

Profile of an Excellent Nurse Manager

A DISSERTATION  
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL  
OF THE UNIVERSITY OF MINNESOTA  
BY

Kathryn DiAnn Kallas

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

Sandra R. Edwardson, PhD, RN, FAAN  
Adviser

December 2011

© Kathryn DiAnn Kallas, 2011

## Acknowledgments

This dissertation is dedicated to my children, Kristyn Ann Kallas and Matthew John Kallas. I appreciate their patience, understanding, encouragement, and love during the 10 years that it took for me to complete my doctoral studies and dissertation. My hope is that I have shared with them an inspiration to work toward goals that are important to them—realizing that through small steps, commitment, and persistence, they, too, can achieve whatever goals and dreams they may have. My mother shared this inspiration with me as a freshman at St. Olaf College by encouraging me to stay just one more week and then just one more, and one more.

This dissertation and the requirements for the degree of Doctor of Philosophy would not have been completed without the support of many individuals. A very special thank you to Dr. Sandra Edwardson, who, as my adviser, assured me that I would make it through this process and that she would not let me fail. Her calmness, availability and wisdom guided me in a new level of learning and reaching this special personal goal. Thank you to Dr. Helen Hansen for serving as my adviser during my early studies and, through her words, providing the support that I needed at each step along the way. I extend special recognition to Dr. C. Cryss Brunner for being an inspiration and the finest of thoughtful-leader role models. She provided her in-depth knowledge and gave insights about the world of leaders and impact of gender, for which I am grateful. Drs. Kathleen Krichbaum and Linda Lindeke both encouraged me to believe in my being able to complete the program, and they substantially challenged me to stretch within my research, which contributed strength to my study. Thank you to Dr. Joanne Disch for sharing her wisdom with me through the review of my critical review paper and helping me improve the focus of my research and to Dr. Mary Jo Krietzer for reviewing and supporting my doctoral research prospectus to move ahead with my research study.

Thank you to James M. Kouzes and Barry Z. Posner for approving the use of the Leadership Practices Inventory (LPI) in my dissertation. I am also grateful to the following individuals:

- Nadine Simonson, Division Assistant of the Minnesota Hospital Association (MHA); Tania Daniels, Vice President of Patient Safety of the MHA; Leah Sweet,

Account Executive at the Minnesota Organization of Leaders in Nursing (MOLN); and Joann Pesek, Chair of the Public Relations Committee and the Board of the MOLN—for their support in eliciting CNEs to participate in my research

- Jeanne Mettner, Planetary Ink Editorial Services, for her expertise in editing my three main manuscripts;
- Beverly Ryther, Administrative Assistant at Park Nicollet Health Services (PNHS), for organizing and typing various documents throughout my doctoral studies;
- John Kallas, who helped with typing many papers on tight timelines in my early doctoral studies; and
- Penny Marsala, PNHS Library Director; Avron Schwartz, PNHS Library Coordinator; and Mark Mershon, PNHS Medical Librarian, for the consistent and reliable periodical searches and resource retrieval.

Thank you to Thomas Schmidt, MD, for serving as the research assistant, compiling packets, coding the data, and other tasks requested. Kay Savik was instrumental to my research in providing her expertise with the data input and analysis. Her words “that getting the data is the hard work and using the data is the fun” brought me through a challenging time of my research study. I respect her wisdom and appreciate the guidance that she provided with the data and results. I am more familiar with the possibilities and programs of creating my own documents, presentations, and tables through the encouragement and support from my daughter, Kristyn Kallas. Thank you for empowering me to develop the skills rather than doing the work for me; as a result, my learnings through this process have extended beyond the boundaries of my field of study.

Thank you to the CNEs who expressed an interest in this research and replied to my request regarding the study. I extend a special thank you to the CNEs, on-site coordinators, nurse managers, other nursing leaders, and hospitals that comprised the actual study sample. I am grateful for their interest, time, and support in contributing to the knowledge base as to an evidence-based profile of an excellent nurse manager.

Through their commitment, more is known on this important position within hospitals to improve the success of individuals as nurse managers. You amazed me with your generosity of work on my research study and the knowledge that you so willingly shared with me, a novice researcher.

I am grateful for the nurse managers and directors I have worked with who helped me appreciate and develop an interest in learning more about the nurse manager position and how to support the individuals in this key healthcare position.

Finally, thank you to my friends and family who asked me about my doctoral studies and how I was doing with them; you kept me continuing on my path. You were kind in asking and provided just enough positive momentum to keep me moving forward. Your reaching out meant more to me more than you can ever know.

With heartfelt gratitude and appreciation to so many for helping me meet the 10-year goal that I set for myself in the year 2002,

KK

## **Dedication**

This work is dedicated to my darlings, Matthew and Kristyn whom I love dearly.

## **Abstract**

The purpose of this research was to devise an evidence-based model regarding the profile of an excellent nurse manager. Nurse managers have an impact on staff recruitment, satisfaction, and retention; patient satisfaction, adverse health events, and complications; and organizational performance. Research documents concerns related to the aging and turnover of nurse managers and the lack of interest from registered nurses in this complex and critical position within hospitals.

The conceptual framework for this research was grounded by transformational leadership, which is described as a type of leadership in which the behaviors of an individual with a vision inspire others to act to co-create the vision. The model of Kouzes and Posner (2003a) and the Five Practices of Exemplary Leadership were used. Aspirations, particularly in relation to leadership and achievement, educational, and promotional, was assessed through use of the Career Aspiration Scale (CAS) as developed by O'Brien in 1996 (Gray & O'Brien, 2007) and two additional principal investigator-created questions. Visibility of the nurse manager out on the unit interacting with staff and patients was determined in hours per week and evaluated as an attribute comprising the profile of an excellent nurse manager.

Hospitals within the United States were recruited by publicizing the research opportunity in various venues: the Minnesota Hospital Association (MHA) and Minnesota Organization of Leaders in Nursing (MOLN) email lists, the American Organization of Nurse Executives (AONE) eNews Update and AONE Working For You (AWFY), and a letter mailed to the attention of the Chief Nurse Executive (CNE) of each U.S. magnet hospital (a hospital that has received Magnet Recognition Status from the American Nurses Credentialing Center). Criterion for the study was that the hospital had participated in the National Database of Nursing Quality Indicators-Registered Nurses Survey (NDNQI-RN Survey) in 2009, 2010, and/ or 2011. Seventy CNEs replied expressing interest in the study. Of the 40 hospitals that received packets, 29 hospitals completed and returned all data elements by the target date/first run of data. Of the remaining 11 hospitals, 6 completed and returned the packets after the target date/first run of data. From this participation, the principal investigator identified three groups of

excellent nurse managers, then compared the profile of each group with competent nurse managers. One group was based on the CNE assessment; a second group was composed of nurse managers who scored at or above the 75<sup>th</sup> percentile on the NDNQI-RN Survey, and a third group comprised nurse managers identified in both of the other two groups.

Following collection of the data, the principal investigator conducted a statistical analysis to describe the national sample of hospitals and nurse managers. Parametric statistics, including Crosstab with Chi-Square tests, independent-samples t-test, and one-way between group ANOVA with post-hoc tests, were used to explore the associations of excellent nurse manager ratings compared with competent nurse manager ratings.

In this dissertation, the principle investigator presents a profile of an excellent nurse manager based on the Five Practices of Exemplary Leadership (Kouzes & Posner, 2002), career aspiration (Gray & O'Brien, 2007), aspiration, visibility, and demographics compared with a competent nurse manager in the identified three groups. Based on the assessment of the CNE, the profile of an excellent nurse manager includes four of the Five Practices of Exemplary Leadership: Model the Way, Inspire a Shared Vision, Challenge the Process, and Enable Others to Act. Other key elements for the profile of an excellent nurse manager include the CAS—specifically, the participant's favorable response to the statement, "I hope to move up through any organization or business I work in"—and aspiration, measured by positive response to the statement, "I would like to be in a director position" and "If I were offered the director position in my section/department, I would likely accept the offer." Through use of the NDNQI-RN Survey and the subscales Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management, the RN staff also assessed the profile of an excellent nurse manager to include one characteristic reflecting aspiration—as measured by their agreement with the statement, "I would like to be in a director position" (the preferred response was "moderately true of me"). Based on the assessment of both the CNE and NDNQI-RN Survey (RN staff), the profile of an excellent nurse manager includes four of the Five Practices of Exemplary Leadership: Model the Way, Challenge the Process, Enable Others to Act, and Encourage the Heart.



While the principal investigator concludes that this evidence-based profile can be used to identify, select, recruit, hire, develop, and retain individuals for the nurse manager position, she also discusses the limitations of her investigation and offers recommendations for future research.

## Table of Contents

Acknowledgments	i.
Dedication	iv.
Abstract	v.
List of Tables	x.
List of Figures	xii.
Chapter 1: Introduction, Study Design and Aims, and Conceptual Framework	1
Study Aims	2
Conceptual Framework	3
Chapter 2: Review of the Literature	7
Nurse Manager Shortage	7
Unclear Differentiation of Nurse Leader Roles in Literature	9
Years of Service and Competency Disconnect	11
Characteristics of Nurse Manager Role	12
Contextual Impact on Nurse Leaders	19
High Nursing Management Scores on Nursing Staff as Measure of Effective Leadership	20
Career Aspiration and Aspiration	24
Power Sharing and Transformational Leadership	26
Nurse Leaders' Impact on Staff Satisfaction	27
Impact of a Leadership Program on Nurse Leaders	31
Chapter 3: Methodology	35
Design of the Research Study	35
Data Collection	50
Instruments	54
Formatting of Variables	62
Measures	65
Statistical Analyses	70
Database of Kouzes and Posner	72

Chapter 4: Results	74
Sample of Hospitals	74
Sample of Nurse Managers	75
Ratings	77
Group 1: Excellent Nurse Managers as Assessed by the CNE	79
Group 2: Excellent Nurse Managers as Assessed by the NDNQI-RN Survey (RN Staff)	84
Group 3: Excellent Nurse Managers as Assessed by both the CNE and NDNQI-RN Survey (RN Staff)	90
Summary of Findings	96
Chapter 5: Discussion	100
Sample of Hospitals	100
Sample of Nurse Managers	100
Identified Sample of Excellent Nurse Manager Ratings: CNE; NDNQI-RN Survey (RN Staff), and CNE and NDNQI-RN Survey (RN Staff)	105
Associations of an Excellent Nurse Manager as Assessed by the Instruments	106
Assessment of Excellent Nurse Managers by CNEs	107
Assessment of Excellent Nurse Managers by NDNQI-RN Survey	117
Assessment of Excellent Nurse Managers by both the CNEs and the NDNQI-RN Survey	121
Limitations and Weaknesses	130
Strengths	133
Additional Recommendations for Future Research	134
Summary	136
Bibliography	139
Appendices	152

## List of Tables

Table 3.1. Number of Interested CNEs and Number of Data Collection Packets Sent/Received	Page 43
Table 3.2. Reliability: Leadership Practices Inventory-Self; The Five Practices of Exemplary Leadership (N = 233)	Page 65
Table 3.3. Reliability: Career Aspiration Scale (CAS) (N = 217)	Page 66
Table 3.4. Reliability: Career Aspiration Scale (CAS) with Aspiration Items (N = 217)	Page 68
Table 4.1. Type of Patient Care Units Represented in Sample	Page 75
Table 4.2. Sample of Individual Nurse Managers and Nurse Manager Ratings and Response Rate	Page 76
Table 4.3. Frequency of Nurse Manager Ratings and Distribution of Ratings Responses as Assessed by the CNE, the NDNQI-RN Survey (RN staff), and both the CNE and NDNQI-RN Survey (RN staff)	Page 78
Table 4.4. Excellent and Competent Nurse Managers and The Five Practices of Exemplary Leadership as Assessed by the CNE	Page 80
Table 4.5. Excellent and Competent Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by the CNE	Page 82
Table 4.6. Excellent and Competent Nurse Managers and Visibility as Assessed by the CNE	Page 83

Table 4.7. Excellent, Competent, and In-Development Nurse Managers and The Five Practices of Exemplary Leadership as Assessed by the NDNQI-RN Survey (RN staff)	Page 87
Table 4.8. Excellent, Competent, and In-Development Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by the NDNQI-RN Survey (RN staff)	Page 89
Table 4.9. Excellent, Competent, and In-Development Nurse Managers and Visibility as Assessed by the NDNQI-RN Survey (RN staff)	Page 90
Table 4.10. Excellent and Competent Nurse Managers and the Five Practices of Exemplary Leadership as Assessed by both the CNE and NDNQI-RN Survey (RN staff)	Page 92
Table 4.11. Excellent and Competent Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by both the CNE and NDNQI-RN Survey (RN staff)	Page 95
Table 4.12. Excellent and Competent Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by both the CNE and NDNQI-RN Survey (RN staff)	Page 96

## **List of Figures**

- Figure 4.1. The Five Practices of Exemplary Leadership for Excellent and Competent Nurse Managers as Assessed by the CNE Page 81
- Figure 4.2. The Five Practices of Exemplary Leadership for Excellent, Competent, and In-Development Nurse Managers as Assessed by the NDNQI-RN Survey (RN Staff) Page 88
- Figure 4.3. The Five Practices of Exemplary Leadership for Excellent and Competent Nurse Managers as Assessed by both the CNE and NDNQI-RN Survey (RN staff) Page 93

## **Chapter 1: Introduction, Study Design and Aims, and Conceptual Framework**

Researchers and other experts have highlighted numerous characteristics and competencies that they believe are critical for nurse manager and/or nurse leader efficacy. However, a lack of consensus exists concerning a specific tool or instrument that can successfully identify individuals who would be an excellent nurse manager. One tool that has been well validated is the Leadership Practices Inventory: Self Instrument (LPI-Self), a reliable instrument used for close to 30 years to identify behaviors associated with transformational leaders. Transformational leadership is a leadership style that has been studied and well-regarded in the healthcare environment. Studies have consistently found transformational leaders to possess a leadership style that employees find valuable as followers (Kouzes & Posner, 2002). However, what the research lacks (as determined through literature reviews) is a profile of excellent nurse managers based on the LPI-Self. (A proposed definition of terms regarding this study appears in Appendix A.)

From this research gap derives the specific aim of this research proposal: to devise a model based on evidence as to the profile of an excellent nurse manager. Through various recruitment methods, the principal investigator invited Chief Nurse Executives (CNEs) of hospitals throughout the United States—all of whom met criterion for inclusion—to participate in the research study. All nurse managers responsible for acute care units and the emergency center from the sample of hospitals who wished to participate in the research study completed the LPI-Self (see Appendix B), Career Aspiration Scale (CAS), with two additional questions related to aspiration (see Appendix C), and a customized demographic form including a visibility question (see Appendix D). The CNE assessed and ranked the nurse managers within the hospital as either excellent or competent and completed the Ranking Nurse Managers Based on Excellent Nurse Managers form. *Group 1: Excellent Nurse Managers—CNE* comprised nurse managers whom the CNE ranked as excellent. The second group, *Group 2: Excellent Nurse Managers—NDNQI-RN Survey (RN staff)* comprised nurse managers who scored at the 75<sup>th</sup> percentile or greater compared with the National Database of Nursing Quality Indicators (NDNQI) national database on the Nurse Manager Ability,

Leadership, and Support of Nurses/Nursing Management subscales. These subscales reflect the registered nurse's satisfaction with the nurse manager. A third group of excellent nurse managers, *Group 3: Excellent Nurse Managers—CNE and NDNQI-RN Survey (RN staff)*, included nurse managers who were identified as (1) excellent by the CNE and (2) at or greater than the 75<sup>th</sup> percentile of national benchmark for the NDNQI-RN Survey's subscales: Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Leadership. The principal investigator analyzed how the identified excellent nurse managers in the three groups aligned with the (1) Five Practices of Exemplary Leadership (Kouzes & Posner, 2002), (2) career aspiration/aspiration, (3) visibility, and (4) demographics in comparison with competent nurse managers. The end product was a profile of an excellent nurse manager that can be tested and used to identify, recruit, select, hire, develop, and retain registered nurses for the nurse manager position.

### **Study Aims**

The aim of this study was to devise a model based on evidence as to the profile of an excellent nurse manager.

Three questions were investigated in this study:

1. What are the associations of an excellent nurse manager as assessed by the CNE and the Five Practices of Exemplary Leadership, CAS and aspiration, visibility, and demographics that define the profile of an excellent nurse manager in comparison with a competent nurse manager?
2. What are the associations of an excellent nurse manager as assessed by the NDNQI-RN Survey and the Five Practices of Exemplary Leadership, CAS and aspiration, visibility, and demographics that define the profile of an excellent nurse manager in comparison with a competent nurse manager?
3. What are the associations of an excellent nurse manager as assessed by both the CNE and NDNQI-RN Survey and the Five Practices of Exemplary Leadership, CAS and aspiration, visibility, and demographics that define the profile of an excellent nurse manager in comparison to a competent nurse manager?



## **Conceptual Framework**

For years, researchers have studied leadership—across organizations, education, the military and healthcare; in private, public, profit and non-profit sectors; throughout the world and within various roles and positions. In the course of these studies, investigators have outlined different styles of leadership, with descriptions of the key characteristics and/or components that define the specific leadership style. Within healthcare, experts have identified three styles of leadership that are most supportive of healthcare staff and most conducive to a healthy work environment: authentic, servant, and transformational leadership. (As noted below, some aspects of the transactional style of leadership are also found to be valuable, particularly when integrated with a predominantly transformational leadership environment.) Among all styles of leadership, a key factor to success seems to be the leader's ability to achieve measurably high scores in job satisfaction among his or her nursing staff.

**Authentic Leadership.** The American Association of Critical Care Nurses (AACN) has identified authentic leadership as one of the six standards necessary for creating a healthy work environment. Shirey (2006) conducted a literature search related to healthy work environments and authentic leadership style. In her paper, she discusses the preliminary work of Avolio and Gardner (2005), which describes a theoretical model and the empirical base linking authentic leadership to followers' attitudes, behavior, and performance outcomes. While Shirey confirms the absence of an instrument to measure authentic leadership, she notes that researchers have used other instruments (i.e., Servant Leadership Scale, Multifactor Leadership Questionnaire) that measure some elements of authentic leadership (but not leadership in total).

**Servant Leadership.** In a literature review, Anderson, Manno, O'Connor, and Gallagher, (2010) noted the conclusions of Anthony, Standing, and Glick, (2005): servant leadership is the new paradigm of nursing leadership; the nurse leader serves his/her employees who serves the customer. Anderson et al. also discussed the 10 principles of servant leadership observed in nursing practice, as described by Neill and Saunders (2008). They included listening, empathy, healing relationships, awareness, persuasion,

conceptualization, foresight, stewardship, commitment to growth, and building community.

**Transformational Leadership.** The American Nurses Credentialing Center (ANCC) describes transformational leaders as ones who transform their organization's values, beliefs, and behaviors and lead people to where they need to be in order to meet the demands of the future. Requisite to a transformational leadership designation are vision, influence, clinical knowledge, and a strong expertise relating to professional nursing practice ("A New Model for ANCC's Magnet Recognition Program" brochure).

In examining the relationship between nursing leadership and patient outcomes, Wong and Cummings (2007) extensively reviewed databases and journals, eventually summarizing findings from only seven qualitative studies. The team found transformational leadership to have a positive impact on the patient outcomes of satisfaction, adverse health events, and complications. Weberg (2010) also did a meta-analysis of seven studies on transformational leadership and its relationship to staff satisfaction and burnout. Across all studies, Weberg noted, transformational leadership showed an increase in staff satisfaction and well-being and a decrease in burnout.

Based on overwhelming evidence, Weberg (2010) advocated for transformational leaders as a "tangible solution to create healthy work environments, improve staff retention, and empower the bedside practitioner" (p. 257). Importantly, Weberg differentiated transformational leaders from transactional leaders. The latter reward good behavior, punish perceived negative behavior, and keep locus of control at the top; the former place locus of control with the individuals doing the work.

Several researchers have studied the effect of transformational leadership on job satisfaction. Raup's (2008) study of the impact of transformational and nontransformational leadership styles of emergency department nurse managers on staff nurse turnover and patient satisfaction revealed a lower trend of turnover with transformational nurse managers compared with nontransformational nurse managers (although not statistically significant), with neither style having a statistically significant effect on patient satisfaction.

Failla and Stichler (2008) studied transformational leadership through nurses' completion of the Multifactor Leadership Questionnaire (MLQ) and the effect of leadership on staff nurses' job satisfaction as identified through the Stamps Index of Work Satisfaction Questionnaire-Part B (IWS-B). They found that while transformational leadership was positively associated with higher levels of staff nurses' job satisfaction, nurse managers perceived themselves to be more transformational than their staff identified them to be. Sellgren, Ekvall, and Tomson (2006) also demonstrated that a gap exists between the perception of nurse managers and the perception by others as to their leadership style. Both findings validate the need to provide a profile or evidence-based framework for a nurse manager that is excellent. Failla and Stichler, in fact, specifically recommended the need for "researchers to focus on determining which attributes cause subordinates to perceive their manager's leadership style differently than the self-assessment and perception of the leader" (p. 486). While they advocated the active recruitment of leaders who have demonstrated a transformational leadership style, they noted that a blend of transformational and transactional leadership is necessary, given that organizations usually demand and reward transactional behaviors.

The transformational leadership research completed by Kouzes, Posner, and others over the past 30 years indicates that leaders who adhered to the following Five Practices of Exemplary Leadership (Kouzes & Posner, 2002, 2003a) have better results—notably, an alignment with what staff members expect from a leader:

1) Model the Way: Leaders earn their roles by "finding their voice and setting an example."

2) Inspire a Shared Vision: Leaders are driven by their clear view of possibility and their ability to engage others in a common purpose.

3) Challenge the Process: Leaders seek out challenges, take risks, learn from mistakes, and create a climate where the people they lead can psychologically feel they are in charge of change.

4) Enable Others to Act: Leaders foster collaboration and strengthen others to create a climate of teamwork, trust, and empowerment.

5) Encourage the Heart: Leaders show appreciation and recognize the contributions and values of those they lead. Authentic celebration builds a strong sense of identity and a spirit of caring.

Based on global research using Kouzes and Posner's framework and the review of the literature, the principal investigator selected Kouzes and Posner's model for this study. Applying the Five Practices of Exemplary Leadership will provide a framework for designing the profile of an excellent nurse manager.

## **Chapter 2: Review of the Literature**

Based on professional experience and a review of the literature, several key issues create challenges for identifying, developing, and retaining excellent nurse managers. These issues, discussed below, provided the evidentiary framework needed to justify the development of the profile of an excellent nurse manager.

### **Nurse Manager Shortage**

Recently, Hader (2010) analyzed survey responses from 1,523 nursing leaders to arrive at an aggregate composite of nurse leadership roles. He found that 47.9% were nurse managers, 7.1% assistant nurse managers, and the remaining vice presidents, directors, and “other.” Half of all of the nursing leader respondents were 51 to 60 years of age and older. Of these individuals, 50% indicated that they did not plan to be working in their organization within the next 5 years. Differentiating the data by roles and retirement, Hader calculated that 45% (163/363) of the nurse managers and 35% (19/54) of the assistant nurse managers said that they would retire by 2020.

Similarly, Sherman, Bishop, Eggenberger, and Karden (2007) found 38% (46/120) of the nurse managers in their study older than 50 years of age, with retirement being the most frequent stated long-term goal and with many managers indicating plans to retire within the next 5 years. Reported was a concern from nurse managers about a lack of interest among younger nurses in leadership roles and who would assume their positions when they retire.

In the Minnesota Organization of Leaders in Nursing ‘s (MOLN) 2005 pilot study of Minnesota nurse leaders, the organization identified depletion of patient care supervisors as a priority challenge to address, primarily because of the number indicating retirement as their near future plan. Implications listed from this study included how to facilitate successful recruitment into nurse leader positions and how MOLN would encourage development of nurses into nurse leader roles (Hansen, 2005). MOLN

continues to have as one of its three areas of focus to identify and develop the next generation of nurse leaders (MOLN website).

The need to find excellent nurse leaders is critical, particularly in light of the nursing shortage that is likely to occur in the next 10 years. Lending credence to the impending challenges of the nursing field is a projected shortage ranging from 400,000 (Buerhaus, Staiger, & Auerbach, 2000) to one million nurses by the year 2020 (U.S. Department of Health and Human Services, 2010), the current aging workforce of nurses of 42.7 years (Minnesota) and 47 years (USA), and the current aging of Minnesota nurse leaders of 49 years old (Minnesota Hospital Association). With the sizable number of nurse managers and nurse leaders indicating that they plan to retire by 2020, there has evolved a critical need not only to accurately identify ‘correct candidates’ for the nurse manager role but to ensure that the individuals selected will be excellent nurse managers. Sherman et al. (2007, p. 93) noted that much attention has been placed on the current and impending nurse shortages, with little attention being placed on the present and future shortage of nurse leaders. “The impending shortage of nursing leaders is as daunting as the staff nurse shortage,” the author stated (Wendler, Olson-Sitki, & Prater, 2009).

Nurse manager turnover for 2007 was 15.38% at a teaching hospital in central Illinois (Wendler et al., 2009). Based on the nursing leaders (1,523) who completed the Nursing Management survey, a 50 percent turnover rate of nursing leadership positions would be expected over the next 5 years for the nursing leaders 50 years of age and older. Another stated concern was the limited tenure of less than 5 years for the majority of the nursing leaders (Hader, 2010). An estimated 35.6 percent (536) of the nursing leaders had held their current position for 1 to 2 years and another 26.2 percent (395) for 3 to 5 years—resulting in the majority, or 61.8 percent, of the nursing leaders being in their current positions 5 years or less. Raup (2008) reported an average of 2.7 years for emergency department nurse managers.

To address this significant concern with recruitment, turnover and retirement of nursing leaders, Hader (2010) and Sherman et al. (2007) pointed out that succession planning for nursing leaders is vital and a key role responsibility of current nursing leaders. Failure to ensure a thorough plan would jeopardize the future success of

organizations. Hader recommended that organizations identify which individuals have high potential for assuming more responsibility so that open nursing leader positions could be filled quickly with the correct candidate. Sherman et al. stated that nurse executives have a responsibility to assess current leadership talent to ensure continuity in leadership when vacancies occur. However, these articles lack clarity about the identification and assessment of individuals with high potential for assuming more responsibility and what defines or characterizes the ‘correct candidate.’

### **Unclear differentiation of Nurse Leader Roles in the Literature**

In reviewing the current literature, the principal investigator could not always clearly identify which qualities, characteristics and/or competencies were specific to the nurse manager role versus other nurse leader positions such as the nurse executive, director or staff nurse leader (Hader, 2010; Jennings, Scalzi, Rodgers, & Keane, 2007; Upenieks, 2003a). Researchers stated the need to differentiate between the roles of nurse leaders. However, in the sample used and in the data analysis and summation, the information was less clear as to what was specific to the nurse manager regarding skills, knowledge and characteristics to be effective, superior or successful. Some of the ambiguity may surface just in the article itself or because of the use of inconsistent terms. For instance, when the words ‘nursing leader’ or ‘nurse leader’ are used, it is less clear as to whom that trait, characteristic or description is really about—the nurse manager, director, nurse executive, staff nurse leader or all of the aforementioned.

Although Jennings et al. (2007) identified the need for differentiating competencies based on one’s career stage, role or responsibilities (this differentiation being a shortcoming of other researchers), it was not consistently clear in their analysis of the literature review of 2000-2004 whether they assessed for leadership and management competencies of nurse leaders/ health care professional leaders. In the article by Upenieks (2003a), it was difficult to delineate which competencies were specific to nurse executives and which pertained to the managers/ directors. One section was very clear in distinguishing leadership style of the nurse leaders between the manager and the executive. Managers stated that their predominant traits were being supportive, providing

nurses with challenges, and making sure that nurses had the tools to do their job. Executives' predominant traits were globally based and included being passionate about nursing, exhibiting strong values, and being fair, honest, influential and credible. The attributes of being visible, approachable, accessible, flexible, supportive, responsive and fair were stated as vital for the nurse leaders. Visibility and accessibility were rated as the most important valued traits (pp 148-149). "Be a visible presence for staff" was identified by the nurse managers as a key factor for role success (Sherman et al., 2007). The nurse managers emphasized that emails are not sufficient for communicating and that staff want face-to-face contact. Regular rounds were advocated for by Allen and Dennis (2010) to improve communication and ensure that patients and staff are heard and issues handled before becoming bigger problems. Allen and Dennis opined that it should no longer be tolerated for nurse managers to be "too busy" to provide this support for patients and staff (p. 29).

The objective of a study conducted by Feltner, Mitchell, Norris, and Wolfe (2008) was to determine what surgical registered nurses perceived as needed for effective leaders. The definition of leader included individuals in managerial positions as well as staff nurses involved in roles of leadership. Therefore, the resulting list of characteristics— communication, fairness, job knowledge, role model, dependable participative partnership, confidence, positive attitude, motivating and delegation— pertained to nurse managers, possibly directors/executives, and staff nurses even closer to the bedside nurse role. Stating that all of these characteristics and the ranking of importance would be the same for the nurse manager role would require additional study to confirm. Also, the question remains as to whether these required characteristics and their importance would apply to staff registered nurses external to surgical services and to excellent nurse managers throughout a hospital.

Based on the principal investigator's experience and research, a difference exists in the composition of knowledge, skills and abilities required for different positions within an organization based on the scope, responsibilities and hierarchical structure. Carroll (2005) identified the need to differentiate characteristics based on breadth, scope and time horizon on the job. Supporting this finding is the research of Kouzes and Posner



(2002), in which 95% of senior leaders identified strategic vision as a desired characteristic and only 60% of first-line supervisors stated it as necessary (p. 29). However, the nurse managers in Sherman et al.'s (2007) study stated that the most effective nurse leaders are "big picture thinkers (p. 92)." Nurse managers need to understand how their unit/area fits within the whole organization and the external environment as well.

### **Years of Service and Competency Disconnect**

Wendler et al. (2009) discussed the value of selecting a successful subset of nurse managers to serve as nurse manager preceptors, including beginning (2 to 3 years), solid (3 to 10 years) and extensive (in excess of 10 years), thereby allowing the nurse manager interns to interact and ask questions of 'novice, competent and excellent' nurse managers. The authors offered no additional criteria regarding what determined novice, competent and expert—other than years in a management career.

In the selection of 16 nurse leaders for a qualitative descriptive study, Upenieks (2002, 2003a) did not base eligibility on level of success, competency and performance, but rather on whether they worked in magnet or non-magnet facilities and had at least 3-5 years of experience in a senior executive-level role (for the nurse executive) and 2 to 5 years of experience in nursing supervision (for the nurse manager/director). Length of time in the position was assumed to be the determinant for 'comfortable in the role and understanding the responsibilities' (Upenieks, 2003a, p. 143). Upenieks described these leaders as representing an elite group of nurse leaders, referring to their willingness to participate as an indication of their own status and comfort within the nurse executive role versus those nursing leaders who refused to participate (2002, p. 631).

The length of time that an individual has been in a nurse manager role could be used as one component in describing success or an excellent nurse manager, but it should not be used as the only criterion to designate individuals' performance level of skills, knowledge and abilities. This is a limitation, in that a criterion or a profile, based on evidence that differentiates individuals who are excellent or competent nurse managers is not consistently recognized and used within the nursing profession. In many studies

involving individuals in a nurse leader role (whether as a nurse manager or nurse executive), years or duration of time is used to qualify the knowledge, competency and/or level of success of the nurse leader. Based on the principal investigator's experience, however, there are individuals who are nurse managers and have been nurse managers for years, but they would not be identified as excellent or as a role model for other individuals new to the role of nurse manager, newly hired nurse managers, and/or nursing staff interested in the nurse manager role. In addition, there are nurse managers who have been in the position for a short period of time—one or two years—who would be identified as excellent, performing at an exceptional level, or successful in the nurse manager role. Available evidence is that years of experience within the nurse manager role is not considered sufficient to use as a sole criterion on which to conclude that a nurse manager understands and is able to accurately state and perform the responsibilities of the role. In applying Benner's novice to expert model to the nurse executive role, Shirey (2007) emphasized within the third level of proficiency (that of the competent individual): "It is important to note that skill acquisition in a role is a more important predictor of competency than is time in the role" (p. 168). This supports the need to have a profile based on evidence to differentiate the level of expertise within the nurse manager role and, thereby, enhance the research being conducted as to which nurse managers are being interviewed, answering questionnaires, stating what characteristics or qualities are needed and required to be successful or excellent and, therefore, adding greater strength to the research involving excellent nurse managers.

### **Characteristics of Nurse Manager Role**

The literature regarding the nurse manager role and what is required for effectiveness involved numerous internal attributes or traits, knowledge, domains, skills, competencies, and contextual factors. See Appendix E for a listing of the composite of characteristics extrapolated from the literature related to the roles of nurse manager, nurse leader across leadership roles, nurse executive, charge nurse, and nurse manager interns. Caring was the competency that the nurse managers were most passionate about espousing to demonstrate their leadership (Sherman et al., 2007). A recurring theme was

the importance of connectedness of the nurse manager with the staff and patients on the unit. It is assumed that there are various methods for a nurse manager to establish connectedness with the staff and patients. In this study, the principal investigator explores connectedness through visibility of the nurse manager—that is, being out on their unit interacting with staff and patients.

Krozek and Scoggins (2000) presented generic competencies and criteria for evaluating the unit manager/director. These competencies were developed from a synthesis of interviews with staff and management at many different hospitals, as well as the authors' observations and review of policies and procedures. The 30 competencies identified were placed in two categories; department systems (13) and management functions (17). These competencies deal with specific knowledge and skills pertinent to performing the unit manager/director role—e.g., response to fires, infection control, patient's rights, budget, conflict resolution and interviewing job applicants—and not about any intrinsic attributes or qualities such as integrity, honesty and trust, which many report to be necessary to the role. Krozek and Scoggins stated that most organizations do not evaluate all competency areas but have 8 to 16 competencies pertaining to requirements that are high risk and high volume or high risk and low volume. It would be time-consuming to assess an individual for each and every component listed, and it would be helpful to know (through reliability and probability measures) that the presence of one or a few of these components would ensure the identification of a nurse manager that is excellent. This observation supports the need for a model—based on evidence—for the profile of an excellent nurse manager.

Carroll (2005) studied the skills and attributes of female leaders compared with the skills and attributes of nurse executives. In this descriptive, comparative-design study, the author used a modified, 2-round Delphi method with a 63-item mailed survey regarding the skills/attributes needed for women to succeed as leaders in the 21<sup>st</sup> century. The survey was developed from content analysis of literature from 1990-2000. The study yielded a purposeful sample of 508 female leaders from organizations in Houston, Texas, who had leadership as a criterion, and from this pool of prospective candidates, 189 agreed to participate. Of these 189 participants, 137—7 of whom were nurse

executives,—completed both rounds of the survey. Data were analyzed using a principle-components factor analysis, followed by a promax rotation on data from round two. Six factors were identified:

1. Personal integrity
2. Strategic vision/action orientation
3. Team building/communication
4. Management and technical competence
5. People skills
6. Personal survival skills/attributes

The highest level of agreement for both groups (women leaders and nurse executives) was personal integrity, which included ethical standards, trustworthiness and credibility. The effect size was calculated based on the size within the groups of the sample and indicated only small differences. The authors conducted interviews with the nurse executives in order to further explore the results in relation to ‘nursing leadership’ skills and attributes and not just leadership in general. The same six key factors were found through the content analysis of the interviews. Stated limitations included gender, size of the sample and composition. Conclusions made from the findings were that there are competencies needed for successful leaders and nurse executives. The authors recommended that competency models for development of individuals be simple, linked to capability development and future-focused. Carroll (2005) stated that “Given this understanding...new methods and new criteria for selecting leaders and developing the next generation of healthcare leaders” could be extrapolated to support the need for a model based on evidence of the profile for an excellent nurse manager. Carroll also noted that two of the six factors—strategic vision and management/technical competence—were generally regarded as areas that can be taught, and four factors—personal integrity, teambuilding, people skills and personal survival skills—deal with the “softer side” of leadership competencies (p. 152). The authors recommended that traditional business courses for leaders incorporate the concepts of credibility, honesty and trustfulness.

Unlike the principal investigator’s proposed area of study, Carroll’s investigation comprised all female leaders and nurse executives. The sample reflected all women

leaders and nurse executives, including individuals who are excellent and competent for identifying the skills and attributes needed for women to succeed as leaders and not just those that are superior/excellent. The question raised by the Carroll study is how applicable these skills and attributes are to the nurse manager role and how much value they have in identifying a nurse manager who is excellent.

Surgical-services registered nurses at a medium-size magnet facility in Florida were asked to identify the desirable qualities or characteristics of an effective leader (Feltner et al., 2008). The definition used for leader was a person who leads and, therefore, the sample included individuals in managerial positions as well as staff nurses. The sample involved 70 registered nurses with a total of 40 participants. A second stage of the study was staff nurses ranking from 1 (most important) to 15 (least important) an objective survey tool of 15 characteristics of an effective leader developed from the compiled interview information. Based on the score of adding the characteristics that received a 1, 2 or 3, the importance of the characteristics was listed. The top five characteristics were communication skills, fairness, job knowledge, acting as role model, and engaging in a dependable/participative partnership (tied) (see Appendix E).

Summarizing the data, Feltner et al. (2008) stated that just one characteristic would not define a leader, nor should all be required, but that some characteristics ranked higher than others and most should be present the majority of the time. Most of the participants in the study stated that a good leader should ideally possess all of the identified characteristics or, at the least, a majority of them. The list is used for the leaders and staff nurses to evaluate how they compare with these characteristics, areas for their own development and for setting the standard for new hires (p. 371).

Although Shirey (2007) was referring to nurse executives and the need to study expert competency and performance in nursing leadership, the same is needed for the role of nurse manager. She also cited that “empirical evidence to extensively document the relationship between nurse executive expert practice, associated decision making, and effective leadership is lacking (p. 169).” This statement is also true for the role of the nurse manager.

