI scale of "enabling" and "inspiring". Researchers also reported statistical significance of staff expertise and patient outcomes ($f=-2.283$, $p<.05$), indicating a relationship between experience of nursing staff and patient outcomes.

Jackson, Clements, Averill, and Zimbardo (2009) describe the importance of transforming healthcare using a collaborative, engaging process. The authors emphasize the importance of transforming the clinical environment and the influence on quality care and the work environment. Nurse leaders that are engaged with the staff to support quality patient care promote a collegial work environment that supports patient care as the priority. These transformational practices enhance leader-staff relationships translating into optimal care for patients. The ability of team members to work together effectively through a genuine respect for each other and their individual contribution to

the team will lead to a strong sense of collaboration and quality patient care (Wolf, Triolo, & Ponte, 2008).

The Institute of Medicine (2004) recommended healthcare organizations employ nurse leaders who facilitate and encourage the involvement of direct-care nursing staff into the decision making process. Front-line clinicians have a unique awareness and clinical knowledge about direct patient care processes that offer critical information for nursing leaders. Nurse leaders should meet with staff in an open non-judgmental atmosphere to elicit opinions and act upon knowledge that is shared. As described by Wong and Cummings (2007), a leadership team that develops a strong foundation enhance the clinical environment, and promote a culture of excellence and high standards of care, supporting patient safety, quality, and positive patient outcomes.

The concept of transformational leadership is often paired with transactional leadership when conducting research exploring patient outcomes and quality of nursing care. The research conducted by Bass (1985) takes into account transactional and transformational leadership, with claims that transactional leadership involves completion of tasks and responsibilities in exchange for rewards for the follower. A transformational leader realizes the role that reward exchange plays, and places an emphasis on engagement of the follower in an emotional and intellectual state that in a way that encourages them to achieve a high level of performance. When investigating both leadership practices, transactional and transformational, Prenkert and Ehnfors (1997), sought to explore the relevance to organization effectiveness. Their study explored the organizational effectiveness and leadership practices of twenty-three head nurses and

assistant head nurses in a medium-sized hospital in Sweden. The research was conducted using interviews and a modified version of the Bass multiple-leadership questionnaire (MLP), called Leadership-Nursing-Effectiveness Questionnaire (LNEQ). The LNEQ included three items measuring quality of nursing care as related to Swedish law and professional beliefs. The hypothesis, based on Bass' theory, was that nurse leaders that exposed their staff to more transformational and transactional leadership practices would have a higher level of organization effectiveness and a higher quality of nursing care. Quality of nursing care was explored through a self-administered questionnaire to department heads, and assistance department heads in all thirteen clinical departments of a Swedish hospital. The results showed that nurse managers that demonstrated transformational and transactional leadership styles did not have a higher level of organizational effectiveness or predict better nursing care. However, there were higher mean scores on quality of nursing care and transformational leadership, indicating the need for further studies to explore these two constructs in future research. These authors have left an untapped area of research for nursing leaders that needs further exploration. The purpose of this study seeks to identify the transformational leadership styles of nurse managers, characteristics of hospitals, Magnet and non-Magnet, and their relationship to patient outcomes.

Patient outcomes are directly related to the level of engagement of the nurse manager with their staff, and happenings on their clinical department. This statement is further supported by the work of Rosengren, Athlin, and Segesten (2007), who found that when nurse managers are present and available in daily work, they are perceived by their

staff members as contributing to improving nursing practice and promoting quality care. Their qualitative research focused on content of thinking with 10 focus groups, each lasting 45-60 minutes in a Swedish, 10-bed ICU. The sample was comprised of 84 employees on the unit, including physicians, secretaries, and nurses. The study was focused on staff member's perception of nursing leadership through data gathering utilizing a voluntary participation approach. The findings concluded that when nurse leaders are engaged with the workforce, as demonstrated by supporting everyday practice, available to assist staff with their daily work, and respective nursing team members as professional colleagues, the quality of patient care was improved.

Transformational leaders, including physicians and nurses, working in a collaborative fashion to develop a strategy for exceptional patient care attribute to improved patient outcomes (Capuano et al., 2005; Dixon, 1999; Heuston and Wolf, 2011; IOM, 2011). Lukas, Holmes, Cohen, Restuccia, Cramer, Schwartz, and Charns (2007) developed a conceptual model through their research, to help organizations move toward an evidenced-based improvement plan for patient care. They investigated the importance of five elements for successful transformation of patient care including leadership commitment to quality and improvement initiatives and their ability to engage staff to improve patient care. Lukas et al (2007) conducted 750 interviews with healthcare leaders in 12 healthcare systems over a three and half year period. Participating healthcare systems included seven that were funded through the Robert Wood Johnson Foundation's Pursuing Perfection Program, and the additional five systems were chosen because of their continuous commitment to improvement and high-quality patient care.

Interviewees were selected from across the health system to gain broad perspectives and included chief executive officer, quality improvement project teams, staff nurses, and managers. Each system was visited up to seven times, conducting 5 to 21 interview sessions each time. Each group interview lasted one to two hours and included semi-structured interviews, with interviewer taking detailed interview notes that were later transcribed. Qualitative analysis was conducted using coding and sorting of interview transcripts, which were organized by domains from the conceptual model and themes that emerged from the site visits. This study emphasizes that importance of key transformational leadership qualities that are consistent with the Leadership Practices Inventory (LPI) model.

Lukas et al (2007) identified five critical elements as the key drivers for health care organization's success in transforming into sustainable, highly reliable, evidence-based environments for quality patient care. These five critical elements, shown in Figure 3, include: (1) improvement of patient care; (2) leadership commitment to quality and change; (3) impetus to transform; (4) alignment of plans, processes, information, and results; (5) integration across organizational boundaries. As illustrated inside the dotted circle in Figure 3, the organization is defined in terms of four basic elements: (1) mission, vision, and strategies; (2) culture that reflects organization's values and norms; (3) operational functions and processes that support patient care; and (4) infrastructure, such as technology, facilities, and human resources. Changes in these components reflect the transformation of the healthcare care system, which occurs over time, as illustrated by the shadow boxes and diagonal line. The researchers identify the important of leadership

involvement in transforming patient care and the organization. Although leadership strategies began at the top, as depicted in Figure 4, improvement in quality was greater when middle and frontline managers were also committed to quality and actively involved in process redesign. Leaders that demonstrate an ability to embrace these five elements of successful transformation support improved patient outcomes and a stronger healthcare environment for patients and staff. There were two limitations reported in this study, including lack of common clinical performance indicators across systems and selection of hospitals that were already committed to improving patient care. Lukas et al (2007) reported that further research is needed to explore the characteristics of organizations that are ready for the transformation journey, and to understand the motivation behind system redesign.

Figure 3. Lukas et al (2007) Transformation Model.

Magnet Recognition Program®

This section will identify literature that explores the relationship of the Magnet program to patient outcomes and nursing practice in the hospital environment. It is important to first discuss the history of the Magnet program to fully understand how this philosophy was developed. The origin of the Magnet program began in the 1980's with the exploration of practices demonstrated by hospitals that had staff that reported enjoying the environments in which they worked. These organizations appeared to have employees that felt their environment was a great place to work and their patient outcomes were excellent (ANA, 1998). The history of the Magnet designation process began in 1981 when the American Academy of Nursing established a task force to evaluate exceptional nursing practices. In 1983 the American Nurses Association Task Force on Nursing Practice evaluated 163 hospitals to identify variables that created an environment that attracted and retained well-qualified nurses who promoted a high level of quality patient care. Only 41 of the 163 institutions demonstrated consistent characteristics of excellence, which were later more clearly defined and developed in Magnet forces. These unique characteristics that were demonstrated in these 41 institutions branded them as the magnets that attracted excellent nursing retention and exceptional nursing care and patient outcomes. The original Magnet research study from 1983 first identified 14 characteristics, later identified as the 14 Forces of Magnetism (FOM) that differentiated organizations that were best able to recruit and retain nurses during the nursing shortages of the 1970s and 1980s. These characteristics became the ANCC Forces of Magnetism which provide the conceptual framework for the Magnet

appraisal process. The forces sought to identify the critical components that represent a healthy work environment supporting excellent patient outcomes and a high level of satisfaction for nursing professionals (ANA, 1998).

With the release of the IOM (2000) report, "To Error Is Human" healthcare organizations began to strategically develop safety and quality plans to improve patient care in the hospital environment. In a recent article, Drenkard (2011) points out that safety culture promotes a safe, productive, collaborative environment for patients and staff. When exploring each of the Magnet forces it is important for organizations to demonstrate each of the forces in action. It is expected that staff are able to articulate, as well as demonstrate the ways their organization supports each of these forces (ANCC, 2008). The quality of nursing leadership is demonstrated through competent nurse leaders that are visionary and articulate the philosophy of nursing in their daily operations within the nursing department. These nursing leaders focus on strategic initiatives to support the nursing practice and convey a strong sense of advocacy for nursing staff (Wong & Cummings, 2007). The management style within Magnet organizations is collaborative with the voice of the staff nurse being present when decisions are made about the nursing practice environment. Magnet facilities seek out the opinions of the nurse and involve nurses in all aspects of decisions related to the clinical environment. Leaders within Magnet organizations are participatory and incorporate feedback from staff at various levels within the organization. The feedback and input from the staff is valued and encouraged. Nursing leaders demonstrate high levels of visibility and communication is collaborative and effective (Upenieks, 2003).

The Magnet model, Figure 4, provides a framework for Magnet-designated hospitals to improve quality and safety for patients. The model demonstrates the required criteria that the commission evaluates: transformational leadership, structural empowerment, exemplary professional practice, new knowledge, innovations, and improvement, and empirical outcomes. When exploring the transformational leadership standard, the nurse leader is expected to empower nurses to actively participate in decision making groups, councils, and committees that directly influence patient care and safety (ANCC, 2008; Drenkard, 2011). In the Magnet environment, transformational leaders are expected to develop and sustain a culture of safety and consistently demonstrate exemplary professional practice standards (ANCC, 2008; Drenkard, 2011).

Organizations that accomplish the requirements outlined in each component of the model are awarded Magnet designation for a four-year period, with a re-evaluation at the end of this period. The achievement of Magnet designation is viewed as the mark of excellence in nursing for healthcare organizations, and supports a practice of evidence-based nursing care, and safe patient care with exceptional patient outcomes (Drenkard, 2011; ANCC, 2008; Wolf et al, 2008).

Figure 4. ANCC (2008) Magnet Model®

Magnet Designation and Patient Outcomes

Limited studies have explored transformational leadership practices of nurse managers in Magnet and non-Magnet-designated healthcare facilities. The quality of nursing leadership amongst Magnet-designated healthcare facilities is demonstrated through nurse leaders who are visionary, and have an ability to articulate the philosophy of nursing in their daily operations within the healthcare organization (ANCC, 2008). The management style within Magnet organizations is collaborative with the voice of the staff nurse being present when decisions are made about the nursing practice environment. According to ANCC (2008), leaders within Magnet organizations are participatory and incorporate feedback from staff at various levels within the organization. Upenieks (2003) conducted a study and found that nurses working in Magnet hospitals experienced a higher level of empowerment and job satisfaction than those working at a non-Magnet facility. Reasons given include greater visibility and accountability from nurse leaders, as well as more support for clinical decision making.

Kramer (2005) explored the phases of the program development for Magnet utilizing the Donabedian structure-process-outcomes (SPO) paradigm to describe the evolution, focus, and research for each phase. The 1st phase is the Original Magnet Hospitals, occurred 1983 through 1989, identified nursing's quest to recognize excellence in nursing care with such programs as the original Magnet hospitals and the Gold Standard of magnetism period to award hospitals for excellence in nursing care. Donabedian's SPO model was used to describe the evolution, focus, and research for each phase. The SPO evaluation tool was used to apply findings from research to improve nursing practice. The SPO tool allowed nurses to explore their thoughts and feelings without being fearful to speak up or fearing retaliatory actions. The results showed a gap in the ability of the staff nurse verbalizing how they demonstrate the core concepts of magnetism, and their ability to demonstrate how each of the Magnet forces were met. As a result, the structural criteria were updated and clarified to focus on the staff nurse perspective of Magnet and to incorporate the outcomes in connection with the processes leading to excellence in nursing care.

Aiken and Poghosyan (2009) conducted a study to evaluate outcomes resulting from transformation of the healthcare environment related to the implementation of Magnet philosophies. The Nursing Quality Improve Initiative using the ANCC forces of Magnetism was implemented in four hospitals in Russia and Armenia, two from each country. ANCC leaders solicited volunteers from Magnet hospital to establish twinning relationship to role-model, guide, and support the Russian and Armenian hospitals through the process. The twinning partnership was developed and led by ANCC to

promote the integration of the forces of Magnetism into the four hospitals. Comparisons between targeted units in each hospital compared to non-targeted units, with each hospital serving as their own control in the research. The investigators used a descriptive survey completed by staff nurses regarding the changes in their practice environment, patient care quality reported by nurses, and the nurse burnout in Russia and Armenia. Cross-sectional survey data was collected from 859 nurses in wave 1 and 803 nurses in wave 2. This study included a 3 year intervention, which began with a gap analysis that identified areas in which work would be required to achieve the 14 forces of magnetism. The forces included quality of nursing leadership ; organizational structure; management style; personnel policies and programs; professional models of care; quality of care; quality improvement; consultation and resources; community and the hospital; nurse as teachers; image of nursing; collegial nurse-physician relationships; and professional development. A nursing resource center was established in each facility to provide internet access and facilitate communication between the twinning hospitals. The findings of the study showed that the implementation of the forces of Magnetism supported practice environment improvements, including better collegial relationships between nurses and physicians, stronger support for nursing practice from administrators, and nurses' involvement in hospital affairs resulted in improvement in satisfaction from the nursing staff. One of the limitations of this study is that there are no reported relationships or exploration of the influence of the forces of Magnetism on patient outcomes. This proposed study will help close this gap in the literature and will seek to explore the relationship of hospital types, Magnet and non-Magnet, leadership practices,

and two patient outcome indicators as reported by CALNOC: patient fall rates and hospital acquired pressure ulcer rates. Agency for Healthcare Resources and Quality's (AHRQ) Healthcare Cost and Utilization (2011) estimate the cost for adults in U.S. hospitals treated for pressure ulcers is more than \$11 billion dollars a year. Leaders that transform the work environment through providing adequate resources and support for clinicians to do their job, help to decrease adverse patient events and support better patient outcomes.