***Competencies of nurse managers.*** To identify nurse managers' and executives' perceptions regarding nurse manager competencies and educational requirements, Kleinman (2003) developed and distributed a 22-item survey questionnaire. The 93 nurse executives and 35 nurse managers who completed the survey concurred that the three (out of 12) most important competencies for the nurse manager role were staffing and scheduling, management, and human resources. The nurse manager respondents rated the need for a graduate degree for nurse managers at 51%, which was lower than the nurse executive respondents, who rated the need at 69%. Weaknesses of the article were two-fold. First, while the investigators established the content validity of the survey tool, they did not test its reliability. Second, the investigators recommended that further research (a) examine the business-related knowledge base of nurse managers who were promoted to the role on the basis of their clinical expertise and (b) compare that knowledge base with those nurse managers who possess graduate administration degrees (e.g., Masters of Business Administration, Masters of Nursing Administration). Currently, however, pursuit of this additional research would be difficult because the number of nurse managers who have graduate administrative degrees is minimal (graduate nursing degrees in clinical specialties—e.g., MSN—are more common).

Houser (2003) used a mixed qualitative and quantitative study to examine how several behavioral factors influence the delivery of nursing care. Through a constant-comparison method and maintaining rigor for internal validity and interrater agreement, Houser reviewed transcripts and identified discussion themes from focus groups involving more than 36 nurses. One of the central phenomena that Houser identified through the research was that leadership influenced demands on nursing staff. Leadership style descriptions such as approachability, availability, role modeling, and inspirational behaviors emerged in the focus group dialogue more often than traditional managerial behaviors. The most common behaviors that focus group members identified as influential to care delivery were communication skills, the offering of encouragement, defining of expectations, and problem solving. Focus groups identified leadership effectiveness as key in attracting and keeping expert nurses or maintaining staff expertise and stability.

For the quantitative portion of the research, Houser (2003) designed, measured, and tested a factor model representing contextual effects on nurse-sensitive outcomes. Using the Leadership Practices Inventory (LPI) by Kouzes and Posner (1995), Houser assessed leadership of 55 nurse managers and three randomly selected subordinates of each manager. Internal reliability of the LPI ranged from .69 to .85 as measured by coefficient alpha, and the test-retest reliability averaged .93. Strong leadership was associated with low turnover and increased staff stability. The magnitude of the effect was moderate. Inspiring, encouraging, and modeling behaviors were important, and all were significant as measures of the leadership construct. The value of a leader as an advocate, one who would challenge the status quo, was indeed measured by the LPI. Behaviors of encouraging, inspiring, modeling, and challenging suggest that interpersonal influence skills are more important than traditional management skills. Houser found that strong levels of staff expertise correlated with a decline in incidence of adverse events or patient outcomes.

Combining the qualitative and quantitative data, Houser (2003) devised a Structural Equation Model that attempts to depict the effect of context (of which leadership is a key factor) on the practice of nursing and on subsequent outcomes of care. In addition to leadership, the final Structural Equation Model incorporates staff expertise, staff stability, teamwork, resources, and workload as a factor in patient outcomes.

As with Houser's qualitative research, Sellgren, Ekvall, and Tomson (2006) used a questionnaire to measure leadership dimensions and profiles and identify preferred and perceived leadership styles of nurse managers. Applying the change, production, and employee (CPE) model of Ekvall and Arvonen (1991, 1994), the team constructed a survey tool and distributed it among 77 nurse managers and 770 subordinates (10 for each nurse manager). Uniformly, subordinates valued each dimension higher than the managers did. The greatest statistically significant difference was in the dimension of production, followed by employee orientation (Sellgren et al.). Subordinates preferred leaders with a clearer leadership style than nurse managers themselves had indicated they possess. In other words, subordinates would like to see more actual, active leadership than what the nurse managers perceive that they are practicing. Based on evaluation of

the scores, both subordinates and nurse managers preferred to see higher execution of the three leadership dimensions—change, production, and employee/relation orientations. Notably, for all three dimensions, the subordinates' scores of their nurse managers' leadership styles were lower than nurse managers' self-scoring. Subordinates identified only 12 (23.1%) of the 52 nurse managers as super leaders, with the majority, 26 (50%) being middle of the road leaders, and 9 (17.3%) nurse managers being invisible leaders (Sellgren et al.). The study, conducted at Karolinski Hospital in Stockholm, Sweden, in 2003, did not address the effectiveness of different leadership styles.

Assessing leadership style in the areas of “thrust” and “aloofness,” Ribelin (2003) corroborated the results of other studies (Taunton, Boyle, Woods, Hansen, & Bott, 1997; Boyle, Bott, Hansen, Woods, & Taunton, 1999) pertaining to the impact of nurse manager leadership style and staff nurses' intent to stay. (As defined by these researchers, thrust is a behavior viewed as an effort to move the organization forward. Aloofness is a style that “follows the book;” it is impersonal and formal behavior.) On the basis of a 70% return rate (1,436 surveys), the data indicated that nurse managers who communicated with their employees directly and were not aloof influenced the staff nurses' intent to stay. Nurse managers who displayed positive behaviors regarding an organization also had a statistically significant positive effect on staff intent to stay. In summary, Ribelin noted that staff nurses want nurse managers who promote direct communication, give feedback on performance, provide recognition, and attempt to meet their personal needs.

***Skills of the nurse manager role.*** Various specific skills are required for an excellent nurse manager. Some skills can be learned, developed and mentored, or coached. One example of a skill that can be learned and developed is financial management or business astuteness. Reported in the literature is the lack of business astuteness among some nurse leaders. Requesting and obtaining necessary resources such as staffing and supplies/equipment requires hard data, and nurse managers need to understand the business/financial aspects of their unit/areas/hospital. Although the nurse executives reported a strong business sense and considered themselves credible at the executive table, the majority of the participants (directors/managers) did not have the



same viewpoint (Upenieks, 2003a). Financial management was cited as the weakest area for 120 nurse manager participants interviewed regarding critical leadership skills and competencies to build a nursing leadership competency model (Sherman et al., 2007).

Financial management or business astuteness can be learned. With education/development courses/workshops, nurse managers can learn financial management of the unit(s), practice and gain experience in the use of numbers and equations through various scenarios and, eventually, develop a financial management/business astuteness skill. The degree of skill in this area would be influenced by the nurse manager's education, acquired knowledge, experience and practice, position, mentoring experiences, and the level of regular feedback provided to him or her to further develop this skill.

In many cases, selection criteria within hospitals lack specificity as to the profile of an excellent nurse manager and what ensures optimal performance in the role. A model based on evidence as to the profile of an excellent nurse manager could be used in identification, recruitment, selection, hiring, development, retention, and curriculum of staff nurses and nurse managers to ensure excellent nurse managers are in these positions. The profiles of nurse manager candidates would be compared to a model based on evidence of the profile of excellent nurse managers to assess for a strong or weak match, gaps in the profile, and/or areas for development/additional education or mentoring. The model would also assist nurse educators to better align curriculum specific to the nurse manager role to more appropriately prepare individuals to be excellent nurse managers. (Jennings et al., 2007).

### **Contextual Impact on Nurse Leaders**

Upenieks (2002, 2003a, 2003b) used a qualitative, descriptive study incorporating content analysis of interviews completed with a mix of 16 nurse leaders (4 executives and 12 directors and managers) to understand the types of organizational structures that create conditions for nurse executive job effectiveness and leadership success. Support for the research was based on Kanter's Structural Theory of Organizational Behavior. Kanter's theory was supported by the results of this study; the majority (83% of the nurse leaders) validated that access to power, opportunity, information, resources, and support created

an environment that fostered leadership success and enhanced levels of nurse job satisfaction. The focus was on the contextual aspect of the organization's healthcare environment and support or not for Kanter's Theory, not on the individual or intrinsic attributes, characteristics, knowledge, skills, or abilities necessary for success in the nurse manager role or to identify an excellent nurse manager.

### **High Nursing Management Scores of Nursing Staff as a Measure of Effective Leadership**

Using the National Database of Nursing Quality Indicators—Registered Nurse Survey (NDNQI-RN Survey), Anderson et al. (2010) studied the qualities of nurse managers who scored above the mean on the nursing leadership component of the job satisfaction scale. Five, from a potential sample size of 12, met the inclusion criteria and participated in a focus group to determine what they perceived to be the reason for their success. Initially, Anderson et al. asked nurse managers to write one or two words about why they felt they achieved this rating from their staff. Visibility was identified by all five nurse managers, followed by communication (3). The investigator then used prepared, probing questions followed by discussion with the participants. Through coding and analysis of the data, visibility and communication were again the major themes with an overlay of values, particularly respect and empathy. Anderson et al. summarized the need for a quality component of respect and empathy in order for the nurse manager to be effective and the foundation for staff nurse satisfaction and retention (p. 186). For their focus group, Anderson et al. used nurse managers who scored above the mean on the leadership component of the job satisfaction scale on the NDNQI RN survey. This sample of nurse managers would have great insight and/or knowledge as to what contributed to their achieving staff satisfaction with their leadership as a nurse manager. However, some of the five nurse managers may be nurse managers who are competent versus excellent. Setting the inclusion level greater—at or above the 75th percentile, would increase the probability of having a sample of nurse managers who are excellent versus competent.

Manion (2004) selected participating nurses on “a variety of criteria, which included some combination of low turnover rates; high patient, staff, and provider satisfaction levels; and overall positive working relationships among the staff members.” Many of these nurse managers also had a waiting list of individuals interested in working in their department.

One would postulate that nurse managers who scored above the mean for leadership or have a waiting list of individuals seeking positions on their unit are knowledgeable and a preferred source for identifying the profile of an excellent nurse manager. As noted in studies by Wong and Cummings (2007) and Polit and Beck (2004), however, use of self-reported data for leadership measures has its limitations—specifically, the influence of social desirability response bias. In this context, the five nurse managers from the study by Anderson et al. may have stated what they thought others would want to hear—rather than what they actually felt or believed. This reality would support the need to use another or different method to determine what helps identify excellent nurse managers. Manion controlled for this by interviewing three focus groups made up of the participating nurse managers’ employees and three of the nurse managers’ direct supervisors. The reported behaviors of the nurse managers were supported and congruent.

**Visibility.** A review of published research reveals that being a visible leader (visibility) must be considered a factor in determining whether a nurse manager is excellent or competent. Visibility is an area that has been identified within the literature as being important to healthcare leaders including the nurse manager role (Allen & Dennis, 2010; Anderson, Manno, O’Connor, & Gallagher, 2010; Duffield, Rouche, Blay, & Stasa, 2011; Rubin & Stone, 2010; Williams & Reid, 2009). From a review of the literature regarding the relationship between effective nurse managers and nursing retention, Force (2005) concluded that a key strategy to decrease nurse turnover is leadership (nurse manager) education that promotes visibility and responsiveness to staff; specifically, Force cited (and applied to nurse managers) the earlier research of Dunham-Taylor and Klafehn’s in 1995: that the best nurse executives are highly visible charismatic leaders. Visible leaders have increased opportunities to communicate the

vision, values, plans, and goals of the organization and hear from staff directly about their issues and concerns.

Williams and Reid (2009) explained the importance of effective leadership for the Patient Safety First Campaign within the National Health Service (NHS) for reducing adverse health events in healthcare for patients. Five interventions were identified for the campaign, with leadership for safety being number one. Provided for leaders were six areas of focus, which included being demonstrable or visible leaders. The authors identified that the attitude and behavior of leaders can alter the healthcare culture and affect patient safety. Nursing leaders are in positions that affect the safety of patients, Williams and Reid concluded, and being a visible leader is advocated to improve patient safety and reduce errors.

In foundational research by Skytt, Ljunggren, Sjöden and Carlsson (2008), nurse managers themselves expressed a desire to see more of their staff, noting concern about whether they are too frequently absent from their ward and staff members. Data recently presented by Skytt et al. were originally gathered in 1997, but the data endure and have unique relevance to this study. The first-line nurse manager position was explored qualitatively from the perspective of the head of department (HD), first-line nurse manager (FLNM), registered nurse (RN), and assistant nurse (AN) as to the FLNMs' current and desired role. The sample size was relatively small, with 16 total participants—1 HD, 5 FLNMs, 5 RNs, and 5 ANs—the setting was an acute hospital in Sweden. Skytt and her team interviewed each of the participants and analyzed the data. Based on qualitative content analysis, a theme resulted for the current and desired role of the FLNM from each of the four groups. The FLNMs, ANs, and RNs had greater similarity with both the current and desired roles of the FLNM, and they differed from that of the HD. The current theme of the FLNM for the FLNMs, ANs, and RNs was day-to-day operations, with responsibility focused on personnel. For the HD, however, the theme was solely personnel. As to the desired role of the FLNM, the FLNMs, ANs, and RNs again responded by identifying day-to-day operations with focus on care of the patients, while the HD stated that the desired role of the FLNM was vision concerning the development of services and cooperation with other managers. Pointed out by Skytt and

team was the potential conflict for FLNMs between both the current and desired roles as well as the differences in what these roles should be from each groups' perspectives. In addition, the researchers noted that if this conflict were not understood and managed appropriately, FLNMs could potentially become dissatisfied and feel a lack of support from the other groups. Ultimately, Skytt et al. referenced the work of others as to the effect that the FLNM position could have on the environment of the patient care unit and staff satisfaction, patient care, and unit performance. The team recommended that future research focus attention on understanding these differences in order to enable successful transitions between the current and desired roles of FLNM. In this study, the principal investigator follows this lead—using assessments of the CNE and the RN staff as to which nurse managers are excellent nurse managers—to understand the profile of an excellent nurse manager from the perspective of the CNE, RN staff and both the CNE and RN staff.

Duffield et al. (2011) completed a secondary analysis of data collected during 2004 to 2006 from 2,488 nursing staff of 21 hospitals in two Australian states to examine the impact of leadership characteristics of nursing unit managers on staff satisfaction and retention. Using the Nursing Work Index—Revised (NWI-R), specifically the leadership domain (12 items), they assessed the satisfaction of nursing staff with the nurse manager. From their perspective, a nurse manager who was perceived to be a good leader was visible, consulted with staff, provided praise and recognition and accommodated flexible work schedules. For a nurse manager to be rated positive overall, it was necessary for the nurse manager to perform well on all the leadership items.

What it really means to be a visible leader, however, is less clear. Some researchers have suggested safety 'walkarounds' as a means to be a visible leader, with the positive outcomes being meeting staff, hearing about problems and challenges, and identifying solutions together as a partnership (Williams and Reid, 2009). Similarly described in the literature by Rubin and Stone (2010) at Metropolitan Healthcare Center (MHC) in East Harlem, New York are 'executive walkarounds,' as identified by the Institute for Healthcare Improvement (IHI) in 1999 to increase patient safety. MHC reported greater than 75% of all issues identified through executive walkarounds being

resolved through this process. The authors noted that the benefits of executive walkrounds included increasing visibility of senior leaders and demonstrating that leaders were there to support and listen to staff.

The number of hours that it takes to be a visible leader, within 24 hour per day and seven days per week for a nurse manager, is also unclear. Research has established connections between visibility and positive outcomes, such as decreasing patient adverse health events and resolving identified issues. However, reports lack evidence regarding whether visibility is a required attribute and whether a certain amount of visibility is required for effectiveness. Additional research is needed to understand if there is an association with being an excellent nurse manager (as identified by the CNE, RN Survey, or both the CNE and RN Survey) and the hours per week a nurse manager is on their unit interacting with staff and patients.

### **Career Aspiration and Aspiration**

Originally women's career choices were studied based on having either a homemaker or career orientation (Betz & Fitzgerald, 1987). This evolved over the next decade to exploration regarding the choice between career versus family orientation, traditional versus nontraditional roles, and prestigious versus non-prestigious positions (Fassinger, 1990; O'Brien & Fassinger, 1993). Research revealed problems with the original thinking that women make career choices for traditional versus nontraditional, or prestigious versus non-prestigious positions because they are less or more achievement oriented. Rainey and Borders (1997) referenced Reid and Stephens (1985) in identifying the distinction between the constructs of career orientation and career aspiration. Women may select traditional and non-prestigious roles and aspire for leadership positions within that occupational domain (demonstrating high aspiration), and other women may select nontraditional and prestigious roles and aspire for fewer hours or part-time work within that occupation based on higher salaries being warranted (demonstrating minimal aspiration). Therefore, the orientation of an individual to a specific occupation and the aspiration of an individual require separate assessment; they are not one and the same. O'Brien's research with white women redefined career aspiration in 1996, "as the degree

to which women aspire to leadership positions and continued education within their careers (Gray & O'Brien, 2007, p. 318).” The Career Aspiration Scale (CAS) was developed to measure this construct.

Three themes are measured with the CAS: aspiring to leadership and promotions, training and managing others, and pursuing further education. Gray and O'Brien (2007) reported on five studies demonstrating the psychometric properties of the Career Aspiration Scale (CAS) being used with predominantly adolescent, college, and postcollege white women. Through factor analyses, two items were recommended to be deleted, which resulted in an eight-item instrument with strong test-retest reliability and moderate internal consistency. Gray and O'Brien recommended further testing of the CAS subscales, Leadership and Achievement Aspirations and Educational Aspirations, as well as adding other items to ensure that a low number of items on the scale do not impede future reliability estimates. Subsequently, Nauta, Epperson, and Kahn (1998) studied career aspiration and the proposed definition of O'Brien and use of the CAS among women in mathematics, science, and engineering majors, and Rainey and Borders (1997) studied the tool with early adolescent girls. Rainey and Borders calculated an internal consistency of coefficient of .67 for adolescent participants in their study using the 10-item CAS. To test the reliability and validity of the CAS will require applicability to demographic groups other than 12- to 15-year-old (Rainey & Borders) and 16- to 23-year-old (Gray & O'Brien), predominantly white females.

Analyzing the CAS in total and within the two subscales of Leadership and Achievement Aspirations and Educational Aspirations, based on what an excellent nurse manager identifies as true, would provide additional information to an evidenced-based profile of an excellent nurse manager. The literature identifies components of leadership, managing others, and continuing education as characteristics that are required for success within the nurse manager position, and all three of these leadership elements are assessed through use of the CAS.

The majority of nurse managers within the United States are white female. White females are a population that has been previously tested using the CAS. According to the literature review, the CAS has been studied with 16- to 23-year-old white women (Gray

& O'Brien, 2007) and 12- to 15-year-old white female students (Rainey & Borders, 1997). The age range of the majority of the nurse managers (50-plus years of age) is demographic that has not been tested using the CAS; evaluating its applicability among this population will add new knowledge regarding use of this tool and its potential generalizability.

### **Power Sharing and Transformational Leadership**

Much of the articles extracted from the literature search discussed the importance of *transformational leadership*—that is, shared leadership and staff empowerment as a mechanism for positively “transforming” work environments. Trofino (2003) demonstrated that staff nurses are more satisfied with nurse managers who value staff contributions, promote information sharing, and exert influence for a stable work environment. In their behavioral research, Vecchio and Applebaum (1995) defined two distinctive leadership styles: (1) authoritarian, which focuses on task, and (2) empowerment, which is characterized by sharing information, consultation, delegation, joint decision-making, and focus on employee collaboration and development. Several studies reported that a shared leadership model resulted in increased staff satisfaction and subsequently improved staff retention (Walker, 2001; and Viejo et al., 1999). Yukl (1990) observed that transformational leaders display the four managerial practices of clarifying, inspiring, supporting, and team-building. Tracy and Hinkin’s exploratory research (1998) revealed three behavioral themes that may distinguish transformational leadership from managerial practices: (a) questioning assumptions and non-traditional thinking, (b) blending individualized consideration with an idealized influence that focuses on follower development, and (c) being oriented toward the future, with emphasis on new possibilities, vision, and sense of purpose.

Dunham-Taylor (2000) have demonstrated that sharing power or empowering others is a transformational leadership strategy that increases staff satisfaction, staff effectiveness, and staff ratings of extra effort. As the power scores (Hagberg, 1994) of nurse executives increased, reflecting greater sharing of power with staff, their



transformational scores (Bass, 1998) increased. Hagberg identified six stages of personal power that are numbered in development order:

(1) Stage 1: powerlessness; no personal power

(2) Stage 2: power by association; one's power comes from who one knows or with whom one is associated

(3) Stage 3: power by symbols; the power comes from what one accomplishes or achieves

(4) Stage 4: power by reflection; one contemplates issues and has integrity

(5) Stage 5: power by purpose; power comes from inner strength rather than organizational considerations, and

(6) Stage 6: power by Gestalt; these people are sages (Dunham-Taylor, p. 243.).

Referring to Hagberg's research, Dunham-Taylor (2000) emphasized that empowerment of staff occurs at Stage 4. Yet in her study, only 43% of the nurse executives were in Stage 4, only 14% in stage 5, and a mere 2% at stage 6—leaving 49% of the nurse executives at less than a stage of power that would be identified as empowering their staff. Would excellent nurse managers possess the attribute of having greater stages of power and greater transformational scores than competent nurse managers? The principal investigator suggests that this question could serve as segue for further research, which could explore how power and transformational scores for nurse managers correlate with other outcome variables such as staff satisfaction and retention and/or patient outcomes.

### **Nurse Leaders' Impact on Staff Satisfaction**

Nurse leaders of magnet facilities have a measureable effect on the morale and job satisfaction of nurses (Feltner et al., 2008; Upenieks, 2003b; Weberg, 2010). Citing reported magnet hospital research, Upenieks listed the leadership attributes of such traits as credibility, passion, value of nursing profession, and self-confidence among nursing leaders as more favorable in terms of producing outcomes related to an empowered environment. Weberg's evidence review of the literature found that transformational

leadership had a significant positive effect on increased staff satisfaction, increased staff well-being, decreased burnout, and decreased overall stress in staff nurses.

Although nurse manager internal or intrinsic attributes (Upenieks, 2002, 2003a, b) have been stated to be important for effective nurse leaders and staff satisfaction, there are other competencies, skills, and knowledge that have been found to be essential for satisfaction and retention of nursing staff. Upenieks identified that nurse managers/directors in non-magnet facilities focused on adequate staffing to support nursing satisfaction; in magnet facilities, they worked on education opportunities for retention of staff.

Wendler et al. (2009) emphasized the role that nursing leadership has in achievement of professional nursing excellence. Effective nursing leadership improves the work environment for nurses, which contributes to recruitment and retention of nurses at all levels (p. 327).

Larrabee et al. (2003) investigated predictors of registered nurse job satisfaction and intentions to leave among 90 registered nurses in a university medical center. Variables included nurse attitudes, structure of care, and context of care, of which transformational leadership was one component. Transformational leadership, a type of participative leadership style, was the predominant philosophy found within the original magnet facilities (McClure, Poulin, Sovie, & Wandelt, 1983), which reportedly have the best registered nurse satisfaction, retention, and patient outcomes. The original research of McClure et al. was to fill a gap in understanding why some hospitals were able to attract and retain registered nurses more than other hospitals, even when the comparative hospitals resided in close proximity to one other.

Larrabee and colleagues (2009) used the nine leadership subscales of the Multifactor Leadership Questionnaire (MLQ-5X-Short) to measure nurse manager leadership style. Of these nine leadership subscales, five measure transformational leadership, three measure transactional leadership, and one measures non-transactional leadership. The team added and averaged the transformational scores to produce a transformational leadership scale. Empowerment had a significant effect on job satisfaction, accounting for 54% of the variance. The team then evaluated four predictors

of empowerment, noting that transformational leadership, hardiness, nurse/physician collaboration, and group cohesion comprised 63% of the variance ( $p < .0001$ ). Further analysis of nurse/physician collaboration and transformational leadership explained only 2% of the variance, and transformational leadership was significant only at the alpha level ( $\alpha < .1$ ). This finding contrasts with the findings of Morrison, Jones and Fuller (1997), in which transformational leadership explained 30% of the variance of job satisfaction and empowerment explained 17%. Larrabee and team concluded that transformational leadership exerts most of the influence on job satisfaction indirectly through influence on psychological empowerment. On the basis of results of the multiple regressions and the homogeneous, non-random nature of the sample, the investigators recommended further replication of the study at different sites and with larger numbers.

Shirey (2006) conducted a literature search related to healthy work environments and authentic leadership style. To support the proposition that nurse managers adopt an authentic leadership style, Shirey used as a primary document The American Association of Critical Care Nurses (AACN) publication, “2005 AACN Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence,” which identifies the six standards necessary for a healthy work environment (of which authentic leadership is one). Shirey concluded that most of the publications were anecdotal and that although it would seem that authentic leadership is increasingly needed in healthy work environments, more empirical work was required.

Using an instrument devised by Bryant and Fleenor, Bunker (2007) surveyed 77 managers attending the 2001 Center for Creative Leadership Program. Respondents indicated that the greater the stress an organization is facing, the more important the “soft” (e.g., emotionally intelligent) side of leadership becomes. Specifically, leaders who were best at managing change were skilled in honest, proactive communication; listened well; and demonstrated sensitivity to employees during periods of uncertainty. Bunker summarized the findings by stating that effective leaders are better at blending softer leadership skills, trust, empathy, and genuine communication with the bottom-line goals of the organization.

Through the work of Kouzes and Posner(2002) and many other researchers who have used the Leadership Practices Inventory (LPI), we now know that employees want their manager or supervisor to consistently demonstrate the Five Practices of Exemplary Leadership.

To identify the self-reported leadership practices of nurse managers at Tucson Veterans Affairs Medical Center, Bardley-Magnuson (1996) used the Leadership Practices Inventory Self Instrument (LPI-Self) (Kouzes & Posner, 1987) with 38 identified nursing leaders. Based on a 59 percent (n=17) return rate, the scores were similar to the LPI-Self of other groups nationally and globally (p. 27). In terms of frequency of use of the Five Practices of Exemplary Leadership (Kouzes & Posner, 2002), Enabling Others to Act was ranked first, followed by Encouraging the Heart, Challenging the Process, Inspiring a Shared Vision, and then Modeling the Way.

Barkers (2006) examined the relationship between leadership practices and emotional intelligence among first-line and mid-level nurse leaders. The sample included 90 mid-level and first-line nurse managers with 73 (27 first-line and 46 mid-level nurse managers) participating in the study. Of the Five Practices of Exemplary Leadership (Kouzes & Posner, 2002), Model the Way and Encourage the Heart had a Cronbach's alpha reliability of .60, while Inspire a Shared Vision, Enable Others to Act, and Challenge the Process had a reliability of .80 and above. Enable Others to Act was the practice with the greatest score, followed by Encourage the Heart, Model the Way, Inspire a Shared Vision, and Challenge the Process. Barkers found positive statistically significant correlations between the Five Leadership Practices and emotional intelligence for the total group and the mid-level nurse managers. For the total group, there were no significant differences in age and education among the leadership practices of nurse managers, except for a positive correlation with Encourage the Heart and age and Enable Others to Act with education level. Barkers found no significant correlations between the Five Practices of Exemplary Leadership and gender, years in nursing, or years as a nursing leader. Mid-level nurse leaders used the Five Practices more frequently than first-line nurse leaders. For first-level nurse managers, no significant correlations were found between the Five Practices of Exemplary Leadership and demographics. For mid-level

nurse managers, there were no significant relationships between the Five Practices of Exemplary Leadership and age, education, or years in nursing; however, years as a nurse manager significantly inversely correlated with Inspire a Shared Vision and Challenge the Process.

McNeese-Smith (1999) studied the relationship of nurse manager motivation to leadership behaviors, job satisfaction, productivity and organizational commitment of staff nurses, and patient satisfaction. The research site was a large California hospital with 19 nurse managers, 221 nurses and 299 patients as the sample. Instruments used for obtaining data included Job Choice Exercise (JCE) (Stahl, 1986), a power motivation question (McNeese-Smith, 1999), Leadership Practices Inventory (Kouzes & Posner, 1987), Job-in-General Scale (Smith et al., 1989), productivity (McNeese-Smith, 1995), and organizational commitment (Porter et al., 1974). Few significant relationships existed between nurse manager motivation, leadership and patient satisfaction. Achievement motivation, as assessed by nursing staff, had a significant positive correlation to all Five Practices of Exemplary Leadership. Organizational commitment, productivity and job satisfaction had significant positive correlations with all five leadership practices. The only patient satisfaction correlation that was low but significantly positive with all leadership practices was “attention of nurses to your condition.” These findings support the importance of the nurse manager role and the impact that nurse managers have to organizational, staff and patient outcomes.

Taylor (1996) described similar research findings as to the relationships between managers’ leadership behavior, as scored by staff nurses and staff nurses’ job satisfaction and organizational commitment. Taylor found statistically significant, positive correlations between all Five Practices of Exemplary Leadership and job satisfaction and organizational commitment. The investigator proposed that the leadership practices would have a positive influence on quality and cost of care (pp. 36-37).

### **Impact of a Leadership Program on Nurse Leaders**

Cardin and McNeese-Smith (2005) published work on the Graduate Nursing Administration Program at UCLA, based on the leadership model of Kouzes and Posner

(2002), which includes the Five Practices of Exemplary Leadership: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. This program has served to bridge students, faculty and nurse administrators from theory to practice to reality (Cardin & McNeese-Smith). Included as well in the Graduate Nursing Administration Program at UCLA is coursework on finance, administration, management, business, research and teaching. This formal education program for nursing leadership, which is built on the leadership model of Kouzes and Posner, lends additional support for understanding the associations between the Five Practices of Exemplary Leadership and excellent and competent nurse managers. Tourangeau, Lemonde, Luba, Dakers, and Alksnis (2003) described the impact of a 5-day leadership development program on nurse leaders and aspiring nurse leaders as self-reported and observed by peers. The investigators used two versions of the Leadership Practice Inventory (LPI) (Kouzes & Posner, 1995)—self-assessment and observer assessment—to evaluate leadership practices of 64 nursing leaders. Of the Five Practices, the team eliminated two of the self-reported subscales, Enable Others to Act ( $r = .67$ ) and Model the Way ( $r = .46$ ), because they did not meet the Cronbach's alpha conventional minimum criteria value of .70 for self-report. All five of the observers' subscales met Cronbach's alpha value of greater than .70.

On self-report, after a 5-day leadership course, leaders did not indicate a significant increase in the leadership practices of Challenge the Process, Inspire a Shared Vision, and Encourage the Heart. Observers, however, identified a significant change for participants of the 5-day leadership program on Challenge the Process and Inspire a Shared Vision. The study findings prompted the question of whether individuals are slower to realize changes in self than others are. Previous research by Wolf (1996) and Krejci and Malin (1997) demonstrated significant changes on self-reported leadership styles and competencies from pretest to post-test using different leadership measures and interventions. These studies did not use observer reports in the data collection. Cunningham and Kitson (2000 a, b) did include peer reports and found significant changes in both self-reported and observer-reported performance from pretest to post-test.

Researchers have not yet studied the association how the profile of an excellent nurse manager or a competent nurse manager is associated with the Five Practices of Exemplary Leadership, Career Aspiration Scale, and visibility. When identifying, selecting, recruiting, hiring, developing, and retaining individuals for the nurse manager position, would recruiters find it helpful to have a framework supporting the profile of an excellent nurse manager in association with the Five Practices of Exemplary Leadership, Career Aspiration Scale, and visibility (as assessed by the CNE, the RN staff, and both the CNE and RN staff)? Completion of the LPI-Self and CAS takes less than 20 minutes and might serve as a framework to create a profile of an excellent nurse manager. Based on the literature reviewed, no reliable, valid instrument is currently available for identifying excellent nurse managers. Various researchers have studied nurse manager characteristics and skills and the effect of these skills and characteristics on specific outcomes. However, left undeveloped is the profile of excellent nurse managers as identified by the CNE, RN staff, and both the CNE and RN staff—using the measures of the Five Practices of Exemplary Leadership, CAS, and visibility. This is the purpose of this research study.

Based on the review of the literature there is a significant need for registered nurses to be interested in and fill nurse manager positions. There is also a need for nurse managers in these positions to feel supported, satisfied, and successful. Regarding what researchers and nursing leaders have identified and stated as being important for nurse managers, the attributes, characteristics, skills, preparation, and behaviors are too numerous for any one person to feasibly have. What is less clear in the literature reviewed are (1) the key (one to three) characteristics or attributes that should be present and (2) and how to assess for these among a population of nurse leaders. The principal investigator is interested in identifying a framework based on evidence as to the profile of an excellent nurse manager. Based on transformational leadership being a leadership style that has been well received within healthcare, the work of Kouzes and Posner and the Leadership Practices Inventory-Self (LPI-Self) was selected as the framework for this research study. There is interest in knowing whether excellent and competent nurse managers are differentiated as to the measures of the Five Practices of Exemplary

Leadership. There is interest in determining whether career aspirations of individuals as to leadership and achievement, educational preparation and promotional opportunities within a hospital contribute to the profile of an excellent nurse manager. The positive effect of leaders being visible is discussed within the literature; however, an appreciation regarding what this means is less clear. Therefore, the principal investigator has sought to determine the associations of the measures of the Five Practices of Exemplary Leadership, CAS and aspiration, visibility and demographics with the profile of an excellent nurse manager. The ultimate outcome is to have individuals in the nurse manager position who enjoy being in the position and are excellent. They exude these qualities and expose them to those with whom they work most closely—the CNE and RN staff—and as a result, they have a favorable impact on staff recruitment, satisfaction, and retention; patient satisfaction, adverse health events, and complications; and organizational performance.



## Chapter 3: Methodology

This exploratory research study presents an evidence-based profile of an excellent nurse manager based on the CNE assessment, the registered nurses' satisfaction through the NDNQI-RN Survey, and a combination of both the CNE assessment and registered nurses' satisfaction. This section outlines the methods used for recruitment of the national multisite sample and then documents, for each of the recruitment phases, the corresponding numbers of CNEs who expressed interest and/or subsequently participated in the investigation. This section also outlines the design of the study—including the role of an on-site coordinator, the Human Subjects: IRB process at the sample hospitals, the methodology, and the instruments used—and presents a recordkeeping checklist, which was necessary for tracking the various hospitals. Finally, this section describes the data collection process and statistical analyses.

### Design of the Research Study

To recruit study participants, the principal investigator publicized the study through emails, telephone calls, newsletters, and letters to the CNEs across the United States who had participated in the NDNQI-RN Survey in 2009, 2010, and/or 2011. (See Appendices F, G, and H for samples.) The communications included the inclusion criterion (participation in the NDNQI-RN Survey in 2009, 2010, and/or 2011), a description of the purpose of the research study, time commitment for the CNE, instruments to be used, and notification that the Institutional Review Board of the University of Minnesota had categorized the study to be exempt per federal guidelines 45 CFR Part 46.101(b) category #2 (Appendix I). In this communication, the principal investigator asked the CNEs to submit questions and/or to indicate their interest in participating in the research through an email reply.

**Procedure for study recruitment on the state level.** Via email, the principal investigator replied to the 13 CNEs who were initially interested in participating in the study. The email correspondence included an attachment letter that thanked them for their interest and explained the next steps in the process of the study. The next step was to

arrange a conference call with the principal investigator and the CNE. Through follow up emails and/or telephone calls, the principal investigator and hospital CNEs held individual, one-on-one conference calls. During these conversations, 11 of the CNEs indicated that their hospitals had not participated in the NDNQI-RN Survey in 2009, 2010, and/or 2011 and therefore did not meet the criterion to participate in the study. Two hospitals remained as study participants.

**Process for enrollment of interested CNEs/participation size on the state level.** Using the hospital mailing lists of the Minnesota Hospital Association (MHA) and Minnesota Organization of Leaders in Nursing (MOLN), the principal investigator sent an email to the CNEs of the hospitals within Minnesota. These emails (see Appendix F and Appendix G) described the study and requested an email reply to the principal investigator within 2 weeks to indicate the CNEs' interest in participating in the study. Nine CNEs replied to this initial email indicating their interest. One of the 9 CNEs that replied identified that she had not participated in the NDNQI-RN Survey, that she had used the Engagement Survey through the Advisory Board, and that the study sounded "like a wonderful opportunity." Ten days following the initial mailing, the principal investigator sent another email to the same mailing list of the MOLN, bolding the reply deadline. This email generated an additional three replies from the CNEs, for a total of 11 interested CNE responses (excluding the one CNE who responded to express support for the study). The principal investigator replied to the 11 CNEs by email and sent one attachment letter thanking them for their interest and explaining the next steps in the process of the study. (See Appendix J.) The next step was coordination of the conference calls, achieved through follow up emails and/or telephone calls between the principal investigator and hospital CNEs. Two CNEs that had initially expressed interest via email did not reply to two follow-up emails to arrange for a conference call to discuss the research study. The principal investigator assumed that these two CNEs did not wish to participate further; consequently, she withdrew them from the study. The reason(s) why they did not respond to the request for a conference call is unknown.

Conference calls were arranged with the nine remaining interested CNEs. In the conversation with each of these individuals, the principal investigator determined that

their hospital had not participated in the NDNQI-RN Survey in 2009, 2010, and/or 2011 and therefore did not meet the criterion to participate in the study. Although the documents publicizing the study stated the criterion for inclusion was for the hospital to have participated in the NDNQI-RN Survey in 2009, 2010, or 2011, the message was not clear to some of the prospective study participants. Several of the hospitals participated in the NDNQI but had not participated in the NDNQI-RN Survey that was required for this study. At this point in study recruitment, no hospitals qualified as active participants in the research sample.

As a secondary strategy, the principal investigator contacted 10 additional CNEs in Minnesota via phone and email, requesting their participation. Five of these CNEs expressed their interest in the study but indicated that they had not participated in the NDNQI-RN Survey in 2009, 2010, and/or 2011. Of the remaining five CNEs, two CNEs agreed to participate in the research study, two CNEs did not respond to a second follow-up telephone call/email, and one CNE declined. Based on the Minnesota sample size of two interested CNEs/hospitals meeting inclusion criterion and an estimated sample nurse manager size of 40, the principal investigator concluded that it was necessary to recruit beyond Minnesota and draw upon a national sample.

**Procedure for study recruitment on the national level.** The principal investigator replied to the interested CNEs by email and sent the following three attachments: the study abstract (revised for national study participants) (see Appendix K),

IRB Exempt Study Notification from the U of MN,<sup>1</sup> and next steps regarding how prospective national candidates could proceed. Following this email, the principal investigator and interested CNEs arranged a conference call, a process that required email and telephone correspondence between the CNEs/designated directors (through the CNEs/administrative assistants) and the principal investigator in order to establish a mutual date and time for the conference call.