The second patient outcome metric included in this proposed study is the incidence of patient falls as reported by CALNOC. Falls occur frequently in hospitalized patients with fall rates from 2.2 to 9.1 falls per 1000 patient days, depending on patient populations and disease groups. The etiology of falls in hospitalized patients is multifactorial consisting of both intrinsic and extrinsic risk factors (Schwendimann, Joos, DeGeest, & Milisen, 2004). Hitcho et al (2004) reports that approximately 30% of inpatient falls result in injury, with 4% to 6% resulting in serious injury. Fall-related injuries may include bleeding, fractures, subdural hematomas, and possibly death. Prevention of falls helps to minimize patient harm and decreases patient costs, and is an important patient safety and financial initiative. Transformational leaders implement evidence based practice standards of care to minimize patient harm and decrease adverse patient events, such as patient falls, in hospital environments (Lukas, Holmes, Cohen, Restuccia, Cramer, Schwartz, & Charns, 2007).

Practice environments and patient outcomes are also affected by the educational level of the nursing staff that is caring for them. According to the meta-analysis

conducted by Dunton, Gajewski, Klaus, and Pierson (2007), studies have shown that nurses with a baccalaureate education have lower patient hospital mortality rates. Nurses with an increased satisfaction with their autonomy on the department also were related to lower patient mortality rates, depending on service line and department type. Florence Nightingale's connection between nursing and mortality rates in British hospitals during the Crimean War is noted in research conducted by Aiken, Smith, and Lake (1994). The researchers point out that nurses are the only caregivers in hospitals around the clock caring for patients and directly affect patient outcomes, including hospital deaths. Mortality rates for Medicare patients were explored at 39 Magnet hospitals and 195 non-Magnet hospitals, which were considered controls in this study. After adjusting for differences in predicted mortality and controlling for hospital size and matching similar hospital characteristics, researchers report that Magnet hospitals had a 4.6% lower mortality rate ($P=.026$) with a 95% confidence interval for 0.9-9.4 fewer deaths per 1000 patients. The Magnet hospitals' observed mortality rates were reported to be 7.7% lower than the matched control hospitals ($P = .011$). The summary of the study identifies the components of magnetism that attribute to the transformation of the healthcare environment resulting in a significant reduction in patient mortality. The results from the study by Aiken, Smith, and Lake (1994) support the hypothesis that Magnet hospitals demonstrate a higher level of empowered and autonomous nursing staff that directly impacts patient safety. This level of autonomy and support of their nursing practice helps to assist nurses in safely managing patient care in collaboration with the medical staff. The nurse is able to develop a higher level of advocacy resulting in improved patient

safety and decreased mortality rates. There are several limitations of this study, notably the opportunity for improperly matching the hospital types, Magnet to non-Magnet and teaching to non-teaching, hospital size, nursing skill mix, and nursing academic preparation. It was reported in the research that many non-Magnet hospitals experienced a higher population of licensed vocational nurses, compared to Magnet hospitals which are primarily staffed by registered nurses.

Mark, Salyker, and Wan (2003) reported on the impact of professional nursing practice and organizational and patient outcomes. Although their research does not specifically explore the influence of Magnet designation or status on patient outcomes, the professional practice environment is a core value of the Magnet Recognition Program®. Data were collected from 1682 registered nurses, and 1326 patients on medical-surgical nursing units in the southwest for this study. The conceptual framework for this study was the structural contingency theory (SCT), with key constructs including organizational culture, conceptualized as professional nursing practice, and outcome measures, reflected in patient outcomes, for this study. The study was part of the Outcomes Research in Nursing Administration Project (ORNA), which focuses on testing a theoretically derived model on the impact of professional nursing practice. The ORNA project was a longitudinal study and the researchers hypothesized that context would influence professional nursing practice, which would also affect organizational and patient outcomes. The measurements for this study included the Medicare case mix index data, instrument measuring nurse's work satisfaction ($\alpha=.84$; single factor explained 68% of variance), and 5-indicator confirmatory factor analysis (CFA) model of

the professional practice variable, which included three for autonomy, one indicator of decentralization, and one of collaboration with physicians. The 5-indicator CFA yielded poor fit to the data (chi-square 62.8, $P=.000$; CFI 0.81; TLI 0.72). The correlations among the three autonomy factors was reportedly 0.59-0.69 ($P,.0001$) suggesting a better fit for a 3-indicator model. The researchers reported that professional nursing practice consistently impacted nursing satisfaction, but showed limited effects on other outcomes. Several limitations of this study were included in this article including the inability to generalize results beyond the medical-surgical nursing departments and reduced effective sample size, among several others that were listed. The study recommends future studies to explore nursing satisfaction's role as a possible influencer of patient outcomes and professional nursing practice.

Influence of Magnet Designation

Upenieks (2003) reported that nurses working in Magnet hospitals experienced a higher level of empowerment and job satisfaction than those working in non-Magnet facilities. The reasons reported by this study included greater visibility and accountability from nurse leaders and better support for clinical decision making. Kanter's theory of organizational behavior was the conceptual framework used for this study. The underlying premise of this model is that organizational characteristics and culture influence job effectiveness and job satisfaction more than personality factors. Upenieks (2003) reports that nurse leaders empowerment of nursing, by sharing resources of power and opportunity, allows nurses to accomplish their goals and be more satisfied and productive in their roles. The researcher further surmises that Magnet hospitals have

reported greater job satisfaction than non-Magnet hospitals over the past 20 years. A convenience sample of 305 nurses, with a return rate of 44%, was included in the study, with 161 from non-Magnet hospitals and 144 from Magnet hospitals. The revised Nurse Work Index (NWI) was used to measure job satisfaction among nurses and to measure organizational attributes that support clinical nursing practice. The revised Conditions of Work Effectiveness Questionnaire (CWEQ-II) was used to evaluate conditions of work effectiveness. In addition to quantitative analysis, interviews were also conducted with 16 nurse leaders to gain understanding about leader effectiveness and how to best support nursing practice in the hospital environment. The interviews were taped and completed in a individualized, private fashion over the course of 60-90 minutes. The interview format followed an interview protocol that included a core set of questions, with flexibility to expound on questions or comments throughout the interview. Content analysis was utilized to explore the qualitative data following three steps: (1) defining categories and subcategories, based on the review of Magnet hospital literature and conceptual framework; (2) deductive coding of data based on preexisting categories; (3) inductively coding the data with new themes that did not match preexisting categories and development of new categories based on these themes. Results of quantitative and qualitative were combined through triangulation analysis for a richer review of the data. The NWI showed a statistically significant ($p < 0.001$) higher score on each of the subscales of autonomy, control, physician relations, organizational structure, self-governance, and new programs when comparing Magnet and Non-Magnet hospitals. The CWEQ empowerment score for Magnet hospitals (3.55) compared to Non-Magnet

hospitals (2.63) was statistically significant ($p < 0.001$). During the nurse leader interviews, the nurse leaders perceived effective leadership skills as vital to their success and the overall success of the hospital. Limitations of the study included the limited sample size and population, as well as the hospital structures of academic and community hospital settings. With only a 44% response rate exclusively from medical-surgical nurses, this limits the ability to generalize the findings to larger populations outside of the medical-surgical clinical area. Future studies should explore other clinical areas and efforts should be made to increase the response rate of the participants. Secondly, the hospital structures for Magnet included academic organizations, which tend to have different relationships among the team members and may account for differences in the scores. Future studies should compare the same hospital structures to reflect a more congruent analysis of leadership practices and hospital characteristics among the same type of Magnet and non-Magnet hospital structures.

The importance of staff nurse involvement is emphasized in the Magnet-designated hospital environment, as well as the importance of nurse leadership and their role in collaborating with staff to transform the clinical environment into a high-quality organization is clearly stated (Lash & Monroe, 2005). The Magnet Recognition Program® establishes standards for nursing practice, supporting safe and quality care, resulting in excellence in nursing and exceptional patient outcomes.

Summary of the Research

There is limited research cited in the literature on hospital types, nurse manager transformational leadership practices, and patient outcomes. Therefore, the constructs

utilized to formulate this research have been explored in hopes of providing framework for this much needed research. As explained throughout this section, transformational leadership practices have impacted patient outcomes and there is an opportunity to further explore the influence nurse managers could have on this relationship in the healthcare environment. Ten of the eleven research articles report a statistically significant relationship between transformational leadership and positive work environment, job satisfaction, or improved patient outcomes, with one reporting there being no statistically significant relationship between patient outcomes and transformational leadership practices. Only five of these eleven researchers have explored healthcare leadership practices and only one of them have examined the relationship to patient outcomes exclusively at the nurse manager level. This research is very timely and will help further explore leadership effectiveness, and future leadership development for nurse managers in healthcare environments.

Table 1. Literature Review of Constructs

Author/Journal	Setting/Participants	Conceptual Framework	Variables	Instruments and Psychometrics	Findings
Wong & Cummings (2007) The relationship between nursing leadership and patient outcomes: a systematic review.	Systematic Review 2014 nurses 73 MDs 77 respiratory therapist (1 study examined leadership from the interdisciplinary team perspective) Settings included nursing homes, neonatal intensive care units, inpatient units in teaching and non-teaching hospitals, and long-term care inpatient units	Complexity theory-complex adaptive systems (CAS); Aiken et al. model of organizational characteristics; adaptation of nursing systems outcomes research (NSOR) model; managerial motivation theory	Patient outcomes, leadership practices	Multiple including: Nursing Work Index (NWI)-reliability: alpha=0.95; Multifactor Leadership Questionnaire -reliability: alpha=0.63-0.95 for subscales Leadership Practices Inventory (LPI)-reliability: alpha 0.69-0.85 Patient satisfaction (PJHQ): reliability alpha=0.85	The research showed that there was evidence of significant associations between positive leadership behaviors, styles or practices and increased patient satisfaction and reduced adverse events. Most of the studies did not report a relationship between leadership and patient outcomes. This was identified as a limitation of the review and an opportunity for future studies to more specifically explore the relationship between these 2 factors.
McNeese-Smith (1999) The relationship between managerial motivation, leadership, nurse outcomes and patient satisfaction.	19 patient departments 19 nurse managers 221 RNs 299 patients	Managerial motivation theory derived from McClelland (1987) and Stahl (1986)	Leadership practices; nurse manager motivation for power, achievement and affiliation; staff nurse outcomes of job satisfaction, productivity, and organizational commitment; and patient satisfaction	LPI; Job choice exercise (JCE) measured nurse manager motivation; job satisfaction measured by Job-in-General (JIG) Scale Psychometrics: LPI-Cronbach's alpha=0.98 for LPI-other JCE-internal consistency reliability reported at 0.75 to .82 and test-retest reliability correlations ($p<0.001$) for power at 0.76 to 0.89	Significant relationships between managerial motivation scores, manager leadership scores and patient satisfaction scores. Significantly positive correlation between achievement motivation of the nurse and all five leadership practices. Organizational commitment, productivity, and job satisfaction were significantly and positively correlated with all five leadership practices.
Doran, McCutcheon, Evans, MacMillan, Hall, Pringle, Smith, and Valente (2004). Impact of the Manager's Span of Control on Leadership and Performance.	7 teaching and community-based hospitals 51 units within these hospital types 41 nurse managers 717 staff 680 patients	Transformational leadership theory; span of control theory; and contingency leadership theory	Span of Control, nurse manager, staff, leadership styles, patients	Modified Multifactor Leadership Questionnaire (Bass & Avolio, 2000), the McCloskey Mueller Satisfaction Scale (Mueller & McCloskey, 1990), and a Nurse Demographic Questionnaire. No psychometrics were reported.	Results of the study support the importance of the manager's leadership style and span of control creating a positive work environment. Results of the study support the impact that transformational leadership behaviors can have on the work environment and encourages organizations to invest in the training and development of nurse leaders.
Capuano, Bokovoy, Hitchings, and Houser (2005) Use of	283 full-time and part-time RNs 34 Units 34 Nurse Managers	Structural equation model	Nurse manager, staff RN	Leadership Practices Inventory (LPI) Work Environment Survey (WES)-coefficient alpha reliabilities of .69-.86; test-retest reliabilities from .69-.83	LVHHN managers had strongest leadership scores on the LPI scales "enabling" and "inspiring". Strong leaders have more stable staff, as indicated by lower turnover and vacancy rates. Leadership has a direct influence on staff expertise levels through development of competent and proficient nurses.