**Process for recruitment of interested CNEs/participation size on the national level.** Nationally, the principal investigator recruited CNE members by publicizing the study in the American Organization of Nurse Executives (AONE) eNews Update and in AONE Working For You (AWFY). The communication (see Appendix H) described the study and requested an email reply to the principal investigator within 2 weeks to indicate the CNEs' interest in participating in the study. From the publicizing four CNEs replied indicating their interest in the study. These four CNEs received the principal investigator's reply email along with three attachments: the study abstract revised for national recruitment (see Appendix K), IRB Exempt Study Notification from the U of MN (see Appendix I), and next steps for national candidates (see Appendix L). One of the 4 CNEs subsequently withdrew from further participation after receiving the principal investigator's reply email, stating that the reason was "changes internally." A second CNE withdrew after the conference call between the principal investigator and the CNE

---

<sup>1</sup> Prior to publicizing the research study, the principal investigator submitted the research study to the Student Social Committee of the Investigational Review Board (IRB) of the University of Minnesota (U of MN). Following the U of MN IRB Human Subjects Committee review, the principal investigator received notification that the study was exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2 Surveys/Interviews; Standardized Educational Tests; Observation of Public Behavior. The study was assigned number 1104E98493 and was valid for 5 years from the date of correspondence. This information was conveyed in the language for publication of the research study through MOLN, MHA, and AONE, the letter to the CNEs of magnet hospitals, and the follow up letter that was sent to the CNEs who emailed their interest in learning more about and/or participating in the study.

because the CNO no longer was working as the CNE for the hospital. Two CNEs remained from this method of recruitment. The research study at this point had a total of four CNEs as participants from the stated recruitment methods.

Based on the relatively small number of replies through these means of publicizing the research study, the principal investigator and research assistant extended recruitment efforts by calling larger-sized hospitals/systems in the United States as well as hospitals who had received the 2010 American Nurses Association (ANA) NDNQI Award for Outstanding Nursing Quality—in attempts to connect with the institutions' CNEs. This process was labor-intensive; the larger-sized hospitals/systems usually resulted in not connecting with the CNE but rather an administrative assistant and/or a voicemail message. Conversely, the majority of the CNEs from the 2010 ANA NDNQI Award for Outstanding Nursing Quality hospitals expressed interest in and support for the research study, offered to recruit other colleagues, and provided the epiphany to the principal investigator to publicize the research to CNEs of magnet hospitals based on their expressed interest and willingness to help support this research study. This combination of recruitment strategies—by telephone to larger-sized hospitals/systems, to 2010 ANA NDNQI Award for Outstanding Nursing Quality hospitals, and to CNE colleague referrals—generated eight interested CNEs for the research study. Three CNEs subsequently withdrew early in the process after the conference call with the CNE but before processing through their IRB for review/approval and data collection. The reasons identified by the CNEs for withdrawing included, “leadership structure changes,” “too many surveys for the nurse managers,” and “not able to do at this time.”

The final recruitment method was creating a mailing list of magnet hospitals and sending a brief letter (see Appendix M) to each of these hospitals with “Attn: Chief Nurse Executive” placed on each of the address labels. The principal investigator was familiar with magnet eligibility criteria and the requirement for magnet hospitals to have evidence of high nursing satisfaction (of which the NDNQI-RN Survey is one means to demonstrate nursing satisfaction and meet this criterion) and for nursing leaders to support and participate in nursing research. The principal investigator surmised that a direct mailing to CNEs of magnet hospitals would generate enough interest from CNEs

who could meet inclusion criterion—thus allowing the principal investigator to obtain a sufficient sample size from which to conduct this research study.

A total of 385 letters were mailed to the CNEs of magnet hospitals within the U.S. Of those letters, three were returned and labeled from the U.S. Postal Service “Return to Sender-Attempted-Not Known-Unable to Forward.” From the letters remaining, 45 of the 382 CNEs of magnet hospitals (11.78%) emailed to express interest in learning more about and/or participating in the research study. Of significance is that several additional CNEs of the magnet hospitals emailed the principal investigator, acknowledging that they had received the recruitment letter and that they were not able to participate because of their study ineligibility (i.e., not participating in the NDNQI-RN Survey in 2009, 2010, or 2011). These non-qualifying CNEs nevertheless expressed their support for and the need for this research study and indicated their interest in the findings and recommendations that would follow.

The principal investigator replied to the 45 CNEs by email and sent three attachments: the study abstract revised for national recruitment (see Appendix K), IRB Exempt Study Notification from the U of MN (see Appendix I), and next steps for national candidates (see Appendix L). Following this email, the principal investigator and interested CNEs arranged a conference call, a process that required email and telephone correspondence between the CNEs/designated directors (through the CNEs/administrative assistants) and the principal investigator in order to establish a mutual date and time for the conference call. Of the 45 CNEs, two did not respond, even despite four additional communication attempts; therefore, these two prospective participants were withdrawn from the research study.

Over a period of 10 weeks—from the mailing of the letters to the CNEs of magnet hospitals through the IRB review/approval and on-site coordinators receiving data packets—27 of the 45 CNEs that responded to the letter of magnet hospitals remained in the sample. Of the 45 CNEs from magnet hospitals who initially expressed interest, 18 withdrew from the study (including the two CNEs from whom there was no further communication). The reasons that the 16 CNEs provided for withdrawing from the research study included the following:

(1) the CNE thought that the research study would only involve the CNE and (a) did not wish to engage her nursing staff (1), (b) if the nurse managers will be involved, did not want to participate in the study at this time (1), (c) did not participate in the NDNQI-RN Survey (1), and (d) did not have the time (1)

(2) timeframe (would not be able to participate until later in the year) (1),

(3) CNE/nurse managers do not have the time; too many other activities/challenges (several stating electronic medical record conversion, the Joint Commission, and Magnet Recertification) (8),

(4) did not participate in the NDNQI-RN Survey (2), and

(5) no reason (1).

A total of 27 CNEs who responded to the letter sent to the CNEs of magnet hospitals remained in the sample.

**Total recruitment of interested CNEs and sample size of participating hospitals.** Through these various methods of recruitment for the research study, 70 CNEs identified an initial interest in participating in the research study. Because of the reasons identified in each recruitment section, 34 CNEs withdrew, and 36 CNEs representing 40 hospitals agreed to participate in the research. Each of the 36 CNEs/on-site coordinators followed through with obtaining IRB review/approval within their particular hospital(s) and received data collection packets (see Table 3.1). These individual hospital data collection packet(s) contained the following:

(1) on-site coordinator instructions (see Appendix N)

(2) script for on-site coordinator (see Appendix O)

(3) Ranking Nurse Managers Based on Excellent Nurse Managers form (see Appendix P)

(4) Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form (Appendix Q)

(5) completed samples of forms to identify where to obtain the type of NDNQI Patient Care Unit, the Mean/T-Score, and the national 50<sup>th</sup> and 75<sup>th</sup> percentiles

(6) packets for each nurse manager of the hospital (herein called “nurse manager envelope”), which contained (a) a letter requesting voluntary participation of the nurse

manager (see Appendix R), (b) a copy of the Leadership Practices Inventory: Self Instrument (LPI-Self) (Kouzes & Posner, 2003) (Appendix B) and the Career Aspiration Scale (CAS) (O'Brien, 1996) (Appendix C) with two additional principal investigator-developed aspiration questions, and (c) a demographic form that included a visibility question (Appendix D), and

(7) postage-paid return packet(s) returned to the principal investigator.

The time elapsing from first publicizing the research study through MHA and MOLN to all data packets mailed out to the on-site coordinators of the participating hospitals was 4 months.

Of the 36 CNEs (40 hospitals) that received packets, 25 CNEs/on-site coordinators representing 29 hospitals in 18 states (Appendix S) completed and returned the packets and all the data components to participate in the data analysis. Four CNEs discontinued in the study between packet receipt and closure of the study because of (1) determination that their hospital had not participated in the NDNQI-RN Survey in 2009, 2010, or 2011; (2) an on-site coordinator's concerns related to the informed consent, and (3) two hospitals requiring additional new forms, which would have precluded their ability to complete and return the packets within the established timeline. The principal investigator had extended the original return deadline date by 2.5 weeks in order to give all of the on-site coordinators who had received packets additional time to complete and return the instruments. At the extended deadline date, the principal investigator closed the data in order to conduct the data analysis and complete the research study. Coding and data entry had occurred as the packets were received from each hospital. Since the time of the closure for data analysis, six of the seven remaining hospitals have completed and returned the instruments and are available for additional future research and/or analysis with a greater sample size, and one hospital remains unaccounted.



**Table 3.1***Number of Interested CNEs and Number of Data Collection Packets Sent/Received*

	# of Interested CNEs	# of Data Collection Packet(s) Sent to CNEs/ On-site Coordinators	# of Packets that PI Received by first data analysis run
MHA/MOLN	11	0	0
MN Targeted Telephone Calls	2	2	1
AONE eNews Update and AONE WFY	4	2	2
U.S.-Targeted Telephone Calls	8	5	4
Letters to CNEs of Magnet Hospitals	45	27	18
TOTAL	70	36	25

MHA, Minnesota Hospital Association; MOLN, Minnesota Organization of Leaders in Nursing; MN, Minnesota; AONE, American Organization of Nurse Executives; AONE WFY, American Organization of Nurse Executives Working for You

**Principal Investigator and CNE Conference Call.** The conference calls among the principal investigator, the CNE, and others from the hospital invited by the CNE to participate ranged from 10 to 30 minutes. In this conference call, the principal investigator was usually requested to provide a brief summary of the research study, covering what would be required of participating hospitals; the status of IRB exemption

or approval; the introduction of an on-site coordinator identified to work with the principal investigator; and the timeline for completion of the survey and data collection. On the basis of this conversation, some CNEs expressed that they thought that the research study was only going to involve the CNE and did not want to have their nurse managers/staff participate as there were too many other priorities requiring their attention—several stating, as examples, an electronic medical record transition, the Joint Commission on Accreditation, and Magnet recertification. Some CNEs determined at this time that they would not move forward in the study and others stated that they would need to check with their nursing leadership team. The definition of nurse manager for the study was discussed within several of the conference calls as the hospitals used different titles; other than “nurse manager,” the title most frequently used to correlate with the definition of nurse manager was “clinical/nursing director” (see Appendix A). The conference calls concluded with the CNEs stating one of three things: (1) that they would discuss with her/his nursing leadership team as to interest in participating, (2) that they would participate and would provide the name of an on-site coordinator, or (3) that they were declining further participation.

The principal investigator exchanged additional emails with the CNEs until an on-site coordinator was identified. Once the on-site coordinator was assigned, further communication was primarily between the principal investigator and on-site coordinator; in some instances, the on-site coordinator and principal investigator copied the CNE on the email correspondence.

**On-Site Coordinator.** Each CNE identified an on-site coordinator to work with the principal investigator to help facilitate the study within their hospital. The positions of these on-site coordinators varied. For a few hospitals, it was the CNE; for the majority, it was a research nurse, a professional practice director/project manager, an operational manager/director, or an advanced practice nurse. The various titles of the on-site coordinators included CNE Assistant; Magnet Coordinator; Supervisor Clinical Research Department; Director Clinical Operations/Clinical Excellence Coordinator; Director, Accreditation/Clinical Professional Development; Clinical Nurse Specialist Education and Research; Director, Nursing Practice, Research and Innovation; Nurse Researcher;

Director of Professional Practice; Advanced Practice/Credentialing Research Doctoral Student; Executive Director, Nursing Research and Professional Practice and Operational Improvement; Advanced Practice Nurse, Research and Diabetes Services; Clinical Nurse Educator; Manager Nursing Projects; Director of Magnet and Clinical Research; Possibilitarian and Director, Center for Nursing Research; Clinical Nurse Specialist; Nursing Supervisor Manager; Chief Nurse Executive; Director of Patient Care Service; Director (Patient Care Unit); Nursing Informatics and Research Manager; Director Clinical/Financial Nursing Resources; Clinical Research Nurse (Patient Care Area); Director, Accreditation/Clinical Professional Development; Director, Practice and Magnet Program Director; Unit Director (Patient Care Unit); Patient Care Research Specialist; Director of Nursing Resources, Education and Research; Director of Nursing Scholarship, Quality and Research; Manager, Research and Professional Practice; and Nurse Researcher. The majority of the on-site coordinators had advanced nursing degrees, including a Master's degree and doctoral preparation.

One of the initial steps was securing IRB review/approval for the research study within each of the participating hospitals. The on-site coordinators assisted in communicating to the principal investigator the specific process and/or documents required for their hospital's IRB. The involvement of the on-site coordinator in the IRB process for obtaining approval varied as did the documents for the IRB. One on-site coordinator completed their hospital's IRB forms by cutting and pasting different sections of the principal investigator's documents onto the to IRB forms, then requesting that the principal investigator review and sign the document. Another on-site coordinator directed the principal investigator to the hospital website, where she was to complete certain forms before the study would be submitted to the hospital's IRB. Between these two dichotomous examples lie variations as to the involvement of the on-site coordinator with the research study being reviewed and approved by the IRB.

The on-site coordinator served as a liaison between the principal investigator and the CNE, individuals within the IRB, coordinator of the NDNQI-RN Survey, and the nurse managers to receive and obtain the data collection envelopes. Both telephone calls and emails were exchanged to ask and answer questions, clarify processes, and complete

the data collection at the hospital site. For some of the sites, the principal investigator and on-site coordinator had engaged in more than 30 email correspondences and telephone conversations.

The next step in the process was to establish whether IRB approval was required at their specific hospital or whether it was exempt per the Human Subjects Committee of the U of MN review and determination of exempt per federal guidelines 45 CFR Part 46.101 (b) category #2 Surveys/Interviews; Standardized Educational Tests; Observation of Public Behavior or the processes and forms required by the specific hospital.

**Human Subjects Committee/IRB.** IRB requirements varied widely among the various hospitals. Only one hospital, based on receiving the study abstract revised for national recruitment, IRB Exempt Study Notification from the U of MN, and next steps for national candidates, agreed with the research study being exempt and proceeded with data collection without any further documentation or review. Another hospital forwarded on the three aforementioned documents to the Ethics Advisory Committee, which determined that the research study was exempt and required no further review or documentation. Although there were similarities between the hospital IRB's requested information and what the principal investigator had already submitted for IRB approval at her own institution, the majority of the hospitals required this information to be documented on their own specific forms. This step was expedited through electronics and being able to copy and paste from the original documents of the research study to the form of the specific hospital. There were also differences in what was required. One specific difference was that several hospitals required obtaining Login IDs and passwords to access their on-line website IRB program and complete the requisite forms. When additional documents and information was required, the principal investigator would prepare it and then submit it to the hospital's IRB. These documents included (1) a letter of support from the principal investigator's adviser, (2) signatures of the principal investigator's adviser and chair of the U of MN IRB, (3) a script for the on-site coordinator, (4) a study information sheet to be distributed with the nurse manager letter. Some hospitals required hard copies of the forms and identified a specific number that

were needed for the members of their IRB. Some hospitals required actual signatures versus those that were electronically sent, scanned or faxed.

Two hospitals first required that the research study be presented to the hospital's Nursing Research Committee using their specific process and forms. Once the Nursing Research Committee approved the research study, it was submitted to the hospital's IRB on the required specific forms and documents.

At a few of the hospitals, an individual from the hospital had to serve as the local principal investigator. The name of the local principal investigator was identified on the letter of participation provided for the nurse managers. This individual also had to have had current Collaborative Institutional Training Initiative (CITI) to be the local principal investigator.

The majority of the hospitals required documentation of current CITI. This included the Social/Behavioral or Humanist Research Investigators and Key Personnel, Basic Course and Social and Behavioral Responsible Conduct of Research, Basic Course. In addition, one hospital required logging into the CITI website, adding their hospital as an affiliate, and completing the Biomedical Research Investigators and Key Personnel, Basic Course. This course did not populate the modules completed with the principal investigator's CITI coursework, although several of the modules and content were the same as it was in the Social/Behavioral and Humanist field rather than Biomedical. Hospitals that required a site principal investigator also required that the site principal investigator had documentation of completing current CITI.

For various hospitals, the reviewers requested minor revisions to the study documents, and the principal investigator did grant these requests if they did not significantly change the design and integrity of the research study. For example, hospitals requested that the Nurse Manager Participant Letter include the name of the specific hospital and their IRB contact or local principal investigator information. Another hospital requested that the letter state that no site-specific results would be returned—and that only aggregate results from all the centers would be shared at the completion of the study. One hospital requested that anonymity be removed from the on-site coordinator script because the name of the nurse manager was being placed on the

demographic form and that, therefore, the nurse manager was not anonymous. The same hospital also requested that the nurse manager letter state that a response to every question was not required. Another hospital requested that nurse managers who did not wish to participate be allowed to place the unfilled forms in the envelope and return the envelope without signing the demographic form. This process of solidifying IRB approval among various hospitals' IRBs was labor-intensive and took approximately 3 months of full-time work.

Some IRB reviewers requested modifications to the study process. If the principal investigator determined that the modification did not alter the integrity of the study, the principal investigator accepted the modification. One such change was to explain the study at a nurse manager meeting, then distribute the nurse manager packet to their individual mailbox; each nurse manager participant would then individually return their stamped envelope addressed to the principal investigator rather than submit it at the nurse manager group meeting. This change was requested to assuage feelings of coercion regarding study participation.

The design of the research ensured that individual CNEs, nurse managers, and hospitals were treated with anonymity and confidentiality. Each CNE and nurse manager was assigned a number code, and each hospital was assigned a letter code. The research assistant completed the coding immediately following receiving any data that pertained to the CNE, nurse managers, and hospitals. During the study, the research assistant maintained the key for the coding; upon completion of the study, the key was destroyed.

A few hospitals had questions, expressed concern, and/or sought clarification as to how this research study met federal guidelines of being exempt based on using educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, "unless" the information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects. The principal investigator responded that the returned, unopened envelopes were given to the research assistant to code the names to numbers. Then the coded data was returned to the principal investigator. It was also explained that no individual nurse manager profile would be presented but rather the

nurse managers' data aggregated. One of the hospitals submitted two recommendations to resolve this concern and to support this research study: (1) to create a more detailed consent form instead of the participant letter or (2) have the on-site coordinator code the names of the nurse managers and keep the link to the names/codes. The on-site coordinator would send the principal investigator the numbers rather than the names of the nurse managers. The principal investigator selected the second option because using a nurse manager number versus a nurse manager name would not interfere with the integrity of the research and would allow for tracking the data of one nurse manager. The research assistant coded the numbers the hospital provided—to avoid any possibility that a number used by a nurse manager at the hospital would be identifiable to that individual if the key were to be revealed/discovered. Future research should further evaluate the potential risks and benefits for this component of the study. It is the case/code number, not the name, that is needed by the principal investigator, and it is critical for the number/code to be consistent on the CNE Nurse Manager Ranking and NDNQI-RN Survey forms as well as the individual nurse manager envelope containing the three nurse manager profiling tools. This follow-up research should include an evaluation of which option is preferable: (1) having several on-site coordinators at the hospital sites securely maintaining the key for the coding at their specific hospital, then destroying it upon the principal investigator's request, or (2) having one research assistant external to the hospital responsible and accountable for this for all of the hospital sites. The question remains as to whether nurse managers are at greater ease in participating and answering the profiling tools when having an external, unknown, nonbiased research assistant maintaining the key to the code versus someone internal to the hospital known to the nurse managers. The time involved for the on-site coordinator to complete the coding would also need to be considered along with instructions as to how to do the coding. An alternative would be to use initials at the hospital and have the on-site coordinator be responsible for ensuring that two nurse managers did not have the same initials or, if they did, modifying with another letter or number. The on-site coordinator would also be responsible for ensuring that the initials of the nurse managers were consistently used on the various instruments. A sample sheet with numbers/initials could be provided for each

hospital to use with an example completed. The on-site coordinators would also need to receive instructions regarding the security and destruction of the key to the code.

### **Data Collection**

During the process of obtaining IRB review/approval, the principal investigator communicated with the on-site coordinator regarding the most current year of data available from the NDNQI-RN Survey, the number of nurse managers that would need nurse manager envelopes, and the address to which the principal investigator would mail the data collection packet(s). Upon approval from the hospital IRB to continue with the research study, the principal investigator mailed the data collection packets to the on-site coordinator. (See page 41 for information on the contents of the data collection packet.)

The smaller hospitals required one data collection packet to be mailed to the on-site coordinator. The larger hospitals required that two data collection packets be mailed to the on-site coordinator, to be identified as 1 of 2 and 2 of 2. The label on the return envelope(s) for the data collection instruments listed the principal investigator's address in both the "sent to" and "sent from" areas of the envelope(s). Each data collection packet required delivery to a U.S. post office because of U.S. Postal Service regulations requiring that stamped parcels greater than 13 ounces be taken to a retail service associate at a U.S. Post Office (versus being placed in a mailbox for delivery). Before placing the return principal investigator addressed envelope(s) into the individual hospital's data collection packet(s), the principal investigator had to place the correct postage on the envelope(s).

Several of the returned hospital envelopes from the on-site coordinator had labeling from the U.S. Postal Service stating "We regret that your mail was not collected or is being returned to you due heightened security requirements." It is assumed that these envelopes were not mailed through a retail associate at a Post Office. One returned envelope also had a label affixed from the U.S. Postal Inspection Service stating that "the mail piece... was examined per 39 CFR 233.11 and cleared for processing." It would have been helpful to have included the U.S. Postal Service requirement (that mail with postage stamps and weighing greater than 13 ounces must be taken to a retail service associate at a Post Office) as part of the instructions for the on-site coordinator in order to



have avoided this problem and the potential/possibility of the principal investigator not receiving returned completed envelopes.

**Nurse manager participation.** The instructions provided to the on-site coordinator noted that the research study details should be presented at a nurse manager meeting. The on-site coordinator was to explain the research study, request the nurse managers' voluntary participation, and distribute the nurse manager envelopes to the nurse managers present. The majority of the on-site coordinators received a script that was devised in response to stipulations made by one of the sample hospital IRBs. Prior to having a script on hand, on-site coordinators worked from the letter provided to the on-site coordinator. Some hospitals modified process by presenting the research study at the nurse manager meeting and personally dropping off the envelopes to each nurse manager after the meeting; others distributed them at the meeting but did not collect them at the meeting.

The participation of each nurse manager was voluntary and undertaken by the nurse manager completing the forms in the envelope. Both the on-site coordinator and the letter requesting voluntary participation indicated that nurse managers declining to participate write their name (initials/decline for one hospital site) on the demographic form and return the unfilled forms in the envelopes provided. A few hospitals requested that nurse managers not wishing to participate refrain from turning in anything.

The nurse coordinator was to provide a time limit by which nurse managers needed to complete the forms and place them in the envelope. This process took an average of 20 to 30 minutes for those hospitals that completed the instruments in the meeting. The on-site coordinator then collected the envelopes. One hospital IRB requested a modification to this process, to which the principal investigator consented. At this hospital, the on-site coordinator explained the research study at the nurse manager meeting; however, the coordinator then distributed the nurse manager envelopes to the nurse managers' mailboxes after the meeting. If the nurse manager chose to participate in the research study, the coordinator instructed them to complete and return the forms in the postage-paid, addressed envelope individually to the principal investigator. The IRB stated that the modification was requested to reduce the potential for a nurse manager to

feel coerced into participating by having them complete the packets in the meeting and return them to the on-site coordinator at the same time. It also would allow additional time for the nurse manager to make a decision regarding whether to participate in the research study. This modification in the process did not seem to reduce the integrity of the design of the research. Specific details as to the number of nurse managers that participated by completing and returning, not completing and returning, and not completing and not returning in comparison to the other hospitals are not presented because of the principal investigator's assurances to the participating hospitals that data would only be presented in aggregate form. The principal investigator asserts that providing more specific information would be too identifiable if published.

**Ranking of Nurse Managers Based on Excellent Nurse Managers.** The on-site coordinator facilitated the process of having the CNE complete the Ranking Nurse Managers Based on Excellent Nurse Managers form. This form included the name of the hospital and CNE, the number of hospital-licensed beds, a section for the CNE to document the names/initials of the nurse managers identified as excellent, a section to identify the nurse managers identified as competent, and the type of patient care unit per NDNQI.

**Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management.** The on-site coordinator facilitated having the Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form completed by the individual in the hospital most familiar with the NDNQI-RN Survey. In several of the hospitals, this individual was the on-site coordinator, and their familiarity with the NDNQI-RN Survey was a main reason the CNE identified for the individual being on-site coordinator for this study. In other hospitals, the on-site coordinator provided the form to another individual for completion. The on-site coordinator then placed the completed form in the postage-paid, principal investigator-addressed envelope(s).

**Completed Instruments.** The on-site coordinator placed the envelopes from the nurse managers, the completed Ranking Nurse Managers Based on Excellent Nurse Managers form, and the completed Score for Nurse Manager Ability, Leadership, and

Support of Nurses/Nursing Management form in the postage-paid, principal investigator-addressed packet(s) and mailed the data collection packet(s).

**Returned Instruments.** The principal investigator received the returned packets through the mail and gave the returned unopened packet(s) to the research assistant to open and code. The research assistant assigned a number to each of the nurse manager and CNE names/initials and a letter to the hospital. The number and letter were used throughout the study to maintain confidentiality. The research assistant maintained the key for the coding and data collection forms in an attended office and file cabinet or, if unattended, a locked office and locked file cabinet.

A follow-up email (see template in Appendix T) was sent from the research assistant to each of the on-site coordinators after receiving the returned packet(s). This email included an acknowledgement that the packet(s) had been received; a thank you for their support as the on-site coordinator and for the interest and participation of the CNE, nurse managers, and other nursing leaders within the specific hospital; a request for clarification of any missing data; and three additional questions that the principal investigator deemed important as the study progressed. These questions included the following:

(1) Was the study presented at a nurse manager meeting with the nurse manager envelopes distributed and collected at the meeting? If yes, what was the process used for nurse managers that were not present? Time that this took: \_\_\_\_ minutes

If no, what was the process used within your hospital?

(2) Are the registered nurses of your hospital union or not union?

(3) Are you still a magnet facility? The email also stated that the findings and recommendations from the research study would be presented to the CNE upon completion.

**Recordkeeping/Tracking.** The principal investigator developed a recordkeeping checklist (see Appendix U) to track the major milestones in the process of the research study with each hospital. This checklist included (1) CNE contact to stay connected (name and assistant's name and email/telephone numbers), (2) dates of when various documents as listed were sent/received and when emails were exchanged, (3) details

related to working through the IRB process and status, (4) data for other pertinent contacts, including name/email/telephone number, (5) data completed (which helped the principal investigator track information that was missing or still needed, and (6) notations regarding which returned packet(s) had been received. Initially, the principal investigator conducted this recordkeeping to prevent missteps and to maintain consistency and integrity in the process with each hospital. However, as the principal investigator worked with each hospital, the checklist became a primary and pivotal piece in the research study. Without this tool, it would have been extremely difficult to quickly track the status of study eligibility, enrollment, participation and completion. The checklists also helped clarify which hospital or hospitals were the participants (since the names of some hospitals had changed since the magnet hospitals listing, some CNEs had moved to different hospitals, and some CNEs had responsibility over more than one hospital).

The principal investigator fielded telephone calls at various times throughout the day from different individuals at the participating hospitals. These individuals often assumed that the principal investigator was familiar with them, their hospital, and the reason for their call. In reality, the principal investigator was communicating with up to six individuals at each hospital, with the average being three to four individuals (the CNE, CNE assistant, on-site coordinator, and IRB contact). Throughout the research study, the principal investigator communicated with a total of approximately 200 individuals within the interested hospitals. Surprising as well were the number of individuals that had the same or similar first names or same or similar last names. Using the recordkeeping checklist quickly allowed the principal investigator to be on track with the specific individual and their affiliated hospital. Some hospitals required greater than 30 email/telephone call conversations, while others completed the entire research study with only a few communication exchanges.

## **Instruments**

The instruments employed for this study were used in two distinct ways. One instrument was used to identify excellent nurse managers and assign them to one of the

three study groups; the other was used to profile these excellent nurse managers in comparison with competent nurse managers.

To identify participants for Group 1: Excellent Nurse Managers-CNE, the principal investigator developed the Ranking Nurse Managers Based on Excellent Nurse Managers form. To identify participants for Group 2: Excellent Nurse Managers—NDNQI-RN Survey (RN staff), the principal investigator used the Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management subscales of the National Database of Nursing Quality Indicators-RN Survey (NDNQI-RN Survey). Through this process, two groups of identified excellent nurse managers materialized, one based on the assessment and ranking of the CNE and the other from the assessment and evaluation of the registered nurses or their satisfaction with the nurse manager. Group 3: Excellent Nurse Managers-CNE and NDNQI-RN Survey (RN staff) included the nurse managers who were identified as excellent by both instruments identified.

To profile these excellent nurse managers, the principal investigator used the Leadership Practices Inventory: Self Instrument (LPI-Self) (Kouzes & Posner, 2003b), the Career Aspiration Scale (CAS) (Gray and O'Brien, 2007) with two additional principal investigator-developed aspiration questions, and a principal investigator-developed demographic form, which included this visibility question: “On average, how many hours per week are you out on your unit interacting with staff and patients? (Response options were 7:00 a.m.-7:00 p.m. and 7:00 p.m.- 7:00 a.m.) Approval to reproduce and use the LPI-Self for this research was obtained from Kouzes Posner International prior to the start of the study (see Appendix V). Replication and use of the CAS for research purposes did not require additional permission (Gray & O'Brien).

**Ranking Nurse Managers Based on Excellent Nurse Managers form.** Using the Ranking Nurse Managers Based on Excellent Nurse Managers form, the CNE of each hospital identified based on her/his assessment the nurse managers within their hospital that are excellent and competent. Each CNE was asked to determine and rank the excellent nurse managers from number 1—“The Best”—through all that she/he assessed and ranked as excellent. Next, the CNE identified the nurse managers that she/he assessed as competent. The principal investigator intentionally did not provide a listing of

criteria such as high staff satisfaction and retention, low or minimal patient adverse health events, or fiscal responsibility for meeting established financial targets. Rather, the assessment and ranking was to be based on each CNE's determination, which could have included objective and subjective information. The reason for the exclusion of proposed criteria was straightforward: the principal investigator wanted to allow for the inclusion of more qualitative data. The principal investigator did not want to create a point or number scale indicating that certain responsibilities or outcomes associated with the nurse manager position have more importance or less importance, because anecdotal reports and a review of the literature reveals no definitive lists of characteristics that deem a nurse manager to be excellent or competent. In fact, the profile of excellence may differ dramatically from the perspective of CNEs, nurse managers, staff, patients/families.

Several CNEs and on-site coordinators seemed initially challenged by the subjectivity of the criterion for excellence identification. During the data collection phase, many CNEs and coordinators emailed or called the principal investigator, seeking clarification as to the criteria to use to determine and rank the nurse managers as competent or excellent. Some of these individuals specifically asked if they were to validate or use the NDNQI-RN Survey results, if there was other criteria that they had not received, or if they were to make this assessment based on their own criteria and determination. The principal investigator replied that the goal was not for the CNE to verify the data from the NDNQI-RN Survey and that it was even preferable that the CNE not look at the NDNQI-RN Survey scores immediately before completing the Ranking Nurse Managers Based on Excellent Nurse Managers form. Rather, the principal investigator emphasized that the CNE should assess the nurse manager as excellent or competent on the basis of criteria that the CNE had "in their head," from reports (e.g., performance reviews/appraisals, patient satisfaction survey data, adverse health event documentation, quality indicator reports, and financial reports), and/or from working with the nurse managers. The principal investigator explained that the CNE assessment would likely include how well the nurse manager does with interpersonal relationships with staff/physicians/patients/families, the satisfaction of staff and patients/families on their

particular unit/area, the nurse manager's financial understanding and accountability, the number of adverse health events on their unit/area, staff turnover, or anything else that the CNE determines is important in identifying a nurse manager as excellent versus competent. However, the principal investigator reiterated that the literature revealed no reliable tool that could be used either to identify the most valuable criteria or to weigh the effect of each criterion on patient satisfaction, employee turnover, interpersonal relationships with physicians and colleagues, fiscal understanding and accountability, and the ability to communicate with others. Upon further reflection and on the basis of the number of requests for clarification, the principal investigator has surmised that it may have been useful to include a cover page for the CNEs who received the survey packets—explaining the subjective nature of the ranking system employed in the study.

Because each CNE determined the criterion for nurse manager excellence, it is probable that a combination of different factors were used among CNEs. This variability could be both a strength and weakness of the study. The primary strength of this approach is that other important components, such as the CNE's assessment and specific hospital's environment/context, might be used—rather than preset parameters/or a list of identified factors to assess and rank each nurse manager as excellent and competent. Group 1: Excellent Nurse Managers-CNE may have been strengthened by this design feature, ultimately yielding a composite profile that was inclusive of the many characteristics of an excellent and competent nurse manager. A primary weakness could be the lack of consistency among the CNEs for determining excellent and competent nurse managers, therefore introducing variation within Group 1: Excellent Nurse Managers-CNE. Based on how or what a CNE used to determine and rank the nurse managers within their hospital, it is possible that an individual nurse manager could be classified as excellent in one hospital while being categorized competent in another.

The research assistant coded and assigned a number to each of the nurse managers listed on the Ranking Nurse Managers Based on Excellent Nurse Managers form. This number was used to identify each of the nurse managers within the study and ensured confidentiality and anonymity of the participants.

**National Database of Nursing Quality Indicators-RN Survey (NDNQI-RN Survey).** The National Database of Nursing Quality Indicators (NDNQI) is a rich database for nursing benchmarks. Satisfaction of registered nurses is one benchmark that the NDNQI compiles for participating hospitals using electronic and/or hard copy surveys. NDNQI identified that 894 hospitals nationally participated in the registered nurse survey in 2010. NDNQI does not disclose the number of participant hospitals per individual state. Three options are available for the registered nurse survey, and each participating hospital must select one: RN Survey with Job Satisfaction Scales—Short Form, RN Survey with Practice Environment Scale, and RN Survey with Job Satisfaction Scales. The latter two surveys contain questions regarding registered nurses' satisfaction with the nurse manager. The score of the nurse manager or the registered nurses' satisfaction with the nurse manager is what was of interest to this research; therefore only these two survey's subscales will be further explained.

The RN Survey with Practice Environment Scale has a subscale titled “Nurse Manager Ability, Leadership, and Support of Nurses,” which includes five statements:

*A supervisory staff is supportive of the nurses.*

*Supervisors use mistakes as learning opportunities, not criticism.*

*A nurse manager is a good manager and leader.*

*Praise and recognition is offered for a job well done.*

*A nurse manager backs up the nursing staff in decision-making, even if the conflict is with a physician.*

Registered nurses who complete the survey indicate the extent to which they agree the statement is true within their current job. Response choices are *strongly agree*, *agree*, *disagree*, *strongly disagree*. The coefficient alphas of internal consistency of reliability for the Nurse Manager Ability, Leadership, and Support of Nurses ranged from 0.885 to 0.893 from 2006 to 2009.

The RN Survey with Job Satisfaction Scales contains the adapted Nursing Work Index with one subscale nurse management entitled “Supportive Nursing Management.” Five questions pertain to the nurse manager. Registered nurses who complete the survey



should indicate what they believe their fellow nurse coworkers would say regarding their nurse manager. Respondents must express their agreement with the following statements:

*Their nurse manager is a good manager and leader.*

*Their nurse manager is supportive of nurses.*

*Their nurse manager backs nurses in decision-making even in conflicts with physicians.*

*They are satisfied with their nurse manager.*

*Their nurse manager consults with staff on daily problems.*

The response options on this survey are *strongly agree, agree, tend to agree, tend to disagree, and strongly disagree*. The coefficient alphas of internal consistency of reliability for the Supportive Nursing Management ranged from 0.916 to 0.922 in the years 2004 to 2009.

The on-site coordinator facilitated having the Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form completed with the individual nurse managers' scores for the NDNQI-RN Survey. In several of the hospitals, the on-site coordinator completed the form because he or she was the individual in the hospital who was most familiar with the NDNQI-RN Survey. In other hospitals, the on-site coordinator requested that the form be completed by another individual who was most familiar with the NDNQI-RN Survey. (See Appendix Q for the document used to list scores on the nursing management subscales).

Following obtaining the individual nurse manager score, the research assistant coded and assigned the same number for each nurse manager as occurred with the Ranking Nurse Managers Based on Excellent Nurse Managers. Nurse managers with scores for the subscales Nurse Managers Ability, Leadership, and Support of Nurses (RN Survey with Practice Environment Scale) and Supportive Nursing Management (RN Survey with Job Satisfaction Scales) at or above the 75<sup>th</sup> percentile of the NDNQI database were identified as excellent, entered into the data with a score of 2, and comprised Group 2: Excellent Nurse Manager—RN Survey. Nurse managers with scores at the 50<sup>th</sup> to the 74<sup>th</sup> percentile of the NDNQI-RN Survey were identified as competent and entered into the data with a score of 1. Nurse managers with scores below the 50<sup>th</sup>

percentile were identified as in-development and entered into the data with a score of 0. One of the hospitals, per their interpretation of the contract with NDNQI, would not share the 50<sup>th</sup> and 75<sup>th</sup> percentile benchmarks.

**Leadership Practices Inventory: Self Instrument (LPI-Self).** The Leadership Practices Inventory: Self Instrument (LPI-Self) (Kouzes & Posner, 2003b) is a well-validated and reliable instrument that has been used for close to 30 years to identify behaviors associated with transformational leaders. The LPI-Self includes 30 behavioral statements representing the following Five Practices of Exemplary Leadership: (1) Model the Way, (2) Inspire a Shared Vision, (3) Challenge the Process, (4) Enable Others to Act, and (5) Encourage the Heart. Six statements measure each of the five leadership behaviors. The LPI-Self employs a 10-point Likert scale that runs from 1 (*almost never*) to 10 (*almost always*). When completing the inventory, the individual should ask themselves, “How frequently do I engage in the behavior described?” Computerized software is also available to use to score and compile the information. The LPI-Self takes about 10 minutes to complete.

The psychometric properties of the LPI are strong. Researchers have field-tested the LPI and found it to be reliable in identifying leadership behaviors that make a difference in leaders’ effectiveness. More than 200,000 respondents have completed it. Internal reliability is strong, with scores for the LPI-Self above 0.75 and test-retest scores being in the 0.90+ range. No significant social desirability bias has been found. Investigators have also evaluated the validity of the LPI to determine how LPI scores correlate with other measures such as employee satisfaction and productivity. Leadership, as measured by the LPI, is consistently associated with positive employee and organizational outcomes, a finding that crosses all industries, disciplines, demographics, and countries (Kouzes & Posner, 2003a, p. 11). In the current study, the internal consistency reliability for the LPI-Self was .90 (Cronbach’s alpha coefficient). This value suggests very good internal consistency reliability for the scale with this sample.

**Career Aspiration Scale (CAS).** The Career Aspiration Scale (CAS) was developed in 1996 by O’Brien (Gray and O’Brien, 2007) to measure three themes: aspiring to leadership and promotions, training and managing others, and pursuing further

education. The original CAS included 10 items reflecting these three themes. Four of the 10 items were written in reverse direction to guard against a positive response set. (See Appendix C for the original CAS). A five-point Likert scale, which runs from 0 (*Not at all true of me*) to 4 (*Very true of me*) is utilized. An individual completing the tool circles a number from 0 to 4 based on the item being an accurate description of herself/himself. If the statement does not apply, the individual should circle “0.”

Using the original CAS tool, Rainey and Borders (1997) studied career aspiration and the proposed definition of O’Brien and use of the CAS with early adolescent girls. Rainey and Borders calculated internal consistency of coefficient of .67 for adolescent participants in their study using the 10-item CAS.

Gray and O’Brien (2007) reported on five studies demonstrating the psychometric properties of the CAS being used with predominantly adolescent, college, and post-college White women. Through factor analyses, two items were recommended to be deleted. These two items included: *Item 3. I would be satisfied just doing my job in a career I am interested in.* and *Item 8. I plan on developing as an expert in my field.* This resulted in an eight-item instrument with strong test-retest reliability and moderate internal consistency. O’Brien recommended further testing of the CAS subscales; Leadership and Achievement Aspirations and Educational Aspirations, as well as adding other items to ensure that a low number of items on the scale do not impede future reliability estimates. In the current study, the internal consistency reliability was .79 (Cronbach’s alpha coefficient). This value suggests very good internal consistency reliability for the scale with this sample.

This study employed the recommended eight-item CAS along with two principal-investigator-developed aspiration items (see Appendix C for study CAS tool). The two additional aspiration items included: *1. I would like to be in a director position* and *2. If I were offered the director position in my section/department, I would likely accept the offer.* The tool employed the five-point Likert scale of the original CAS, which runs from 0 (*Not at all true of me*) to 4 (*Very true of me*). The individual completing the tool was to circle a number from 0 to 4 based on the item being an accurate description of herself/himself. If the statement did not apply, the individual was to circle “0.” The tool

took less than 10 minutes to complete. With the addition of the two principal investigator developed aspiration items to the eight items of the CAS, the internal reliability coefficient was .84 (Cronbach's alpha). This alpha value improved over the internal consistency reliability coefficient for the eight-item CAS (.79 Cronbach's alpha) and suggests very good internal consistency reliability for the scale with the two additional aspiration items with this sample.

**Demographics.** The principal investigator developed the demographic form (see Appendix D), which contained data fields regarding personal factors, work history, and educational preparation.

**Visibility.** In addition to the demographic data, a question related to visibility was asked of the nurse managers completing the form. The question was, "On average how many hours per week are you out on your unit interacting with staff and patients?" Two timeframes were identified from 7:00 a.m.–7:00 p.m. and 7:00 p.m.–7:00 a.m. for the nurse manager to write in the number of hours. The demographic form, including the visibility question, took less than 10 minutes to complete.

### **Formatting of Variables**

The principal investigator worked with a statistician to format the variables for this research study using SPSS Version 19.0 software package for Windows (SPSS, Inc., Chicago, IL, USA). There were 40 variables identified and tracked. The data was entered into SPSS. Twelve rules were made based on data obtained and striving for consistency and clarity. These rules included:

- 1) If a nurse manager was identified as having responsibility for more than one unit, the nurse manager code number was entered in SPSS for each of the units. For example, if a nurse manager had responsibility for three separate units, the code number of that nurse manager was entered in SPSS three distinct times. Note that the CNE ranking and the tools completed by the nurse manager were identical in each of the three cases (the same nurse manager) but the NDNQI-RN Survey scores were potentially different based on the evaluation of the staff from the three separate units.

- 2) If, based on the identified age of the nurse manager filled in on the demographic form, it was impossible (too young) for a nurse manager to have worked the number of years written for “Experience in career as a staff registered nurse” and “Experience in career as a nurse manager, it was assumed that the nurse manager completing the form had included “Experience in career as a nurse manager” years into the “Experience in career as a staff registered nurse.” When the years in these two statements were not possible because of the age of the nurse manager being too young to be practicing as a nurse, and both the research assistant and principal investigator agreed, the years of experience written for “Experience in career as a nurse manager” was subtracted from the years written “Experience in career as a staff nurse.” If it was possible to be practicing as a nurse, based on the written age of the nurse manager, the years that were filled in by the nurse manager were entered into the database as written.
- 3) If a nurse manager was identified as having more than one unit, the hours written for 7:00 a.m.–7:00 p.m. and 7:00 p.m.–7:00 a.m. for the question, “On average, how many hours per week are you out on your unit interacting with staff and patients?” were divided by the number of units. For example, if a nurse manager wrote 15 hours for 7:00 a.m.-7:00 p.m. and had responsibility for three units, the 15 hours were divided by 3 and each of the three separate code entries for the nurse manager (for each of the three units) had 5 hours entered into the data for 7:00 a.m.-7:00 p.m.
- 4) Ranges in hours written by a nurse manager was entered in the data as the midpoint of the written range. For example, if a nurse manager answered 5–10 hours for visibility for one patient care unit, 7.5 hours was entered into the database.
- 5) A nurse manager responsible for an ambulatory unit, homecare, outpatient hospice, or supportive departments was not included in the sample of nurse managers. No code number was entered into the database. If a nurse manager had responsibility for both an ambulatory unit and an inpatient unit, the nurse

manager/code number was entered once for each inpatient unit and the corresponding data entered.

- 6) If a nurse manager had more than one bachelor degree, only one bachelor degree was entered. If the nurse manager had a bachelor in nursing versus bachelor in other discipline, the bachelor in nursing was entered.
- 7) Any question/statement left blank by a nurse manager was left blank in the data field for that particular variable.
- 8) If a nurse manager was listed by the CNE on the Ranking Nurse Managers Based on Excellent Nurse Manager form and there was a score on the Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form **and** an envelope was not returned from the nurse manager, a code number was assigned and the identified CNE and NDNQI-RN Survey scores filled in with the additional variables blank.
- 9) If a nurse manager was identified by the CNE on the Ranking Nurse Managers Based on Excellent Nurse Manager form and there was no score on the Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form, then the nurse manager was excluded from the study and no code number was assigned.
- 10) If a nurse manager was identified on the Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form and there was no score by the CNE on the Ranking Nurse Managers Based on Excellent Nurse Manager form, then the nurse manager was excluded from the study and no code number was assigned.
- 11) An envelope not completed but identifiable by nurse manager name and/or a signature was assumed to be a declination of participation by the nurse manager.
- 12) All patient care units were classified as adult units unless the response indicated pediatrics.

The first step in the data analysis was to examine each of the variables for errors and data that was missing that should not be missing. By completing frequencies on each of the variables using SPSS, the data was corrected based on outliers and totals not being

consistent. The distribution curves of the variables were normal distribution; therefore parametric statistical tests were utilized.

### Measures

Internal consistency of reliability was conducted on each of the three instruments for the study sample. The following is a summary of these tests and the findings; all demonstrated very good internal consistency with this sample. Cronbach's alphas above .70 are considered acceptable and above .80 being preferable (Pallant, 2010, p. 100).

**Leadership Practices Inventory-Self: The Five Practices of Exemplary Leadership.** According to Kouzes and Posner (2003a), the Leadership Practices Inventory-Self (LPI-Self) (The Five Practices of Exemplary Leadership) has good internal consistency, with a Cronbach alpha coefficient consistently reported above .75. In the current study, the internal consistency reliability for the Leadership Practices Inventory-Self: The Five Practices of Exemplary Leadership was .90 (see Table 3.2).

**Table 3.2**

*Reliability: Leadership Practices Inventory-Self; The Five Practices of Exemplary Leadership (N = 233)*

Practice	Cronbach's Alpha if Item Deleted
Model the Way	.87
Inspire a Shared Vision	.88
Challenge the Process	.87
Enable Others to Act	.90
Encourage the Heart	.88
Total	.90

**Career Aspiration Scale; Final Eight Item.** Gray and O'Brien (2007) reported on the psychometric properties of the final eight-item Career Aspiration Scale (CAS) having a Cronbach alpha coefficient of .72 to .77. In the current study, the internal consistency reliability was .79 (Cronbach's alpha coefficient) (see Table 3.3). This value suggests very good internal consistency reliability for the scale with this sample. Based on the item to total correlation for the CAS, Item 6. "Once I finish the basic education needed for a particular job, I see no need to continue in school" had a low internal correlation value of 0.23 potentially indicating that the item is measuring something other than the construct of career aspiration. Low values (less than 0.3) indicate that the item is measuring something different from the scale as a whole (Pallant, p. 100). This indication is a potential limitation of the validity of the results. If the principal investigator removed "Item 6. Once I finish the basic education needed for a particular job, I see no need to continue in school," the internal consistency reliability increased to .80 (Cronbach's alpha coefficient) for this sample.

**Table 3.3**

*Reliability: Career Aspiration Scale (CAS)*  
(*N* = 217)

CAS Item	Cronbach's Alpha If Item Deleted
1. I hope to become a leader in my field.	.75
2. When I am established in my career, I would like to manage other employees.	.74



3. I do not plan to devote energy to getting promoted in the organization or business I am working in.	.77
4. When I am established in my career, I would like to train others.	.77
5. I hope to move up through any organization or business I work in.	.74
6. Once I finish the basic level of education needed for a particular job, I see no need to continue in school.	.80
7. I think I would like to pursue graduate training in my occupational area of interest.	.77
8. Attaining leadership status in my career is not that important to me.	.76
Total	.79

**Career Aspiration Scale; Final Eight Item with Aspiration Items.** With the addition of the two principal investigator-developed aspiration items to the eight items of the CAS, the internal reliability coefficient was .84 (Cronbach's alpha). This alpha value improved over the internal consistency reliability coefficient for the eight-item CAS (.79 Cronbach's alpha) and suggests very good internal consistency reliability for the scale with the two additional aspiration items with this sample. If the principal investigator

removed “Item 6. Once I finish the basic education needed for a particular job, I see no need to continue in school,” the internal consistency reliability increased to .85 (Cronbach’s alpha coefficient) for this sample (see Table 3.4).

**Table 3.4**

*Reliability: Career Aspiration Scale (CAS) with Aspiration Items (N = 217)*

CAS Item	Cronbach's Alpha If Item Deleted
1. I hope to become a leader in my field.	.82
2. When I am established in my career, I would like to manage other employees.	.82
3. I do not plan to devote energy to getting promoted in the organization or business I am working in.	.84
4. When I am established in my career, I would like to train others.	.83
5. I hope to move up through any organization or business I work in.	.82

6. Once I finish the basic level of education needed for a particular job, I see no need to continue in school.	.85
7. I think I would like to pursue graduate training in my occupational area of interest.	.83
8. Attaining leadership status in my career is not that important to me.	.83
<u>Aspiration</u>	
1. I would like to be in a director position.	.81
2. If I were offered the director position in my section/department, I would likely accept the offer.	.81
Total	0.84

## **Statistical Analyses**

Descriptive statistics were used to describe the national sample of hospitals including the states participating in the study, the hospitals' magnet status, RN staff union representation, number of hospital beds, and type of patient care units. The characteristics of the sample of participating nurse managers were described as to gender, age, experience (in years) as a RN and as a nurse manager, experience (in years) within the current organization and in the current nurse manager position, and educational preparation. The principal investigator employed parametric statistics—including independent-samples t-test, one way between groups ANOVA with post-hoc tests, and Crosstab with chi-square tests for independence—to explore the associations of an excellent nurse manager in comparison with a competent nurse manager as assessed by the CNE, NDNQI-RN Survey (RN staff), and both the CNE and NDNQI-RN Survey (RN staff)—based on the Five Practices of Exemplary Leadership as identified on the LPI-Self (Kouzes and Posner, 2003b), the Career Aspiration Scale (O'Brien, 1996)/aspiration, visibility, and demographics.

**Group 1: Excellent Nurse Managers—CNE.** The principal investigator employed parametric statistics, including independent-samples t-test and Crosstab with chi-square tests to compare Group 1: Excellent Nurse Managers-CNE with measures of the Five Practices of Exemplary Leadership as identified on the LPI-Self (Kouzes and Posner, 2003b), the CAS (O'Brien, 1996)/aspiration, visibility, and demographics to nurse managers identified as competent.

The principal investigator conducted an independent-samples t-test to compare the mean scores of the Five Practices of Exemplary Leadership, the CAS/aspiration, visibility, and demographics for excellent nurse managers and competent nurse managers. Crosstab with chi-square tests was used to compare the gender and educational preparation for excellent nurse managers and competent nurse managers.

**Group 2: Excellent Nurse Managers—NDNQI-RN Survey (RN staff).** In a previous study, Anderson et al. (2010) studied nurse managers who scored above the mean on the nursing leadership component of the job satisfaction scale of the NDNQI-

RN Survey to elicit the nurse managers perceived reasons for their success. The principal investigator desired to highly differentiate the very best or excellent nurse managers from the competent nurse managers and to reduce the possibility of having a mixed group of excellent and competent nurse managers. To increase the probability for having only excellent nurse managers and decrease the possibility of having a combination of excellent and competent nurse managers in the Group 2: Excellent Nurse Managers-NDNQI-RN Survey (RN staff; the staff RN perspective/satisfaction), the principal investigator set the score on the management subscale for being an excellent nurse manager at or greater than the 75<sup>th</sup> percentile of the national benchmark. A score at or greater than the 50<sup>th</sup> to 74<sup>th</sup> percentile indicated a competent nurse manager, and a score of less than the 50<sup>th</sup> percentile indicated a nurse manager in development.

The principal investigator conducted parametric statistics, including one way between groups ANOVA with post-hoc tests and Crosstab with chi-square tests, to compare Group 2: Excellent Nurse Managers-NDNQI-RN Survey (RN staff) and the measures of the Five Practices of Exemplary Leadership as identified on the LPI-Self (Kouzes and Posner, 2003b), the CAS (O'Brien, 1996)/aspiration, visibility, and demographics with nurse managers identified as competent nurse managers, and in-development nurse managers.

The principal investigator conducted one-way between-groups ANOVA with post-hoc tests to explore the effect of excellent nurse managers, competent nurse managers, and in-development nurse managers on the scores of the Five Practices of Exemplary Leadership as identified on the LPI-Self (Kouzes and Posner, 2003b), the CAS (O'Brien, 1996)/aspiration, visibility, and demographics.

Crosstab with Chi-square tests was used to compare the gender and educational preparation for excellent nurse managers, competent nurse managers, and in-development nurse managers..

**Group 3: Excellent Nurse Managers—CNE and NDNQI-RN Survey.** The principal investigator employed parametric statistics, including independent-samples t-test and Crosstab with chi-square tests, to compare Group 3: Excellent Nurse Managers-CNE and NDNQI-RN Survey and the measures of the Five Practices of Exemplary

Leadership as identified on the LPI-Self (Kouzes and Posner, 2003b), the CAS (O'Brien, 1996)/aspiration, visibility, and demographics to nurse managers identified as competent.

The principal investigator conducted independent-samples t-test to compare the mean scores of the Five Practices of Exemplary Leadership, the CAS/aspiration, visibility, and demographics for excellent nurse managers and competent nurse managers. Crosstab with chi-square tests was used to compare the gender and educational preparation for excellent nurse managers and competent nurse managers.

### **Database of Kouzes and Posner**

The principal investigator was interested in determining how the mean score for each of the Five Practices of Exemplary Leadership of excellent and competent nurse managers—as assessed by the CNE, the NDNQI-RN Survey (RN staff), and both the CNE and NDNQI-RN Survey (RN staff)—would map to a percentile and range in scale within the Kouzes and Posner database, which compares individual scores to thousands of others who have completed the LPI-Self. In addition to a percentile score, Kouzes and Posner have divided the percentile scale into three sections at the 30<sup>th</sup> and the 70<sup>th</sup> percentiles to represent a normal distribution; they have identified these sections as high, moderate, and low range for the practices. Individuals who have permission to use the LPI-Self can download a software scoring tool and enter responses from participants who have completed the instrument as well as completed instruments from their supervisor, co-workers, employees, and others. The participant's score in each of the Five Practices can then be calculated and reported as a raw score as well as a percentile in each of the practices compared with other individuals in the large database.

The principal investigator used this scoring software to determine aggregate percentile scores of the Five Practices of nurse managers who were assessed as excellent nurse managers and competent nurse managers by the CNE, the NDNQI-RN Survey (RN staff), and both the CNE and NDNQI-RN Survey (RN staff). The mean scores of the excellent and competent nurse managers for each of the Five Practices were calculated from the individual nurse managers' scores for each of the Five Practices according to what the principal investigator had recorded in the SPSS database. This mean score had

to be created in the database by entering response data for each of the individual six questions within each of the Five Practices to result in the same mean scores for excellent and competent nurse managers (per SPSS). This mean score than mapped to a percentile and high, moderate or low range in scale for each of the practices. A limitation of the scoring tool was that only whole numbers are accepted, so the principal investigator had to round mean scores from the SPSS calculations to the nearest whole number. As a result, readers should consider the mapped percentile scores to be a close approximation, with attention directed to whether the mean score resulted in the high, moderate, or low range.

## **Chapter 4: Results**

The purpose of this chapter is to describe the characteristics of the study sample and present the results of the profile of an excellent nurse manager that corresponds with the aim of the study and the three questions investigated. The chapter concludes with a summary of the findings.

### **Sample of Hospitals**

Twenty-nine hospitals comprised the sample for the study. These hospitals represented 18 states in the United States (see Appendix S). The region of the United States with the greatest representation was the Northeast. Hospitals from the South Central region of the United States had the least representation. The hospital-bed numbers ranged from the smallest hospital having 52 beds and the largest having 832 beds, with the average being just under 327 beds. Small, medium, and large-size hospitals as well as rural, suburban, and urban hospitals were represented in the national sample.

Of the 29 hospitals in the study, most (89.7%) are recognized by the ANCC as magnet facilities; three hospitals (10.3%) have not been designated as magnet.

A total of 330 patient care units were in the sample, with 15 different types of patient care units represented. Medical/surgical and peri-operative were the most frequent units with 46 (13.9%) and 43 (13.0%), respectively, followed by critical care units and step-down units with 39 (11.8%) and 33 (10.0%), respectively. Only one (0.3%) pediatric intensive care unit, three (0.9%) neonatal intensive care units, and four (1.2%) pediatric units were represented in the sample. Unless otherwise identified, the patient care units managed adult patient populations (see Table 4.1).



**Table 4.1***Types of Patient Care Units Represented in Sample*

<b>Type of Patient Care Unit</b>	<b>Frequency</b>	<b>Percent</b>
Medical/Surgical	46	13.9
Peri-operative	43	13.0
Critical Care Unit	39	11.8
Step Down	33	10.0
Obstetrical	29	8.8
Emergency Center	27	8.2
Rehabilitation	25	7.6
Medical	23	7.0
Interventional	22	6.7
Surgical	16	4.8
Psychiatric	11	3.3
Neonatal	8	2.4
Pediatric	4	1.2
Neonatal Intensive Care Unit	3	0.9
Pediatric Intensive Care Unit	1	0.3
<b>Total</b>	<b>330</b>	<b>100</b>

**Sample of Nurse Managers**

For a nurse manager to be a study participant, the nurse manager had to be assessed from the CNE and have a score from the NDNQI-RN Survey (RN staff) (see SPSS Rules on page 62). Some nurse managers shared responsibility for the same patient care unit with other nurse managers, and some nurse managers had responsibility for more than one patient care unit; however, these two scenarios were not common. These nurse managers were entered into the data based on the number of units for which they were the nurse manager. These entries resulted in a total of 330 nurse manager ratings on 293 nurse managers. Of the 293 nurse managers, 7 (2.4%) nurse managers (9 nurse manager ratings) actively declined by signing and indicating declination and returning an envelope with the instruments/tools not completed, 82 (28%) nurse managers (88 nurse manager ratings) did not return an envelope with the instruments/tools (indicated as non-

respondent), and 204 (69.6%) nurse managers (233 nurse manager ratings) completed the instruments/tools and returned an envelope (see Table 4.2).

**Table 4.2**

*Sample of Individual Nurse Managers and Nurse Manager Ratings and Response Rate*

		<u>Individual Nurse Managers</u>	<u>Percent</u>	<u>Nurse Manager Ratings</u>	<u>Percent</u>
	Returned Participant	204	69.6	<b>233</b>	70.6
	Returned Declined	7	2.4	9	2.7
	NonRespondent	82	28.0	88	26.7
<b>Total</b>		<b>293</b>	<b>100.0</b>	<b>330</b>	<b>100.0</b>

Appendix W depicts the demographics for the 204 nurse managers who voluntarily agreed to participate and returned their instruments/tools. The majority of the nurse managers (93.6%) were female and 6.4% were males. The nurse managers ranged in age from under 30 years to 70 years of age. Of the 204 nurse managers, 23.6% were 40 years or less, 33.8% were 41 to 50 years, 40.2% were 51 years of age or greater, and 2.5% did not indicate an age. The mean age for the sample was 48 years, with 49 years as the median.

The mean years of work experience for the nurse managers as a RN was 13.4 years with a median of 12 years. The range of RN experience was from 0 to 35 years. In comparison, the mean years of work experience as a nurse manager was 10 years with a median of 7 years and a range of .5 to 36 years. The nurse managers identified longevity within their current organization with 15.5/13 years (mean/median) and a range from .3 to 40 years. The mean years that the nurse managers had been in their current nurse manager position were 7.1 years, a median of 5 years, and the range was from .3 to 36 years.

A few nurse managers had as their highest educational preparation a diploma (6.9%) or an Associate's degree (8.3%). One hundred forty three nurse managers had a Bachelor's degree, and of these nurse managers, a Bachelor's degree was the highest educational preparation for 91 (44.6%). Of these 143 undergraduate degrees, the most common (90.2%) was a Bachelor's degree in nursing. Another 82 (40.2%) listed a

Master's degree, and of these graduate degrees, a Master of Science in Nursing (MSN) was the most common (64.6%), followed by a Master in Healthcare Administration (13.4%) and a Master in Business (12.2%). Seven (3.4%) nurse managers had two master degrees; in addition to a master's degree in nursing a second degree was identified in Healthcare Administration (4), Business (2), and Other (1). No nurse manager identified being prepared at the doctoral level.

Almost a third (32.5%) of the nurse managers were currently enrolled in a formal education program with 25.8% working toward a BSN, 45.5% a MSN, 4.5% a DNP, 12.1% various masters degrees, post masters (not specified) or a combined BSN/MSN, and 12.1% unidentified. For more detailed information, please see Appendix X.

## **Ratings**

If a nurse manager had responsibility for more than one unit, data for each patient care unit were used. This data configuration resulted in a nurse manager being listed more than one time in the data, and therefore, the data is referred to as nurse manager ratings. There are 330 total nurse manager ratings, which represent 293 nurse managers. Based on the response rate of 70.6% for this study, 233 nurse manager ratings represent 204 nurse managers who completed the instruments of the study.

**CNE.** The CNE assessed 43.3% of all nurse manager ratings as excellent and 56.7% as competent. Based on the distribution of nurse manager rating responses, 105 ratings were excellent and 128 ratings were competent.

**NDNQI-RN Survey (RN staff).** Through the NDNQI-RN Survey, the RN staff scored 21.2% of all nurse manager ratings at or above 75%, 27.0% of all nurse manager ratings at 50% to 74%, and 51.8% of all nurse manager ratings below 50% of the national benchmark for the specified type of patient care unit. Based on the distribution of nurse manager rating responses, 52 ratings were at or above 75%, 64 ratings were at 50% to 74%, and 117 ratings were below 50%.

**CNE and NDNQI-RN Survey (RN staff).** Of all nurse manager ratings, 12.1% were assessed as excellent by both the CNE and NDNQI-RN Survey (RN staff), scoring at or above the 75% of the national benchmark. Based on the distribution of rating

responses for nurse managers, 30 ratings were excellent and 203 ratings were identified as competent. This frequency test included all ratings identified as competent by the CNE and all ratings identified on the NDNQI-RN Survey (RN staff) below the 75% of national benchmark (both competent and in-development nurse managers). (See Table 4.3.)

**Table 4.3**

*Frequency of Nurse Manager Ratings and Distribution of Ratings Responses as Assessed by the CNE, the NDNQI-RN Survey (RN staff), and both the CNE and NDNQI-RN Survey (RN staff)*

Criteria for Identification of Excellent, Competent, and In-Development Nurse Manager Groups	Ratings of All Nurse Managers		Distribution of Ratings Responses For Nurse Managers Who Submitted Data Packets	
	Frequency	%	Frequency	
CNE	Excellent Nurse Managers	143	43.3	105*
	Competent Nurse Managers	187	56.7	128
	<b>Total</b>	<b>330</b>	<b>100</b>	<b>233</b>
NDNQI-RN Survey (RN staff)	≥75% Excellent Nurse Managers	70	21.2	52
	50% to 74% Competent Nurse Managers	89	27	64
	<50% In-Development Nurse Managers	171	51.8	117
	<b>Total</b>	<b>330</b>	<b>100</b>	<b>233</b>
CNE and NDNQI-RN Survey (RN staff)	Excellent Nurse Managers	40	12.1	30
	Competent Nurse Managers	290	87.9	203
	<b>Total</b>	<b>330</b>	<b>100</b>	<b>233</b>

\* Highlighted text in Table 4.3 denotes data for excellent nurse managers.

### **Group 1: Excellent Nurse Managers as Assessed by the CNE**

This group of excellent nurse managers included nurse managers assessed by the CNE as excellent.

The first objective was to define the profile of an excellent nurse manager in comparison with a competent nurse manager. The question was, What were the associations of an excellent nurse manager as assessed by the CNE with the measures of Five Practices of Exemplary Leadership, Career Aspiration Scale, aspiration, visibility, and demographics?

**Demographics.** There was no significant difference found in gender, age, experience in years as a RN, experience in years as a nurse manager, years of experience within the current organization, years of experience within current nurse manager position, and educational preparation for excellent nurse managers and competent nurse managers (as assessed by the CNE). See Appendix Y.

**The Five Practices of Exemplary Leadership.** There was a significant difference in mean scores for excellent nurse managers and competent nurse managers as assessed by the CNE for four of the Five Practices of Exemplary Leadership: Model the Way, Inspire a Shared Vision, Challenge the Process, and Enable Others to Act. There was no significant difference in mean scores for the practice of Encourage the Heart for excellent nurse managers and competent nurse managers. The mean score for the four significantly different practices was greater for excellent nurse managers than competent nurse managers. Across all nurse manager ratings, Enable Others to Act had the greatest mean score, followed by Model the Way, Challenge the Process, and Inspire a Shared Vision. While not statistically different, the mean score for Encourage the Heart was slightly greater for excellent nurse managers than competent nurse managers. (See Table 4.4.)

**Table 4.4**

*Excellent and Competent Nurse Managers and the Five Practices of Exemplary Leadership as Assessed by the CNE*

The Five Practices Of Exemplary Leadership	Excellent Nurse Managers Mean (SD) n = 105	Percentile of Excellent Nurse Managers*	Range in Scale of Excellent Nurse Managers*	Competent Nurse Managers Mean (SD) n = 128	Percentile of Competent Nurse Managers*	Range in Scale of Competent Nurse Managers*	t, df	p-value
Model the Way	52.0 (4.5)	Slightly above 75 <sup>th</sup>	High	49.4 (5.6)	Slightly below 60 <sup>th</sup>	Moderate	-4.0, df = 230.9	.001
Inspire a Shared Vision	48.6 (7.5)	Slightly below 70 <sup>th</sup>	High Moderate	45.6 (7.3)	55 <sup>th</sup>	Moderate	-3.1, df = 231	.002
Challenge the Process	49.0 (6.9)	65 <sup>th</sup>	Moderate	45.8 (6.4)	Below 50 <sup>th</sup>	Middle of Moderate	-3.6, df = 231	.001
Enable Others to Act	53.4 (4.1)	Above the 70 <sup>th</sup>	High	51.9 (4.2)	65 <sup>th</sup>	Moderate	-2.7, df = 231	.007
Encourage the Heart	51.0 (6.3)	Slightly below 70 <sup>th</sup>	High Moderate	49.4 (6.6)	Slightly below the 60 <sup>th</sup>	Moderate	-1.8, df = 231	.07

df, degrees of freedom; n, number of cases in sample; p-value, general symbol for probability, in binomial, probability of success; t, student's t statistic; SD, standard deviation.

\*Mapped from Kouzes and Posner Database

The developers of the Kouzes and Posner database provided a software, which from the mean score mapped to a percentile score and rating of high, moderate, or low range in comparison with thousands of other individuals in the database (see Table 4.4 and Figure 4.1).

Figure 4.1



**Career Aspiration Scale (CAS).** A significant difference in mean scores was found for only 1 of the 8 items of the CAS. The statement “I hope to move up through any organization or business I work in” had significantly different mean scores for excellent nurse managers (M = 3.4, SD = 1.1) than for competent nurse managers (M = 3.0, SD = 1.2). There was no significant difference in the mean scores for the other seven items of the CAS.

**Aspiration.** There was a significant difference in mean scores for both of the aspiration items. Mean scores for excellent nurse managers were greater than those of competent nurse managers on Item 1, “I would like to be in a director position,” and Item 2, “If I were offered the director position in my section/department, I would likely accept the offer“ for excellent nurse managers. (See Table 4.5.)

**Table 4.5**

*Excellent and Competent Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by the CNE*

<b>Career Aspiration Scale</b>	<b>Excellent Nurse Managers Mean (SD) n = 105</b>	<b>Competent Nurse Managers Mean (SD) n = 128</b>	<b>t, df</b>	<b>p-value</b>
I hope to become a leader in my field.	3.5 (1.0)	3.3 (1.0)	-1.8, df = 227	.07
When I am established in my career, I would like to manage other employees.	3.3 (3.2)	3.2 (1.3)	-.6, df = 225	.53
I do not plan to devote energy to getting promoted in the organization or business I am working in.	.58 (1.1)	.7 (1.2)	.8, df = 228	.42
When I am established in my career, I would like to train others.	3.2 (1.2)	3.2 (1.0)	-.1, df = 229	.90
I hope to move up through any organization or business I work in.	3.4 (1.1)	3.0 (1.2)	-2.4, df = 229	.02
Once I finish the basic level of education needed for a particular job, I see no need to continue in school.	.4 (.8)	.5 (.9)	.7, df = 227	.51



<b><u>Career Aspiration Scale</u></b>	<b>Excellent Nurse Managers Mean (SD) n = 105</b>	<b>Competent Nurse Managers Mean (SD) n = 128</b>	<b>t, df</b>	<b>p-value</b>
I think I would like to pursue graduate training in my occupational area of interest.	3.0 (1.4)	2.7 (1.5)	-1.4, df = 223	.16
Attaining leadership status in my career is not that important to me.	.4 (1.0)	.6 (1.1)	1.4, df = 228.6	.17
<b><u>Aspiration</u></b>				
I would like to be in a director position.	3.0 (1.5)	2.4 (1.6)	-2.7, df = 226.8	.007
If I were offered the director position in my section/department, I would likely accept the offer.	3.1 (1.4)	2.4 (1.6)	-3.3, df = 227.9	.001

**Visibility.** There was no significant difference found in the mean number of hours per week that excellent and competent nurse managers were out on their units interacting with staff and patients. (See Table 4.6.)

**Table 4.6.** *Excellent and Competent Nurse Managers and Visibility as Assessed by the CNE*

<b><u>Hours of Visibility</u></b>	<b>Excellent Nurse Managers Mean (SD)</b>	<b>Competent Nurse Managers Mean (SD)</b>	<b>t, df</b>	<b>p-value</b>
7:00 a.m. - 7:00 p.m.	19.4 (15.5) n = 97	17.6 (14.4) n=127	-.9, df = 222	.37
7:00 p.m. - 7:00 a.m.	3.7 (3.4) n =70	3.8 (5.0) n = 85	.1, df = 153	.89

## **Group 2: Excellent Nurse Managers as Assessed by the NDNQI-RN Survey (RN Staff)**

A second group of excellent nurse managers included nurse managers who were identified as at or greater than the 75<sup>th</sup> percentile of national benchmark for the NDNQI-RN Survey's subscales: Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management. The parameters or scores to be used for identifying a nurse manager as excellent, competent, and in development were set prior to the initiation of the research study.

The second objective for creating a profile of excellent nurse managers was to determine the associations of an excellent nurse manager as assessed by the NDNQI-RN Survey (RN staff) with the measures of Five Practices of Exemplary Leadership, Career Aspiration Scale, aspiration, visibility, and demographics.

**Demographics.** There were no significant differences in gender, age, experience in years as a RN, experience in years as a nurse manager, years of experience within the current organization as a nurse manager, and educational preparation for excellent nurse managers and competent nurse managers.

As shown in Appendix Z, there was a significant difference in years of experience within the current organization between in-development nurse managers and competent nurse managers. Despite reaching statistical significance, the actual mean difference in scores between the groups was quite small. Post-hoc comparisons using the Tukey HSD test did not reach significance for any significant pair comparison. In-development nurse managers had a lower mean score than competent nurse managers by 3.6 fewer years. Excellent nurse managers did not differ significantly from either competent nurse managers or in-development nurse managers.

**The Five Practices of Exemplary Leadership.** There was no significant difference in mean scores found for all of the Five Practices of Exemplary Leadership between excellent nurse managers, competent nurse managers, and in-development nurse managers. Although not statistically significant, the mean scores of competent nurse managers appeared greater than for excellent nurse managers for all practices except for

Encourage the Heart, in which the excellent nurse managers' mean score was greater than the competent nurse managers. In- development nurse managers had the lowest mean score for 4 of the 5 practices compared to excellent and competent nurse managers with the exception being Inspire a Shared Vision in which the mean score was greater than excellent nurse managers; however none of the differences were statistically significant. (See Table 4.7.)

**Table 4.7**

*Excellent, Competent, and In-Development Nurse Managers and the Five Practices of Exemplary Leadership as Assessed by the NDNQI-RN Survey (RN staff)*

The Five Practices Of Exemplary Leadership	Excellent Nurse Managers (≥75%) n = 52	Percentile of Excellent Nurse Managers*	Range in Scale of Excellent Nurse Managers <sup>s*</sup>	Competent Nurse Managers (50-74%) n = 64	Percentile of Competent Nurse Managers*	Range in Scale of Competent Nurse Managers <sup>s*</sup>	In-Development Nurse Managers (<50%) n = 117	Percentile of In-Development Nurse Managers*	Range in Scale of In-Development Nurse Managers <sup>s*</sup>	f, df	p-value
Model the Way	50.8 (4.4)	Slightly above 70 <sup>th</sup>	High	51.5 (5.2)	Above 75 <sup>th</sup>	High	50.0 (5.6)	65 <sup>th</sup>	Moderate	1.7, df = 2, 230	.19
Inspire a Shared Vision	46.4 (8.0)	55 <sup>th</sup>	Moderate	47.8 (7.2)	65 <sup>th</sup>	Moderate	46.7 (7.4)	60 <sup>th</sup>	Moderate	.6, df = 2, 230	.53
Challenge the Process	47.3 (7.3)	55 <sup>th</sup>	Moderate	47.7 (7.6)	60 <sup>th</sup>	Moderate	47.0 (6.2)	55 <sup>th</sup>	Moderate	.2, df = 2, 230	.81
Enable Others to Act	53.1 (4.3)	Slightly above 70 <sup>th</sup>	High	53.2 (4.3)	Just above 70 <sup>th</sup>	High	52.0 (4.1)	65 <sup>th</sup>	Moderate	1.9, df = 2, 230	.14
Encourage the Heart	51.0 (6.0)	Slightly above 65 <sup>th</sup>	High Moderate	50.2 (6.6)	Between 60 <sup>th</sup> and 65 <sup>th</sup>	Moderate	49.6 (6.7)	Between 60 <sup>th</sup> and 65 <sup>th</sup>	Moderate	.8, df = 2, 230	.44

\*Mapped from Kouzes and Posner Database

**Database of Kouzes and Posner.** Entering the mean scores into the Kouzes and Posner database mapped to a percentile score and rating of either the high, moderate, or low range compared to thousands of other individuals in the database. (See Table 4.7 and Figure 4.2.)

**Career Aspiration Scale (CAS).** There was no significant difference in scores for the eight items of the CAS between excellent nurse managers, competent nurse managers, and in-development nurse managers. The majority of mean scores of excellent nurse managers on the CAS represented lower aspiration than in-development nurse managers which had mean scores suggesting greater aspiration. (See Table 4.8.)