Author/Journal	Setting/Participants	Conceptual Framework	Variables	Instruments and Psychometrics	Findings
Upenieks (2003) The interrelationship of organization characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction.	305 nurses (161 Non-Magnet and 144 Magnet); 16 nurse leaders	Kanter's Theory of Organizational Behavior	Staff nurse, nurse leaders, job satisfaction, Magnet hospitals	Nursing Work Index(NWI) Conditions of Work Effectiveness Questionnaire (CWEQ) Interview Protocol Form Cronbach alpha coefficients for both quantitative instruments indicated relatively high internal consistency with each subscale, no other psychometrics were reported.	Interviews with nurse leaders reported that effective leadership is vital for success of hospital. Nurse executive at Magnet hospital reported manager to be more accessible than those at non-Magnet hospitals. Nurses working at Magnet hospitals reported higher rate of empowerment and job satisfaction than those at non-Magnet hospitals.
Vito and Higgins (2010) Examining the validity of <i>The Leadership Challenge</i> inventory: the case for law enforcement.	576 total: 493 "observers" and 83 "self" reporters	Kouzes and Posner	Leadership Practices, Police Managers, Staff Reporting to Police Managers	LPI (self and observer) No psychometrics were reported.	"Enabling Others to Act" was most dominant leadership practice per "self" LPI; police managers seek to empower their subordinates, support their development, as well as advancement and performance excellence
Xirasagar, Samuels, & Stoskopf (2005) Physician leadership styles and effectiveness: an empirical study.	269 executive directors 69 medical directors provided clinical goal information	Bass and Avolio's TL, TXN, and LF Leadership Models	Leadership Practices, clinical outcomes, demographics of medical directors	MLQ, demographic questionnaire, clinical outcome questionnaire No psychometrics were reported.	Medical Directors with transformational leadership behaviors were rated as more effective and had greater clinical success with goal achievement.
Isaksen, Babij, & Lauer (2003) Cognitive styles in creative leadership practices: exploring the relationship between level and style.	179 participants from various companies and groups	Kirton Adaption-Innovation theory	Cognitive styles, leadership practices	Kirton Adaption-Innovation Inventory and LPI No psychometrics were reported.	There is a statistically significant correlation between challenging the process, $r=.58$, inspiring a shared vision, $r=.42$, both with $<.0001$, and Kirton adaption-innovation scores.

Chapter 3

Methodology

This section will outline the methodology for this proposed study. The study will use a descriptive, correlational design to examine the differences between self-reported transformational leadership practices and behaviors of ACNL member nurse managers and CALNOC reported patient outcomes by hospital types, Magnet and Non-Magnet designated hospitals. Select demographics, such as education, experience, ethnicity, and age will also be examined.

This study examines the relationships among the following variables: hospital type, Magnet and Non-Magnet, five transformational leadership practices subscales: *Modeling the Way, Inspiring a Shared Vision, Enabling Others to Act, Encouraging the Heart, and Challenging the Process*, and patient outcomes, specifically unit-level fall rates and hospital-acquired pressure ulcer rates.

Participants

The study will be conducted using a convenience sample from the Association of California Nurse Leaders (ACNL) database of nurse manager members working at hospitals on the magnet Journey, Magnet-designated hospitals, and non-Magnet hospitals in California. For the purposes of this study a nurse manager is defined as a front-line manager who is responsible for twenty-four hour operations within one or several hospital departments and is responsible for assuring quality nursing care is provided in their department. Nurse managers included in the study must meet the following criteria:

(1) currently responsible for 24-hour accountability of daily clinical operations; (2) at least 6 months experience managing the department; (3) responsible for at least 10 employees; (4) responsible for directing, planning, coordinating, and controlling the operational activities and staff for at least one hospital patient care area; and (5) currently and for the past 6 months, report patient falls and hospital acquired pressure ulcers to CALNOC. Power analysis was conducted for ANOVA with an effect size of 0.25 and power of 0.80 for three groups and results showed that 159 participants will be needed for this study.

Measurements

Two questionnaires and one patient database will be used for data collection. The participants will complete an demographic questionnaire and the Leadership Practices Inventory. Additional patient data will be collected using the CALNOC database.

Investigator-Developed Demographic Survey

The investigator-developed demographic survey (Appendix C) that will include the following questions: name of employer, current job title, number of direct reports; type of department; type of hospital; age; gender; ethnicity; highest level of completed nursing education; any other degrees; certifications; length of time with current employer; length of time in current department, and years of experience as nurse manager. These demographics will be important information to have for the data analysis of this research. The name of the employer will allow unit level patient data to be extracted during the 2nd phase of the research from the CALNOC database. Other

variables that will further enrich our data analysis include years of manager experience, education level, and certifications.

Leadership Practices Inventory

The Leadership Practices Inventory questionnaire, developed by Kouzes & Posner (2002), will be utilized to measure the use of the five transformational leadership practices. The LPI instrument contains thirty statements, with five subscales that measure the five transformational leadership practices. Each of the five subscales includes six statements measuring each leadership practice on a ten-point Likert response scale (1=almost never; 10=almost always). Recently, the LPI has been revised from a 5- to a 10-point response scale to increase sensitivity to changes in leadership behavior. Kouzes and Posner (2000) also reported additional evidence of LPI validity when using the revised 10-point Likert scale. The LPI takes approximately eight to ten minutes to complete, and will be distributed in a paper format to participants and be hand scored by the researcher. Both a "self" and "observer" form of the LPI have been developed, however only the "self" instrument will not be used for this study.

The LPI is widely used to measure leadership practices and was originally developed for educational use. Tourangeau and McGilton (2004) sought to investigate the psychometric properties of the LPI to measure leadership practices of nursing leaders. The study included an intervention of a 5-day leadership development training program located in Toronto, Canada. Data was collected from 67 of the 73 training program participants. Out of the 73 attendees, there were 30 established leaders and 37 aspiring

leaders. The participants completed three instruments: the LPI-self, the Maslach Burnout Inventory (MBI), and the Organizational Environment Assessment (OEA) questionnaire. Both the LPI-self and LPI-observer were completed by the leadership development program attendees and 10 of their peers to evaluate their leadership practices.

The LPI was developed through qualitative and quantitative research methods and analysis. Initially in-depth interviews were conducted, as well as written case studies from personal-best leadership experiences, which formulated the conceptual framework. Validation studies conducted over a 15-year period consistently confirm the reliability and validity of the LPI and five practices of exemplary leader's model. A higher value represents more frequent use of the leadership behavior. Ongoing analysis and refinement continue, with a database involving more than 100,000 respondents (Kouzes & Posner, 2000). In-depth interview and written case studies from personal-best leadership experiences generated the framework. The personal-best leadership experiences questionnaire included twelve pages of 38 open-ended questions. More than 4,000 questionnaires were collected and more than 7,500 participants completed a short form version of the survey. The actions associated with these five leadership practices were later translated into behavioral statements and developed into the Leadership Practices Inventory (Kouzes & Posner, 2002; Stout-Steward, 2005).

The internal reliability, utilizing Cronbach-Alpha analysis, of the LPI is consistently above .60. There is a tendency for the reliability coefficients from the LPI-Self to range between .75 and .86. Other researchers have reported similar levels of internal reliability in their studies, ranging from .71 to .92. Test-retest reliability for the

five leadership practices has been consistently strong, reported to be at the .90 level and above and have been stable over time (Kouzes & Posner, 2002).

LPI scores have been found to be unrelated with various demographic characteristics, (e.g., age, years of experience, educational level) and extends across a variety of settings, including healthcare. Multiple regression analyses revealed that age, educational level, or work experience had no significant influence on the leadership practices across several business environments. However, currently there are no reports of the influence of Magnet-designated hospitals on the leadership practices of nurse managers when utilizing the LPI survey.

Collaborative Alliance for Nursing Outcomes (CALNOC)

The Collaborative Alliance for Nursing Outcomes (June 2011) was launched in 1996 as the first nursing quality database. The current membership includes 225 hospitals from several states, including California and currently includes the following indicators: nurse staffing, RN education level, certification, and years of experience, patient falls, pressure ulcers, restraint prevalence, PICC-CABSI (peripherally inserted central line catheter-catheter associated blood stream infection), and medication administration accuracy. For purposes of this study, only patient fall rate per 1000 patient days and hospital-acquired pressure ulcer rates will be discussed and included in this research.

CALNOC has aggregated more than 10 years (42 quarters) of data representing more than 1,300 patient units and 46 million patient days (CALNOC, September 2011).

Falls data includes more than 130,000 patient falls, and over 315,000 patients have been evaluated for pressure ulcers. CALNOC (September 2011) defines falls as the rate per 1000 patient days at which patients experience an unexpected descent to the floor, including assisted and unassisted occurrences. Hospitals collect data on a monthly basis and report to CALNOC on a monthly or quarterly schedule. When submitting patient fall data, hospitals provide total number of patient days per calendar month and the unit that is submitting the falls data. Hospital acquired pressure ulcers are defined by CALNOC as the number of patients with a Stage I-IV and those that are not able to be staged, regardless of when they are discovered. Hospitals utilize a data collection form that includes a coding system and definitions for a hospital acquired pressure ulcer. The CALNOC database infrastructure includes analytical software at a website that is hosted by a centralized secure web-hosting facility with a dedicated server. The CALNOC system, including data and program codes, are accessible to CALNOC researchers and system developers through a secure private network link. Patient data is entered onto excel spreadsheets by the facility and emailed to the data entry mailbox on the CALNOC server and uploaded to the database utilizing confidential automated software. Hospitals may choose to enter their data on scannable data collection forms for pressure ulcer prevalence studies or may choose to mail the forms to CALNOC for scanning and submission into the database. Hospitals are also able to access data that they have submitted to CALNOC based on time periods, facility, and type of units (CALNOC, September 2011).

Although no reporting psychometric testing noted in the literature, CALNOC has a 13-year history of robust nursing-sensitive quality measurement, benchmarking, web-based reporting and research. CALNOC reliability and validity are ensured in four steps:

- Hospital data entry-CALNOC uses the two data submission methods, excel data submission process and scannable forms
- Submission to CALNOC: excel data submission files are emailed to CALNOC data in-box or scannable forms are mailed to CALNOC.
- Error checks for all data uploaded into CALNOC database include:
correct unit identifiers, variable outliers, and validations specific to the indicator, such as fall rates per 1000 patient days examined for outliers and pressure ulcer prevalence coding checked for high/low outliers and for completeness
- Data management validation-following uploading of data, additional data checks for outliers and invalid data are conducted by CALNOC data management staff; hospital representatives are contacted to resolve questions and make corrections.

After the final data is processed and analyzed, hospitals may log onto the CALNOC website to review and print their hospitals' customized supports and are encouraged to examine accuracy of their hospital's data. The CALNOC database continuously accepts corrections, which helps strengthen the validity and reliability of the data.

Procedure

The LPI-Self instrument will be mailed to each participant to evaluate their leadership practices utilizing the self-assessed LPI instrument. Nurse managers in the ACNL database will be mailed a packet of information about the study requesting their voluntary participation. The packet will include a cover letter that provides an overview of the study, including the risk and benefits of participation and provisions regarding confidentiality and anonymity. In order to protect participants and follow Institutional Review Board requirements, a written consent will be completed by all participants who agree to be a part of this study. A coding system will be utilized to preserve participant anonymity and allow grouping of the data for analyzing. The packet will also include an abstract of the proposed study, a demographic questionnaire, the Leadership Practices Inventory (LPI) questionnaire, and a stamped, addressed return envelope. The packet will be mailed to the addresses of the nurse managers and completed in a location of their choice allowing participants to return their questionnaires over a 30-day period of time.

Data Analysis

Data will be analyzed through SPSS software, using frequencies, means, correlation techniques, and regression (Table 1). Descriptive Statistics will provide the mean, median, mode, standard deviation, and percents for the nurse manager demographic variables, the five leadership practice subscales, and the unit-level fall and pressure ulcer prevalence rates. An analysis of variance (ANOVA) will compare each of the variables by Magnet status (Magnet, non-Magnet, and On the Journey). Two-way

ANOVA will be performed to determine if there is a significant difference in the means of the LPI scores and patient outcomes of the nurse manager groups for those working in the various hospital types. Tests of association, including Pearson's r and bivariate correlation, will explore the relationship between the dependent variables: a) leadership practice subscales and b) magnet status. The Pearson's r analysis will be performed utilizing the SPSS database to determine the following: correlation between years of experience, age, and educational level of the nurse manager and the nurse manager's LPI scores; relationship between each LPI subscale and patient outcomes; relationship between Magnet status and patient outcomes. A multiple regression analysis will explore to what extent nurse manager years of experience and hospital type account for the amount of patient falls and hospital acquired pressure ulcers.

Limitations

The patient outcomes will be reported through the CALNOC database at unit level, however there may be other management and nursing practices that may directly affect patient outcomes. While nurse managers are responsible for patient outcomes, their role is fairly far removed from the direct care responsibilities and therefore may only indirectly affect patient care. There is an opportunity to explore this concept more to examine relationship between nursing care practices, nurse manager transformational leadership practices, and patient outcomes.

Another limitation of the study is the technique of self-reported leadership practices by nurse manager. The LPI is utilized to capture nurse manager's perception of

how frequently they demonstrate specific leadership practices and behaviors. Nurse managers are reporting subjective data about their own leadership practices, which may be inflated or underreported. This subjective element causes possible skewing of data and future studies should include the completion of the LPI by a direct report of the nurse manager. The assessment of leadership practices demonstrated by the nurse manager from a direct report's perspective would provide valuable feedback and input into this research.

Protection of Human Subjects

The IRB procedures for the University of San Diego will be followed. Each participant will receive information about the research, as well as any risks and benefits associated with participation in the study. A written consent will be signed by each participant, indicating their agreement to be included in the study and authorization to analyze the results, and share results through publications related to the research. Confidentiality of the nurse managers, hospital affiliations, and patient data will be protected by not attaching names to the questionnaires or patient data and through confidential management of the data.

Summary

The research study will seek to examine the relationship that nurse manager leadership behaviors to patient outcomes and hospital types, Magnet and non-Magnet. The complexity of the healthcare environment is challenging for nurse leaders, however

there are high expectations of quality, safe patient care evidenced by the IOM (1999, 2000, 2011) reports. This has sparked a call to action by nurse leaders and senior executives in the healthcare environment. As cited by several researchers throughout the past three chapters, transformational leadership practices lead to better patient outcomes, positive work environments, and quality patient care. The findings from this research will help better understand best practice measures that may support better patient outcomes and better work environments.

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Chapter 4

Results

Participant Description and Characteristics

A total of 831 surveys were distributed to nurse leaders in California. Eighty-six nurse managers meeting the inclusion criteria participated in study, indicating a return rate of 9.9%. Although 170 surveys were returned, after reviewing the demographic questionnaire, it was determined that 86 participants met the inclusion criteria for the study representing 42 hospitals throughout California. Eighty-four (84) did not meet the inclusion criteria, and were excluded from the study. Many of the excluded surveys were from non-nurse managers, with job titles such as Chief Nurse Executive and Director of Non-Nursing Departments. Sixty-two (62) nurse manager participants met the inclusion criteria, and were enrolled into the study, however CALNOC consent was obtained for 24 nurse managers. IRB approval was received at 1 acute care hospital, allowing for several participants from that particular hospital to enroll in the research study.

Data were analyzed through SPSS software, exploring frequencies, mean, median, mode, analysis of variance, correlation techniques, and regression. Demographic data for nurse managers is displayed on Table 1. Frequencies for nurse manager years of experience showed a mean= 9.72, median=6.58, mode=4.00, and standard deviation 7.74. Nurse manager years of experience were not normally distributed, and were positively

skewed with coefficient=.852. Frequencies for nurse manager years with employer showed a mean=13.37, median=11, multiple modes, and standard deviation=9.13. Nurse Manager years with employer were not normally distributed, and were positively skewed with coefficient =.838. Frequencies for nurse manager age showed mean=48.8, median=50, and multiple modes, with a fairly symmetrical distribution (skewness=-.282).

Table 2: Demographics of Nurse Managers.

Total Participants	n-86 9.9% Response Rate
Hospital Type	Magnet-36 (41.9%) Non-Magnet-24 (27.9%) On the Journey-25 (29.1%)
Type of Department	MS/Tele-35 (41.7%) ICU-14 (16.7%) ED-5 (6%) Periop-4 (4.8%) PICU/NICU-10 (11.9%) MCH-4 (4.8%) Other-12(14.3%)
Gender	Female-78 (90.7%) Male-7(8.1%)
Ethnicity	Caucasian-66(77.6%) African-American-2(2.4%) Asian-6(7.1%) Filipino-2(2.4%) Hispanic-1(1.2%) Other-8(9.3%)
Age	Mean-49 yrs Median-50 yrs
Highest Level of Nursing Education	Diploma-3 (3.5%) ADN-5 (5.8%) Bachelor's-27 (31.8%) Master's-49 (57.6%) Doctorate-1(1.2%)
Years of Manager Experience	Mean-9.72 Median-6.58
Years with Current Employer	Mean-13.37 Median 11

The education of nurse managers for the different hospital types were also explored using crosstabulation analysis and is shown in Table 2. Nurse managers worked in Magnet designated hospitals had more MSN and BSN educational preparation, respectively $n=20$, $n=11$ compared to those that worked at non-Magnet, MSN $n=15$, BSN $n=5$, and On the Journey, MSN $n=12$, BSN $n=7$. However the differences were not statistically significant, $\chi^2=.468$.

Table 3. Comparison of Education Preparation by Hospital Types

Education and Hospital Type Cross-tabulation					
		Hosp Type			Total
		Magnet Designated	Non-Magnet and Not On Journey	On the Journey	
Education	Diploma	0	2	1	3
	ADN	1	1	3	5
	BSN	11	5	7	23
	MSN	20	15	12	47
	Doctorate	0	1	0	1
	Other Bachelor's	3	0	1	4
	Other Master's	1	0	1	2
Total		36	24	25	85

Statistical Analysis

Pearson's correlation was used to explore the relationship between self-reported transformational leadership practices of ACNL member nurse managers and CALNOC reported unit level patient outcomes. There was a positive relationship between *Inspire a Shared Vision (ISV)* and HAPU. The correlation is moderate and statistically significant,

$r(22)=.406, p<.05$. Nurse managers engaging in behaviors associated with ISV had patients with more hospital acquired pressure ulcers on their departments. In addition, there was also a positive relationship between *Enable Others to Act (EOA)* and patient fall rates. The correlation is moderate and statistically significant, $r(22)=.421, p<.05$. Nurse managers that engaged in behaviors associated with *Enable Others to Act* had more patient falls on their departments. However, there were no statistically significant relationships between HAPU and *Model the Way(MTW)*, $r(22)=.353, p=.091$; *Challenge the Process(CTP)*, $r(22)=.382, p=.065$; *Enable Others to Act(EOA)*, $r(22)=.089, p=.678$; *Encourage the Heart(ETH)*, $r(22)=.125, p=.560$. There were also no statistically significant relationships between Patient Falls and *Model the Way(MTW)*, $r(22)=.173, p=.418$; *Inspire a Shared Vision(ISV)*, $r(22)=.194, p=.363$; *Challenge the Process(CTP)*, $r(22)=.307, p=.145$; *Encourage the Heart(ETH)*, $r(22)=.286, p=.176$.

Analysis of Variance

A one-way analysis of variance (ANOVA) was conducted to explore the differences in transformational leadership practices of nurse managers and patient outcomes between Magnet and Non-Magnet hospitals. Preliminary data screening was employed and showed that the dependent variable *Model the Way* was not normally distributed in each hospital type. The Levene's test was positive ($P<0.05$) indicating the variances in the different groups are different and a violation of homogeneity. Additional robust testing of equality was conducted through Welch analysis, including F-value corrections and

revised p-values. The ANOVA was conducted and revealed no statistical significant overall effect between hospital types for *MTW*, $F(2,82)=2.048$, $p=.243$.

Preliminary data screening was employed and showed that the dependent variable *Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart* was normally distributed in each hospital type. Levene's test confirmed that the homogeneity of variance assumption was met for *ISV* ($p=.174$), *CTP* ($p=.104$), *EOA* ($p=.419$), *ETH* ($p=.209$). A One-Way, Between-Subjects ANOVA was then conducted to examine the influence of the 3 hospital types (Magnet, Non-Magnet, and On The Journey) on *ISV*, *CTP*, *EOA*, and *ETH*. The omnibus test revealed no significant overall effect between hospital types for *ISV*, $F(2,82)=1.466$, $p=2.37$; *CTP*, $F(2,82)=.547$, $p=.581$; *EOA*, $F(2,82)=1.384$, $p=.256$; *ETH*, $F(2,82)=.182$, $p=.834$.

Analysis of variance explored differences among hospital types and HAPU rates. Preliminary data screening was employed and showed that the dependent variable HAPU was normally distributed in each hospital type. In addition, Levene's test confirmed that the homogeneity of variance assumption was met ($p=.287$). A one-way, between subjects ANOVA was then conducted to examine the influence of the different hospital types on number of HAPUs. The omnibus test revealed no statistically significant between hospital types and number of HAPUs, $F(1,22)=.671$, $p=.421$, partial $\eta^2=.030$.

Analysis of variance explored hospital types and patient fall rates. Preliminary data screening was employed and showed that the dependent variable Patient Falls was normally distributed in each hospital type. In addition, Levene's test confirmed that the homogeneity of variance assumption was met ($p=.109$). A one-way, between subjects

ANOVA was then conducted to examine the differences between hospital types and number of Patient Falls. There was no statistically significant overall effect on number of Patient Falls, $F(1,22)=.122$, partial $\eta^2=.006$.

Regression Analysis

Multiple regression analysis was conducted to determine the extent that nurse manager years of experience and the LPI subscale scores predicted hospital acquired pressure ulcer rates and patient falls. The correlation between nurse manager experience and *CTP* scores was medium and not statistically significant $r(22)=.081$, $p=.464$. The correlation between HAPU and nurse manager experience was small and not statistically significant $r(22)=-.092$, $p=.669$. Nurse manager experience and *CTP* did not account for a statistically significant amount of variance in hospital acquired pressure ulcers. Nurse manager experience and *CTP* did not account for a significant amount of variance in HAPU rates, $F=1.96$, $p=.166$, $R^2=.157$. The partial regression coefficients relating nurse manager years of experience and HAPU was not statistically significant, $B=-.005$, $p=.601$, 95% CI $=-.026-.015$. Nurse manager experience and *CTP* accounted for 15.7% of the variance in HAPU rates, but was not statistically significant.

The correlation between nurse manager experience and *MTW* scores was medium and not statistically significant $r(22)=-.017$, $p=.874$. The correlation between HAPU and nurse manager experience was small and not statistically significant $r(22)=-.092$, $p=.699$. Nurse manager experience and *MTW* did not account for a statistically significant amount of variance in hospital acquired pressure ulcers. Nurse manager experience and *MTW* did

not account for a significant amount of variance in HAPU rates, $F=1.49, p=.248, R^2=.124$. The partial regression coefficients relating nurse manager years of experience and HAPU was not statistically significant, $B=.025, p=.110, 95\% CI=-.006-.057$. Nurse manager experience and *MTW* accounted for 12.4% of the variance in HAPU rates, but was not statistically significant.

The correlation between nurse manager experience and *EOA* scores was small and not statistically significant $r(22)=.006, p=.955$. The correlation between HAPU and nurse manager experience was small and not statistically significant $r(22)=-.092, p=.669$. Nurse manager experience and *EOA* did not account for a statistically significant amount of variance in hospital acquired pressure ulcers. Nurse manager experience and *EOA* did not account for a significant amount of variance in HAPU rates, $F=.135, p=.874, R^2=.013$. The partial regression coefficients relating nurse manager years of experience and HAPU was not statistically significant, $B=-.004, p=.755, 95\% CI=-.027-.020$. Nurse manager experience and *EOA* accounted for 1.3% of the variance in HAPU rates, but was not statistically significant.

The correlation between nurse manager experience and *ETH* scores was small and not statistically significant $r(22)=.018, p=.464$. The correlation between HAPU and nurse manager experience was small and not statistically significant $r(22)=-.092, p=.669$. Nurse manager experience and *ETH* did not account for a statistically significant amount of variance in patient outcomes for neither hospital acquired pressure ulcers. Nurse manager experience and *ETH* did not account for a significant amount of variance in

HAPU rates, $F=.197, p=.823, R^2=.018$. The partial regression coefficients relating nurse manager years of experience and HAPU was not statistically significant, $B=-.003, p=.813, 95\% CI=-.026-.021$. Nurse manager experience and *ETH* accounted for 1.8% of the variance in HAPU rates, but was not statistically significant.

Years of nurse manager experience and LPI subscale scores did not account for a significant amount of variance in patient fall rates and was not statistically significant. The correlation between nurse manager experience and *MTW* scores was small and not statistically significant $r(22)=-.017, p=.874$. The correlation between patient falls and nurse manager experience was small and not statistically significant $r(22)=.068, p=.476$. Nurse manager experience and *MTW* did not account for a statistically significant amount of variance in patient falls. Nurse manager experience and *MTW* did not account for a significant amount of variance in fall rates, $F=.769, p=.476, R^2=.068$. The partial regression coefficients relating nurse manager years of experience and patient falls was not statistically significant, $B=-.025, p=.911, 95\% CI=-.081-.031$. Nurse manager experience and *MTW* accounted for 6.8% of the variance in patient falls, but was not statistically significant.

The correlation between nurse manager experience and *ISV* scores was small and not statistically significant $r(22)=-.132, p=.270$. The correlation between patient falls and nurse manager experience was small and not statistically significant $r(22)=-.234, p=.270$. Nurse manager experience and *ISV* did not account for a statistically significant amount of variance in patient falls. Nurse manager experience and *ISV* did not account for a

significant amount of variance in fall rates, $F=.937, p=.408, R^2=.082$. The partial regression coefficients relating nurse manager years of experience and patient falls was not statistically significant, $B= -.026, p=.326, 95\% \text{ CI} = -.081-.028$. Nurse manager experience and *ISV* accounted for 8.2% of the variance in patient falls, but was not statistically significant.

The correlation between nurse manager experience and *CTP* scores was small and not statistically significant $r(22)=.081, p=.464$. The correlation between patient falls and nurse manager experience was small and not statistically significant $r(22)=-.234, p=.271$. Nurse manager experience and *CTP* did not account for a statistically significant amount of variance in patient falls. Nurse manager experience and *CTP* did not account for a significant amount of variance in fall rates, $F=1.919, p=.172, R^2=.155$. The partial regression coefficients relating nurse manager years of experience and patient falls was not statistically significant, $B=-.030-.025, p=.235, 95\% \text{ CI} = -.082-.021$. Nurse manager experience and *CTP* accounted for 15.5% of the variance in patient falls, but was not statistically significant.

The correlation between nurse manager experience and *EOA* scores was small and not statistically significant $r(22)=.006, p=.955$. The correlation between patient falls and nurse manager experience was small and not statistically significant $r(22)=-.234, p=.271$. Nurse manager experience and *EOA* did not account for a statistically significant amount of variance in patient falls. Nurse manager experience and *EOA* did not account for a significant amount of variance in fall rates, $F=2.46, p=.110, R^2=.190$. The partial

regression coefficients relating nurse manager years of experience and patient falls was not statistically significant, $B = -.015$, $p = .568$, 95% CI $= -.068-.038$. Nurse manager experience and *EOA* accounted for 19% of the variance in patient falls, but was not statistically significant.

The correlation between nurse manager experience and *ETH* scores was small and not statistically significant $r(22) = -.348$, $p = .048$. The correlation between patient falls and nurse manager experience was small and not statistically significant $r(22) = -.234$, $p = .136$. Nurse manager experience and *ETH* did not account for a statistically significant amount of variance in patient falls. Nurse manager experience and *ETH* did not account for a significant amount of variance in fall rates, $F = 1.196$, $p = .322$, $R^2 = .102$. The partial regression coefficients relating nurse manager years of experience and patient falls was not statistically significant, $B = -.019$, $p = .495$, 95% CI $= -.076-.038$. Nurse manager experience and *ETH* accounted for 10.2% of the variance in patient falls, but was not statistically significant.