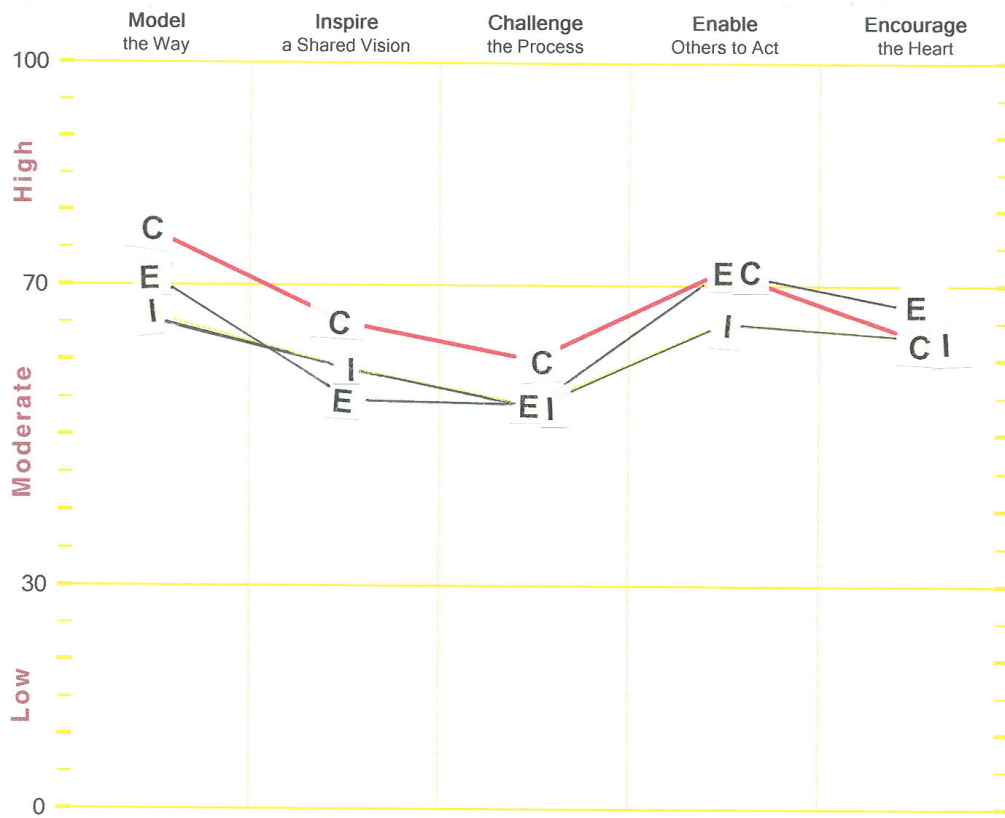
**Aspiration.** There was a statistically significant difference in scores for the statement “I would like to be in a director position” between excellent nurse managers, competent nurse managers, and in-development nurse managers:  $F(2, 227) = 4.5, p = .01$ . Despite reaching statistical significance, the actual mean difference in scores between the groups was quite small. (See Table 4.8.) Post-hoc comparisons using the Tukey HSD test indicated that the mean score for excellent nurse managers was significantly different from in-development nurse managers. Excellent nurse managers had a lower mean score than in-development nurse managers. Competent nurse managers did not differ significantly from either excellent nurse managers or in-development nurse managers.

There was not a significant difference in mean scores for the statement “If I were offered the director position in my section/department, I would likely accept the offer” between excellent nurse managers, competent nurse managers, and in-development nurse managers.

**Figure 4.2**

The Five Practices of Exemplary Leadership for Excellent, Competent, and In-Development  
Nurse Managers as Assessed by the NDNQI-RN Survey (RN staff)

Excellent    Competent    In-Development



© Copyright 2003-2010 James M. Kouzes and Barry Z. Posner. Published by Pfeiffer. All rights reserved.

Adaptations Made To Graph for the Study

**Table 4.8**

*Excellent, Competent, and In-Development Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by the NDNQI-RN Survey (RN staff)*

<b>Career Aspiration Scale</b>	<b>Excellent Nurse Managers (≥75%) n = 52</b>	<b>Competent Nurse Managers (50-74%) n = 64</b>	<b>In Development Nurse Managers (&lt;50%) n = 117</b>	<b>f, df</b>	<b>p-value</b>	<b>Significant Pairs</b>
I hope to become a leader in my field.	3.3 (1.1)	3.3 (1.1)	3.5 (.8)	.9, df = 2, 226	.40	
When I am established in my career, I would like to manage other employees.	3.3 (1.1)	3.3 (1.3)	3.2 (1.3)	.1, df = 2, 224	.93	
I do not plan to devote energy to getting promoted in the organization or business I am working in.	.6 (1.1)	.7 (1.2)	.7 (1.2)	.1, df = 2, 227	.89	
When I am established in my career, I would like to train others.	3.0 (1.1)	3.2 (1.1)	3.3 (1.1)	.9, df = 2, 228	.42	
I hope to move up through any organization or business I work in.	3.0 (1.2)	3.2 (1.2)	3.3 (1.1)	.7, df = 2, 228	.48	
Once I finish the basic level of education needed for a particular job, I see no need to continue in school.	.4 (.8)	.6 (.9)	.5 (.9)	.5, df = 2, 226	.61	
I think I would like to pursue graduate training in my occupational area of interest.	2.9 (1.5)	2.9 (1.3)	2.8 (1.5)	.3, df = 2, 222	.74	
Attaining leadership status in my career is not that important to me.	.7 (1.1)	.4 (.9)	.5 (1.1)	1.1, df = 2, 228	.33	

<b>Career Aspiration Scale</b>	<b>Excellent Nurse Managers (≥75%) n = 52</b>	<b>Competent Nurse Managers (50-74%) n = 64</b>	<b>In Development Nurse Managers (&lt;50%) n = 117</b>	<b>f, df</b>	<b>p-value</b>	<b>Significant Pairs</b>
<b><u>Aspiration</u></b>						
I would like to be in a director position.	2.2 (1.7)	2.7 (1.6)	3.0 (1.4)	4.5, df =2, 227	.01	<50% v. ≥75%
If I were offered the director position in my section/department, I would likely accept the offer.	2.4 (1.7)	2.7 (1.5)	2.9 (1.5)	2.3, df = 2, 227	.11	

**Visibility.** There was no significant difference found in the mean number of hours per week that excellent, competent, and in-development nurse managers, are out on their unit interacting with staff and patients (Table 4.9).

**Table 4.9**

*Excellent, Competent, and In-Development Nurse Managers and Visibility as Assessed by the NDNQI-RN Survey (RN staff)*

<b><u>Hours of Visibility</u></b>	<b>Excellent Nurse Managers (≥75%) n = 52</b>	<b>Competent Nurse Managers (50-74%) n = 64</b>	<b>In Development Nurse Managers (&lt;50%) n = 117</b>	<b>f, df</b>	<b>p-value</b>
7:00 a.m. - 7:00 p.m.	20.0 (15.9) n =50	19.7 (16.9) n =63	16.9 (13.0) n =111	1.1, df = 2, 221	.35
7:00 p.m. - 7:00 a.m.	4.3 (6.5) n =36	3.9 (3.7) n =40	3.6 (3.4) n =79	.3, df = 2, 152	.71



### **Group 3: Excellent Nurse Managers as Assessed by both the CNE and NDNQI-RN Survey (RN staff)**

A third group of excellent nurse managers included nurse managers who were identified as (1) excellent by the CNE and (2) at or greater than the 75<sup>th</sup> percentile of national benchmark for the NDNQI-RN Survey's subscales: Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management.

The third objective was to define the profile of an excellent nurse manager in comparison with a competent nurse manager. The question was, What were the associations of an excellent nurse manager as assessed by both the CNE and NDNQI-RN Survey (RN staff) with the measures of Five Practices of Exemplary Leadership, Career Aspiration Scale, aspiration, visibility, and demographics?

**Demographics.** There was not a significant difference in gender, age, experience in years as a RN, experience in years as a nurse manager, years of experience within the current organization, years of experience within the current organization as a nurse manager, and educational preparation for excellent nurse managers and competent nurse managers. (See Appendix AA.)

**The Five Practices of Exemplary Leadership.** There was a significant difference in mean scores for Model the Way, Challenge the Process, Enable Others to Act, and Encourage the Heart. There was no significant difference in mean scores for Inspire a Shared Vision. Mean scores for all five practices were greater for excellent nurse managers than competent nurse managers. Across all nurse manager ratings, Enable Others to Act had the greatest mean scores followed by Model the Way, Encourage the Heart, and Challenge the Process. The practice of Inspire a Shared Vision was not statistically different for excellent and competent nurse managers and had the lowest mean scores.

**Table 4.10**

*Excellent and Competent Nurse Managers and the Five Practices of Exemplary Leadership as Assessed by both the CNE and NDNQI-RN Survey (RN staff)*

The Five Practices Of Exemplary Leadership	Excellent Nurse Managers Mean (SD) n = 30	Percentile of Excellent Nurse Managers*	Range in Scale of Excellent Nurse Managers*	Competent Nurse Managers Mean (SD) n = 203	Percentile of Competent Nurse Managers*	Range in Scale of Competent Nurse Managers*	t, df	p-value
Model the Way	52.5 (4.1)	Above the 80 <sup>th</sup>	High	50.3 (5.4)	65 <sup>th</sup>	Moderate	-2.1, df = 231	.03
Inspire a Shared Vision	49.1 (7.6)	Slightly below 70 <sup>th</sup>	High Moderate	46.6 (7.5)	Slightly below 60 <sup>th</sup>	Moderate	-1.7, df = 231	.09
Challenge the Process	50.1 (6.1)	70 <sup>th</sup>	High	46.8 (6.8)	55 <sup>th</sup>	Moderate	-2.5, df = 231	.01
Enable Others to Act	54.1 (4.5)	80 <sup>th</sup>	High	52.3 (4.1)	65 <sup>th</sup>	Moderate	-2.1, df = 231	.03
Encourage the Heart	52.3 (6.1)	Slightly above 70 <sup>th</sup>	High	49.8 (6.5)	Between 60 <sup>th</sup> and 65 <sup>th</sup>	Moderate	-2.0, df = 231	.05

\*Mapped from Kouzes and Posner Database

**Database of Kouzes and Posner.** Entering the mean scores into the Kouzes and Posner database mapped to a percentile score and rating of either the high, moderate, or low range compared to thousands of other individuals in the database. (See Table 4.10 and Figure 4.3.)

**Figure 4.3**

The Five Practices of Exemplary Leadership for Excellent and Competent Nurse Managers  
as Assessed by both the CNE and NDNQI- RN Survey (RN staff)



**Career Aspiration Scale (CAS).** There was no significant difference in mean scores for the eight items of the CAS for excellent nurse managers and competent nurse managers. See Table 4.12. Although not significant, excellent nurse managers appeared to have mean scores suggesting greater aspiration (adjusting for reverse order) than competent nurse managers on the following three statements: (1) CAS 5 “I hope to move up through any organization or business I work in,” (2) CAS 6 “Once I finish the basic level of education needed for a particular job, I see no need to continue in school,” and (3) CAS 7 “I think that I would like to pursue graduate training in my occupational area of interest.” Two of these three items (CAS 6 and 7) reflect education aspiration and one (CAS 5) leadership and achievement aspiration. For the other five items, excellent nurse manager mean scores suggested less aspiration than competent nurse managers, although not statistically significant. (See Table 4.11.)

**Aspiration.** There was not a significant difference in mean scores for either of the two aspiration items for excellent and competent nurse managers. Differences between the two groups were very small.

**Table 4.11**

*Excellent and Competent Nurse Managers and Career Aspiration Scale and Aspiration as Assessed by both the CNE and NDNQI-RN Survey (RN staff)*

<b>Career Aspiration Scale</b>	<b>Excellent Nurse Managers Mean (SD) n = 30</b>	<b>Competent Nurse Managers Mean (SD) n = 203</b>	<b>t, df</b>	<b>p-value</b>
I hope to become a leader in my field.	3.3 (1.2)	3.4 (.9)	.8, df = 227	.47
When I am established in my career, I would like to manage other employees.	3.1 (1.2)	3.3 (1.2)	.7, df = 225	.48
I do not plan to devote energy to getting promoted in the organization or business I am working in.	.7 (1.3)	.6 (1.1)	-.5, df = 228	.65
When I am established in my career, I would like to train others.	3.1 (1.4)	3.2 (1.1)	.6, df = 229	.51
I hope to move up through any organization or business I work in.	3.3 (1.1)	3.2 (1.2)	-.5, df = 229	.61
Once I finish the basic level of education needed for a particular job, I see no need to continue in school.	.4 (.8)	.5 (.9)	.6, df = 227	.58
I think I would like to pursue graduate training in my occupational area of interest.	2.9 (1.6)	2.8 (1.4)	-.4, df = 223	.69
Attaining leadership status in my career is not that important to me.	.7 (1.2)	.5 (1.0)	-.9, df = 229	.37
<b>Aspiration</b>				
I would like to be in a director position.	2.6 (1.6)	2.7 (1.6)	.5, df = 228	.64

<b>Career Aspiration Scale</b>	<b>Excellent Nurse Managers Mean (SD) n = 30</b>	<b>Competent Nurse Managers Mean (SD) n = 203</b>	<b>t, df</b>	<b>p-value</b>
If I were offered the director position in my section/ department, I would likely accept the offer.	2.9 (1.5)	2.7 (1.6)	-.7, df = 228	.46

**Visibility.** There was not a significant difference found in the number of hours per week that excellent and competent nurse managers were out on their units interacting with staff and patients. (See Table 4.12.)

**Table 4.12**

*Excellent and Competent Nurse Managers and Visibility As Assessed by both the CNE and NDNQI-RN Survey (RN Staff)*

<b>Hours of Visibility</b>	<b>Excellent Nurse Managers Mean (SD) n = 29</b>	<b>Competent Nurse Managers Mean (SD) n = 195</b>	<b>t, df</b>	<b>p-value</b>
7:00 a.m. - 7:00 p.m.	20.6 (17.2) n = 29	18.1 (14.5) n = 195	-.9, df = 222	.39
7:00 p.m. - 7:00 a.m.	3.2 (3.0) n = 22	3.9 (4.5) n = 133	.7, df = 153	.52

### **Summary of Findings**

The study findings provided evidence as to the profile of an excellent nurse manager based on the CNE assessment, the NDNQI-RN Survey (RN staff), and the assessment of both the CNE and NDNQI-RN Survey (RN staff). (See Appendix BB.)

**Summary of findings for Objective 1.** Study Objective 1 sought to determine the associations of an excellent nurse manager as assessed by the CNE with the Five Practices of Exemplary Leadership, Career Aspiration Scale and aspiration, visibility and demographics. Four of the Five Practices of Exemplary Leadership—Model the Way,

Inspire a Shared Vision, Challenge the Process, and Enable Others to Act—were statistically different for excellent nurse managers and competent nurse managers as assessed by the CNE. The mean scores of these four practices were greater for excellent nurse managers than competent nurse managers. Across all nurse manager ratings, Enable Others to Act had the greatest mean score followed by Model the Way, Encourage the Heart, Challenge the Process, and Inspire a Shared Vision.

The statement “I hope to move up through any organization or business I work in” of the CAS was found to have statistically different mean scores for excellent and competent nurse managers. Excellent nurse managers had a greater mean score than competent nurse managers.

Both aspiration statements, “I would like to be in a director position” and “If I were offered the director position in my section/department, I would likely accept the offer,” had statistically different mean scores for excellent nurse managers and competent nurse managers. The mean scores were greater for excellent nurse managers than competent nurse managers indicating that the nurse manager would like to be in a director position and would likely accept a director position offer.

A statistical difference was not found in visibility or in the demographics including gender, age, experience in years as a RN and as a nurse manager, experience in years within the current organization and in the current nurse manager position, and educational preparation for excellent nurse managers and competent nurse managers .

**Summary of findings for Objective 2.** Study Objective 2 sought to determine the associations of an excellent nurse manager as assessed by the NDNQI-RN Survey (RN staff) with the Five Practices of Exemplary Leadership, Career Aspiration Scale and aspiration, visibility and demographics. A statistical difference was not found between the scores of the Five Practices of Exemplary Leadership for excellent nurse managers, competent nurse managers, and in-development nurse managers. The excellent nurse managers appeared to have scores that were less than the competent nurse managers but greater than the in-development nurse managers for all but one of the five practices, Inspire a Shared Vision, although no findings were statistically significant. The excellent nurse managers had the lowest score for Inspire a Shared Vision, with the competent nurse managers having the greatest score followed by the in-development nurse

managers.

There was no statistical difference among mean scores for the excellent, competent, and in-development nurse managers on the CAS. The majority of mean scores of excellent nurse managers on the CAS suggested lower aspiration than in-development nurse managers, who had mean scores suggesting greater aspiration based on the NDNQI-RN Survey (RN staff).

One of the two aspiration statements, “I would like to be in a director position,” was statistically different between the excellent nurse managers and the in-development nurse managers. The scores appeared lower for the excellent nurse managers compared to the in-development nurse managers. Nurse managers who answered “less true” to the statement “I would like to be in a director position” were ranked as excellent nurse managers, while nurse managers who answered “more true” to this statement were ranked as in-development nurse managers.

There was a very minimal but statistically significant difference in mean years of experience within the current organization between in-development nurse managers and competent nurse managers. Post-hoc comparisons using Tukey HSD test did not reach any significant pair comparison. The in-development nurse managers had fewer years in the current organization than the competent nurse managers by 3.6 years.

There were no statistical differences in the hours per week that nurse managers were visible or the demographics including gender, age, experience in years as a RN and a nurse manager, experience in years in the current nurse manager position, and educational preparation between excellent nurse managers, competent nurse managers, and in-development nurse managers..

**Summary of Findings for Objective 3.** Study Objective 3 sought to determine the associations of an excellent nurse manager as assessed by both the CNE and NDNQI-RN Survey (RN staff) with the Five Practices of Exemplary Leadership, Career Aspiration Scale and aspiration, visibility and demographics. Four of the Five Practices of Exemplary Leadership; Model the Way, Challenge the Process, Enable Others to Act, and Encourage the Heart were found to be statistically different for excellent nurse managers and competent nurse managers. Scores on each of these four practices were greater for excellent nurse managers than competent nurse managers. Across all nurse



manager ratings, Enable Others to Act had the greatest mean scores for excellent and competent nurse managers, followed by Model the Way, Encourage the Heart, and Challenge the Process. The practice of Inspire a Shared Vision was not statistically different for excellent and competent nurse managers and had the lowest mean scores.

There were no statistical differences in the CAS, aspiration, hours per week that nurse managers were visible or demographics including gender, age, experience in years as a RN and a nurse manager, experience in years within the current organization and in the current nurse manager position, and educational preparation for excellent and competent nurse managers.

## **Chapter 5: Discussion**

This chapter highlights the important findings yielded through literature review and the study results, then examines how the contributions from this study translated into an effective evidence-based profile of an excellent nurse manager. This section also outlines the study's strengths and limitations and offers recommendations regarding further research.

### **Sample of Hospitals**

The hospital sample represented a cross-section of hospitals from nearly all parts of the United States. More than one third of the states had hospitals that participated in the study, and although the Northeast was more heavily represented, only the South Central region of the United States was noticeably absent. Small, large and medium-sized hospitals were represented as well as a combination of community and academic university settings. The majority of the hospitals did not have collective bargaining of the RN staff and of the 29 hospitals, only three had unionized RN staff.

Hospitals designated as “magnet” by the ANCC comprised the majority of the hospitals in the study, which was not unexpected because the most successful recruiting method that the principal investigator found was a personal letter mailed directly to the CNE of magnet hospitals within the U.S. requesting their participation in the research study. Publicizing through the e-mail lists of the principal investigator's state hospital association and the professional organization of nursing leaders, as well as the website of AONE through eNews and AONE Working For You yielded surprisingly few responses from CNEs to request additional information and/or indicate their potential interest in the research study.

### **Sample of Nurse Managers**

In the United States, the demographic information about all RNs is documented, clearer, and more reliable and available than that which is known about nurse managers, a subset of RNs. Therefore, to extrapolate similarities or differences between the study's nurse managers and nurse managers throughout the United States, the principal investigator used demographic information pertaining to all RNs within the United States.

In cases where the principal investigator located demographic data specific to nurse managers and/or nursing leaders, that comparative information was provided. The majority (93.6%) of the nurse managers were female (191/204), with males representing 6.4% (13/204) of the sample population. Based on the 2008 National RN Sample Survey of Registered Nurses, the percent of male RNs within the United States is 6.6%, but the number of graduating male RNs has been steadily increasing — from 4.1% before 1990 to 9.6% after 1990 (U.S. Department of Health and Human Services, 2010). The RN reported job titles were not identified by gender in the survey; however, management/administration appeared as the second most common title at 12.5% with the job category of staff nurse being first at 66.3%. Raup (2008) reported a seemingly high percentage of male nurse managers (20%) based on a small sample size of 15 nurse managers and all nurse managers of emergency departments within U.S. academic health centers. The small sample size and patient care unit type (emergency departments) in Raup's study could potentially have contributed to what could arguably be regarded as anomalous data; both factors could have influenced the higher-than-expected percentage of male nurse managers. (A greater number of male RNs and nurse managers gravitate to emergency departments.) Other data reported in literature and via the personal experience of the principal investigator contradict these unusual percentages. One could extrapolate that the percentage of female and male nurse managers within this study was consistent with the gender mix of nurse managers and certainly RNs within the United States.

The age of the nurse managers in this study was consistent with other research (Hader, 2010; Raup, 2008; Sherman et al., 2007; U.S. Department of Health and Human Services, 2010; and 2010 Statewide Workforce Report Minnesota Hospital Association) and provided additional support that nurse managers—as nursing leaders and as a specific subset of RNs—are aging along with other nursing leaders and RNs. In the United States, the average age of an RN is 47 years with an employed RN being 45.5 years of age. The percent of RNs younger than 40 years is 29.5%, and 16.2% of the RNs are 50 to 54 years of age, comprising the largest age group of nurses. The aging of RNs has continued; since 1980, the distribution of RNs 50 years of age and older has been consistently greater than previous years (U.S. Department of Health and Human Services, 2010).

Of the 204 nurse managers in this study, 82 (40.3%) were 51 years of age and older. This percentage could be considered comparable to data gathered from other researchers who have reported nurse managers' ages; among the 1,523 nursing leaders that Hader (2010) studied, one half were 51 years of age and older. Of the 120 nurse managers in the study of Sherman et al. (2010), 38% (46/120) were older than 50 years of age. Younger nurse managers comprised less than 25% of the sample for the study; with only 5 (2.5%) nurse managers younger than 30 years and 43 (21.1%) nurse managers between 31 and 40 years of age. Reports have cited the mean age of Minnesota nurse leaders as 49 years (2010 Statewide Workforce Report Minnesota Hospital Association) and U.S. nurse managers as 47.1 years (Raup, 2008). The average age of nurse managers in this study approached 50 years, with the mean of 48 and the median 49. One half of the nurse managers in this study will reach a retirement age of 62 in less than 15 years. Based on the individual ages of the nurse managers and making the assumption that the nurse managers will retire at age 62, from this sample alone, the industry will need at least 79 nurse managers within 10 years—and perhaps as many as 84 (because 5 nurse managers did not indicate an age). Applying this data to the roughly 5,800 hospitals operating throughout the United States reveals a potential need for approximately 16,000 nurse managers over 10 years—1,600 nurse managers per year for the next 10 years—to fill these positions for retiring nurse managers. As is noted in previous studies, the age of the nurse managers in the sample provided evidence regarding the aging of nurse managers and a critical need to identify, recruit, select, hire, develop, and retain RN staff for a substantial number of nurse manager positions both now and in the future.

In the aggregate, the nurse managers within this sample practiced as RNs for an average of 13.38 years (median 12.0 years) and then as nurse managers for 10.03/7.0 years (mean/median), demonstrating that they practiced as RNs almost 30% longer than they did as nurse managers. One could ask whether 13.38 years as a RN is required or necessary before moving into a nurse manager position, whether this is comparable with other first-line manager positions, and whether there is something unique about the nurse manager role that requires a different number of years. Given the significant need for nurse managers particularly excellent nurse managers, it would be helpful to identify RN

staff that would be excellent nurse managers within a shorter period of time. A profile based on evidence would help CNEs and other nursing leaders identify, recruit and hire RNs at an earlier time in their career, thus helping to ensure that they could eventually become an excellent nurse manager based on the assessment of both the CNE and RN staff.

Among the sample, significant career longevity existed, particularly in their current workplace. The mean and median years that nurse managers worked within their current organization was 15.54 and 13 years, respectively, of which almost half (7.14 mean years and 5.00 median years) were in their current position. This finding differed from what was revealed in the literature. In recently published studies, 61.8% of the nurse managers had been in their current nurse manager position for less than 5 years (Hader, 2010), with as little 2.7 mean years reported (Raup, 2008). Two possible reasons could account for the increased longevity within the study sample: (1) the magnet status of the majority of the hospitals and (2) the current unstable economy. Within the healthcare community, magnet hospitals have been widely publicized as creating an ideal nursing practice work environment that supports nursing and patient care and results in employees being more satisfied, resulting in less turnover and greater retention of staff. (The original research of magnet hospitals was based on identifying the characteristics that differentiate hospitals best able to recruit and retain staff [ANCC website].) An alternative or additional insight is that this higher recruitment and retention rate was an outcome of the current and larger weakened state of the national economy: in a tighter, more uncertain employment market and amidst general economic instability, employees take fewer risks, such as voluntarily leaving stable positions that they currently hold. Isidore (2010), a senior writer with CNNMoney.com, displayed a graph from the U.S. Labor Department, depicting the decrease in the percentage of workers who quit their jobs from 2.1% in December 2007 to less than 1.4% in January 2010. He stated, “With employers still trimming rather than adding jobs and a record number of unemployed looking for work, job holders are hanging onto their current positions, even if it means being unhappy.”

Within the study sample, most had at least undergraduate preparation with respect to education and training, with 173 (84.8%) nurse managers receiving a bachelor's degree and 82 (40.2%) of the 204 nurse managers having a master's degree. A master of science in nursing (MSN) was the most commonly reported master's degree obtained (64.6%), followed by healthcare administration (13.4%). This educational preparation was consistent with Raup's (2008) study, which revealed that 40% and 60% of the nurse managers were prepared at the master's and bachelor's level, respectively (though the small sample size of 15 may have skewed Raup's findings). Again, the majority of the nurse managers in this study worked in magnet hospitals, which would support having this large of a percentage of nurse managers prepared at the bachelor and master levels. As of January 1, 2011, magnet hospitals require that 75% of nurse managers have a degree in nursing (baccalaureate or graduate degree); by January 1, 2013, 100% of the nurse managers will be required to have a degree in nursing (baccalaureate or graduate) (ANCC website). The nurse managers in the study had higher educational preparation than that reported nationally. Half of the RN population in the United States have a bachelors or higher degree in nursing or a nursing-related field; the other half have, as their highest educational level, a diploma or associate degree (U.S. Department of Health and Human Services, 2010). Several of the nurse managers in this study sample (66/204 or 32.5%) were currently enrolled in a formal education program, with 17 nurse managers working on a bachelor's degree (more than 50% of the nurse managers that are currently not prepared at the bachelor level) and the remaining nurse managers working on a combined bachelor/master or master degree, postgraduate degree (degree after master's degree), or doctor of nursing practice (DNP). Again, this finding was expected and not surprising based on the number of participating magnet hospitals and the magnet requirement and the January 1, 2013 requirement that 100% of the nurse managers have a degree in nursing. The number of nurse managers in this study who continued with a formal education program was also consistent with the national RN workforce studies' findings that many nurses (a specific percentage or number was not reported) pursue additional degrees after completion of their initial RN education (U.S. Department of Health and Human Services, 2010).

In summary, this national, multi-site sample of nurse managers included participants who were predominantly female, aged 50 years and older, and very experienced (in years) as a RN; they had been working several years within their current organization and in their current nurse manager role, were highly educated, and continued to pursue additional growth and development through formalized education programs. The nurse managers worked in predominantly magnet and nonunionized RN staff hospitals across the United States. The sample of nurse managers was consistent with the literature, what is known about the demographics of RNs (specifically, nurse managers), and would seem to be representative of nurse managers within magnet hospitals and in the United States overall.

**Identified Sample of Excellent Nurse Manager Ratings: CNE, NDNQI-RN Survey (RN staff), and CNE and NDNQI-RN Survey (RN staff)**

The CNEs rated a little less than half of the nurse manager ratings (143/330 [43.3%]) as excellent nurse managers. The RN staff, through the NDNQI-RN Survey subscales Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management and the preset parameter (75% of national benchmark for excellent nurse manager qualification), rated 70 of the 330 nurse manager ratings (21.2%) as excellent nurse managers—less than half of the number of nurse manager ratings the CNEs rated as excellent. Only 40 of a potential 330 nurse manager ratings (12.1%) were identified as excellent by both the CNE and NDNQI-RN Survey (RN staff)—about 50% fewer than the NDNQI-RN Survey nurse manager ratings (RN staff alone) and about 70% fewer than the CNE-assessed nurse manager ratings. Of these 40 nurse manager ratings, 30 nurse managers voluntarily participated in the research and completed the instruments/tools of the study. These 30 nurse managers provided evidence as to the profile of an excellent nurse manager based on the assessment of both the CNE and NDNQI-RN Survey (RN staff) and the measures of the Five Practices of Exemplary Leadership, Career Aspiration Scale and aspiration, visibility, and demographics.

Why did such significant differences exist among the number of excellent nurse manager ratings identified by the CNE, the NDNQI-RN Survey (RN staff), and by both

the CNE and NDNQI-RN Survey (RN staff)? Is this due to the CNEs' feeling responsible for the hiring of nurse managers that are excellent and consequently assessing, ranking and identifying more nurse managers as excellent to help project their own competency as a CNE? Are they providing self-assurance—"saving face"—needing to feel that they are doing their job and have excellent nurse managers and leaders for the staff and care of patients within the patient care units/areas/hospital? Are staff RNs too critical of nurse managers? Does gender-bias play a factor? The majority of RN staff are female and the majority of nurse managers are female; are female employees more critical of female supervisors than of male supervisors? One would want greater congruence and a greater number of excellent nurse managers as assessed by the CNE and the RN staff. It is critical that both CNEs and RN staff have this important position filled by individuals that they assess as excellent because of the impact that nurse managers have on staff recruitment, satisfaction, and retention; patient satisfaction, adverse health events, and complications; and organizational performance. Based on the results, there exists great opportunity to improve upon both the congruence and number of nurse managers who are assessed as excellent nurse managers by both the CNEs and RN staff.

### **Associations of an Excellent Nurse Manager as Assessed by the Instruments**

The outcomes of this exploratory descriptive research study provided new insight into the evidence-based profile of an excellent nurse manager based on the assessment of the CNE; the RN staff through use of the NDNQI-RN Survey subscales Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management; and both the CNE and RN staff based on the Five Practices of Exemplary Leadership, Career Aspiration Scale and aspiration, visibility, and demographics. Significant differences existed between the profiles of excellent nurse managers and those of competent nurse managers based on each of the three groups. Understanding these differences could help identify, recruit, select, hire, develop and retain nurse managers. In telephone conversations between the principal investigator and the CNEs, several of the CNEs consistently reminded the principal investigator that the nurse managers that the CNE identified as excellent nurse managers may not consistently be the same nurse managers that the RN staff identified as



excellent nurse managers. The principal investigator had also experienced this as a CNE but had only personal assumptions as to the causes or reasons. This study, through the analysis of the data and the findings, sheds light on why these inconsistencies materialize, and offers insights regarding how to close the gaps in order to have a greater number of excellent nurse managers based on the assessment of both the CNE and RN staff.

### **Assessment of Excellent Nurse Managers by CNEs**

**Five Practices of Exemplary Leadership.** Scoring of four of the Five Practices of Exemplary Leadership—Model the Way, Inspire a Shared Vision, Challenge the Process, and Enable Others to Act—were statistically different for excellent nurse managers compared with competent nurse managers based on the assessment of the CNE. The excellent nurse managers had higher mean scores on each of these four practices than the competent nurse managers. Mean scores for the fifth practice, Encourage the Heart, were not statistically different between the excellent and competent nurse managers. In the following section, the principal investigator discusses each of these practices separately, starting with Model the Way, to outline the findings, explain its context within nursing practice, recommend areas for further research, and describe what the practice means in relation to an evidence- based profile of an excellent nurse manager.

**Model the Way.** Identifying one's values and then consistently having those values define who you are and how others see you is the practice of Model the Way. For this practice to be apparent to others, a leader needs to find their voice, meaning that they know what they care about/their personal values, they speak out about their values and express their beliefs, and allow their values to consistently guide their actions (Kouzes & Posner, 2002). It is not enough for a leader to make their own personal values apparent to others they also need to build shared values amongst their employees. This establishes common purpose and a culture that is expected of and by everyone.

As assessed by the CNE, nurse managers who had greater scores on the practice Model the Way (indicated through self-report that they expressed their personal values and that their actions were consistent with these values) were more often identified as excellent nurse managers ( $M = 52.0$ ,  $SD = 4.5$ ) than competent nurse managers ( $M = 49.4$ ,  $SD = 5.6$ ) ( $p = .001$ ). In the Kouzes and Posner database, the excellent nurse

managers mean score mapped slightly above the 75<sup>th</sup> percentile (high) for the practice of Model the Way and competent nurse managers mean score mapped slightly below the 60<sup>th</sup> percentile (moderate) on the same scale. The competencies that comprise the practice of Model the Way are critical to the role of the nurse manager, who is held accountable for setting the example and creating shared values for their patient care unit(s) with employees and patients/families. Nurse managers with a high score on the practice of Model the Way (above the 75<sup>th</sup> percentile in the Kouzes and Posner database [M = 52.0, SD = 4.5]) align with the profile of an excellent nurse manager as assessed by the CNE. This finding supported the work of Kouzes and Posner and many other researchers (Leadership Challenge Website) who have demonstrated that exemplary leadership/excellent nurse managers requires the practice of Model the Way. As assessed by the CNE, therefore, the profile of an excellent nurse manager would include high scores on Model the Way.

***Inspire a Shared Vision.*** Kouzes and Posner (2002) described the practice of Inspire a Shared Vision as having a dream, a vision, that others can also believe in and of which they can experience the possibilities. Inherent in the practice are self-motivation, inspiration, excitement, and meaning for both the leader and the followers (employees). The leader must look out to and create the future, providing meaningful direction for employees and belief in a common purpose. As assessed by the CNE, for the practice of Inspire a Shared Vision, the mean score of 48.6 (SD = 7.5) for excellent nurse managers was greater than the mean score of 45.6 (SD = 7.3) for competent nurse managers ( $p = .002$ ). In the Kouzes and Posner database, excellent nurse managers mean score mapped to slightly below the 70<sup>th</sup> percentile (high moderate) and the competent nurse managers mean score mapped to the 55<sup>th</sup> percentile (moderate) when compared with several thousands of other individuals. This finding indicated that both excellent nurse managers and competent nurse managers are moderate rather than high on the practice of providing a compelling vision with their staff, one that their staff can be inspired to work toward with common purpose. Still, excellent nurse managers had a greater mean score for this practice than competent nurse managers at level of statistical significance. This finding is lower than would be expected based on the research of Kouzes and Posner. The mean

score and percentile within Kouzes and Posner's database are greater for excellent nurse managers than competent nurse managers, and based on the research of others, would lead one to hypothesize that excellent nurse managers would have even greater mean scores than competent nurse managers on Inspire a Shared Vision. While the principal investigator recommends further research be conducted to verify that greater mean scores on this practice continue to be associated with excellent nurse managers compared with competent nurse managers, nurse managers with a high moderate score (slightly below the 70<sup>th</sup> percentile of the Kouzes and Posner database [ $M = 48.6$ ,  $SD = 7.5$ ]) on the practice of Inspire a Shared Vision appear to align with the profile of an excellent nurse manager. Therefore, as assessed by the CNE, the profile of an excellent nurse manager should include the criterion of "slightly below the 70<sup>th</sup> percentile in high moderate on Inspire a Shared Vision."

***Challenge the Process.*** The practice of Challenge the Process involves embracing change within oneself and others with conviction, being open to and receiving new ideas from anyone and anywhere, and being an innovator (Kouzes & Posner, 2002). Taking risks are essential, recognizing that there will be both mistakes—viewed as learning opportunities—as well as other positive outcomes and successes. Kouzes and Posner refer to the Economist Intelligence Unit and Towers Perrin, stating that "receptivity to innovation/new ideas" is the third most influential work-environment characteristic in recruiting, retaining, engaging, and motivating employees after "credible leadership" and "accessible leadership" (p. 187). As assessed by the CNE, the mean score of 49.0 ( $SD = 6.9$ ) for excellent nurse managers was greater than the mean score of competent nurse managers of 45.8 ( $SD = 6.4$ ) for the practice of Challenge the Process ( $p = .001$ ). A mean score in the Kouzes and Posner database mapped excellent nurse managers at the 65<sup>th</sup> percentile (moderate) when compared with competent nurse managers' mean score, which was less than the 50<sup>th</sup> percentile (moderate) on the same scale. In relation to several thousands of other people, the study identifies both the excellent nurse managers and competent nurse managers to be moderate in the practice of Challenge the Process. This finding indicates that both excellent nurse managers and competent nurse managers were moderate rather than high in seeking out and leading change, although excellent

nurse managers had a greater mean score for this practice than competent nurse managers at a significant level. This finding was different and lower than would be expected based on the research of Kouzes and Posner. The mean score and the percentile within Kouzes and Posner's database were greater for excellent nurse managers than competent nurse managers and would lead one to hypothesize that excellent nurse managers would score even greater than competent nurse managers on Challenge the Process. Further research is recommended to determine the effect and replicability of these findings. Nurse managers with a moderate score (at the 65<sup>th</sup> percentile of the Kouzes and Posner database [M = 49.0, SD = 6.9]) on the practice of Challenge the Process align with the profile of an excellent nurse manager. Thus, as assessed by the CNE, the profile of an excellent nurse manager should include moderate scores on Challenge the Process.

***Enable Others to Act.*** Collaboration with others, building trust, and sharing of power are the key competencies identified by Kouzes and Posner (2002) for the practice Enable Others to Act. The mean score of 53.4 (SD = 4.1) for excellent nurse managers was greater than competent nurse managers' mean score of 51.9 (SD = 4.2), (p = .007). According to Kouzes and Posner, new research has revealed that the ability to enable others to act is a critical factor between success and failure in executives; the two researchers believe that this factor is applicable equally to all organizational levels among leaders in all settings, and that the ability to work well with others is the most important competency of a leader (p. 30-31). Referencing others studies, Kouzes and Posner emphasized that trust-building actions by exemplary leaders was the number one differentiator in the upper and lower 20 percent of high-performing companies and that trust is the most significant predictor of individual employees' satisfaction (p. 245).

Critical with this practice is for leaders to first demonstrate their trust of others, and that consequently, that trust will be reciprocated. Trust comes first before there can be collaboration, and collaboration is not possible without trust. The practice of Enable Others to Act involves working as a team, focusing on "we rather than I," creating interdependence among all members with shared goal(s) and rewards, having meaningful face-to-face interactions, and helping each individual feel personally accountable and responsible for his/her actions. Higher job satisfaction and performance throughout the

organization are results of leaders sharing power by having employees (1) be involved in the decisions and processes to accomplish the goals and (2) experience personal accountability and ownership of achievements (Kouzes & Posner). A leader's responsibility is to strengthen other employees and be a coach by asking for their ideas, providing choices and supporting their decisions, developing their competencies and skills, and sharing as much information as possible, which helps to build the employees' self-confidence and contributions to the goals. In the literature, this responsibility is commonly called *power sharing* or *empowerment of staff*.

Nurse managers who achieved higher scores on Enable Others to Act (which was indicated through self-report that they more frequently engaged in the behaviors that demonstrate trust, collaboration, and sharing of power with employees) were more likely to be identified as excellent nurse managers ( $M = 53.4$ ,  $SD = 4.1$ ) than competent nurse managers ( $M = 51.9$ ,  $SD = 4.2$ ), ( $p = .007$ ). A mean score for excellent nurse managers in the Kouzes and Posner database mapped above the 70<sup>th</sup> percentile (high) when compared with competent nurse managers at the 65<sup>th</sup> percentile (moderate) on the same scale. In relation to several thousands of other people who comprised the database of Kouzes and Posner, the excellent nurse managers in this sample were identified as high in the practice of Enable Others to Act, while competent nurse managers were identified as moderate.

The competencies that comprise the practice of Enable Others to Act are important to the role of a nurse manager, who is responsible and accountable for their patient care unit(s) and works with many employees and patients/families. Excellent nurse managers would exemplify this practice by forging relationships built on trust throughout their patient care unit(s) and empowering staff to make decisions regarding their practice and care of patients. Nurse managers with a high score on the practice of Enable Others to Act align with the profile of an excellent nurse manager. This finding supported the work of Kouzes and Posner and many other researchers that exemplary leadership/excellent nurse managers required the practice of Enable Others to Act. As assessed by the CNE, therefore, the profile of an excellent nurse manager would include high scores on Enable Others to Act.

***Encourage the Heart.*** Showing appreciation for people’s contributions and creating a culture of celebration were competencies encompassing Encourage the Heart (Kouzes & Posner, 2002). Further description of this practice involved setting clear standards with frequent, genuine encouragement and feedback, listening with one’s eyes and heart and not just the ears and brain, providing personalized rewards and recognition, and creating celebrations that come from the heart.

Encourage the Heart is the one practice of the Five Practices of Exemplary Leadership not found to be statistically significantly different in the mean score for excellent and competent nurse managers. Specifically, the mean score of 51.0 (SD = 6.3) for excellent nurse managers was greater than the mean score of competent nurse managers of 49.4 (SD = 6.6) but not statistically significant ( $p = .07$ )—despite the fact that the mean score was the third-greatest mean score of the Five Practices for excellent nurse managers and tied with Model the Way for the second-greatest mean score for competent nurse managers. When these mean scores were entered into the Kouzes and Posner database, both the excellent and competent nurse managers mean scores mapped to moderate for the practice of Encourage the Heart; excellent nurse managers mapped slightly below the 70<sup>th</sup> percentile (high moderate), and competent nurse managers slightly below the 60<sup>th</sup> percentile.

In light of these findings, the principal investigator made the assumption that the behaviors of appreciating other’s contributions and creating celebrations for excellent and competent nurse managers were more similar than different. Indeed, per the database of Kouzes and Posner, the behaviors associated with this practice were more similar than different for excellent and competent nurse managers at a moderate level. Therefore, one could state that, based on the CNE assessment, the practice of Encourage the Heart was not a differentiating practice for the profile of an excellent nurse manager.

**Career Aspiration Scale (CAS).** Excellent nurse managers, as assessed by the CNE, consistently had mean scores that reflected greater aspiration on both factors of the CAS—(1) Leadership and Achievement Aspirations and (2) Educational Aspirations—than competent nurse managers. The one exception was Item 4, “When I am established in my career, I would like to train others,” in which the mean score was the same at 3.2

(SD = 1.2 and 1.0) for excellent and competent nurse managers, respectively. One would assume that excellent and competent nurse managers would score similarly in regard to their aspiration to train others when they are established in their career. Yet the only item on the CAS that had a significant difference in mean scores at  $p = .02$  for excellent nurse managers compared with competent nurse managers was Item 5, “I hope to move up through any organization or business I work in.” (Item 5, one of the six items associated with the factor Leadership and Achievement Aspirations, assesses an individual’s intention to obtain promotions [Gray & O’Brien, 2007], manage and train others, and be recognized as a leader in one’s field.) The mean score of Item 5 was 3.4 (SD = 1.1) for excellent nurse managers and 3.0 (SD = 1.2) for competent nurse managers. This score would indicate that excellent nurse managers more frequently responded “Quite a bit true of me” or “Very true of me” to the statement, “I hope to move up through any organization or business that I work in” than competent nurse managers. As anticipated, CNEs identified nurse managers who had greater aspiration to be promoted within the organization; CNEs are continually assessing and evaluating individuals (nurse managers) who could be developed for and/or moved into nursing director positions or other promotional positions within the hospital.

Another part of the Leadership and Achievement Aspirations is Item 1, “I hope to become a leader in my field.” For this item, the greatest mean score on the CAS was 3.5 for excellent nurse managers (SD = 1.0) and 3.3 (SD = 1.0) for competent nurse managers; however, this difference was not significant ( $p = .07$ ). The other three items of the Leadership and Achievement Aspirations factor of the CAS were Item 2, “When I am established in my career, I would like to manage other employees,” Item 3, “I do not plan to devote energy getting promoted in the organization,” and Item 8, “Leadership status in my career is not that important to me.” All three items were not statistically significantly different at  $p = .53$ ,  $p = .42$ , and  $p = .17$ , respectively, for excellent nurse managers compared with competent nurse managers.

The mean scores of excellent nurse managers reflected greater aspiration than competent nurse managers on the two items associated with the Educational Aspirations factor of the CAS: Item 6, “Once I finish the basic level of education needed for a

particular job, I see no need to continue in school,” and Item 7, “I think I would like to pursue graduate training in my occupational area of interest,” although the differences were not statistically significant. Moreover, based on the item to total correlation for the CAS, Item 6 had a low internal reliability coefficient alpha value of .23, potentially indicating that the item is measuring something other than the construct of career aspiration. The finding that 98 of the 233 nurse manager ratings indicated that respondents already have a graduate degree (excellent nurse manager ratings [52] and competent nurse manager ratings [46]), and 46 nurse manager ratings identified that they are enrolled in various masters/post masters and DNP programs (excellent nurse manager ratings [22] and competent nurse manager ratings [24]) requires further exploration, particularly in relation to Item 7.” I think I would like to pursue graduate training in my occupational area of interest.” The principal investigator found no documentation in the literature that the CAS had been used and tested with such highly educated individuals. Reported studies had used the CAS with adolescent, college, and 1-year post college women, which would lead one to deduce that the instrument had not been used with a sample population having such a large percentage (40.2%) of the individuals already having graduate training. Thus, the principal investigator recommends further study of the use of the Educational Aspirations factor of the CAS with individuals having higher educational preparation.

In summary, excellent nurse managers had greater mean scores that reflected greater aspiration based on the CAS assessment; however, only one of the items—Item 5, “I hope to move up through any organization or business that I work in”—demonstrated greater mean scores that were statistically significant. More excellent nurse managers than competent nurse managers found this statement to be true. In the literature reviewed by the principal investigator, the CAS had only been used with predominantly white women approximately 16 to 25 years of age and post-college by 1 year. All of the nurse managers in the study were older than 25 years of age, and the most were post-college by 20 years. As described more thoroughly in the Methodology Chapter, based on the item to total correlation for the CAS, Item 6, “Once I finish the basic education needed for a particular job, I see no need to continue in school,” had a low internal reliability



coefficient alpha value of .23, potentially indicating that the item was measuring something other than the construct of career aspiration. If the principal investigator removed Item 6 from the CAS, the internal consistency reliability would increase to .80 for the CAS with this sample. The psychometric properties in the study demonstrated an internal consistency reliability coefficient of .79 (Cronbach's alpha), which suggested very good internal consistency reliability for the scale with this sample; however, further testing with this and other age groups and highly educated individuals is recommended. The principal investigator also recommends that Items 6 and 7, both associated with the Educational Aspirations factor, be deleted because of the educational preparation of the sample population being studied. If Leadership and Achievement Aspirations is the construct of interest, the items for Educational Aspirations may not be as relevant, particularly if the individuals have already completed significant education (i.e., master's level coursework). The addition of different items pertinent to the career interest area may lead to the internal reliability of the CAS in measuring the construct of career aspiration.

**Aspiration.** As assessed by the CNE, excellent and competent nurse managers exhibited statistically significant differences in the mean scores for both of the aspiration items: Item 1, "I would like to be in a director position," and Item 2, "If I were offered the director position in my section/department, I would likely accept the offer" ( $p = .007$  and  $p = .001$ , respectively). The mean score for excellent nurse managers was 3.0 (SD = 1.5) and 3.1 (SD = 1.4) for Items 1 and 2, respectively, reflecting a self-reported response of 3 ("Quite a bit true of me"). The mean score of competent nurse managers was 2.4 (SD = 1.6) for both items, reflecting a self-reported response between 2 ("Moderately true of me") to 3 ("Quite a bit true of me"). Compared with competent nurse managers, excellent nurse managers indicated greater aspiration to be in a director position and to accept a director position if they were offered it. This finding is not surprising because the distinction between excellent and competent nurse managers was based on CNE assessment, and one would expect CNEs to identify excellent nurse managers as having aspirations for further growth and development and to have succession plans for director positions. As assessed by the CNE, excellent nurse managers self-report that it is "quite a

bit true” that they would like to be in a director role and that if offered the director position in their section/department, they would accept the offer. This finding also merits a note of caution. Both items were tested with nurse managers and not with RN staff that have not been nurse managers. Thus, one must ask whether RN staff would yield the same or different responses. When used with RN staff, the questions could be changed to “I would like to be in a nurse manager position” and “If I were offered a nurse manager position in my section/department, would I likely accept the offer?” Including RN staff in the investigation could help delineate the differences in response—and thus differences in aspiration—between excellent and competent nurse managers. From analysis of these initial findings, however, the principal investigator believes it is safe to conclude that profile of an excellent nurse manager would include the aspiration to be in a director role and to accept a directorship if it was offered.

**Visibility.** Although being a visible nurse manager seems empirically important for staff and patients, this research study did not find that being visible—that is, out on the patient care unit interacting with staff and patients—was statistically different in hours per week for excellent and competent nurse managers as assessed by the CNE. The mean scores for hours per week for excellent nurse managers and competent nurse managers were not statistically significantly different for both 7:00 a.m. to 7:00 p.m. ( $M = 19.4$ ,  $SD = 15.5$ ) and  $M = 17.6$ ,  $SD = 14.4$ ) and 7:00 p.m. to 7:00 a.m. ( $M = 3.7$ ,  $SD = 3.4$ ) and  $M = 3.8$ ,  $SD = 5.0$ ), ( $p = .37$  and  $p = .89$ ) respectively. Although the excellent nurse managers’ mean score for hours per week was greater by 1.8 hours for 7:00 a.m. to 7:00 p.m. and less by 0.1 hour for 7:00 p.m. to 7:00 a.m. than competent nurse managers, these findings were not statistically significantly different. Both excellent nurse managers and competent nurse managers documented a wide range of visibility hours per week—from leaving it blank to reporting .25 to 60 hours (excellent nurse managers) to leaving it blank to reporting 0 to 15 hours (competent nurse managers). Based on this analysis, the principal investigator concluded that the number of hours per week that nurse managers are out on their unit(s) interacting with staff and patients does not add to the profile of an excellent nurse manager.

**Demographics.** Overall, the demographics of the sample of nurse manager ratings were not found to be statistically significantly different as assessed by the CNE for excellent and competent nurse managers. In studying first-line and mid-level nurse managers, Barker (2006) also found no significant correlations between the Five Practices and the demographics for first-line nurse managers. However, for mid-level nurse managers, Barkers found an inverse correlation between years as a nurse leader and Inspire a Shared Vision and Challenge the Process.

### **Assessment of Excellent Nurse Managers by NDNQI-RN Survey (RN staff)**

**Five Practices of Exemplary Leadership.** A notable finding was that no statistically significant differences were found on all of the Five Practices of Exemplary Leadership between excellent nurse managers, competent nurse managers, and in-development nurse managers as assessed by the NDNQI-RN Survey (RN staff). Another interesting finding was that competent nurse managers' mean scores were greater than excellent nurse managers on all of the practices other than Encourage the Heart, in which excellent nurse managers had a greater mean score than competent nurse managers; none of these findings were statistically significant. An expected finding was that in-development nurse managers had mean scores that were less than excellent nurse managers and competent nurse managers, and this finding was observed within all of the practices except for Inspire a Shared Vision, in which excellent nurse managers had the lowest mean score of 46.4 (SD =8.0), followed by in-development nurse managers (M = 46.7, SD = 7.4) and competent nurse managers, who had the greatest mean score (M = 47.8, SD = 7.2). However, these findings also were not statistically significant. The greatest mean scores for the practices occurred with Enable Others to Act with competent nurse managers' mean score at 53.2 (SD = 4.3), followed very closely by excellent nurse managers (M = 53.1, SD = 4.3) and then in-development nurse managers (M = 52.0, SD = 4.1).

For excellent nurse managers, the mean score of 51 for Model the Way and 53 for Enable Others to Act were the only mean scores that mapped to the high range of the Kouzes and Posner database. Competent nurse managers had mean scores of 52 and 53

for Model the Way and Enable Others to Act, respectively, which also mapped to the high range for these two practices, although competent nurse managers actually had a slightly greater percentile ranking at above the 75<sup>th</sup> percentile for Model the Way and excellent nurse managers were just above the 70<sup>th</sup> percentile. Percentile rankings were approximately equal for Enable Others to Act—slightly greater than the 70<sup>th</sup> percentile. In-development nurse managers had mean scores in all five practices, which mapped to the moderate range; no mean scores mapped greater than the 65<sup>th</sup> percentile or in the high range.

The behaviors associated with the Five Practices of Exemplary Leadership appeared to be more similar than different among excellent, competent, and in-development nurse managers. The conclusion drawn from these findings and analysis was, that based on the NDNQI-RN Survey (RN staff), the Five Practices of Exemplary Leadership does not add to the profile of an excellent nurse manager.

**Career Aspiration Scale (CAS).** No statistically significant differences were found among excellent nurse managers, competent nurse managers and in-development nurse managers as assessed by the NDNQI-RN Survey (RN staff) and the CAS. Although the mean scores for excellent nurse managers suggested lower aspiration than in-development nurse managers, the findings were not significant. In fact, the mean scores and standard deviations were very close for all eight items of the CAS, with the statistical significance level ranging from  $p = .33$  to  $p = .93$ . Based on these findings, the principal investigator has concluded that the CAS does not add to the profile of an excellent nurse manager.

**Aspiration.** As assessed by the NDNQI-RN Survey (RN staff), statistically significant differences existed in the mean scores among excellent nurse managers, competent nurse managers, and in-development nurse managers for aspiration Item 1, “I would like to be in a director position” ( $F [2,227] = 4.5, p = .01$ ). The difference was quite small and was found between excellent nurse managers and in-development nurse managers. Interestingly, the mean score of excellent nurse managers ( $M = 2.2, SD = 1.7$ ) was less than the mean score of in-development nurse managers ( $M = 3.0, SD = 1.4$ ). The mean score of 2.2 for excellent nurse managers would reflect self-reported responses of 2

(“Moderately true of me”) to 3 (“Quite a bit true of me”) and a mean score for in-development nurse managers of 3 (“Quite a bit true of me”). The excellent nurse managers indicated less aspiration and desire to be in a director position than in-development nurse managers. This finding was unexpected because one would expect that nurse managers who had greater aspiration would be identified by RN staff as excellent nurse managers, and that nurse managers who had less aspiration would be identified by RN staff as in-development nurse managers. The converse was found in this study; nurse managers who had greater aspiration were identified as in-development nurse managers, and nurse managers that had less aspiration were identified as excellent nurse managers. Could this finding suggest that nurse managers who are content being a nurse manager and do not aspire to a director role are what RN staff assess as excellent nurse managers? Do RN staff assess nurse managers who aspire to be in a director role as in-development because the RN staff regards nurse managers’ aspiration to be a director as less than positive (perhaps because they want a nurse manager who wants to be a nurse manager and not a director)? Could these results provide some understanding as to why CNEs and RNs differ in their identification of nurse managers as excellent and competent? These questions require further exploration and study.

As stated in the Discussion Chapter (section CNE and Aspiration), the fact that this item was tested with nurse managers and not with RN staff (who have not been nurse managers) merits caution. One would ask if the same or a different response is expected from RN staff compared with nurse managers regarding aspiring to a director position. How might it affect the identification of excellent, competent, and in-development nurse managers if the item, when used with RN staff, were changed to read, “I would like to be in a nurse manager position”? With the findings that indicated less aspiration for excellent nurse managers and greater aspiration for in-development nurse managers, the principal investigator has concluded that based on the NDNQI-RN Survey (RN staff), a profile of an excellent nurse manager would include aspiration 1, “I would like to be in a director position,” to assess the nurse manager’s aspiration to be in a director or nurse manager position.

**Visibility.** This research study did not find that being visible—that is, out on the patient care unit(s) interacting with staff and patients—was statistically significantly different among excellent, competent, and in-development nurse managers. Excellent nurse managers' mean visibility scores (measured in hours per week) were greater than competent nurse managers' mean visibility scores. In addition, competent nurse managers' mean scores were greater than in-development nurse managers' mean scores for both 7:00 a.m. to 7:00 p.m. and 7:00 p.m. to 7:00 a.m. Notably, however, neither of these findings were statistically significant ( $p = .35$  and  $p = .71$ ) respectively. The difference in hours was very small, with only 0.3 hours between excellent nurse managers and competent nurse managers, slightly greater (2.8 hours) between competent nurse managers and in-development nurse managers, and only slightly more (3.1 hours) between excellent nurse managers and in-development nurse managers for 7:00 a.m. to 7:00 p.m. The differences in mean scores for hours from 7:00 p.m. to 7:00 a.m. are all less than 1 hour among excellent, competent, and in-development nurse managers. The principal investigator has concluded that based on the assessment of the NDNQI-RN Survey (RN staff), the number of hours per week that nurse managers are out on their unit(s) interacting with staff and patients does not add to the profile of an excellent nurse manager.

**Demographics.** The principal investigator anticipated the finding of no statistically significant demographic differences among excellent nurse managers, competent nurse managers, and in-development nurse managers, as assessed by the NDNQI-RN Survey (RN staff). The research of Kouzes and Posner on exemplary leadership as well as other researchers (Leadership Challenge Website) have consistently confirmed that leaders are not distinguishable based on demographics. As Kouzes and Posner noted, "Leadership is not a gene any more, or any less, than other abilities. Leadership is not a place, and it's not a position. Leadership has absolutely nothing to do with your position or your status and everything to do with your behavior" (Kouzes and Posner, 2003, p. 3). A relatively small statistically significant difference was found between competent nurse managers and in-development nurse managers as to years of experience within their current organization ( $p = .05$ ; with additional post-hoc

comparisons using the Tukey HSD test,  $p = .053$ ). Comparing the mean score of competent nurse managers ( $M = 17.3$ ,  $SD = 10.8$ ) with in-development nurse managers ( $M = 13.7$ ,  $SD = 9.9$ ), competent nurse managers worked 3.6 years longer within the organization than in-development nurse managers. Excellent nurse managers, based on mean score, had 1.1 fewer years than competent nurse managers and 2.5 more years than in-development nurse managers, but neither finding was found to be statistically significant.

One would expect that both competent and excellent nurse managers would have more years of experience within the organization than in-development nurse managers, but one might not expect that excellent nurse managers would have fewer years of experience than competent nurse managers. Although this latter finding was minimally statistically significant, one could ask whether it supports two observations: (1) that the number of years that nurse managers worked with an organization cannot determine whether nurse managers are excellent when compared to nurse managers who have been with an organization for fewer years, and (2) that a certain number of years within an organization may actually result in nurse managers' being identified as competent. Again, this finding is minimally statistically significant but does lead one in the direction that years of experience within an organization should not be used as the only or even the best indicator to determine that a nurse manager is an excellent nurse manager, a competent nurse manager, or an in-development nurse manager.

### **Assessment of Excellent Nurse Managers by Both the CNE and NDNQI-RN Survey (RN staff)**

**Five Practices of Exemplary Leadership.** Four of the Five Practices of Exemplary Leadership; Model the Way, Challenge the Process, Enable Others to Act, and Encourage the Heart were found to be statistically different for excellent nurse managers compared with competent nurse managers based on the assessment of both the CNE and NDNQI-RN Survey (RN staff). The excellent nurse managers had greater mean scores on each of these 4 practices than the competent nurse managers. The fifth practice, Inspire a Shared Vision was not found to be statistically different between the

excellent and competent nurse managers. Each of these practices, starting with Model the Way, will be discussed separately as to the findings, recommendations for further research, and what the practice means in relation to an evidence-based profile of an excellent nurse manager. For additional behaviors for each of the Five Practices, refer to the Discussion Chapter and the CNE and specific practice of interest.

***Model the Way.*** Identifying one's values and then consistently having those values be who you are and who others see you as describes the practice of Model the Way (Kouzes and Posner, 2002). As assessed by both the CNE and the NDNQI-RN Survey (RN staff), nurse managers that had greater scores on the practice Model the Way, indicated through self-report that they expressed their personal values and that their actions were consistent with these values, were identified as excellent nurse managers ( $M = 52.5$ ,  $SD = 4.1$ ) compared with competent nurse managers ( $M = 50.3$ ,  $SD = 5.4$ ) and significant at  $p = .03$ . In the Kouzes and Posner database, the excellent nurse managers mean score of 53 mapped to above the 80<sup>th</sup> percentile and in the high range for the practice of Model the Way and competent nurse managers mean score of 50 mapped to the 65<sup>th</sup> percentile which is moderate on the same scale. The competencies for this practice are that the nurse manager is responsible and accountable for setting the example and creating shared values for their patient care unit(s) with employees and patients/families. Nurse managers in the high range, at the 80<sup>th</sup> percentile in the Kouzes and Posner database, ( $M = 52.5$ ,  $SD = 4.1$ ) on the practice of Model the Way would align with the profile of an excellent nurse manager. This finding supported the work of Kouzes and Posner and many other researchers that exemplary leadership/excellent nurse managers require the practice of Model the Way. As assessed by both the CNE and the NDNQI-RN Survey (RN staff) the profile of an excellent nurse manager would include high range scores on Model the Way.

***Inspire a Shared Vision.*** Kouzes and Posner (2002) described the practice of Inspire a Shared Vision as having a dream, a vision, that others can also believe in and feel the possibilities of the vision. As assessed by both the CNE and the NDNQI-RN Survey (RN staff), the mean score of 49.1 ( $SD = 7.6$ ) for excellent nurse managers was greater for the practice of Inspire a Shared Vision than the mean score of competent nurse



managers of 46.6 (SD = 7.5) but was not statistically significantly different at  $p = .09$ . In the Kouzes and Posner database, excellent nurse managers mean score of 49 mapped to just below the 70<sup>th</sup> percentile being a very high moderate and competent nurse managers mean score of 47 mapped just below the 60<sup>th</sup> percentile, moderate range. This indicated that both excellent nurse managers and competent nurse managers were in the moderate range rather than the high range on this practice and the behaviors of providing a compelling vision with their staff and one which their staff can be inspired to work toward with common purpose. This finding is different and lower than would be expected based on the research of Kouzes and Posner, in that excellent nurse managers in this sample are identified as high moderate rather than high on the practice of Inspire a Shared Vision and were not found to be statistically significantly different from competent nurse managers as one would expect. The mean score and percentile within Kouzes and Posner's database are greater for excellent nurse managers than competent nurse managers and would lead one to expect that greater scores on Inspire a Shared Vision would be more like excellent nurse managers than competent nurse managers. Further research is recommended to determine the impact of even greater mean scores self-reported by nurse managers on this practice and being identified as high, above the 70<sup>th</sup> percentile on the Kouzes and Posner database for the practice of Inspire a Shared Vision and the association with excellent and competent nurse managers.

Would the lack of a significant difference in the mean score for excellent and competent nurse managers be a result of the majority of the participating hospitals being designated magnet status and the influence that the “magnet journey” has on nurse managers as to a similar vision, ” to continue to be a magnet hospital?” Kouzes and Posner would argue that exemplary leadership or excellent nurse managers must create a vision, a dream with their employees that creates enthusiasm and common purpose. In addition, they would state that excellent nurse managers need to exhibit these behaviors consistently and frequently and that being a middle manager or within a designated magnet hospital does not decrease the importance of this practice for exemplary leadership or for excellent nurse managers. This finding identified a gap between excellent nurse managers and the thousands of other individuals who have completed the

LPI-Self and had greater mean scores, which resulted in a greater percentile and high range within the Kouzes and Posner database. As a result, the principal investigator recommends that the practice of Inspire a Shared Vision be explored more thoroughly with nurse managers, RN staff, and CNEs to clarify what these differences mean and increase the understanding as to whether this is a practice area in which all nurse managers would benefit from additional education and development to support them in being an excellent nurse manager.

Skytt et al (2008) reported that the head of the department (HD) identified the desired role of the first-line nurse manager (FLNM) to be focused on visions concerning the development of services, and yet the other three groups—assistant nurses (ANs), RNs, and the FLNMs themselves did not identify visioning as a desired role. The authors elaborated that the HD explained that the FLNM ought to have their own ideas about how to implement their visions, but they should also discuss these ideas with their staff to gain their participation and contribution to the development of the ideas (p. 1018). Could the lack of congruence be that FLNMs are not as familiar or educated or developed on this leadership behavior? Dependent upon the FLNMs' educational preparation and experiences, visioning may be area that FLNMs have not been exposed to within their nursing education program and experiences or that it has not previously been emphasized as one of their key roles. The description provided by the HD would seem to align with leadership behaviors of Inspire a Shared Vision of Kouzes and Posner (2003), and it potentially provides additional support that FLNMs and nurse managers would benefit from receiving additional education/development/mentoring/coaching on the leadership behaviors of Inspire a Shared Vision.

The practice of Inspire a Shared Vision with this sample of nurse managers was not found to have a statistically significant difference in the mean scores of excellent and competent nurse managers and mapped in the moderate range within the Kouzes and Posner database. The conclusion drawn from these findings and the analysis was that as assessed by both the CNE and the NDNQI-RN Survey (RN staff) the profile of an excellent nurse manager would not include the practice of Inspire a Shared Vision.

Additional study is recommended to explore why this is a Moderate practice for excellent nurse managers.

***Challenge the Process.*** The practice of Challenge the Process involves embracing change within oneself and others with conviction, being open to and receiving new ideas from anyone and anywhere, and being an innovator (Kouzes & Posner, 2002). As assessed by both the CNE and the NDNQI-RN Survey (RN staff), the mean score of 50.1 (SD = 6.1) for excellent nurse managers was greater than the mean score of competent nurse managers of 46.8 (SD =6.8) for the practice of Challenge the Process and significant at  $p = .01$ . A mean score of 50 in the Kouzes and Posner database mapped excellent nurse managers at the 70<sup>th</sup> percentile (high) when compared with competent nurse managers mean score of 47; which was at the 55<sup>th</sup> percentile (moderate) on the same scale. In relation to several thousands of other people, excellent nurse managers were identified in the high range and competent nurse managers in the moderate range for the practice of Challenge the Process. This would indicate that excellent nurse managers seek out and lead change with their employees. This finding was supportive of the research of Kouzes and Posner, that excellent nurse managers were identified in the high range on the practice of Challenge the Process. The mean score and the percentile within Kouzes and Posner's database, are greater for excellent nurse managers than competent nurse managers and would lead one to expect that greater scores on Challenge the Process to be more like excellent nurse managers than competent nurse managers. Further research is recommended to determine the impact of even greater mean scores self-reported by nurse managers on this practice and being identified greater in the high range, above the 70<sup>th</sup> percentile on the Kouzes and Posner database for the practice of Challenge the Process and the association with excellent and competent nurse managers. Nurse managers with a high range, at the 70<sup>th</sup> percentile of the Kouzes and Posner database, (M = 50.1, SD = 6.1) on the practice of Challenge the Process would align with the profile of an excellent nurse manager. As assessed by both the CNE and the NDNQI-RN Survey (RN staff) the profile of an excellent nurse manager would include high range on Challenge the Process.

***Enable Others to Act.*** Collaboration with others, building trust, and sharing of power are the key competencies identified by Kouzes and Posner (2002) for the practice Enable Others to Act. The mean score of 54.1 (SD =4.5) for excellent nurse managers was greater than the mean score of competent nurse managers of 52.3 (SD = 4.1) and significant at  $p = .03$ .

The practice of Enable Others to Act is all about working as a team, the importance of “We rather than I,” creating interdependence of all members with shared goal(s) and rewards, having meaningful face-to-face interactions, and each individual feeling personally accountable and responsible for his/her actions. Nurse managers that had greater scores on Enable Others to Act, indicated through self-report that they more frequently engaged in the behaviors that demonstrate trust, collaboration, and sharing of power with employees, were identified as excellent nurse managers ( $M = 54.1$ ,  $SD = 4.5$ ) compared with competent nurse managers ( $M = 52.3$ ,  $SD = 4.1$ ) and significant at  $p = .03$ . A mean score of 54 in the Kouzes and Posner database mapped excellent nurse managers at approximately the 80<sup>th</sup> percentile in the high range when compared with competent nurse managers with a mean score of 52 at the 65<sup>th</sup> percentile or moderate on the same scale. In relation to several thousands of other people who comprised the database of Kouzes and Posner, the excellent nurse managers in this sample identified as high in the practice of Enable Others to Act and competent nurse managers identified as moderate.

Excellent nurse managers would exemplify Enable Others to Act through ensuring relationships built on trust throughout their patient care unit(s) and empowering staff to make decisions regarding their practice and care of patients. Nurse managers with a high score, at approximately the 80<sup>th</sup> percentile in the Kouzes and Posner database, ( $M = 54.1$ ,  $SD = 4.5$ ) on the practice of Enable Others to Act would align with the profile of an excellent nurse manager. This finding supported the work of Kouzes and Posner and many other researchers that exemplary leadership/excellent nurse managers require the practice of Enable Others to Act. As assessed by both the CNE and the NDNQI-RN Survey (RN staff) the profile of an excellent nurse manager would include high scores on Enable Others to Act.

***Encourage the Heart.*** Showing appreciation for people's contributions and creating a culture of celebration are the competencies of Encourage the Heart (Kouzes & Posner, 2002). As assessed by both the CNE and the NDNQI-RN Survey (RN staff), the mean score of 52.3 (SD = 6.1) for excellent nurse managers was greater than the mean score of competent nurse managers of 49.8 (SD =6.5) for the practice of Encourage the Heart and statistically significant at  $p = .05$ . A mean score of 52 in the Kouzes and Posner database mapped excellent nurse managers just above the 70<sup>th</sup> percentile in the high range when compared with competent nurse managers mean score of 50; which was between the 60<sup>th</sup> to 65<sup>th</sup> percentile or in the moderate range on the same scale. In relation to several thousands of other people, excellent nurse managers were identified in the high range and competent nurse managers in the moderate range for the practice of Challenge the Process. Based on greater scores on self-report by excellent nurse managers than competent nurse managers, excellent nurse managers displayed the behaviors of appreciating other's contributions and creating celebrations more than competent nurse managers. This finding was supportive of the research of Kouzes and Posner, that excellent nurse managers were identified in the high range on the practice of Encourage the Heart. The mean score and the percentile within Kouzes and Posner's database, are greater for excellent nurse managers than competent nurse managers and would lead one to expect that greater scores on Encourage the Heart to be more like excellent nurse managers than competent nurse managers. Further research is recommended to determine the impact of even greater mean scores self-reported by nurse managers on this practice and being identified greater in the high range, above the 70<sup>th</sup> percentile on the Kouzes and Posner database for the practice of Encourage the Heart.

The conclusion drawn from these findings and the analysis was that the practice of Encourage the Heart does add to the profile of an excellent nurse manager. This finding supported the work of Kouzes and Posner and many other researchers who found that exemplary leadership/excellent nurse managers require the practice of Encourage the Heart. As assessed by both the CNE and the NDNQI-RN Survey (RN staff) the profile of an excellent nurse manager would include scores in the high range on Encourage the Heart.

**Career Aspiration Survey (CAS).** There were no statistically significant differences found between excellent nurse managers and competent managers as assessed by both the CNE and NDNQI-RN Survey (RN staff) and the CAS. It was interesting that for only 3 of the 8 items, excellent nurse managers had greater mean scores suggesting greater aspiration than competent nurse managers (CAS 5. “I hope to move up through any organization or business that I work in.” CAS 6. “Once I finish the basic education needed for a particular job, I see no need to continue in school.” and CAS 7. “I think I would like to pursue graduate training in my occupational area of interest.”), although not statistically significant findings. Competent nurse managers indicated greater mean scores which suggested greater aspiration on the other 5 out of 8 items, again not statistically significant findings. Mean scores and standard deviations were very close for excellent and competent nurse managers for all 8 items of the CAS with the significance level ranging from  $p = .37$  to  $.65$ . Career aspiration (through use of the CAS) was not statistically different for excellent nurse managers and competent nurse managers. Based on these findings it would be difficult to draw any other conclusion than as assessed by both the CNE and NDNQI-RN Survey (RN staff) the CAS does not add to the profile of an excellent nurse manager.

**Aspiration.** As assessed by both the CNE and NDNQI-RN Survey (RN staff), the mean scores for the two aspiration items—Item 1, “I would like to be in a director position,” and Item 2, “If I were offered a director position in my section/department, I would likely accept the offer”—were not found to be statistically significantly different for excellent and competent nurse managers ( $p = .64$  and  $p = .46$ , respectively). This finding is interesting, primarily because (1) based on the CNE assessment, aspiration was significantly different for excellent nurse managers on both items compared with the competent nurse managers—with mean scores suggesting greater aspiration for excellent nurse managers ( $p = .007$  and  $p = .001$ , respectively, for Item 1 and Item 2), (2) based on the NDNQI-RN Survey (RN staff) assessment, no statistically significant differences existed between excellent and competent nurse managers, although mean scores suggesting less aspiration were associated with excellent nurse managers, and (3) combining the assessment of both the CNE and NDNQI-RN Survey (RN staff), the

principal investigator found no statistically significant differences in aspiration for excellent and competent nurse managers. From these findings, it would appear that the CNE and NDNQI-RN (Survey) RN staff have different viewpoints regarding aspiration within nurse managers and regarding what aspiration qualities define an excellent nurse manager versus a competent nurse manager. Based on these findings, (1) as assessed by the CNE, excellent nurse managers mean scores, when compared with competent nurse managers mean scores, have scores suggesting greater aspiration, (2) when assessed by the NDNQI-RN Survey (RN staff), excellent nurse managers' mean scores have scores suggesting less aspiration (although not statistically significant) when compared with competent nurse managers' mean scores, and (3) when assessed by both the CNE and NDNQI-RN Survey (RN staff), excellent nurse managers' mean scores and competent nurse managers mean scores are very similar. Aspiration (through application of the two aspiration questions) was not statistically different between excellent nurse managers and competent nurse managers. Based on these findings, the principal investigator has concluded that, as assessed by both the CNE and NDNQI-RN Survey (RN staff), the two aspiration items do not add to the profile of an excellent nurse manager.

**Visibility.** As stated previously in the discussion, although being a visible nurse manager would seem to be important for nurse managers, this research study did not find that visibility—being out on the patient care unit interacting with staff and patients—was statistically different (in hours per week) for excellent and competent nurse managers, as assessed by both the CNE and NDNQI-RN Survey (RN staff). The mean scores for excellent nurse managers and competent nurse managers were not statistically significantly different for both 7:00 a.m. to 7:00 p.m. ( $M = 20.6$ ,  $SD = 17.2$ ) and  $M = 18.1$ ,  $SD = 14.5$ ) and 7:00 p.m. to 7:00 a.m. ( $M = 3.2$ ,  $SD = 3.0$ ) and ( $M = 3.9$ ,  $SD = 4.5$ ) ( $p = .39$  and  $p = .52$ ) respectively. Although the excellent nurse managers' mean score for hours per week was greater by 2.5 hours for 7:00 a.m. to 7:00 p.m. and less by 0.7 hour for 7:00 p.m. to 7:00 a.m. than competent nurse managers, these findings were not statistically significantly different. Greater hours of visibility (7:00 a.m. to 7:00 p.m.) for excellent nurse managers would lead one to state that visibility hours by a nurse manager would appear to be more characteristic of excellent nurse managers than competent nurse

managers; however, the finding was not statistically significant ( $p = .39$ ). For 7:00 p.m. to 7:00 a.m., the difference and range is much smaller and narrow, leading one to state that this finding appears to have less significance ( $p = .52$ ). Excellent nurse managers and competent nurse managers documented a wide range of hours per week, from (1) being left blank to .25 to 60 hours (7:00 a.m. to 7:00 p.m.) for excellent nurse managers to (2) being left blank to 0 to 15 hours (7:00 p.m. to 7:00 a.m.) for competent nurse managers. From analysis of these findings, the principal investigator has concluded that based on the assessment of both the CNE and NDNQI-RN Survey (RN staff), the number of hours per week that nurse managers are out on their unit(s) interacting with staff and patients does not add to the profile of an excellent nurse manager.

**Demographics.** As assessed by both the CNE and NDNQI-RN Survey (RN staff) for excellent and competent nurse managers, the demographics were not statistically significantly different.

### **Limitations and Weaknesses**

The principal investigator has noted the limitations and weaknesses of the research endeavor throughout the various sections of this discussion. But other limitations bear mention as well. One involves the participating hospitals themselves. Magnet-designated hospitals comprised the majority of the participating hospitals in this research, a result of the recruitment method that worked the best in obtaining interested CNEs to participate. Some might consider that this overrepresentation in the sample fails to adequately capture the majority of the hospitals in the United States—and, by extension, the majority of nurse managers in the country. However, the principal investigator argues that based on the studied characteristics of magnet-designated hospitals, this sample of nurse managers would actually represent the “best of the best” hospitals and nurse managers, which would therefore present an ideal pool of excellent and competent nurse managers to study.