A multiple linear regression analysis was conducted to explore to what extent the LPI total scores predicted patient fall rates and HAPU. The first analysis explored HAPU rates. Nurse manager experience and LPI scores did not account for a significant amount of variance in HAPU rates, $F = .666$, $p = .678$, $R^2 = .190$. Nurse manager experience and LPI scores accounted for 19% of the variance in HAPU rates, but was not statistically significant. The second analysis explored patient fall rates. Nurse manager experience and LPI scores did not account for a significant amount of variance in patient falls, $F = 2.446$, $p = .069$, $R^2 = .463$.

Nurse manager experience and LPI scores accounted for 46% of the variance in patient falls, but was not statistically significant.

Summary

Nurse Managers are front-line leaders who make critical decisions in the work environment and indirectly attribute to patient outcomes. Patient Falls and HAPUs continue to be challenges in the healthcare environment. Although no strong relationships were shown in this study between transformational leadership practices and patient outcomes, it is an indicator that affects hospital reimbursement and research should continue to explore the role that leadership behaviors have in influencing outcomes. Nurse managers are given increasing amounts of responsibility and authority, especially in Magnet designated facilities. Nurse managers should use this authority to leverage their influence in daily operations of their department through partnering with their clinical staff to identify barriers to care. This work should also include adoption of evidence based practices in the nurse's plan of care to deliver quality care to patients at their healthcare system resulting in improved patient outcomes.

Future Research Recommendations

The patient outcomes were reported through the CALNOC database at unit level, however there may be other management and nursing practices that directly affect patient outcomes. While nurse managers are responsible for patient outcomes, their role is fairly far removed from the direct care responsibilities and therefore may only indirectly affect patient care. There is an opportunity to explore this concept more to examine relationship between nursing care practices, nurse manager transformational leadership practices, and patient outcomes.

An additional limitation of the study is the technique of self-reported leadership practices by nurse manager. The LPI is utilized to capture nurse manager's perception of how frequently they demonstrate specific leadership practices and behaviors. Nurse managers self-reported their engagement in the various leadership behaviors as described by the LPI, which adds an element of subjective data, which may or may not be the reality of their practice. Their leadership practices may be inflated or underreported, leading to possible skewing of data and future studies should include the completion of the LPI by a direct report of the nurse manager. The assessment of leadership practices demonstrated by the nurse manager from a direct report's perspective would provide valuable feedback and input into this research and possibly influence the results.

Appendix A Participant Consent

University of San Diego
Institutional Review Board

Research Participant Consent Form

For the research study entitled:
**Nurse Manager Transformational Leadership Practices and Patient Outcomes Among
Magnet and Non-Magnet Hospitals**

I. Purpose of the research study

Bridgett Byrd Sellars is a student in the Hahn School of Nursing at the University of San Diego. You are invited to participate in a research study he/she is conducting. The purpose of this research study is: to explore the relationship between nurse manager leadership behaviors and patient outcomes

II. What you will be asked to do

If you decide to be in this study, you will be asked to:

Complete two questionnaires: The first questionnaire asks professional and personal questions about you, including the name of your employer and your job title. Your answers will be coded by number and study data will only be reported as a group. Only the researcher will have access to these data, so no one will be able to identify you by your employer's name and job title. The second questionnaire asks about your leadership behaviors. A typical question is, "How often do I set a personal example of what I expect of others?"

Your participation in this study will take a total of 15-30 minutes.

III. Foreseeable risks or discomforts

This study involves no more risk than the risks you encounter in daily life.

IV. Benefits

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be knowing that you helped researchers better understand the relationship between nurse manager leadership behaviors and patient outcomes.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in the researcher's office for a minimum of five years. All data collected from you will be coded with a number. Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually.

VI. Compensation

If you participate in the study, and are one of the first 50 respondents, you will be entered in a drawing for a \$100 Nordstrom gift card and will have a one in 50 chance of winning. If you win the gift card, it will be mailed to your address on record. Your address will be stored separately

from your survey data and all addresses will be destroyed following the awarding of the gift card. You will be entered in the drawing even if you decide not to answer all the questions or finish the forms completely.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to, like your health care, or your employment or grades. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Bridgett Byrd Sellars

Email:bsellars@sandiego.edu

Phone:858-832-8384

2) Dr. Linda Urden

Email:urden@sandiego.edu

Phone:619-260-4571

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

Signature of Participant

Date

Name of Participant (**Printed**)

Signature of Investigator

Date

Appendix B

Approval to use LPI Instrument

KOUZES POSNER INTERNATIONAL
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FAX: (408) 554-4553

October 28, 2010

Bridgett Sellars
15809 Paseo Del Sur
San Diego, CA 92127

Email: bridgettsellars@gmail.com

Dear Bridgett:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to *reproduce* the instrument in written form, as outlined in your request, at no charge. If you prefer to use our electronic distribution of the LPI (vs. making copies of the print materials) you will need to separately contact Lisa Shannon (Lshannon@wiley.com) directly for instructions and payment. Permission to use either the written or electronic versions requires the following agreement:

- (1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
- (2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument; "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission";
- (3) That one (1) electronic copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data be sent promptly to our attention; and,
- (4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to us. Best wishes for every success with your research project.

Cordially,

Ellen Peterson
Permissions Editor
epeterson@scu.edu

I understand and agree to abide by these conditions:

(Signed) _____ Date: 11/1/2010
Expected Date of Completion is: May 2012

Appendix C

LPI-Self Instrument

LPI[®]SELF

Leadership Practices Inventory

by JAMES M. KOUZES
& BARRY Z. POSNER

INSTRUCTIONS

Write your name in the space provided at the top of the next page. Below your name, you will find thirty statements describing various leadership behaviors. Please read each statement carefully, and using the RATING SCALE on the right, ask yourself:

“How frequently do I engage in the behavior described?”

- Be realistic about the extent to which you *actually* engage in the behavior.
- Be as honest and accurate as you can be.
- DO NOT answer in terms of how you would like to behave or in terms of how you think you should behave
- DO answer in terms of how you typically behave on most days, on most projects, and with most people.
- Be thoughtful about your responses. For example, giving yourself 10s on all items is most likely not an accurate description of your behavior. Similarly, giving yourself all 1s or all 5s is most likely not an accurate description either. Most people will do some things more or less often than they do other things.
- If you feel that a statement does not apply to you, it's probably because you don't frequently engage in the behavior. In that case, assign a rating of 3 or lower.

For each statement, decide on a response and then record the corresponding number in the box to the right of the statement. After you have responded to all thirty statements, go back through the LPI one more time to make sure you have responded to each statement. *Every statement must have a rating.*

The RATING SCALE runs from 1 to 10. Choose the number that best applies to each statement.

- 1 = Almost Never
- 2 = Rarely
- 3 = Seldom
- 4 = Once in a While
- 5 = Occasionally
- 6 = Sometimes
- 7 = Fairly Often
- 8 = Usually
- 9 = Very Frequently
- 10 = Almost Always

When you have completed the LPI-Self, please return it to:

Thank you.

Leadership Practices Inventory

Your Name: _____

To what extent do you typically engage in the following behaviors? Choose the response number that best applies to each statement and record it in the box to the right of that statement.

1. I set a personal example of what I expect of others.	____
2. I talk about future trends that will influence how our work gets done.	____
3. I seek out challenging opportunities that test my own skills and abilities.	____
4. I develop cooperative relationships among the people I work with.	____
5. I praise people for a job well done.	____
6. I spend time and energy making certain that the people I work with adhere to the principles and standards we have agreed on.	____
7. I describe a compelling image of what our future could be like.	____
8. I challenge people to try out new and innovative ways to do their work.	____
9. I actively listen to diverse points of view.	____
10. I make it a point to let people know about my confidence in their abilities.	____
11. I follow through on the promises and commitments that I make.	____
12. I appeal to others to share an exciting dream of the future.	____
13. I search outside the formal boundaries of my organization for innovative ways to improve what we do.	____
14. I treat others with dignity and respect.	____
15. I make sure that people are creatively rewarded for their contributions to the success of our projects.	____
16. I ask for feedback on how my actions affect other people's performance.	____
17. I show others how their long-term interests can be realized by enlisting in a common vision.	____
18. I ask "What can we learn?" when things don't go as expected.	____
19. I support the decisions that people make on their own.	____
20. I publicly recognize people who exemplify commitment to shared values.	____
21. I build consensus around a common set of values for running our organization.	____
22. I paint the "big picture" of what we aspire to accomplish.	____
23. I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.	____
24. I give people a great deal of freedom and choice in deciding how to do their work.	____
25. I find ways to celebrate accomplishments.	____
26. I am clear about my philosophy of leadership.	____
27. I speak with genuine conviction about the higher meaning and purpose of our work.	____
28. I experiment and take risks, even when there is a chance of failure.	____
29. I ensure that people grow in their jobs by learning new skills and developing themselves.	____
30. I give the members of the team lots of appreciation and support for their contributions.	____

Appendix D

Demographic Questionnaire

Please note that this survey is for student research purposes and will *take no more than 5 minutes*. Your answers will contribute to research being conducted on nurse manager's transformational leadership practices.

Name of Employer: _____

Current Job Title: _____

Number of People Directly Reporting to You: _____

Type of Department: (e.g. med/surg, ICU) _____

Name of Department in CALNOC Database: _____

Type of Hospital: (circle) 1-Magnet 2-Non-Magnet 3-"On the Journey" 4-Not
Sure

Please list your age in years: ____ years

Please circle your gender: 1-Female 2-Male

Please list your ethnicity: _____

Please circle your highest level of completed nursing education:

1-Diploma 2-ADN 3-BSN 4-MSN 5-Doctorate Other _____

List any other degrees: _____

List your certifications: _____

How long have you been with your current employer? ____ years ____ months

How long have you worked in your current department? ____ years ____ months

How many years of experience do you have as a nurse manager? ____ years ____ months

120281
Sellars
02/15/2012
8-1

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March 22, 2012

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San Diego, CA 92127

RE: IRB #120281
Nurse Manager Transformational Leadership Practices and Patient Outcomes Among Magnet and Non-Magnet Hospitals

Dear Mrs. Sellars:

The Sharp HealthCare Institutional Review Board (IRB00000920; FWA00000084) has reviewed and approved your application for the above-referenced research activity in accordance with 45 CFR 46.110(b)(1), Categories 5 and 7. This approval includes:

- Cover Letter (23Nov2011)
- Informed Consent (24Jan2012)
- Demographic Questionnaire (Exhibit 1; Rev02Aug2011)
- Appendix A - Leadership Practices Inventory (LPI) (© 2003)
- Code Book - Unit Data (no version date)

This action will be reported to all committee members at the April 18, 2012 meeting.

The following site(s) and site personnel are approved:

Sites:

Coronado
Chula Vista
Mary Birch
Memorial

Principal Investigator: Bridgett Sellars, PhD, RN, MSN, MA, FACHE, NE-BC

Sub-investigator and Other Site Personnel: Laurie A. Ecoff, PhD, RN, NEA-BC

The IRB reference number is 120281. Please include this reference number in all future correspondence relative to this research activity.

As a reminder, it is the responsibility of the Principal Investigator to submit periodic status reports to the IRB. Periodic review of this research activity may be conducted via an expedited process and is scheduled for inclusion on the January 16, 2013 IRB meeting agenda. Approval for this research activity will expire if periodic review is not conducted on or before January 31, 2013. Please provide a completed research status report to the IRB Office no later than January 2, 2013 to assure timely review and continuation of this research activity.

Changes or amendments to the research activity protocol, informed consent documents, and to other research activity-related documents, as well as new documents, tools or advertisements to be utilized as part of this research activity, must be reviewed and approved by the IRB before changes are implemented.

It is the policy of Sharp HealthCare IRB that the Principal Investigator(s) submit a copy of their reports, findings, or manuscripts to the IRB prior to publication. Sharp HealthCare would expect that if the results of the research project came to publication, their role would be properly recognized in the research or have the opportunity to have the organization's name withheld. This also gives the organization the opportunity to prevent disclosure of data or information that is beyond the scope of the research agreement.

Please feel free to contact me or Caryn Burgess at (858) 499-4836 if you have any questions.

Sincerely,

Caryn L. Burgess, C.I.P.
IRB Specialist

Enc.

CALNOC DATA USE AGREEMENT

This Data Use Agreement ("DUA") is effective on the 30th day of January, 2012, ("Effective Date") by and between Collaborative Alliance for Nursing Outcomes (CALNOC) (hereinafter "Covered Entity"), a public benefit non-profit corporation located at 111 Deerwood Road Suite 200, San Ramon, CA 94583 and Bridgett Sellars, PhD Student [insert Data Recipient] located at 15809 Paseo Del Sur, San Diego, CA 92127 (hereinafter "Recipient").

Covered Entity is a Covered Entity as defined in the Health Insurance Portability and Accountability Act of 1996, as amended (HIPAA). Covered Entity is providing Recipient with a Limited Data Set of Protected Health Information ("PHI") as defined in 45 CFR sec. 164.514(e)(2). This Agreement sets forth the terms and conditions under which Covered Entity will disclose the Limited Data Set to Recipient. Except as otherwise defined herein, any and all capitalized terms in this DUA shall have the definitions set forth in HIPAA. In the event of any inconsistency between the provisions of this DUA and mandatory provisions of HIPAA, as amended, the HIPAA provisions shall control.

1. Except as otherwise specified herein, Recipient may make all uses and disclosures of the Limited Data Set necessary to conduct the research described herein:

Nurse Manager Transformational Leadership Practices and Patient Outcomes Among Magnet and Non-magnet hospitals.

2. In addition to Recipient, the following individuals, or classes of individuals, are permitted to use or receive the Limited Data Set for purposes of the research project: _____
Dr. Linda Urden (dissertation chair)

[list].

3. Recipient agrees that it, and any employees, agents and subcontractors to whom it discloses the PHI, will not use or further disclose the PHI other than as permitted by this DUA or as otherwise required by law or regulation.
4. Recipient agrees to use appropriate safeguards to protect the PHI from misuse or inappropriate disclosure and to prevent use or disclosure of the Limited Data Set other than as provided for by this DUA or as otherwise required by law or regulation.
5. Recipient agrees to report to Covered Entity any use or disclosure of the Limited Data Set not provided for by this DUA, of which he or she becomes aware. Recipient will take reasonable steps to limit any such further use or disclosure.

6. Recipient agrees to ensure that any agent, including a subcontractor, to whom he or she provides the Limited Data Set, agrees to the same restrictions and conditions that apply through this DUA, with respect to such information.
7. Recipient shall not attempt to identify the individuals to whom the PHI pertains, or attempt to contact such individuals.
8. This DUA shall be effective on the Effective Date set forth above and shall continue as long as Recipient (or any agent or subcontractor of Recipient) retains the data, unless otherwise terminated by applicable law or regulation. Recipient may terminate this Agreement by returning or destroying the PHI and providing written notice thereof to Covered Entity. Should Recipient commit a material breach of this Agreement, which is not cured within thirty (30) days after Recipient receives notice of such breach from Covered Entity, then Covered Entity shall discontinue disclosure of PHI and if deemed appropriate by Covered Entity, report the breach to the Secretary of Department of Health and Human Services.

CALNOC:

[Insert Data Recipient]

Print Name _____

Print Name Bridgett Sellars

Signature: _____

Signature. _____

Title: _____

Title USD PhD Student

Appendix H

Data Sharing Consent Form
Collaborative Alliance for Nursing Outcomes
ADDENDUM TO
CALNOC HOSPITAL / HEALTH SYSTEM SITE AGREEMENT

This is an addendum to the Site Agreement entered into as of _____ (date) between the COLLABORATIVE ALLIANCE FOR NURSING OUTCOMES ("CALNOC"), a California non-profit organization, and the hospital signing below (the "Hospital").

Under the Site Agreement the Hospital furnishes data relating to certain nursing outcome measures to CALNOC for the uses and subject to the restrictions described in the Site Agreement. By signing this Addendum, the Hospital also authorizes CALNOC to disclose data relating to the measure(s) described below to the recipient(s) named below for the project(s) described below:

CALNOC Measure(s): Falls and Pressure Ulcer Prevalence 2011

Recipients: Bridgett Sellars, RN, PhD(c)

Project(s): Nurse Manager Transformational Leadership Practices and Patient Outcomes among Magnet and Non-Magnet Hospitals

This authorization shall remain in effect until the Hospital withdraws it in writing, or until the Site Agreement terminates, whichever occurs first.

Except as set forth above, CALNOC shall maintain Hospital's data subject to all the restrictions set forth in the Site Agreement (including any other addenda signed by Hospital).

CALNOC:

HOSPITAL:

By:

Name: Tony Sung

Title: COO, CALNOC

Date: _____

Name of Hospital

Sign: _____

Print Name: _____

Contact e-mail _____

Date: _____

Please return this form to: Tony Sung at tony.sung@calnoc.org

Bridgett Sellars <bsellars@sandiego.edu>

Re: Request for Member Contact Information

Patricia McFarland <patricia@acnl.org>
 To: Usd <bsellars@sandiego.edu>

Tue, Oct 4, 2011 at 7:53 AM

The board approved. Perhaps we need a call to talk about next steps?

Sent from my iPhone

On Oct 3, 2011, at 5:35 PM, Usd <bsellars@sandiego.edu> wrote:

Hi Pat, hope you are well. My dissertation proposal has been approved and I'm in final stages of IRB approval. I'm hoping things went well with the board and I can work with ACNL to distribute questionnaires for my dissertation research.

I'm excited to hear next steps and thanks so much.

Bridgett Sellars, RN, PhD(c)

Sent from my iPhone

On Sep 13, 2011, at 8:12 AM, Usd <bsellars@sandiego.edu> wrote:

Hi Pat, that sounds great. Thanks so much.

Bridgett Sellars

Sent from my iPhone

On Sep 13, 2011, at 6:30 AM, Patricia McFarland <patricia@acnl.org> wrote:

Bridget we do not share the ACNL member list with researchers. However, we do have a Board meeting this Friday. I will send the ACNL Board a copy of your study. If they (and I am sure they will) approve the study we will work with you to facilitate getting the information out to the ACNL members. Will that work for you? Pat

On Mon, Sep 12, 2011 at 11:35 PM, Bridgett Sellars <bsellars@sandiego.edu> wrote:

Hello Ms. McFarland, we met earlier this year at the ACNL conference in Sacramento. I'm sure you met many people, but you and I discussed my research interest and my intent to request the membership contact information for ACNL members for purposes of PhD student research. Just as a refresher, I am a PhD student at USD working with Dr. Linda Urden and Dr. Ann Mayo, as my dissertation committee members. My research titled "Nurse Manager Transformational Leadership Practices and Patient Outcomes Among Magnet and Non-Magnet Hospitals" will explore leadership practices of nurse managers in California. My goal is to utilize the ACNL database to access contact information for potential nurse manager participants to participate in my study. The 1st phase of my data collection entails each participant completing 2 short surveys about their leadership behaviors and

Chapter 4: MANUSCRIPTS

Manuscript 1

UNIVERSITY OF SAN DIEGO

Hahn School of Nursing and Health Science

The Impact of Caring on Transforming Culture

Bridgett Sellars, PhD(c), RN

“Reprinted from the Nurse Leader Journal, Volume 25, Number 6, Bridgett Byrd Sellars, RN, MSN, MA, NE-BC, FACHE, *The Impact of Caring on Transforming Culture*/Original Article, Pages 46-48. Copyright approval not required per journal copyright division due to the fact that this manuscript is part of my dissertation work.”

Abstract

This paper describes the role of Jean Watson's philosophy of caring science in supporting the transformation of the clinical environment into a caring, collaborative, and compassionate workplace. The leadership team's ability to develop and demonstrate caring will support building this type of clinical environment. The leaders in the organization are responsible for creating a caring environment that supports respect amongst peers leading to the development of a culture of quality care and clinical excellence. This paper will also outline the role of the leaders and the staff within the clinical environment to assure high quality care and to minimize adverse patient events. Nursing care is increasingly complex and requires all team members to be aligned with prioritizing patient safety while providing a high level of quality care. This article explores the conceptual framework created by Watson to build relationships among the healthcare team members leading to high quality patient outcomes and the development of a holistic, caring clinical environment.

Introduction

There are so many challenges that nurses are faced with today including difficult working relationships, increased workload, and clinical incompetence. With the creation of twelve-hour shifts and increased part-time work schedules, there is decreased continuity of patient care and increased safety risk (Rusch&Bakewell-Sachs, 2007). There have been numerous publications from the Institute of Medicine, The Joint Commission on Accreditation of Healthcare Organizations, and the American Hospital Association that have identified concerns related to the quality of care provided in acute care environments. Breakdowns in care processes lead to fragmentation of care, increased medical errors, poor handoffs, as well as dissatisfaction and frustration for patients and staff (Rusch&Bakewell-Sachs, 2007). Recent crises related to medical errors in the healthcare environment have brought renewed attention to nursing and physician practices (Tachibana & Nelson-Peterson, 2007). This article discusses the history of the challenges associated with complex patients and how the act of caring can facilitate transformational leadership within a healthcare environment and both the nurse leaders and the direct care staff must be actively involved in this transformation.

A Caring Work Environment

The leadership team's ability to develop and demonstrate caring will support building this type of clinical environment. The leaders in the organization are responsible for creating a caring environment that supports respect amongst peers leading to the development of a culture of quality care and clinical excellence. Nursing care is increasingly complex and requires all team members to be aligned with prioritizing patient safety while providing a high level of quality care. The objective is to integrate the conceptual framework created

by to build caring into the nursing practice that will foster collaborative relationships among the healthcare team. The development of collaborative relationships will lead to decreased adverse events for patient and the creation of a culture of safety and caring (Rusch&Bakewell-Sachs, 2007).

The Joint Commission emphasizes the requirement of leadership to serve as the role model and change agents to promote safe patient environments. Leadership makes a major difference in the quality and safety of patient care (Rusch&Bakewell-Sachs, 2007). The first priority is to understand how we can improve the clinical environment to decrease possibility of doing harm. We must create an environment that encourages reporting of adverse events and design a responsive planning strategy to modify policies and processes to support patient safety(The Joint Commission, 2009). The Swiss cheese model of safety by Reason and Hobbs (2003) describes the processes and systems that must be implemented in organizations to eliminate human error from leading to patient harm (Rusch&Bakewell-Sachs, 2007). Kohn (2000) described the impact medical errors had on leading to 98,000 deaths adverse patient events have continued to increase since 1999. There continues to be challenges with hospitals eliminating human error when delivering care. Although there have been many evidence based practices identified and implemented to decrease patient harm, deaths from human error continues to increase(Watson, 2009). It is sometimes challenging for healthcare environments to fully implement safety strategies that decrease risk for human error, such as checklist, protocols, read-backs, and timeouts. There continues to be much discussion about what is best practice and disagreements about requirements from The Joint Commission

related to laterality site-marking and consent questions, despite the fact that thousands of lives are lost due to medical errors(Kohn, Corrigan, and Donaldson, 2000).

Patient outcomes are directly impacted by the manager's ability to lead their department in a manner that prioritizes safe patient care(The Joint Commission, 2009).When the manager demonstratescaring staff will feel more comfortable with discussing clinical issues and everyone is able to work towards improving patient care. Managers that are engaged with their staff are perceived as being an advocate for quality nursing care. When stafffeel supported in their clinical practice they become advocates for providing safe patient care and improvingpatient outcomes. When employeesbelieve they have been heard by a manager, they are more committed and focused on great patient outcomes. There is a sense of team and focus on patient care. The development of a caring work environment for employees is a place where they can feel valued and provide a high level of quality care to patients leading to exceptional outcomes.

Transformation and Caring Science

Transforming the healthcare environment into an environment of safe and compassionate care is supported through Watson's philosophy of caring science⁴. Watson developed her theory of caring for nursing in the mid-1970's and continued to develop her Center for Human Caring in the 1980's. Watson believes that nursing must build a strong foundation integrated with arespect for caring as a means to develop relationships and trust among care givers, patients, and families. The staff must have excellent communication skills, with an ability to consistently demonstrate active listening skills. It is important for the clinicians to demonstrate caring during these interactions and respect the patient and family's personal experience with healthcare. As a result of

advanced technology, such as utilization of the internet and other media sources, patients and families present to the hospital with lots of questions and a higher level of education about their health than in the past. The nurse is responsible for building a relationship with the patient and family that is collaborative and caring to support the healing process.

In addition to Watson's caring philosophy, Carper supports the underpinnings of transformational leadership as identified through her ways of knowing philosophy for nurses and nurse leaders. Carper's fundamental patterns of knowing in nursing focuses on four key tenets of nursing practice including empirics, esthetics, personal knowledge, and ethics (Watson, 2007). These tenets represent the phenomenon of knowing utilized by nurses when providing patient care. Watson and Carper both have developed theories that support nurses having the resources they need to be successful in their practice.

When the team has the resources they need, including caring and engaged leaders, as well as the right equipment and collaboration amongst the team, there is a sense of pride that develops and the team has a deeper commitment to a positive patient outcome and greater employee satisfaction.

Healthy Work Environment and AONE

The American Organization of Nurse Executives (2009) published a white paper on the importance of a healthy work environment and the responsibility of nursing leadership in developing and sustaining this environment. A transformational process must occur to develop and sustain a work environment that is respectful, collaborative, and supportive of quality patient care. This paper describes the positive impact that managers have in developing a positive, collaborative environment for their employees. Watson supports this philosophy of caring and collaboration through her work. Fostering caring

relationships through human-to-human interactions promote safe patient nursing practices.

10 Carative Factors

The ten caring behaviors, also known as carative factors, incorporated into Watson's human caring theory that support the shift toward human caring values and the development of authentic healing relationships include:

- embrace altruistic values and practice loving kindness with self and others
- instill faith and hope and honor others
- be sensitive to self and others by nurturing individual beliefs and practices
- develop helping-trusting-caring relationships
- promote and accept positive and negative feelings as you authentically listen to another's story
- use creative scientific problem-solving methods for caring decision making
- share teaching and learning that addresses the individual needs and comprehension styles
- create a healing environment for the physical and spiritual self which respects human dignity
- assist with basic physical, emotional, and spiritual human needs
- open to mystery and allow miracles to enter

All of these are described as caring behaviors that support the transformation of the clinical environment to welcome and nurture the caring nursing philosophy (Watson, 2009). In order for the carative factors to be actualized, clinicians must practice loving kindness with themselves first, and then also with others within the organization. Staff must develop a human-to-human relationship in a conscious manner. Thus, new standards, principles, and models of excellence are required to sustain and advance professional relationship-centered caring practices. Second, the team must instill faith and hope, while honoring and respecting others. Each individual must be respected for the contributions they make to the team to support positive patient outcomes. The team is

expected to be sensitive to self and others through nurturing and acceptance of individual beliefs and practices leading to the development of a trusting-helping-caring relationship.

A caring environment supports patient-side clinicians being heard and supported in a trusting environment. The team demonstrates an acceptance of positive and negative feelings while also listening and being fully engaged with hearing each other's story. The team uses creative science problem-solving methods for caring decision making leading to a high level of quality patient care. The priority is to create a healing environment for the physical and spiritual self with respect to human dignity for patients and respect for all clinical staff.