Another limitation arises from the parameters that the principal investigator intentionally established for identifying excellent nurse managers (at or above the 75<sup>th</sup> percentile on NDNQI-RN Survey), competent nurse managers (between the 50<sup>th</sup> and 74<sup>th</sup>



percentile on the survey) and in-development nurses (below the 50<sup>th</sup> percentile), as well as the open-ended nature of the criteria for the CNEs to assess and determine excellent nurse managers and competent nurse managers. Although one might speculate that these are limitations and may introduce some interator RN staff and CNE consistency bias, in reality, they served to identify three distinct study populations of excellent and competent nurse managers with statistically significant findings. At the very least, the findings offer a new, previously unexplored benchmark that researchers can further investigate.

As mentioned, the principal investigator's decision to leave the criteria for the CNE assessment open-ended was intentional. As a former CNE, the principal investigator placed different value on various competencies and characteristics of the nurse managers and thus recognized that there was rather wide variability in the criteria that CNEs used to determine what nurse managers were excellent and what nurse managers were competent. Moreover, the literature and other exhaustive searches revealed no reliable and valid tool that effectively identified excellent nurse managers and competent nurse managers. Thus, the principal investigator concluded that the best approach was to enlist each CNE's expertise and assessment skills to identify the excellent nurse managers and the competent nurse managers. The principal investigator acknowledges that this approach to obtaining data introduces some likelihood of lack of interator consistency or reliability among the CNEs and the rating of nurse managers. Nevertheless, it does allow all CNEs to identify who they believe are their excellent and competent nurse managers. Importantly, both qualitative data (CNE) and quantitative data (NDNQI-RN Survey [RN staff]) defined the excellent and competent nurse managers, both independently and then together as defined. Using both tools demonstrated that the CNE assessment produced distinctions between the profiles of excellent and competent nurse managers, as did the combined CNE and NDNQI-RN Survey (RN staff). Although more quantitative, the NDNQI-RN Survey (RN staff) yielded fewer statistically significant differences among excellent, competent and in-development nurse managers.

The on-site coordinators were extremely knowledgeable about and supportive as they engaged their hospital in study participation, and they facilitated the research study

through their hospital IRB: Human Subjects Committee and the nursing leadership structure for completion and return of the instruments/tools. Without the support of the on-site coordinator, it would have been close to impossible to complete the research study; if the principal investigator had worked only with the hospital CNE, the study data collection would have taken much longer. Many CNEs expressed their desire to participate in the research but also cautioned the principal investigator about the time constraints they had because of other priorities and commitments on their calendars (e.g., transitioning to an electronic medical record, recertification of patient specialty programs, joint commission survey, magnet-recertification survey). In retrospect, the principal investigator could have more clearly identified all of the expectations for the on-site coordinator and CNE, then provided a required timeline with milestones that needed to be completed for continued participation in the research study. Most likely this weakness was a residual effect of the principal investigator's intention to conduct the study only in Minnesota (thus negating the need for an onsite coordinator because the principal investigator would have been able to travel to each hospital). That said, the on-site coordinators did exceptionally well in overseeing the study within their hospitals, and they clarified questions that arose with the principal investigator if and when adaptations had to be made that were not addressed or anticipated in the study guidelines. None of these adaptations altered the basic study design but rather accommodated local issues, such as hospitals' wishing to blind names of nurse managers themselves, returning the CNE and/or NDNQI-RN Survey ranking tools under separate confidential mailings, and modifying the principal investigator's letter to the nurse managers to reflect recommendations of individual IRBs regarding consent and ability to decline participation.

Another weakness of the study was that hospitals not participating in the NDNQI-RN Survey and the two subscales did not meet the criterion to participate, and therefore, these hospitals were not represented in the sample of hospitals and nurse managers. This limitation must be given consideration when making conclusions regarding excellent nurse managers and competent nurse managers and when identifying an evidence-based profile of an excellent nurse manager.

## **Strengths**

This study employed three distinct approaches for identifying excellent nurse managers from the perspective of the CNE, the RN staff and then a combination of both the CNE and RN staff. The purpose of using this three-pronged approach was to (1) understand the similarities and/or differences among these groups and (2) help build an understanding of how best to identify nurse managers who would align with the requirements of these groups and subsequently ensure greater retention and success of nurse managers. The principal investigator applied both qualitative and quantitative methods in identifying the groups, based on the literature reviewed and what process/instrument would be most reliable/valid/helpful in identifying excellent nurse managers. The principal investigator determined that use of the NDNQI-RN Survey subscales was a strength, based on the solid internal consistency of reliability for both scales (greater than .80 consistently over 3 to 6 years and most currently across close to 900 hospitals). This served as a marker/indicator for the satisfaction of the RN staff and prevented RN staff from having to complete another assessment tool, which potentially resulted in greater participation of the RN staff in the assessment of the nurse manager than what might have been achieved through a separate method.

The principal investigator has demonstrated that the LPI-Self instrument would be effective and relatively easy to use (it takes less than 10 minutes to complete) in the process of identifying RN staff and nurse managers for the nurse manager position. Through the individual's profiling (LPI-Self) that is completed and scored, the hiring CNE or nursing leader could identify the individual's strengths and/or gaps and then evaluate how the individual aligns with this evidence-based profile of an excellent nurse manager. The results of the evaluation could be used either to identify up front that the individual is a great fit with the profile of an excellent nurse manager or to indicate gaps exist. Based on identifying gaps, the candidate and CNE/nursing leader could devise a plan regarding how to assist and support the individual in narrowing the gaps and aligning with the profile of an excellent nurse manager. There is also the opportunity, it would seem, to have all nurse managers within a hospital complete the LPI-Self and then complete the same process for identifying alignment and/or gaps with the profile of an

excellent nurse manager. Based on the gaps identified either for an individual nurse manager or the majority of the nurse manager team, a development plan could be created and educational opportunities/mentors /coaches provided to narrow the gaps and achieve the profile of an excellent nurse manager. This approach would hopefully result in greater satisfaction and retention of the nurse managers, and ultimately, improve (1) staff recruitment, satisfaction, and retention; (2) patient satisfaction, adverse health events, and complications; and (3) organizational performance. The LPI-Self instrument continued to be a strong and reliable tool within the study for a supporting framework of an evidence-based profile of an excellent nurse manager.

Another strength of this study is the size of the sample of hospitals and nurse managers across the United States. This sample size would appear to be representative of nurse managers and at a minimum provide a foundation for additional research to continue to provide a framework of an evidence-based profile of an excellent nurse manager. Following the data analysis for this study, the principal investigator received data from six additional hospitals (an additional 88 nurse manager ratings and 65 nurse managers). This data could be used in combination with the data of this study to determine whether the findings concur with the current results, or they could be analyzed separately by entering the data into SPSS and the database of Kouzes and Posner.

### **Additional Recommendations for Future Research**

The principal investigator would recommend that a coding system be provided to participating hospitals in order for the names of nurse managers to stay within the hospital and not be provided externally. Confidentiality/anonymity was a concern to a few of the hospitals, and although it was explained that the nurse manager names would be coded by the research assistant and only presented in aggregate, this process could be modified because the names of the nurse managers are not needed. The only necessity is a method to track the same nurse manager on the CNE assessment, the NDNQI-RN Survey and the completed instruments/tools for each nurse manager. The safekeeping of the names of the nurse managers and the coding by the on-site coordinators would need to be addressed with this process.

Additional instructions for the on-site coordinators would also be helpful. As stated previously, as a result of not obtaining an adequate number of CNE participants that met criterion for participating in the NDNQI-RN Survey in 2009, 2010, or 2011, it was necessary to transition the study to a national focus. Planning for this up front would have ensured greater clarity with instructions for the on-site coordinators and CNEs of the hospitals. The principal investigator originally intended to present the study to each of the participating hospitals and collect the required instruments and tools on the same date as presenting the study. The principal investigator would have also been available to answer questions and assist with providing clarification and directions for the completion of the tools by the CNE and the NDNQI-RN Survey coordinator or individual most familiar with the survey. Because the study evolved to national participation, the principal investigator adapted the process tools, which, in hindsight, should have been explained more clearly without requiring the presence of the principal investigator or research assistant. Examples of further modifications include the following: (1) modifying the CNE form to indicate specifically that the assessment was to be based on the CNEs' own individual assessment and the principal investigator would not be offering criteria regarding values/weights/scoring; (2) providing instructions for returning the packets to the principal investigator, which stated that it was necessary to use a U.S. Postal Service office and that coordinators could not place the packets in their home mailbox because of postal regulations; and (3) creating a checklist for the on-site coordinators, which could outline what must go into the packet(s) before they are returned to the principal investigator—which would avoid the receipt of incomplete data that subsequently delayed the hospital from being a participant.

A recommendation for future research is to include a question on the Demographic Form that would ask the nurse managers to identify whether they assess themselves to be a competent or excellent nurse manager. This question could be formatted by using a Likert scale or by simply asking that respondents check a box made for competent or excellent. The investigators of the study could then analyze how the nurse manager's self-assessment aligns with the assessment of the CNE, registered

nurses' satisfaction, and both the CNE and registered nurses' satisfaction, as well as the nurse managers' profiling on the LPI-Self, CAS/aspiration, visibility, and demographics.

## **Summary**

**CAS and Aspiration.** The CAS and the aspiration items were not found to be statistically different for the profile of an excellent nurse manager compared with competent nurse managers, and therefore, the principal investigator recommends that it not be included as part of the process for identifying, recruiting, hiring, developing and retaining excellent nurse managers.

**Visibility.** Visibility, the hours per week that nurse managers are out on their patient care unit(s) interacting with staff and patients, was not found to be a differentiator of excellent and competent nurse managers. Therefore, it is not identified for the profile of an excellent nurse manager. Although greater visibility hours per week were found for excellent nurse managers than competent nurse managers, the differences were not statistically significant and therefore require further study. Further research is recommended regarding visibility of nurse managers, clarifying what comprises visibility, and quantifying more closely the hours within a day and by day of week over a defined period of time to more fully understand visibility of nurse managers and the association with an excellent nurse manager.

**The Five Practices of Exemplary Leadership and Demographics as to the Profile of an Excellent Nurse Manager.** Based on this national sample of nurse managers, use of the Leadership Practices Inventory- Self (LPI-Self) to assess for the Five Practices of Exemplary Leadership would be helpful in identifying excellent nurse managers based on the assessment of both the CNE and RN staff. Given the history of strong validity and internal consistency reliability of the instrument reported over nearly 30 years for hundreds of academic studies (above 0.75 Cronbach alpha coefficient) (Kouzes and Posner, 2002) and in this study (.90 Cronbach alpha coefficient), it is recommended that this instrument with the Five Practices of Exemplary Leadership be used to identify, recruit, select, hire, develop, and retain nurse managers. The Five Practices of Exemplary Leadership were found to have four of the five practices

associated with excellent nurse managers based the assessment of the CNE (with the exception being the practice of Encourage the Heart) and based on the assessment of both the CNE and NDNQI-RN Survey (RN staff) (with the exception being the practice of Inspire a Shared Vision). As a result of these findings, one could support the use for all five practices to be used to identify excellent nurse managers. Scores that are greater when mapped in the Kouzes and Posner database at or greater than the 70<sup>th</sup> percentile are recognized in the high range when compared to thousands of other individuals who have completed the LPI-Self. Having mean scores that result in equal to or greater than the 70<sup>th</sup> percentile would match well with the findings from this study and the research of Kouzes and Posner regarding exemplary leadership—and thus provide an evidence-based profile of an excellent nurse manager.

As stated earlier, as assessed by the CNE and NDNQI-RN Survey (RN staff), excellent nurse managers and competent nurse managers both had mean scores that were in the moderate range percentile ranking for Inspire a Shared Vision when entered and mapped within the Kouzes and Posner database. As discussed previously, this moderate ranking would lead one to ask whether this is a gap for all nurse managers and whether this practice area could benefit from additional education and development. Further exploratory research is recommended as to this finding and recommendation.

Why not identify, recruit, hire, and develop RN staff to be nurse managers earlier in their career? If one can use the Kouzes and Posner LPI-Self to identify individual's scores with the Five Practices of Exemplary Leadership and then target the gaps that exist in the various practices in order to reach the high range for each of the practices, then why not transition RN staff earlier in the nurse manager position? Other industries do not require professionals to stay in entry roles for several years before moving into middle-management positions. A recommendation is made to use the LPI-Self with RN staff and assess where there is interest/aspiration to be a nurse manager and identify the gaps that exist within the practices to the profile of an excellent nurse manager to encourage earlier transitioning of RN staff into the nurse manager role. Additional longitudinal research should then be conducted to evaluate the effectiveness of this strategy. Curriculum could be used to prepare the RN staff regarding the Five Practices of Exemplary Leadership.

Identifying RN staff earlier and providing the support and development for these individuals early in their careers based on the Five Practices of Exemplary Leadership is an approach that would appear to address the need for excellent nurse managers.



## Bibliography

*A New Model for ANCC's Magnet Recognition Program.* (2008). Retrieved January 18, 2011, from American Nurses Credentialing Center Web site:

<http://www.nursecredentialing.org/documents/magnet/newmodelbrochure.aspx>

*AACN Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence.* (2005). Retrieved February 7, 2011, from American Association of Critical Care Nursing Web site:

[www.aacn.org/WD/HWE/docs/HWEstandards.pdf](http://www.aacn.org/WD/HWE/docs/HWEstandards.pdf)

Allen, J., & Dennis, M. (2010). Leadership and accountability. *Nursing Management, 17* (7), 28-29.

*Publication manual of the American Psychological Association* (5<sup>th</sup> ed). (2001).

Washington: American Psychological Association.

Anderson, B. J., Manno, M., O'Connor, P., & Gallagher, E. (2010). Listening to nursing leaders: Using national database of nursing quality indicators data to study excellence in nursing leadership. *Journal of Nursing Administration, 40* (4), 182-187.

Anthony, M. K., Standing, T. S., & Glick, J. (2005). Leadership and nurse retention: The pivotal role of nurse managers. *Journal of Nursing Administration, 35* (3), 146-154.

*AONE Master Presentation.* (2010, February). Retrieved February 7, 2011, from

American Organization of Nurse Executives Web site:

[www.aone.org/aone/about/board.html](http://www.aone.org/aone/about/board.html)

- AONE Nurse Executive Competencies*. (2005, February). Retrieved February 7, 2011, from American Organization of Nurse Executives Web site:  
[www.aone.org/aone/pdf/February%20Nurse@20Leader--final%20draft--for%20web.pdf](http://www.aone.org/aone/pdf/February%20Nurse@20Leader--final%20draft--for%20web.pdf)
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *Leadership Quarterly*, 16 (3), 373-394.
- Bardley-Magnuson, L. (1996, April). *An Examination of Self-Reported Leadership Practices of Identified Nursing Leaders of the Tucson Veterans Affairs Medical Center*. Retrieved February 7, 2011, from The Leadership Challenge Research Web site: [http://media.wiley.com/assets/463/35/bus\\_lc\\_jb\\_magnuson.pdf](http://media.wiley.com/assets/463/35/bus_lc_jb_magnuson.pdf)
- Barkers, G. W. (2006, September). *A Study of the Relationship Between Leadership Practices and Level of Emotional Intelligence Among First-Line and Mid-Level Nurse Leaders*. Retrieved February 7, 2011, from The Leadership Challenge Research Web site:  
[http://media.wiley.com/assets/1504/72/georgia\\_w\\_barkers\\_022908.pdf](http://media.wiley.com/assets/1504/72/georgia_w_barkers_022908.pdf)
- Bass, B. (1998). *Transformational Leadership: Industry, Military, and Educational Impact*. Mahwah, NJ: Lawrence Erlbaum.
- Betz, N. E. & Fitzgerald, L. F. (1987). *The Career Psychology of Women*. Orlando, FL: Academic Press.
- Boyle, D. K., Bott, M. J., Hansen, H. E., Woods, C. Q., & Taunton, R. L. (1999). Manager's leadership and critical care nurses' intent to stay. *American Journal of Critical Care*, 8 (6), 361-371.

- Bryant, C., & Fleenor, J. (2007). *Survey by Center for Creative Leadership reveals the value of "soft" skills*. Retrieved September 25, 2007, from Center for Creative Leadership Web site:  
<http://www.leadershiponlinekkf.org/studies/news/survey.asp>.
- Buerhaus, P. I., Staiger, D. O., & Auerbach, D. I. (2000). Implications of a rapidly aging registered nurse workforce. *Journal of the American Medical Association*, 283 (22), 2948-2954.
- Bunker, K. (2007). *Survey by Center for Creative Leadership reveals the value of "soft" skills*. Retrieved September 25, 2007, from Center for Creative Leadership Web site: <http://www.leadershiponlinekkf.org/studies/news/survey.asp>.
- Cardin, S., & McNeese-Smith, D. (2005). A model for bridging the gap from theory to practice to reality. *Nursing Administration Quarterly*, 29 (2), 154-161.
- Carroll, T. L. (2005). Leadership skills and attributes of women and nurse executives: Challenges of the 21<sup>st</sup> century. *Nursing Administration Quarterly*, 29 (2), 146-153.
- Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Connelly, L. M., Yoder, L. H., & Miner-Williams, D. (2003). A qualitative study of charge nurse competencies. *Medical Surgical Nursing*, 12 (5), 298-305.
- Cunningham, G., & Kitson, A. (2000a). An evaluation of the RCN clinical leadership development programme: Part 1. *Nursing Standard*, 15 (12), 34-37.
- Cunningham, G., & Kitson, A. (2000b). An evaluation of the RCN clinical leadership development programme: Part 2. *Nursing Standard*, 15 (13), 34-40.

- Duffield, C. M., Rouche, M. A., Blay, N., & Stasa, H. (2011). Nursing unit manager, staff retention and the work environment. *Journal of Clinical Nursing, 20* (1-2), 23-33.
- Dunham-Taylor, J. (2000). Nurse executive transformational leadership found in participative organizations. *Journal of Nursing Administration, 30* (5), 241-250.
- Dunham-Taylor, J. & Klafehn, K. (1995a). Identifying the best in nurse executive leadership, Part I: Questionnaire results. *Journal of Nursing Administration, 25* (6), 68-70.
- Dunham-Taylor, J. & Klafehn, K. (1995b). Identifying the best in nurse executive leadership, Part II: Interview results. *Journal of Nursing Administration, 25* (7), 24-31.
- Ekvall, G., & Arvonen, J. (1991). Change centered leadership. An extension of the two dimensional model. *Scandinavian Journal of Management, 7* (1), 17-26.
- Ekvall, G., & Arvonen, J. (1994). Leadership profiles, situation and effectiveness. *Creativity and Innovation Management, 3* (3), 139-161.
- Failla, K. R., & Stichler, J. F. (2008). Manager and staff perceptions of the manager's leadership style. *Journal of Nursing Administration, 38* (11), 480-487.
- Fassinger, R. E. (1990). Causal models of career choice in two samples of college women. *Journal of Vocational Behavior, 36* (2), 225-248.
- Feltner, A., Mitchell, B., Norris, E., & Wolfle, C. (2008). Nurses' views on the characteristics of an effective leader. *American Operating Registered Nurses, 87* (2), 363-372.

- Force, M. V. (2005). The relationship between effective nurse managers and nursing retention. *Journal of Nursing Administration*, 35 (7/8), 336-341.
- George, B. (2003). *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value*. San Francisco, CA: Jossey-Bass.
- Gray, M. P., & O'Brien, K. M. (2007). Advancing the assessment of women's career choices: The Career Aspiration Scale. *Journal of Career Advancement*, 15 (3), 317-337.
- Hagberg, J. (1994). *Real Power: Sages of Personal Power in Organizations*. Salem, WI: Sheffield Publishing Company.
- Hader, R. (2010). Nurse leaders: A closer look. *Nursing Management*, 41 (1), 25-29.
- Hansen, H. (2005, October). *Minnesota Hospital Nurse Leaders Prepared for the Future?* Presented at the Minnesota Organization of Leaders in Nursing Fall Conference, Brainerd, MN.
- Houser, J. (2003). A model for evaluating the context of nursing care delivery. *Journal of Nursing Administration*, 33 (1), 39-47.
- Howell, D. C. (2002). *Statistical methods for psychology* (5<sup>th</sup> ed.). Pacific Grove, CA: Duxbury.
- Huston, C. (2008). Preparing nurse leaders for 2020. *Journal of Nursing Management*, 16 (8), 905-911.

Isidore, C. (March 23, 2010). *Take this job and tolerate it*. Retrieved October 31, 2011 from CNNMoney.com:

[http://money.cnn.com/2010/03/23/news/economy/trapped\\_in\\_a\\_job/index.htm](http://money.cnn.com/2010/03/23/news/economy/trapped_in_a_job/index.htm)

Jennings, B. M., Scalzi, C. C., Rodgers, J. D., & Keane, A. (2007). Differentiating nursing leadership and management competencies. *Nursing Outlook*, 55 (4), 169-175.e4.

Kleinman, C. S. (2003). Leadership roles, competencies, and education. *Journal of Nursing Administration*, 33 (9), 451-455.

Kouzes, J. M. (2001). Introduction. In J. Kouzes, *Business Leadership*. San Francisco, California: Jossey-Bass.

Kouzes, J. M. & Posner, B. Z. (1987). *The Leadership Challenge*. San Francisco, CA: Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (1995). *The Leadership Challenge (2<sup>nd</sup> ed.)*. San Francisco, CA: Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (2002). *The Leadership Challenge (3<sup>rd</sup> ed.)*. San Francisco, CA: Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (2003a). *Five Practices of Exemplary Leadership*. San Francisco, CA: Pfeiffer.

Kouzes, J. M., & Posner, B. Z. (2003b). *Leadership Practices Inventory (3<sup>rd</sup> ed.)*. San Francisco, CA: Pfeiffer.

Krejci, J. W., & Malin, S. (1997). Impact of leadership development on competencies. *Nursing Economics*, 15 (3), 235-241.

- Krozek, C., & Scoggins, A. (2000). In C. Krozek, & A. Scoggins, *Cinahl Information Systems* (pp. 1-8). Glendale, California.
- Larrabee, J. H., Janney, M. A., Ostrow, C. L., Wilthrow, M. L., Hobbs, G. R., & Burant, C. (2003). Predicting registered nurse job satisfaction and intent to leave. *Journal of Nursing Administration*, 33 (5), 271-283.
- Manion, J. (2004). Nurture a culture of retention. *Nursing Management*, 35 (4), 28-39.
- McClure, M. I., Poulin, M. A., Sovie, M. D., & Wandelt, M. A. (Eds.). (1983). *Magnet Hospitals. Attraction and Retention of Professional Nurses*. Kansas City,MO: American Academy of Nursing; No. 160.
- McNeese-Smith, D. K. (1991, May). *The Impact of Leadership Behaviors Upon Job Satisfaction, Productivity, and Organizational Commitment of Followers*. Retrieved February 7, 2011 from The Leadership Challenge Research Web site: [http://media.wiley.com/assets/463/29/bus\\_lc\\_jb\\_mcneese\\_smith.pdf](http://media.wiley.com/assets/463/29/bus_lc_jb_mcneese_smith.pdf)
- McNeese-Smith, D. K. (1995). Job satisfaction, productivity, and organizational commitment: The result of leadership. *Journal of Nursing Administration*, 25 (9), 17-26.
- McNeese-Smith, D. K. (1999). The relationship between managerial motivation, leadership, nurse outcomes and patient satisfaction. *Journal of Organizational Behavior*, 20 (2), 243-259.
- McNeese-Smith, D. K., Yan, H., & Yang, Y. H. (2000). The influence of managers' use of leadership behaviors on staff nurses in China and the United States. *The Hong Kong Nursing Journal*, 36 (3), 7-17.

*Minnesota Organization of Leaders in Nursing*. (n.d.). Retrieved November 19, 2011.  
from [www.moln.org](http://www.moln.org).

Morrison, R. S., Jones, L., & Fuller, B. (1997). The relationship between leadership style and empowerment on job satisfaction of nurses. *Journal of Nursing Administration, 27* (5), 27-34.

*National Database for Nursing Quality Indicators (NDNQI) RN Survey*. (n.d.). Retrieved January 11, 2011 from [www.nursingquality.org](http://www.nursingquality.org).

Nauta, M. M., Epperson, D. L., & Kahn, J. H. (1998). A multiple-groups analysis of predictors of higher level career aspirations among women in mathematics, science and engineering majors. *Journal of Counseling Psychology, 40* (4), 483-496.

Neill, M. W., & Saunders, N. S. (2008). Servant leadership: Enhancing quality of care and staff satisfaction. *Journal of Nursing Administration, 38* (9), 395-400.

O'Brien, K. M. (1996). The influence of psychological separation and parental attachment on the career development of adolescent women. *Journal of Vocational Behavior, 48*, 257-274.

O'Brien, K. M. & Fassinger, R. E. (1993). A causal model of the career orientation and career choice of adolescent women. *Journal of Counseling Psychology, 40* (4), 456-469.

Pallant, J. (2010). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS* (4<sup>th</sup> ed.). New York, NY: McGraw Hill.



- Polit, D., & Beck, C. (2004). *Nursing Research: Principles and Methods* (7<sup>th</sup> ed.). Philadelphia, PA: Williams & Wilkins.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59* (5), 603-609.
- Rainey, L. M., & Borders, L. D. (1997). Influential factors in career orientation and career aspiration of early adolescent girls. *Journal of Counseling Psychology, 44* (2), 160-172.
- Raup, G. H. (2008). The impact of ED nurse manager leadership style on staff nurse satisfaction in academic health center hospitals. *Journal of Emergency Nursing, 34* (5), 403-409.
- Reid, P. T., & Stephens, D. S. (1985). The roots of the future occupations in childhood: A review of the literature on girls and careers. *Youth and Society, 16* (3), 267-288.
- Ribelin, P. J. (2003). Retention reflects leadership style. *Nursing Management, 34* (8), 18-19.
- Rogers, L. G. (2005). Why trust matters: The nurse manager-staff nurse relationship. *Journal of Nursing Administration, 35* (10), 421-423.
- Rubin, M. S., & Stone, R. K. (2010). Adapting the “managing by walking around” methodology as a leadership strategy to communicate a hospital-wide strategic plan. *Journal of Public Health Management and Practice, 16* (2), 162- 166.
- Sellgren, S., Ekvall, G., & Tomson, G. (2006). Leadership styles in nursing management: Preferred and perceived. *Journal of Nursing Management, 14* (5), 348-355.

- Sellgren, S. F., Ekvall, G., & Tomson, G. (2008). Leadership behavior of nurse managers in relation to job satisfaction and work climate. *Journal of Nursing Management*, *16*, 578-587.
- Sherman, R. D., Bishop, M., Eggenberger, T., & Karden, R. (2007). Development of a leadership competency model. *Journal of Nursing Administration*, *37* (2), 85-94.
- Shirey, M. R. (2006). Authentic leaders creating healthy work environments for nursing practice. *American Journal of Critical Care*, *15* (3), 256-267.
- Shirey, M. R. (2007). Competencies and tips for effective leadership: From novice to expert. *Journal of Nursing Administration*, *37* (4), 167-170.
- Skytt, B., Carlsson, M., Ljunggren, B., & Engstrom, M. (2008a). Psychometric testing of the Leadership and Management Inventory: A tool to measure the skills and abilities of first-line nurse managers. *Journal of Nursing Management*, *16* (7), 784-794.
- Skytt, B., Ljunggren, B., Sjöden, P. O., & Carlsson, M. (2008b). The roles of the first-line nurse manager: Perceptions from four perspectives. *Journal of Nursing Management*, *16*, 1012-1020.
- Smith, P., Ironson, G. H., Brannick, M. T., Gibson, W., & Paul, K. (1989). Construction of a job in general scale: A comparison of global, composite and specific measures. *Journal of Applied Psychology*, *74* (2), 1-8.
- Stahl, M. J. (1986). *Power Motivation*. New York: Praeger.

- Taunton, R. L., Boyle, D. K., Woods, C. Q., Hansen, H. E., & Bott, M. J. (1997). Manager leadership and retention of hospital staff nurses. *Western Journal of Nursing Research, 19* (2), 205-226.
- Taylor, C. D. (1996, June). *An investigation of the relationships between perceived leadership behaviors and staff nurse job satisfaction, and organizational commitment*. Retrieved February 7, 2011, from The Leadership Challenge Research Web site: [http://media.wiley.com/assets/461/67/bus\\_lc\\_jb\\_taylor2.pdf](http://media.wiley.com/assets/461/67/bus_lc_jb_taylor2.pdf)
- The Registered Nurse Population: Findings from the 2010 National Sample Survey of Registered Nurses*. (2010, September). Retrieved January 19, 2011, from Minnesota Hospital Association Web site: <http://www.mnhospitals.org/index/workforce1>.
- Tourangeau, A. E., Lemonde, M., Luba, M., Dakers, D., & Alksnis, C. (2003). Evaluation of a leadership development intervention. *Nursing Leadership, 16* (3), 91-104.
- Tracy, J. B., & Hinkin, T. R. (1998). Transformational leadership or effective management. *Group and Organization Management, 23* (3), 220-236.
- Trofino, J. (2003). Power sharing: A transformational strategy for nurse retention, effectiveness, and extra effort. *Nursing Leadership Forum, 8* (2), 64-71.
- Upenieks, V. (2002). What constitutes successful nurse leadership? A qualitative approach utilizing Kanter's theory of organizational behavior. *Journal of Nursing Administration, 32* (12), 624-632.
- Upenieks, V. (2003a). Nurse leaders' perceptions of what compromises successful leadership in today's acute inpatient environment. *Nursing Administration Quarterly, 27* (2), 140-152.

- Upenieks, V. (2003b). What constitutes effective leadership? Perceptions of magnet and non-magnet nurse leaders. *Journal of Nursing Administration*, 33 (9), 456-467.
- U.S. Department of Health and Human Services. (2010, September 24). *Health Workforce Studies*. Retrieved January 19, 2011, from <http://bhpr.hrsa.gov/healthworkforce/>
- U.S. Department of Health and Human Services. *The Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses*. Retrieved January 19, 2011, from <http://bhpr.hrsa.gov/healthworkforce/>.
- U.S. Department of Health and Human Services Health Resources and Services Administration. *National Sample Survey of Registered Nurses—Downloadable data*. Retrieved November 6, 2011 from <http://datawarehouse.hrsa.gov/nursingsurvey.aspx>.
- Vecchio, R. P., & Applebaum, S. H. (1995). *Managing Organizational Behavior: A Canadian Perspective*. Toronto, Canada: Harcourt Brace.
- Viejo, A., Boyle, D. J., Bott, M. J., Hansen, H. E., Woods, C. Q., & Taunton, R. L. (1999). Manager's leadership and critical care nurses: Intent to stay. *American Journal of Critical Care*, 8 (6), 361-372.
- Vitello-Cicciu, J. M. (2003). Innovative leadership through emotional intelligence. *Nursing Management*, 34 (10), 28-32.
- Walker, J. (2001). Developing a shared leadership model at the unit level. *Journal of Perinatal and Neonatal Nursing*, 15 (1), 26-39.

- Weberg, D. (2010). Transformational leadership and staff retention: An evidence review with implications for healthcare systems. *Nursing Administration Quarterly*, 34 (3), 246-258.
- Wendler, M. C., Olson-Sitki, K., & Prater, M. (2009). Succession planning for RNs: Implementing a nurse management internship. *Journal of Nursing Administration*, 39 (7/8), 326-333.
- Williams, R., & Reid, J. (2009). Patient safety: Leading improvement. *Nursing Management*, 16 (1), 30-34.
- Wolf, M. S. (1996). Changes in leadership styles as a function of a four-day leadership training institute for nurse managers: A perspective on continuing program evaluation. *Journal of Continuing Education in Nursing*, 27 (6), 245-252.
- Wong, C. A., & Cummings, G. G. (2007). The relationship between nursing leadership and patient outcomes: A systematic review. *Journal of Nursing Management*, 15 (5), 508-521.
- Yukl, G. E. (1990). *Compass: The Managerial Practices Survey*. New York, NY: Manus Associates.

### **Definition of Terms**

The following definitions are proposed regarding the study of a profile based on evidence of an excellent nurse manager:

**Aspiration:** An ambition or desire to achieve something/a goal/an outcome

**Attribute:** A quality or characteristic that is ascribed to an individual (Carroll, 2005, p. 147).

**Career Aspiration:** The degree to which women aspire to leadership positions and continued education within their careers (as defined by O'Brien in 1996)

**Competent:** A level of satisfactory; good, adequate

**Excellent:** A level that is better/greater than competent or good; exceptionally good, outstanding.

**In Development:** A level that is less than satisfactory; fair

**Leadership:** (1) An identifiable set of skills and practices that are available to all of us, not just a few charismatic men and women; a relationship between those who aspire to lead and those who chose to follow (Kouzes & Posner, 2002, p. 20); (2) The process through which an individual attempts to intentionally influence another individual or a group to accomplish a goal (Wong & Cummings, 2007, referencing Shortell & Kaluzny, 2000, p. 109).

**Nurse Manager:** An individual who is a first-line manager or supervisor of a specific patient care area/areas; conducts the hiring and performance improvement with the registered nurses of a patient care area/unit, including the ED/EC and all inpatient areas. Note: Nurse managers are the individuals which the registered nurses assessed in

the management section of the NDNQI-RN Survey. They are not the individuals to whom the nurse managers report, which in some hospitals are called directors. Nurse managers also do not have only a shift responsibility and thus are not the charge nurses. For this research study, nurse managers do not include the nurse managers for outpatient and /or ambulatory areas, homecare, outpatient hospice, or supportive departments.

**Skill:** The ability that comes from knowledge, practice, and aptitude to do something well (Carroll, 2005 p. 147).

**Transformational:** Process that results in substantive/marked changes

**Transformational Leadership:** A type of leadership in which the behaviors of an individual with a vision inspires others to act to co-create the vision

**Visibility:** Being out on the unit interacting with staff and patients

## Leadership Practices Inventory: Self Instrument (LPI-Self)

# LPI<sup>i</sup>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.



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

## Appendix C

### Career Aspiration Scale

*Karen M. O'Brien, PhD*

In the space next to the statements below, please circle a number from “0” (*not at all true of me*) to “4” (*very true of me*). If the statement does not apply, circle “0”. Please be completely honest. Your answers are confidential and will be useful only if they accurately describe you.

Not at All True of me of me	Slightly True of me	Moderately True of me	Quite a Bit True of me	Very True		
0	1	2	3	4		
1. I hope to become a leader in my field.		0	1	2	3	4
2. When I am established in my career, I would like to manage other employees.		0	1	2	3	4
3. I do not plan to devote energy to getting promoted in the organization or business I am working in.		0	1	2	3	4
4. When I am established in my career, I would like to train others.		0	1	2	3	4
5. I hope to move up through any organization or business I work in.		0	1	2	3	4
6. Once I finish the basic level of education needed for a particular job, I see no need to continue in school.		0	1	2	3	4
7. I think I would like to pursue graduate training in my occupational area of interest.		0	1	2	3	4
8. Attaining leadership status in my career is not that important to me.		0	1	2	3	4

*Researchers and counselors may replicate and use this scale without permission for research and counseling purposes. Use of the CAS for financial gain is prohibited without obtaining permission from the author.*

#### **Aspiration**

Using the same scale, please respond to these additional two statements:

1. I would like to be in a director position.	0	1	2	3	4
2. If I were offered the director position in my section/department, I would likely accept the offer.	0	1	2	3	4

**Demographic Form**

Unit: \_\_\_\_\_

Name: \_\_\_\_\_

**Demographics**

Gender: \_\_\_\_\_ Male \_\_\_\_\_ Female

Age: \_\_\_\_\_ years

Experience in career as a staff registered nurse: \_\_\_\_\_ years

Experience in career as a nurse manager: \_\_\_\_\_ years

Work experience within current organization: \_\_\_\_\_ years

Work experience within current organization in this nurse manager position: \_\_\_\_\_ years

Education:

\_\_\_\_\_ Diploma

\_\_\_\_\_ Associate

\_\_\_\_\_ Bachelors

\_\_\_\_\_ Nursing

\_\_\_\_\_ Other

\_\_\_\_\_ Masters

\_\_\_\_\_ Nursing

\_\_\_\_\_ Business

\_\_\_\_\_ Healthcare Administration

\_\_\_\_\_ Other

Are you currently enrolled in a formal education program? \_\_\_\_\_ No \_\_\_\_\_ Yes

Type of degree anticipated \_\_\_\_\_

On average, how many hours per week are you out on your unit interacting with staff and patients?