Implications for Nursing Leadership Practice

Nursing administrators and direct caregivers have a significant role in transforming the healthcare system. The transformation process, as described by Watson's caring theory, should continue to be explored in healthcare organizations to improve patient care and the practice environment for clinical staff and the community as a whole. Healthcare leaders set the standards for the practices within the healthcare environment. Practicing with passion, empathy, competency, and caring promote a healthy and safe clinical work environment for patients and staff. The evolving caring-healing clinical environments are increasingly dependent on relationships and collaboration to assure quality healthcare and to decrease medical errors. Relationships that foster respect and collaboration among the leadership team benefitting the patient, the nurse, and well as the leaders within the healthcare organization to ensure a safer, quality healthcare environment.

References

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MANUSCRIPT 2

UNIVERSITY OF SAN DIEGO

Hahn School of Nursing

Transforming Nursing Care: Nurse Leadership Alignment and Research

Bridgett B. Sellars, RN, PhD

Ann Mayo, DNSc, RN, FAAN

Abstract

The Future of Nursing Report (2011) makes a call to action for nursing leaders to transform the nursing environment for patient care. Research plays a critical role in this transformation process. Although there are many elements that transform nursing care, research is directly linked to improving patient outcomes (World Health Organisation, 2004; National Institute of Nursing Research, 2011). Nursing research is a process of scientific inquiry that generates new knowledge about nursing practice to improve the quality of patient care and decrease adverse patient events. The idea of conducting research can be both exciting and overwhelming. Research and development of evidence based strategies are critical to improving patient outcomes, and deterrents should be minimized in order to move research efforts forward. Through the alignment of three key roles in healthcare organizations that include senior nurse leader, nursing researcher, and nurse manager, the triad, the organization is able to develop a research program with the research methodology expertise and executive support that is needed to build a successful research agenda and program. The triad works in an aligned, collaborative manner to develop a research program and to ensure that nurses provide the highest level of patient care. This article identifies the alignment factors and process steps in the development of the research program that transforms the clinical environment and enhance clinical practice.

For more than a decade, the Institute of Medicine (1999, 2010) has recommended that hospitals transform their healthcare environment utilizing best practices and processes that promote patient-centered, quality nursing care. The sustainable transformation begins with the leadership team understanding the processes that create a culture of nursing excellence. Nursing care is complex and patients are sicker than they have ever been before. Higher patient acuity and competing priorities cause higher mortality rates and more adverse events (CMS, 2010). The Future of Nursing Report (2011) makes a call to action for nursing leaders to transform the nursing environment for patient care.

Research plays a critical role in this transformation process. Although there are many elements that transform nursing care, research is directly linked to improving patient outcomes (World Health Organisation, 2004; National Institute of Nursing Research, 2011). Nursing research develops a body of knowledge to improve clinical practice and patient care (National Institute of Nursing Research, 2011). Senior nurse leaders are in key positions to create an environment for a successful program of nursing research (Albert & Siedlecki, 2008). Alignment of a senior nurse leader's vision about the future of nursing with a nursing researcher's vision of a program of nursing research helps an organization realize both important transformative goals and objects (Kitson, 1999). A concerted effort by senior nurse leaders and nursing researchers in developing a research program and engaging other organizational nurse leaders and nursing staff promotes a culture of inquiry and establishes evidence-based nursing practices (Albert & Siedlecki, 2008). These efforts support transformation of the clinical environment and promote quality patient care.

As healthcare costs continue to increase, and reimbursement rates decrease, it is more important than ever for nurse leaders as well as nursing staff to use the best clinical evidence to make patient care decisions. Clinical evidence is primarily generated through the conduct of research, the goal of which is developing and refining a body of knowledge for application (Clark & Clark, 1984; NINR, 2011; Peirce & Doughty, 2003; Polit & Beck, 2011). Evidence-based practices are then developed through utilizing research findings (Polit & Beck, 2011).

Nursing research is a complex dynamic process requiring doctoral-level research expertise. The enrollment trends of doctoral graduates have been relatively flat over the last decade (AACN, 2009). With the flattened enrollment rate, less than 5% of nurses being prepared at the doctorate level (NINR, 2012), and not all of those prepared with the research doctorate, senior nurse leaders will need to be innovative when seeking to employ research doctorally prepared nurses to join their organizations. Strategic partnerships such as choosing a research implementation role model and creating a list of research projects that are linked to hospital initiatives can prove to be beneficial for the healthcare organization. This type of strategy engages the senior nurse leader in the research process and promotes partnerships and collaboration between the nursing researcher and nurse leaders. The senior nurse leader plays an important role in the process in removing barriers frequently encountered by nursing researchers who may be new to a healthcare organization. This article will serve as a guide for senior nurse leaders describing roles of key players and discussing ways to promote a successful program of research that facilitate the role of the nursing researcher in the healthcare system. While the role of the nurse manager within a program of research is explained,

the emphasis of this manuscript will focus on how the senior nurse leader can facilitate the process of research central to the role of the nursing researcher.

Research and Leadership Alignment

Health systems research plays an integral role in advancing health (WHO, 2004). Research is a driving force to improve healthcare and the performance of healthcare organizations. WHO describes the research process as a policy and practice cycle with key steps to include senior leaders working with a research team to establish a research agenda of priorities and allocating resources to support them. In a health care system, a triad of leaders (senior nurse leader, nursing researcher, and nursing managers) must work together to accomplish this goal and establish these foundational elements of the organization's research program.

The role of the senior nurse leader in managing the research agenda is to align resources such as facilitating database access for the nursing researcher. As the senior nurse leader and nursing researcher makes decisions about the research agenda there should also be an understanding that original research will be conducted and there may be a subsequent need for developing specific mechanisms to link this new research evidence to decision making about clinical practice.

Nurse leaders are accountable for ensuring quality nursing care and favorable patient outcomes. Wong and Cummings (2007) describe the relationship between nursing leadership and patient outcomes. A nursing leadership team that develops a strong foundation for nursing excellence improves the quality of patient care.

Developing a culture of nursing excellence requires a nursing leadership team that has a united vision and aligned values about nursing practice. This unity supports a collaborative approach for nurse leaders to work in tandem while achieving nursing both department objectives and organizational goals. Key roles in the development of a culture of nursing excellence include senior nurse leader, nursing researcher, and nurse

managers, a triad.

The interfacing roles of the triad are conceptualized in a dynamic model is supported by research findings that have described the importance of alignment among nursing leaders in healthcare organizations Studer (2009). These findings describe the alignment of nurse leaders and the impact the alignment can have in the healthcare environment. This applied research can support the development of a research program within an organization. Central to this work are the roles senior nurse leader, nursing researcher, and nurse managers, a triad (Figure 1).

Figure 1: Dynamic Research Process and Leadership Alignment

Leadership alignment among the triad ensures that organizational values and goals will be consistently understood and help to clarify expectations for everyone within

the research program. Alignment provides the context within which conversations among the triad ensure that the organizational goals are connected to the research program. In terms of building an organizational program of research, leadership alignment begins with the senior nurse leader engaging the nursing researcher and strategically placed nurse managers to infuse the organizational goals while developing a program of research. It is recognized that the senior nurse leader and the nursing researcher remain constant in the model, however the individual nurse manager may differ based on any given research project.

Role of the Senior Nurse Leader

The senior nurse leader serves a critical role for the healthcare organization as a key decision maker. Their role carries accountability for overall patient care, meaning the senior nurse leader is responsible for high level decisions effecting nursing practice and the infrastructure for the patient care delivery model. Because nursing practice should be grounded in research ensuring that practices are evidence-based, the senior nurse leader sets this expectation and nurtures the culture to support the expectation.

However, there continues to be problems for which there is a lack of evidence. For example, much research is needed to curb the continuation of patient care errors, with an estimated 13.5% of hospitalized Medicare patients experiencing adverse events during their hospital stay (Department of Health and Human Services, 2010). When evidence does not exist for any given nursing problem, nursing research should be the process chosen to generate a new body of scientific knowledge to address nursing problems. Optimally, the senior nurse leader seeks to pair organizational goals and nursing

department strategic objectives with research initiatives. When this happens there is clarity and alignment that provide direction for the research projects for the organization.

Compared to a senior nurse leader, middle level nurse leaders such as nurse managers as well as nursing researchers have less authority in healthcare organizations., Therefore, senior nurse leaders are many times in the position to provide the triad with organizational support and resources to facilitate the development of a program of research. Effective senior nurse leaders can provide financial resources to operationalize the research program and use their influence to eliminate barriers that the nursing researcher may experience when developing the research program for the organization. Their position in the triad is one that provides a sense of power and authority for the triad and determines the success and sustainability of the research program. When senior nurse leaders take the lead early in the process providing input for the design processes and policies, they also act in a facilitative role that integrates the research program seamlessly into the organization (Albert & Siedlecki, 2008; Hutchinson & Johnston, 2006). Senior nurse leaders make final decisions about projects and initiatives within the nursing department that often times influence the direction of the research agenda providing clarity around other important organizational initiatives. They provide a level of support for the triad that includes championing research projects and ensuring that resources are available to do the work.

Role of the Nursing Researcher

Another key role in the triad for a nursing research program is the role of the nursing researcher. The role is often a new role within the healthcare organization and

many, at all levels within the health care system, may be uncertain about this new role. As one of the key members of the triad, the nursing researcher is charged with advancing the science of nursing practice to improve patient care. The nursing researcher brings a unique expertise and knowledge about scientific inquiry and research methodology into the triad. They partner with nurse managers and nursing staff to provide expertise in facilitation of the nursing research process and many times support change processes associated with integrating research evidence into practice. They provide a level of organizational support through role modeling and promoting clinical confidence in clinicians (Hutchinson & Johnston, 2006).

Nursing researchers are nursing professionals who conduct and implement research projects in healthcare organizations. The nursing researcher also serves in several capacities while supporting nursing research. For instance, the nursing researcher may author papers, educate staff about research, and provide internal organizational reports based on their analysis of research findings (Hutchinson & Johnston, 2006). The nursing researcher brings educational preparation at the research doctoral level, as well as a wealth of nursing experience and background in methodology and scientific inquiry critical to the development of a strong nursing research program.

Although the nursing researcher role is vital, challenges exist for the nursing researcher. Some of these challenges include gaining entrée into a healthcare organization (if not an employee) or specific departments, accessing organizational databases, and experiencing lack of support for individual research projects or even the program of research. Additionally, many nurses working in organizations in a variety of

positions are not experienced in research methodologies, which can hinder the growth of a research program in the healthcare environment no matter how enthusiastic the leadership or nurses involved in the program. For example, cited as a key barrier to research, it is well known that when conducting research, nurses often lack confidence in understanding statistical analyses (Hutchinson & Johnston, 2006). Ideally, senior nurse leaders are able to make decisions about research for their healthcare organizations supporting nursing researchers who may lack positional authority to make certain decisions.

The ideal role for the nursing researcher is to develop and implement nursing research projects, serving as the expert in the scientific inquiry process working to support an ever growing program of nursing research and the delivery of high quality patient care. Their expertise and training in research methodologies brings great value to the triad and to the program of research for the organization.

Role of Nurse Managers

Nurse managers are key drivers of performance for organizations, playing a key role in aligning strategic goals and nursing practice. Nurse managers are responsible for patient outcomes and nursing practice for their department. They can engage front-line clinicians in research encouraging them to deliver the highest level of nursing care possible. Nurse managers have a complex role that requires them to develop standards for nursing practice, and also identify gaps in nursing practice that can be explored through research. Their role in the triad is critical to the success of the research program and overall effectiveness of nursing care (Albert and Siedlecki, 2008).

Nurse managers work with the nursing staff to identify gaps in nursing practice as they partner with the nursing researcher to advance nursing science. Evidence-based nursing care decreases risk of adverse events and unfavorable outcomes, avoiding increased length of stay and increased revenue for healthcare organizations (Salmond, 2007). Nurse managers play a key role in developing a research program because of their closeness to nursing practice and ability to reinforce expectations for evidence-based nursing practice. The nurse manager role is a constant within the triad, although the specific nurse manager may vary depending on the research project. Their role brings a unique perspective to the triad, and is essential in the nursing research program.

Research Dynamics

A research program developed in the context of a triad model has the potential to continuously infuse organizational values into nursing research projects (Nelson, nkd). Such a program that is in alignment with issues of concern to organizations ensures that the program of research contributes to the science of nursing and helps shape the practice of nurses in an up to date relevant way. Likewise, the value research brings to the organization can be attributed to the contribution of the organization's strategic mission resulting in outcomes of overall improvement in quality of care and the clinical environment. Nursing research changes the way that nurses practice and over time influences a culture creating a framework and a structure for evidence-based practices. This work, when done in an aligned fashion such as that as illustrated in the triad model, ensures that nurse clinicians deliver quality research derived evidence based care to patients and families as espoused by the organization.

Transforming Nursing Care

Patients receiving appropriate clinical care that integrates research findings are more likely to experience favorable patient outcomes (Ahrens, 2005). Nursing practice that is grounded in research evidence connects clinical decisions with science. The integration of these concepts accounts for better patient outcomes and creates a culture of nursing excellence in the healthcare environment (Layman, 2008).

Transforming nursing care through the implementation of research evidence-based practices, is best accomplished as a collaborative effort between the triad and clinical staff. Nursing researchers have repeatedly discovered that nurses' adoption of evidence-based practices and their ability to integrate actual evidence into their practice depends on nurses' knowledge of research and organization commitment to nursing research (Hutchinson & Johnston, 2006). It is important for the clinical staff to be educated about nursing research and be included in the research process.

Transformation and Research

Healthcare organizations continue to struggle with identifying ways to improve patient outcomes and consistently deliver high quality clinical care. Adverse events during a hospital stay affect nearly one out of 10 patients (de Vries et al., 2008). It is important for organizations to understand the role that research plays in transforming the nursing environment.

Transformation is an evolving process, requiring complete rethinking about structure, norms, and practices. The complexity of patient care continues to challenge senior nurse leaders every day. Patients and families have high expectations of their

nursing care. Nurses are choosing where they work based on the culture of the organization and the clinical work environment (ANCC, 2008; Upenieks, 2003).

Research transforms the nursing environment through scientific discovery of improved nursing practices and standards that support quality patient care and favorable patient outcomes. A program of research has great potential to influence outdated nursing norms and practice, including changing the structure of influence and decision-making about patient care. Clinical nursing staff empowered with knowledge founded in research make appropriate key patient care decisions at the right time and at the point of care.

The Clinical Environment

In the new millennium, nurses are making decisions about where they work based on the culture of the work environment and their perceived fit within the nursing organization. An increasing number of nurses are choosing to work at Magnet ® designated hospitals because the hospitals are recognized for nursing excellence and delivering the highest quality of patient care through utilization of evidence-based practices discovered through research. During the Magnet ® review process, hospitals are evaluated on their ability to conduct research and integrate changes in nursing practices based on evidence (American Nurses Association, 2005). Programs of research that engage clinical staff and have a demonstrated track record of transforming the clinical environment are important for attaining Magnet designation.

Transforming the work environment into a culture of nursing excellence requires nurse leaders (including the triad) and staff nurses partnering and collaborating to advance the science of nursing. Through the coordinated work of these key stakeholders,

meaningful and relevant research is conducted and eventually transforming the delivery of nursing care.

Transformed nursing care has the potential to improve the quality of care. Through the exploration of patient care delivery processes, including the work of the nurse, descriptive research can provide evidence of gaps in care triggering improvements in quality. When executed properly, the integration of research findings from intervention studies result in practices grounded in scientific evidence, improved practice environments, and improved quality patient care (ANCC, 2008). In other words, research findings facilitate the transformation of nursing practice so that the highest quality of care is delivered (Bidwell-Cerone, et al, 1995).

Patient Outcomes Data

It is well known that the collection, analysis and use of information founded in reliable data supports safe and effective patient care decisions (Mark, Salyer, & Wan, 2003; Peirce & Doughty, 2003). The collection of data and proper analysis allows for the exploration of clinical practices that can help to identify opportunities to improve practice and promote practice consistency among nursing staff caring for like population of patients. The proper use of data supports nurse leader efforts to determine and justify patient staffing needs (Peirce & Doughty, 2003). Therefore, the data derived from nursing processes and patient outcomes housed in organizational data bases is commonly used for internal score cards and public reporting and have become known as key indicators of nursing care effectiveness (ANCC, 2009). Such data can also be important for use in research projects when the overall goal of the program is to transform nursing care.

Organizational outcomes data that can be efficiently used for research are often stored in a database repository. In addition to a main database repository, outcomes management programs are utilized to generate a large amount of data for various other reports, including financial reporting. Regulatory agencies and accrediting bodies such as the Joint Commission on Accreditation of Healthcare Organizations standards (JCAHO, 1995) require hospitals to implement outcomes management programs. And, many of these programs seek to explore patient outcomes as the result of nursing care and cost.

Because prospective collection of patient, nursing and financial data can be a very tedious and expensive task, organizational databases can provide an efficient and cost effective way to access critical and important data for answering research questions. However, access to databases housing such data is often a challenge filled with many obstacles, sometimes imposed by outdated policies and processes. Streamlined, up-to-date procedures designed to securely allow access to these existing databases could save time for the nursing researcher and research project teams. Ultimately, the ability to explore the impact of nursing practice upon patient outcomes may require the development of new data access policies and procedures.

Building a Program of Research for the Healthcare Organization

The research program in a healthcare organization provides a mechanism for nurse leaders and nursing staff to explore opportunities to modify nursing practice and deliver the highest quality care possible. Although the role of each member of the triad is critical, when conducting research the nurse manager and nursing researcher often work together closely, using engaged nursing staff to identify possible gaps in care. Completed research projects have the potential to guide the development of clinical practice

guidelines, protocols, and policies that promote the science of nursing, leaving nurses feeling supported in their practice, and increasing their confidence level in understanding research (Hutchinson & Johnston, 2006).

Research Roadblocks: Identify Early and Eliminate

As the senior nurse leader is working with the other triad members to develop an organizational program of research, invariably roadblocks and impediments may appear while on that journey. If nursing care is to be transformed in the new millennium, it is imperative that research underpins the evidence being used to redesign patient care delivery. The senior nurse leader, through positional and influential power, can promote facilitators and break down barriers encountered by everyone working to grow the nursing program of research.

As described earlier, one of the key challenges that a nursing researcher may encounter is gaining access to patient databases. When utilizing databases for research, confirmation that specific data will be released to the nursing researcher or the designated person on the research team is needed prior to a project's proposal being reviewed by an institutional review board (IRB). Although the challenges are greater for non-employees, gaining access to data within certain departments can still remain a challenge for even employees of the organization. Even with a well-conceptualized research project the nursing researcher may encounter access challenges at the departmental level where the data is housed. Many times this can be due to a general lack of knowledge of the research process within an organization. Additionally, patient data is highly confidential and department managers responsible for data management worry about loss of patient confidentiality and release of sensitive data. Complicating the process is the temporal

nature of the assurances. For example, while a department manager may want an assurance of the level of oversight by the IRB for the project (sometimes misinterpreted as approval for the study), the IRB requires a letter of approval from the data base manager stating that the data base does indeed have the data being requested and the data will be released for the research project. This letter should be attached to the research proposal before the entire research application is even sent to and reviewed by the IRB.

The senior nurse leader can be helpful in reminding data managers that their role is not to assume the role of protection of human subjects, that is the role of the IRB. As well, the senior nurse leader can assist the data manager to institute a policy for accessing data that includes appropriate level positions for data release and recording and monitoring mechanisms that establish who has been provided access to data and for what purposes. The senior nurse leader can be key to assisting others in understanding the research process, the role of data managers in that process, and most importantly emphasizing the critical nature of data departmental involvement and support of organizationally sponsored projects. As a start, the senior nurse leader could discuss the research process as outlined in figure 2 with data department managers.

Explaining the Process Steps for Research Conducted in an Organization

The research process involves a series of systematic steps requiring a high a level of vigor, commitment, and understanding throughout the process. The approach to research is methodical and organized in a manner that allows the exploration of impactful questions for which there is no answer using the current evidence available (Winsett & Cashion, 2007). From the beginning of the process the nursing researcher works with

members of the research team to develop an organized plan for the research project using a systematic, organized, multi-step process.

Generally, the process steps for prospective studies (studies where data is collected as part of the process) include the following: research topic, question(s), and appropriate method are identified; after writing a scientific proposal and level of IRB oversight is determined, the research initiated; next, recruitment of participants usually begins within 1 month post IRB review and continues until the targeted sample size is reached; data is collected and analyzed; and finally, the findings are disseminated.

Studies using data that have already been collected, in other words retrospective studies, are the designs where roadblocks are frequently encountered in terms of gaining access to the necessary data in order to answer the research question. Figure 2 identifies an overview of associated steps and timeline for such a retrospective research design.

Figure 2: Process Steps

Research Problem

Research begins with the recognition for practice improvement, or when a gap in the effectiveness of overall nursing care is identified (Winsett &Cashion, 2007; Albert & Siedlecki, 2008). The nursing researcher works with the clinical research team to identify a narrowed, focused research question. A question that is focused helps to identify solid steps to ensure the question will be properly explored (Winston &Cashion, 2007). The research team usually spends quite a bit of time in this step to ensure the research question is appropriate before proceeding with the research project. The research question is the source of determining the methodological design of the research project.

Research Methodology

After the problem is identified, the nursing researcher works with the clinical research team to discuss the options for study design and methodology. These members may often be unskilled in research and are unable to complete this process step independently (Hutchinson & Johnston, 2006; Albert & Siedlecki, 2008). The nursing researcher is academically prepared with a research doctorate and serves in an educational and consultative research role when determining the methodology for the study.

When conducting nursing research some form of human protections process for oversight is needed. In most organizations an Institutional Review Board (IRB) provides study oversight. Each hospital and organization has policies and procedures for research being conducted and these should always be considered before moving forward in the

process. The nursing researcher takes the lead in this area, while working with the senior nurse leader, nurse managers, and the research team to prepare the research proposal and related documents, otherwise known as the IRB application, for IRB review (Winsett & Cashion, 2007). Relative to retrospective designs, IRBs will determine two things. First, determine if the team will indeed have access to the data needed for the study, and second, determine if access to individual data within the database will require contact with the individuals who provided the data (i. e., patients). The later is for the purpose deciding if the investigators should obtain consent from those individuals or not. Typically, if de-identified data is used for retrospective study designs and contact with individuals would be the only source of linking an individual to a research project. In such a case, there is more risk that to their loss of anonymity relative to their participation in the study than if they were never contacted for consent. Therefore, in most cases, IRBs would not require the consent of those individuals for access to data in an organizational data base.

In an ongoing manner, the senior nurse leader supports the nursing researcher and research team when the garnering support among key stakeholders in an effort to move the research project forward and remove possible impediments at each of the steps in the process. This includes the ‘owners’ of databases, typically various data department managers. The senior nurse leader may actually be identified as an executive sponsor of the research project, and in that role is to support the nursing researcher and research team by helping them maneuver through any committees and understand policies and procedures that may create unique challenges for the research project. The sponsor can

often expedite processes and work through internal dynamics on behalf of the nursing researcher and research team.

Research Initiated

Once the research project is initiated there may be less of a role for the senior nurse leader. However, the senior nurse leader would want to ensure that the nursing researcher is engaging the nursing staff in the research process in an appropriate way that is advancing their knowledge about the scientific inquiry process (Winsett & Cashion, 2007; Albert & Siedlecki, 2008). Most nursing staff will have had limited exposure to or knowledge about research and the nursing researcher can work with interested nursing staff to educate them about the nursing process.

Data Collection and Analysis

It is a joint effort by the triad to provide the appropriate resources to complete these critical steps in the research process (WHO, 2004; Albert & Siedlecki, 2008). For studies requiring prospective data collection, senior nurse leaders may be approving resources for the actual collection of data, possibly including staff nursing time. Nurse managers will be ensuring that staff nurses are relieved of patient care to be involved in this step of the research process. If using retrospective data from data bases, the nursing researcher maintains contact with the database manager as data is extracted. This helps to clarify questions and address issues as that may arise during the data transfer phase. Typically, the nursing researcher will receive the data in a spreadsheet such that the data can be imported into a data analysis software program for statistical analysis. The study aims will determine the statistical analysis that will be conducted by the nursing

researcher and/or statistician. Again, the senior nurse leader may be needed to allocate funds or resources for statistical analysis should it be needed.

After statistical analysis is complete an executive summary of the findings is written by the nursing researcher and team and is provided to the senior nurse leader. Findings are disseminated to appropriate internal audiences. And, finally the study findings should be disseminated widely at a professional conference and publication in a national or international journal. Again, support for this wider dissemination may be needed from the senior nurse leader in terms of funding expenses and resource allocation for one or more research project team members. As the program of research grows, the senior nurse leader would work with the nursing researcher to develop an annual budget for the sustainability of the program. Cost savings demonstrated from interventional research projects would be just one of the sources for building a nursing research program budget.

Summary

In summary, nursing research can transform nursing practice locally and globally. Nurses are caring for patients with advanced disease processes and need up to date evidence to guide their nursing practices. Senior nurse leaders are in a position to partner with the nursing researcher and nurse managers to develop a program of research that will lead to new knowledge. This new knowledge provides the best evidence to guide nursing practice. Nursing leadership alignment among the triad provides clear objectives and goals for a strong organizational program of research. The expertise of a research doctoral prepared nursing researcher is pivotal to the success of a nursing program of

research. And, the senior nurse leader is in a key position to both facilitate processes as well as eliminate barriers that might impede individual research projects.

Conclusions

Patients continue to experience an alarming rate of adverse events every day. Nursing research provides a body of evidence that guide nursing practice and the delivery of quality care. Although nursing research is a critical element to improving patient care, the nursing researcher is faced with obstacles when developing a research program for healthcare organizations.

Through collaboration and alignment among the triad, obstacles can be overcome, and research can be successfully conducted in the healthcare environment. When barriers are overcome new knowledge through the conduct of research is discovered and better care is delivered. Strong evidence founded in nursing research improves patient care outcomes and decreases healthcare costs.

The key to a successful research program is the collaboration of nursing researcher and nursing managers with the senior nurse leader to ensure alignment of the organization's vision and goals within the research agenda. When nursing research is utilized as the basis for best practices patient outcomes improve. Nursing practice is then transformed through the conduct of research and alignment of key roles when developing a research program for a healthcare organization.

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Grant Submission 1

GRANT UNFUNDED

2012 Research Seed Grant Application Cover Page

Name of Principal Investigator: Bridgett Byrd Sellars

Institution: University of San Diego

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Title of research project: Nurse Manager Transformational Leadership Practices and Patient Outcomes Among Magnet and Non-Magnet Hospitals

Total amount requested (maximum of \$8,000): \$ 4000

Research category (check one only)

Workforce	☐
Work environment	☒
Technology/informatics	☐
Health systems	☐
Leadership development	☒
Patient safety	☐
Evidence-based management practices	☒

Are human subjects involved in your research project? ☒ Yes ☐ No

If yes, IRB Approval is: attached ☒ pending ☐

If pending, please provide expected date of approval: October 11, 2011

In applying for this grant, I agree to utilize these funds for the purposes described in this application.

Applicant Signature Bridgett Byrd Sellars

(please type name as electronic signature)

Date October 11, 2011