7:00 a.m. – 7:00 p.m. \_\_\_\_\_ hours

7:00 p.m. – 7:00 a.m. \_\_\_\_\_ hours

**Key Characteristics Identified for Effective Nurse Leaders**

<b>Nurse Managers</b>				
<b>Sample Group</b>	<b>Method/Tool</b>	<b>Role</b>	<b>Characteristics</b>	<b>Authors</b>
Nurse managers (5) <input type="checkbox"/> NDNQI score above mean for nursing leadership component	Index card Focus group	Nurse manager	Visibility Communication Values of respect and empathy	Anderson, Manno, O'Connor, & Gallagher (2010)
Nurse managers (17)	Leadership Practices Inventory-Self	Nurse manager	Five practices: <input type="checkbox"/> Enabling <input type="checkbox"/> Encouraging <input type="checkbox"/> Challenging <input type="checkbox"/> Inspiring <input type="checkbox"/> Modeling	Bardley-Magnuson (1996)
First-line nursing managers (27) Mid-level nursing managers (46)	Leadership Practices Inventory Emotional Intelligence	First-line and mid-level nursing managers	Five practices: <input type="checkbox"/> Enabling <input type="checkbox"/> Encouraging <input type="checkbox"/> Challenging <input type="checkbox"/> Inspiring <input type="checkbox"/> Modeling	Barkers (2006)
Nursing staff (2,488)	Nursing Work Index-Revised (NWI-R); leadership domain	Nurse manager	<input type="checkbox"/> Visible <input type="checkbox"/> Consulted with staff <input type="checkbox"/> Provided praise and recognition <input type="checkbox"/> Accommodated flexible work schedules	Duffield (2011)

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nurse managers (14) Nursing staff (76)	<p>Multifactor Leadership Questionnaire</p> <p><input type="checkbox"/> Leadership style; transformational/transactional/non-transactional</p> <p>Stamps Index of Work Satisfaction</p> <p>Questionnaire-Part B</p> <p><input type="checkbox"/> Job satisfaction</p>	Nurse manager	<p>Transformational leadership</p> <p><input type="checkbox"/> Impact with staff nurses' job satisfaction</p>	Failla & Stichler (2008)
Nurses (36)	<p>Transcripts from focus groups</p> <p><input type="checkbox"/> Behavioral factors influence on nursing staff</p>	Nursing leader	<p>Leadership style:</p> <p><input type="checkbox"/> Approachability</p> <p><input type="checkbox"/> Availability</p> <p><input type="checkbox"/> Role modeling</p> <p><input type="checkbox"/> Inspirational behaviors</p> <p>Behaviors:</p> <p><input type="checkbox"/> Communication skills</p> <p><input type="checkbox"/> Offering of encouragement</p> <p><input type="checkbox"/> Defining of expectations</p> <p><input type="checkbox"/> Problem solving</p>	Houser (2003)
Nurse managers (55) Staff nurses (165)	<p>Leadership Practices Inventory</p> <p><input type="checkbox"/> Leadership</p>	Nurse manager	<p>Leadership Practices Inventory</p> <p><input type="checkbox"/> Encouraging</p> <p><input type="checkbox"/> Inspiring</p> <p><input type="checkbox"/> Modeling</p> <p><input type="checkbox"/> Challenging</p>	

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nurse executives (93)	Survey questionnaire (22 items)	Nurse manager	Competencies, top (3): <input type="checkbox"/> Staffing and scheduling <input type="checkbox"/> Management <input type="checkbox"/> Human resources Education: <input type="checkbox"/> Graduate degree	Kleinman (2003)
Nurse managers (35)	<input type="checkbox"/> Competencies <input type="checkbox"/> Educational requirements			
Registered nurses (90)	Multifactor Leadership Questionnaire (MLQ-5X-Short) <input type="checkbox"/> Leadership style; transformational/transaccional/non-transaccional	Nurse manager	Empowerment	Larrabee, Janney, Ostrow, Withrow, Hobbs, & Burant (2003)
Nurse managers (26) Employees Nurse managers' direct supervisors	Interview Focus groups	Nurse manager	Major themes that create culture of retention (5): <input type="checkbox"/> Put the staff first <input type="checkbox"/> Forge authentic connections <input type="checkbox"/> Coach for—and expect—competence <input type="checkbox"/> Focus on results <input type="checkbox"/> Partner with staff	Manion (2004)
Nurse managers (41) Staff (471)	LPI-Self and Other Organizational Commitment Scale Job-in-General Satisfaction Scale Productivity Scale (15 items)	Nurse manager	<input type="checkbox"/> Enabling (highest) <input type="checkbox"/> Inspiring (lowest)	McNeese-Smith (1991)

Nurse Managers					
Sample Group	Method/Tool	Role	Characteristics	Authors	
Nurse managers (19) Registered nurses (221) Patients (299)	Ex-post facto/correlational study; motivation for power, achievement, and affiliation; managerial leadership behaviors (Leadership Practices Inventory-Self and Other); staff nurse outcomes of job satisfaction; productivity; organizational commitment; and patient satisfaction	Nurse manager	Motivation for power and achievement influence staff and patient outcomes	McNeese-Smith (1999)	
Studies (3) of nurse managers and registered nurses: Seattle (512) Los Angeles (240) Shanghai China (340)	Ex-post factor/correlational studies; impact of leadership behaviors (Leadership Practices Inventory-Self and Other) on employee job satisfaction, productivity and organizational commitment	Nurse manager	Practices of Exemplary Leadership: <input type="checkbox"/> Enabling others to act <input type="checkbox"/> Modeling the way Positive relationships between leadership behaviors and employee outcomes	McNeese-Smith, Yan, & Yang (2000)	
Nurse managers (15) Emergency Department	Multifactor Leadership Questionnaire ED Nurse Manager Role and Practice Demographics Survey (10 items)	Nurse manager	Transformational and nontransformational on staff turnover	Raup (2008)	

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
Staff nurses (1,436)	Survey <input type="checkbox"/> Thrust/aloofness	Nurse manager	<input type="checkbox"/> Direct communication <input type="checkbox"/> Positive behaviors <input type="checkbox"/> Not "aloof" (follows the book)	Ribelin (2003)
Nurse managers (77) Subordinates (770)	Questionnaire <input type="checkbox"/> Change, production and employee model ; perceived and preferred leadership style	Nurse manager	Clearer leadership style; pointing in a particular direction and leading the way	Sellgren, Ekvall, & Tomson (2006)
Nurse managers (77) Subordinates (770)	Questionnaires (3) <input type="checkbox"/> Change, production and employee model <input type="checkbox"/> Perceived leadership style, job satisfaction questionnaire <input type="checkbox"/> Creative Climate Questionnaire	Nurse manager	"Super" leader: <input type="checkbox"/> Cares about people in the organization <input type="checkbox"/> Considers productivity <input type="checkbox"/> Knows how to handle change	Sellgren, Ekvall, & Tomson (2008)
Nurse managers (120)	Interview <input type="checkbox"/> Questions (26)	Nurse manager	Competency categories (6): <input type="checkbox"/> Personal mastery <input type="checkbox"/> Interpersonal effectiveness <input type="checkbox"/> Financial management <input type="checkbox"/> Human resources management <input type="checkbox"/> Caring <input type="checkbox"/> Systems thinking	Sherman, Bishop, Eggenberger, & Karden (2007)
Literature <input type="checkbox"/> Authentic leadership <input type="checkbox"/> Healthy work environment	Literature review	Nurse manager	Authentic leadership, key (5): <input type="checkbox"/> Understand their own purpose <input type="checkbox"/> Practice solid values <input type="checkbox"/> Lead with the heart <input type="checkbox"/> Establish enduring relationships <input type="checkbox"/> Practice self-discipline	Shirey (2006)



Nurse Managers					
Sample Group	Method/Tool	Role	Characteristics	Authors	
Registered nurse (5) Assistant nurse (5) First-line nurse manager (5) Head of department (1)	Interviews	First-line nurse manager	Adapted from George (2003) Day to day operations <input type="checkbox"/> Personnel <input type="checkbox"/> Care of patients <input type="checkbox"/> Vision	Skytt, Ljunggren, Sjöden, and Carlsson (2008)	
Staff nurses (80)	Leadership Practices Inventory-Other Minnesota Satisfaction Questionnaire Organizational Commitment Questionnaire	Nurse manager	Five Practices of Exemplary Leadership to job satisfaction and organizational commitment	Taylor (1996)	

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nurse leaders (16) <input type="checkbox"/> Executives (4) <input type="checkbox"/> Directors/ managers (12)	<input type="checkbox"/> Interviews <input type="checkbox"/> Core set of questions and structured loosely	Nurse manager/ director  Non-magnet manager/ director  Magnet manager/ director	Predominant traits: <input type="checkbox"/> Supportive <input type="checkbox"/> Provide nurses with challenges <input type="checkbox"/> Ensure nurses have the resources to accomplish their work (supplies, additional nurse, new equipment, support services) and ongoing opportunities for development (continuing education, clinical ladders and recognition)  <input type="checkbox"/> Adequate staffing for staff  <input type="checkbox"/> Educational opportunities for staff <input type="checkbox"/> Support an autonomous climate	Upenieks (2003)
Nurse managers (50)	Mayer, Salovey and Caruso Intelligence Test (MSCEIT) <input type="checkbox"/> Emotional intelligence	Nurse manager	Emotional intelligence: <input type="checkbox"/> Empathetic to staff <input type="checkbox"/> Enhance individual and group relationships <input type="checkbox"/> Recognize individual contributions of each team member	Vitello-Ciccio (2003)

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nurse management interns	Internship	Nurse manager	<input type="checkbox"/> Feeling of support and nurturing <input type="checkbox"/> Balance how staff performance issues are handled, and rewarding and understanding staff <input type="checkbox"/> Effective interpersonal communication	Wendler, Olson-Sitki, & Prater (2009)
Authors	Opinion	Ward manager	<input type="checkbox"/> Abilities and skills to manage with competence and compassion <input type="checkbox"/> Assertive and confident in leading their team <input type="checkbox"/> Regular ward rounds	Allen & Dennis (2010)
Staff members Management	Interviews Process observation Review of policies & procedures	Unit manager/director	Department systems (13): <input type="checkbox"/> Confidentiality <input type="checkbox"/> Department response to fires <input type="checkbox"/> Disaster preparedness systems <input type="checkbox"/> Equipment maintenance <input type="checkbox"/> Fall prevention <input type="checkbox"/> Federal, state and local laws & regulations <input type="checkbox"/> Handling of chemical or bio-hazardous spills <input type="checkbox"/> Handling utilities failures <input type="checkbox"/> Infection control <input type="checkbox"/> Job-specific orientation <input type="checkbox"/> Patient's rights <input type="checkbox"/> Performance improvement (QA/PI) <input type="checkbox"/> Security	Krozek & Scoggins (2000)
			Management functions (17): <input type="checkbox"/> Budget—capital & operating	

Nurse Managers				
Sample Group	Method/Tool	Role	Characteristics	Authors
			<input type="checkbox"/> Competency indicators <input type="checkbox"/> Conflict resolution <input type="checkbox"/> Contract/registry personnel's competency <input type="checkbox"/> Counseling employees <input type="checkbox"/> Criteria-based performance standards <input type="checkbox"/> Delegation <input type="checkbox"/> Department communication <input type="checkbox"/> Hiring staff <input type="checkbox"/> Interviewing job applicants <input type="checkbox"/> Job descriptions <input type="checkbox"/> Job-specific orientation <input type="checkbox"/> Organization and department policy & procedure manual <input type="checkbox"/> Performance appraisal—90 day evaluation <input type="checkbox"/> Performance appraisal—annual <input type="checkbox"/> Performance appraisal—annual competency assessment <input type="checkbox"/> Staffing	
Nurse Leaders				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nursing leaders	<input type="checkbox"/> AACN <input type="checkbox"/> Standards for establishing and sustaining healthy work environments	Nurse leader	Authentic leadership	AACN (2005)
Nursing leaders—magnet	Analysis of magnet scores from evaluations	Nursing leaders across leadership roles	Transformational: <input type="checkbox"/> Vision <input type="checkbox"/> Influence	ANCC Magnet; The 5 Model Components

Nurse Leaders				
Sample Group	Method/Tool	Role	Characteristics	Authors
Registered nurses (40)	Interview Survey tool <input type="checkbox"/> Characteristics of effective leader (15)	Nursing leaders across leadership roles	<input type="checkbox"/> Clinical knowledge <input type="checkbox"/> Strong expertise related to clinical practice <input type="checkbox"/> Communicate <input type="checkbox"/> Listen <input type="checkbox"/> Challenge <input type="checkbox"/> Affirm  Top Ten: <input type="checkbox"/> Communication <input type="checkbox"/> Fairness <input type="checkbox"/> Job knowledge <input type="checkbox"/> Role model <input type="checkbox"/> Dependable <input type="checkbox"/> Participative partnership <input type="checkbox"/> Confidence <input type="checkbox"/> Positive attitude <input type="checkbox"/> Motivating <input type="checkbox"/> Delegation	Felmer, Mitchell, Norris, & Wolfe (2008)
Nursing leaders (1,523)	Survey	Nursing leader across leadership roles	<input type="checkbox"/> High potential for assuming more responsibility <input type="checkbox"/> Correct candidate	Hader (2010)

<b>Nurse Leaders</b>				
<b>Sample Group</b>	<b>Method/Tool</b>	<b>Role</b>	<b>Characteristics</b>	<b>Authors</b>
Author	Opinion	Nurse leader	<b>Competencies (8):</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> A global perspective or mindset regarding healthcare and professional nursing issues</li> <li><input type="checkbox"/> Technology skills that facilitate mobility and portability of relationships, interactions and operational processes</li> <li><input type="checkbox"/> The ability to create organization cultures that permeate quality healthcare and patient/worker safety</li> <li><input type="checkbox"/> Understanding and appropriately intervening in political processes</li> <li><input type="checkbox"/> Highly developed collaborative and team-building skills</li> <li><input type="checkbox"/> The ability to balance authenticity and performance expectations</li> <li><input type="checkbox"/> Being able to envision and proactively adapt to a healthcare system characterized by rapid change and chaos</li> </ul>	Huston (2008)

Nurse Leaders					
Sample Group	Method/Tool	Role	Characteristics	Authors	
Management, leadership and administration	Literature review <input type="checkbox"/> 2000-2004 <input type="checkbox"/> (140) articles included	Leaders across leadership roles	<input type="checkbox"/> Ten Leadership Competencies <input type="checkbox"/> Personal qualities <input type="checkbox"/> Interpersonal skills <input type="checkbox"/> Thinking skills <input type="checkbox"/> Setting the vision <input type="checkbox"/> Communication <input type="checkbox"/> Ten Management Competencies <input type="checkbox"/> Interpersonal skills <input type="checkbox"/> Personal qualities <input type="checkbox"/> Thinking skills <input type="checkbox"/> Management skills <input type="checkbox"/> Communicating <input type="checkbox"/> Two Knowledge Domains <input type="checkbox"/> Individual skills (interpersonal, thinking) <input type="checkbox"/> Organizational skills (management, business)	Jennings, Scalzi, Rodgers, & Keane (2007)	
Nurse leaders (16) <input type="checkbox"/> Executives (4) <input type="checkbox"/> Directors/ Managers (12)	Interviews <input type="checkbox"/> Core set of questions and structured loosely	Leader across leadership roles	<input type="checkbox"/> Visible <input type="checkbox"/> Approachable <input type="checkbox"/> Accessible <input type="checkbox"/> Flexible <input type="checkbox"/> Supportive <input type="checkbox"/> Responsive <input type="checkbox"/> Fair	Upenieks (2002, 2003)	
Nursing leaders	Literature review <input type="checkbox"/> (7) articles included	Transformational leadership and staff satisfaction and burnout	Transformational leadership and staff satisfaction, staff well-being and decrease burnout	Weberg (2010)	

<b>Nurse Leaders</b>				
<b>Sample Group</b>	<b>Method/Tool</b>	<b>Role</b>	<b>Characteristics</b>	<b>Authors</b>
Nursing leaders	Literature review <input type="checkbox"/> 1985-2005 <input type="checkbox"/> (7) studies included	Nursing leaders and patient outcomes	Nursing leadership and patient outcomes: <input type="checkbox"/> Satisfaction <input type="checkbox"/> Mortality <input type="checkbox"/> Adverse events <input type="checkbox"/> Complications	Wong & Cummings (2007)
<b>Nurse Executives</b>				
<b>Sample Group</b>	<b>Method/Tool</b>	<b>Role</b>	<b>Characteristics</b>	<b>Authors</b>
Women leaders (130) Nurse executives (7)	Modified 2-round Delphi method <input type="checkbox"/> Survey (63) skills and attributes for women leaders to succeed	Nurse executive Woman leader	Six factors identified: <input type="checkbox"/> Personal integrity <input type="checkbox"/> Strategic vision/action orientation <input type="checkbox"/> Team building/communication skills <input type="checkbox"/> Management and technical competencies <input type="checkbox"/> People skills <input type="checkbox"/> Personal survival skills/attributes	Carroll (2005)



Nurse Executives				
Sample Group	Method/Tool	Role	Characteristics	Authors
Nurse executives	Observation and reflection	Nurse executive	<p>Top ten tips (10):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify one's core values</li> <li><input type="checkbox"/> Create a vision and engage others in the vision</li> <li><input type="checkbox"/> Build alliances and channels of collaboration</li> <li><input type="checkbox"/> Be a change agent and advocate for innovation</li> <li><input type="checkbox"/> Build community and create joy in the workplace</li> <li><input type="checkbox"/> Invest in the growth and development of people</li> <li><input type="checkbox"/> Lead with passion, determination, sense of discovery and commitment to self-discipline</li> <li><input type="checkbox"/> Hire the right people</li> <li><input type="checkbox"/> Share power and decision-making</li> <li><input type="checkbox"/> Ensure accountability and results as a covenant of good stewardship</li> </ul>	Shirey (2007)
<p>Nurse leaders (16)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Executives (4)</li> <li><input type="checkbox"/> Directors/managers (12)</li> </ul>	<p>Interviews</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Core set of questions and structured loosely</li> </ul>	Nurse executive	<p>Principle traits:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Being globally-based</li> <li><input type="checkbox"/> Passionate about nursing and able to articulate passion</li> <li><input type="checkbox"/> Strong values; fair, honest, influential, credible</li> </ul>	Upenieks (2002, 2003)

Charge Nurses				
Sample Group	Method/Tool	Role	Characteristics	Authors
All levels of management nurses (42)	<input type="checkbox"/> Interview <input type="checkbox"/> Competencies	Charge nurse	Categories (4): <input type="checkbox"/> Clinical/technical <input type="checkbox"/> Critical thinking <input type="checkbox"/> Organizational <input type="checkbox"/> Human relations skills  Traits (15): <input type="checkbox"/> Accountability <input type="checkbox"/> Assertiveness <input type="checkbox"/> Positive attitude <input type="checkbox"/> Authority <input type="checkbox"/> Confidence <input type="checkbox"/> Need to control <input type="checkbox"/> Fairness <input type="checkbox"/> Flexibility <input type="checkbox"/> Humor <input type="checkbox"/> Image <input type="checkbox"/> Initiative <input type="checkbox"/> Maturity <input type="checkbox"/> Ability to learn from mistakes <input type="checkbox"/> Command respect <input type="checkbox"/> Responsibility	Connolly, Yoder, & Miner-Williams (2003)

Nurse Management Interns					
Sample Group	Method/Tool	Role	Characteristics	Authors	
Nurse managers	Experience	Nurse management intern	<input type="checkbox"/> Passion and commitment <input type="checkbox"/> Self-motivated <input type="checkbox"/> Completion or active pursuit of a BSN <input type="checkbox"/> At least one year employment as a registered nurse <input type="checkbox"/> Personal objectives in alignment with organizational goals	Wendler, Olson-Sitki, & Prater (2009)	

**Minnesota Hospital Association Email Sent to Membership  
Publicizing Research Study**

From: Nadine Simonson  
Sent: Monday, May 23, 2011 11:11 AM  
To: Nadine Simonson  
Subject:

Hospital CNO,

The attached letter is to request your participation in a study that is interested in identifying a model based on evidence as to "the profile of an excellent nurse manager." This profile could then be used to identify, select, recruit, hire, develop and retain individuals for the nurse manager positions. This research is part of the dissertation of Kathryn D. Kallas, RN, MSN, PhD candidate at the University of Minnesota.

Please see the attached letter from Kathryn Kallas requesting your consideration and participation for a one-half hour conference call/meeting to support this research. Your consideration and support would be greatly appreciated. Please reply to her e-mail address within the letter to indicate your interest or contact Kathryn.

Thank you.

Nadine Simonson  
Division Assistant  
Minnesota Hospital Association  
2550 University Ave. W. Suite 350-S  
St. Paul, MN 55114-1900  
phone: 651-659-1441  
fax: 651-659-1477  
e-mail: [nsimonson@mnhospitals.org](mailto:nsimonson@mnhospitals.org)

[letter attached:]

May 20, 2011

This request is for your participation in a study that is interested in identifying a model based on evidence as to "the profile of an excellent nurse manager." This profile could then be used to identify, select, recruit, hire, develop, and retain individuals for the nurse manager position. The intention is to increase the success of individuals within the role,

and subsequently, improve retention. Upon completion of the study, if it is desired by the hospital, a presentation will be made regarding the findings, conclusions, and recommendations. This research is part of the dissertation of Kathryn D. Kallas, RN, MSN, PhD candidate at the University of Minnesota.

A purposive selection of hospitals within Minnesota that used the NDNQI RN Survey during the years 2009, 2010, or 2011 will be used to identify a sample of hospitals and nurse manager participants. To be part of this research your hospital must have participated in the NDNQI RN Survey during the years 2009, 2010, or 2011. Hospitals selected will include rural, suburban, and urban.

The time commitment for this research is approximately a half hour conference call/meeting with the CNO to discuss the research project and then a half hour with the nurse manager group to explain the study, voluntary participation, and completion of the Leadership Practices Inventory-Self (Kouzes & Posner, 2003), the Career Aspiration Scale (O'Brien, 1996) with two additional authored developed aspiration questions, and a demographic form which includes a visibility question. This study was submitted to the IRB of the University of Minnesota and determined to be exempt from review per federal guidelines 45 CFR Part 46.101(b) category #2 (Study Number: 1104E98493).

If you are interested in hearing more about the study and having your hospital potentially participate, please send a reply email indicating your interest to [kall0116@umn.edu](mailto:kall0116@umn.edu) by (June 5, 2011).

Thank you so very much. I appreciate you considering this request and supporting this research.

Sincerely,

Kathryn D. Kallas, RN, MSN, PhD Candidate

**Sample Recruitment Letter to Chief Nursing Officers (CNOs)  
at the Minnesota Organization of Leaders in Nursing**

May 20, 2011

This request is for your participation in a study that is interested in identifying a model based on evidence as to “the profile of an excellent nurse manager.” This profile could then be used to identify, select, recruit, hire, develop, and retain individuals for the nurse manager position. The intention is to increase the success of individuals within the role, and subsequently, improve retention. Upon completion of the study, if it is desired by the hospital, a presentation will be made regarding the findings, conclusions, and recommendations. This research is part of the dissertation of Kathryn D. Kallas, RN, MSN, PhD candidate at the University of Minnesota.

A purposive selection of hospitals within Minnesota that used the NDNQI RN Survey during the years 2009, 2010, or 2011 will be used to identify a sample of hospitals and nurse manager participants. To be part of this research your hospital must have participated in the NDNQI RN Survey during the years 2009, 2010, or 2011. Hospitals selected will include rural, suburban, and urban.

The time commitment for this research is approximately a half hour conference call/meeting with the CNO to discuss the research project and then a half hour with the nurse manager group to explain the study, voluntary participation, and completion of the Leadership Practices Inventory-Self (Kouzes & Posner, 2003), the Career Aspiration Scale (O’Brien, 1996) with two additional authored developed aspiration questions, and a demographic form which includes a visibility question. This study was submitted to the IRB of the University of Minnesota and determined to be exempt from review per federal guidelines 45 CFR Part 46.101(b) category #2 (Study Number: 1104E98493).

If you are interested in hearing more about the study and having your hospital potentially participate, please send a reply email indicating your interest to [kall0116@umn.edu](mailto:kall0116@umn.edu) by (June 5, 2011).

Thank you so very much. I appreciate you considering this request and supporting this research.

Sincerely,

Kathryn D. Kallas, RN, MSN, PhD Candidate

**Sample Notice of Study as Presented in Newsletter**

AONE eNews Update and AONE Working For You Publicizing Research Study

June 15, 2011

A researcher is seeking chief nurse executives who have participated in the NDNQI-RN Survey in 2009, 2010, or 2011 for a doctoral study investigating the profile of an excellent nurse manager in acute care U.S. hospitals. Your participation will assist in identifying a model based on evidence as to the profile of an excellent nurse manager. The time commitment is less than a half hour conference call with the chief nurse executive to discuss the research and the process for data collection. The study will utilize the Leadership Practices Inventory-Self (Kouzes & Posner, 2003), the Career Aspiration Scale (O'Brien, 1996) with two additional author developed aspiration questions, and a demographic form which includes a visibility question. This study was submitted to the IRB of the University of Minnesota and determined to be exempt from review per federal guidelines 45 CFR Part 46.101(b) category #2 (Study Number: 1104E98493).

Please direct questions and/or to indicate your interest in participating in this research by sending a reply email by July 8, 2011 to [kall0116@umn.edu](mailto:kall0116@umn.edu) for Kathryn D. Kallas, RN, MSN, PhD Candidate, Principle Investigator. "Participation of AONE members does not indicate review or endorsement of this study."

Thank you so very much for supporting this research.

**Documentation of Study's IRB-Exempt Status**

**From:** [irb@umn.edu](mailto:irb@umn.edu)

**Date:** April 27, 2011 3:35:22 PM CDT

**To:** [kall0116@umn.edu](mailto:kall0116@umn.edu)

**Subject:** 1104E98493 - PI Kallas - IRB - Exempt Study Notification

TO : [edwar002@umn.edu](mailto:edwar002@umn.edu), [kall0116@umn.edu](mailto:kall0116@umn.edu),

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2 SURVEYS/INTERVIEWS; STANDARDIZED EDUCATIONAL TESTS; OBSERVATION OF PUBLIC BEHAVIOR.

**Study Number:** 1104E98493

**Principal Investigator:** Kathryn Kallas

**Title(s):**

Profile of an Excellent Nurse Manager

---

This e-mail confirmation is your official University of Minnesota RSPP notification of exemption from full committee review. You will not receive a hard copy or letter.

This secure electronic notification between password protected authentications has been deemed by the University of Minnesota to constitute a legal signature.

The study number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

Research that involves observation can be approved under this category without obtaining consent.

SURVEY OR INTERVIEW RESEARCH APPROVED AS EXEMPT UNDER THIS CATEGORY IS LIMITED TO ADULT SUBJECTS.

This exemption is valid for five years from the date of this correspondence and will be filed inactive at that time. You will receive a notification prior to inactivation. If this research will extend beyond five years, you must submit a new



application to the IRB before the study's expiration date.

Upon receipt of this email, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

You may go to the View Completed section of eResearch Central at <http://eresearch.umn.edu/> to view further details on your study.

The IRB wishes you success with this research.

We have created a short survey that will only take a couple of minutes to complete. The questions are basic but will give us guidance on what areas are showing improvement and what areas we need to focus on:

<https://umsurvey.umn.edu/index.php?sid=94693&lang=um>

**Sample “Thank You for Your Interest” Letter to CNEs**

Thank you for your reply indicating your interest in participating in my research, “Profile of an Excellent Nurse Manager.” As to the next steps, please read the following and then e-mail me with a date, time and phone number where you can be reached so we can discuss the research, answer any questions you may have and determine how to make it easy for you and your team/managers to be part of this study. (I will confirm the date and time you propose or work with you and your schedule if there is a conflict.)

- 1) Determine the need for IRB approval or not from your hospital. The Human Subjects Committee of the University of Minnesota upon review determined that this study is exempt from review under federal guidelines 45 CFR Par 46.101(b) category #2 Surveys/Interviews; Standardized Educational Tests; Observation of Public Behavior. Study Number: 1104E98493  
However, if there is a need to obtain IRB approval within your hospital, please send me the name of the contact person, telephone number, and/or email and I will then make the connection to complete any required paperwork.
- 2) Once it is established that IRB approval is not required and is exempt, or is required and approved by your hospital, set a date and time to complete the data collection on-site.
- 3) Meet on-site to answer any further questions that you may have regarding the study, have you complete an assessment ranking form of the nurse managers in your hospital (approximately 15 minutes or less), obtain the results of your NDNQI-RN Survey; management subscale data from 2009, 2010, or 2011 (whichever year is your most current participation), and meet with all of the nurse managers of the hospital to request their voluntary participation and have them complete the documents for the study (approximately ½ hour or less).

My hope is that with some up- front planning only one meeting will be needed at your hospital to obtain the required data. I so appreciate you having an interest in this research. I will be glad to present my findings back to you, the nurse managers/directors, and/or others who are interested at your hospital when the research is completed.

Thank you again for your assistance and support of this research. I look forward to hearing back from you soon.

Kathryn D. Kallas, RN, MSN, PhD Candidate

[Kall0116@umn.edu](mailto:Kall0116@umn.edu)

### **Abstract Revised for National Participation**

#### Profile of an Excellent Nurse Manager

The aim of the research is: To devise a model based on evidence as to the profile of an excellent nurse manager. The research question for the study is: “What is the profile of an excellent nurse manager?”

Nurse managers have an impact on staff; recruitment, satisfaction, and retention, patient; satisfaction, adverse health events, and complications, and organizational performance. There is documented concern related to the aging, turnover, and lack of interest from registered nurses in this complex and critical position within hospitals.

The conceptual framework for the research is grounded by transformational leadership which is described as a type of leadership in which the behaviors of an individual with a vision inspire others to act to co-create the vision. Specifically the model of Kouzes and Posner (2003) and the Five Practices of Exemplary Leadership will be used and is based on close to 30 years of research by Kouzes and Posner and many others. The Career Aspiration Scale developed by O’Brien (1996) is another reliable and valid tool that will be used to assess for aspiration particularly in relation to leadership and educational preparedness.

Hospitals within the U.S. will be recruited through the American Organization of Nurse Executive (AONE) eNews Update and/or AONE Working for You and a direct mailing to the Chief Nurse Executive (CNE) of Magnet hospitals. Criterion for inclusion in the study will be that the hospital has participated in the National Database of Nursing Quality Indicators (NDNQI)-RN Survey in 2009, 2010, or 2011. The process with the selected hospitals includes contacting the CNE to discuss the research, identify the need for IRB approval or exemption from review, and establish the on-site coordinator. The on-site coordinator will assist with the study by ensuring that the forms are completed and returned to the research assistant. Two groups of excellent nurse managers will be identified. Group 1: Excellent Nurse Managers-CNE through the CNE assessment and ranking of nurse managers as excellent and Group 2: Excellent Nurse Managers-RN Survey through use of the NDNQI RN Survey-nursing management subscale of the nurse managers that have a score at or above the 75<sup>th</sup> percentile of the NDNQI RN Survey database. A third group, Excellent Nurse Managers-CNE and RN Survey may exist as nurse managers that are identified in both Group 1 and Group 2. At an all nurse manager meeting voluntary participation will be requested and a packet provided for each of the nurse managers to complete. The packet will contain a letter requesting voluntary

participation, a copy of the Leadership Practices Inventory-Self (LPI-Self) (Kouzes & Posner, 2003), the Career Aspiration Scale (CAS) (O'Brien, 1996) with two additional author developed aspiration questions, a demographic form which includes a visibility question, and a return envelope. The on-site coordinator will collect the envelopes and place them in a return addressed stamped envelope to the research assistant. Upon receipt of the envelope the research assistant will assign a number to each of the nurse manager and CNE names and a letter to the hospital. The numbers and letters will be used throughout the study to maintain anonymity and confidentiality. SPSS will be used to analyze aggregate excellent nurse manager data from the three groups-Excellent Nurse Managers: CNE, Excellent Nurse Managers: RN Survey and Excellent Nurse Managers: CNE and RN Survey for association(s) with the LPI-Self; Five Practices of Exemplary Leadership, the Career Aspiration Scale, Aspiration, Visibility, and Demographics. A discussion regarding the findings will be made. The strengths and weaknesses of the study will be identified as well as recommendations regarding future research.

June 27, 2011

### Next Steps for National Participation in Sample

Thank you for your reply indicating your interest in participating in my research, “Profile of an Excellent Nurse Manager.” As to the next steps, please read the following and then e-mail me with a date, time and telephone number where you can be reached so we can discuss the research, answer any questions you may have and determine how to make it easy for you and your team/managers to be part of this study. (I will confirm the date and time you propose or work with you and your schedule if there is a conflict.)

- 1) Identify the most recent year of your NDNQI-RN Survey: \_\_\_\_\_
- 2) Determine the need for IRB approval or not from your hospital. The Human Subjects Committee of the University of Minnesota upon review determined that this study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2 Surveys/Interviews; Standardized Educational Tests; Observation of Public Behavior. Study Number: 1104E98493  
If there is a need to obtain IRB approval within your hospital, please send me the name of the contact person, telephone number, and/or email and I will then make the connection to complete any required paperwork.
- 3) Once it is established that IRB approval is not required and is exempt, or is required and approved by your hospital, set a date and time for completion of the data collection; \_\_\_\_\_.
- 4) Establish the on-site coordinator to assist with collection and return of data;  
\_\_\_\_\_
- 5) Have you complete an assessment ranking form of the nurse managers in your hospital (approximately 15 minutes or less).
- 6) Obtain the results of your NDNQI-RN Survey; management subscale data from 2009, 2010, or 2011 (whichever year is your most current participation).
- 7) Have all of the nurse managers of the hospital (participation is voluntary) complete the documents for the study (approximately ½ hour or less).

I so appreciate you having an interest in this research. I will be glad to present my findings back to you, the nurse managers/directors, and/or others who are interested at your hospital when the research is completed.

Thank you again for your assistance and support of this research. I look forward to hearing back from you soon.

Kathryn D. Kallas, RN, MSN, PhD Candidate

[Kall0116@umn.edu](mailto:Kall0116@umn.edu)  
Cell: 952-237-4411

**Sample Recruitment Letter to Magnet Hospital (CNEs)**

June 27, 2011

Dear Chief Nurse Executive:

I am sending you this letter to request your participation in my research study, "Profile of an Excellent Nurse Manager."

I am seeking chief nurse executives who have participated in the NDNQI-RN Survey in 2009, 2010, and/or 2011 for a doctoral study investigating the profile of an excellent nurse manager in acute care U.S. hospitals. Your participation will assist in identifying a model based on evidence as to the profile of an excellent nurse manager. The time commitment is less than a half hour conference call with the chief nurse executive to discuss the research and the process for data collection. The study will utilize the Leadership Practices Inventory-Self (Kouzes & Posner, 2003), the Career Aspiration Scale (O'Brien, 1996) with two additional author developed aspiration questions, and a demographic form which includes a visibility question. This study was submitted to the IRB of the University of Minnesota and determined to be exempt from review per federal guidelines 45 CFR Part 46.101(b) category #2 (Study Number: 1104E98493).

Please consider this request and direct questions and/or to indicate your interest in participating in this research by sending a reply email by July 12, 2011 to [kall0116@umn.edu](mailto:kall0116@umn.edu) for Kathryn D. Kallas, RN, MSN, PhD Candidate, Principle Investigator or call (952) 237-4411.

Thank you so very much for supporting this research and I look forward to hearing from you.

Sincerely,

Kathryn D. Kallas, RN, MSN, PhD Candidate University of Minnesota

### **On-Site Coordinator Letter and Instructions**

Dear On-Site Coordinator for the study, “Profile of an Excellent Nurse Manager”:

In this packet please find the following-

- 1) Ranking Nurse Managers Based on Excellent Nurse Managers  
To be completed by the Chief Nurse Executive.
- 2) Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management  
To be completed by the individual most familiar with the NDNQI-RN Survey Scores or designee.
- 3) Envelope for each nurse manager  
The on-site coordinator will preferably introduce the study in a group session with all of the nurse managers. Please include that the participation of the nurse manager is voluntary and will remain confidential. Each participating nurse manager will complete and return the instruments in the envelope to the on-site coordinator. The on-site coordinator will collect the envelopes.
- 4) Self-addressed stamped return envelope  
The on-site coordinator will place the completed Ranking Nurse Managers Based on Excellent Nurse Managers form, Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management form, and the envelopes collected from each nurse manager into the self-addressed stamped return envelope and place in the mail.

Thank you for your coordination of this study and I look forward to working with you.

If you have any questions please contact Kathryn D. Kallas, RN, MSN, PhD Candidate Principle Investigator at [kall0116@umn.edu](mailto:kall0116@umn.edu) or ( 952) 237-4411.

**Script for On-Site Coordinator**

I am serving as the on-site coordinator for the doctoral research study of Kathryn D. Kallas entitled, "Profile of an Excellent Nurse Manager." Part of the study is to request nurse managers to complete three instruments: the Leadership Practices Inventory- Self, the Career Aspiration Scale, and a demographic form with a question related to visibility. These three tools take about 20 minutes in total to complete. Your participation is voluntary. If you want to participate please complete the forms and place them back in the envelope and seal. If you do not wish to participate in the study write your name on the demographic form and place all the forms back in the envelope and seal. All envelopes will remain sealed and returned to the PI in a stamped return addressed envelope(s). The PI gives the sealed envelope(s) to the research assistant for coding. Data will be analyzed and presented back in aggregate form and not specific to an individual hospital, CNE, or nurse manager. Confidentiality and anonymity will be maintained throughout the study. The key to the coding will be kept locked by the research assistant and destroyed upon completion of the study. If at any time during the study you decide you do not want to participate you can contact the research assistant to be withdrawn from the study. This information is provided on the letter in each nurse manager envelope. Thank you for your thoughtful consideration of this request on behalf of myself and the principal investigator.



**Ranking Nurse Managers Based on Excellent Nurse Managers**

Healthcare Organization: \_\_\_\_\_ Hospital Licensed

Beds: \_\_\_\_\_

Chief Nurse Executive: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

<b>“The Best”</b>			
<b>Excellent Nurse Managers</b>			
	Name	Assigned Code (Do Not Complete)	Patient Care Unit Type per NDNQI*
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
<b>Competent Nurse Managers</b>			
	Name	Assigned Code (Do Not Complete)	Patient Care Unit Type per NDNQI*
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

\*See sample report

**Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management**

Healthcare Organization: \_\_\_\_\_

Chief Nurse Executive: \_\_\_\_\_

Date: \_\_\_\_\_

	Nurse Manager Name	Assigned Code (Do Not Complete)	Patient Care Unit Type per NDNQI*	Mean Score*	National 50 <sup>th</sup> & 75 <sup>th</sup> Percentile Scores*	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						

\*See sample report

## Letter Requesting Voluntary Participation of Nurse Managers

Dear Nurse Manager:

You are being asked to participate in a study that is interested in identifying a model based on evidence as to the profile of an excellent nurse manager. This research is part of the dissertation of Kathryn D. Kallas, RN, MSN, PhD Candidate at the University of Minnesota. It is expected that there is no risk involved to the individuals participating in this research study. Your participation is entirely voluntary. If you agree to participate and subsequently change your mind, you can withdraw from the study at any time by contacting the research assistant at (952) 237-4418. Participation in the study includes:

1. Completing the Leadership Practices Inventory-Self (LPI-Self).
  - a. Developed by Kouzes and Posner (2003) and based on close to 30 years of research.
  - b. This inventory will take about 10 minutes.
2. Completing the Career Aspiration Scale (CAS) and two researcher-developed aspiration questions.
  - a. Developed by O'Brien (1996).
  - b. This scale and two additional questions will take about 5 minutes.
3. Completing the researcher-developed Demographic Form and answering one question about visibility.
  - a. This form will take about 5 minutes.
4. Placing the completed forms in the envelope provided.

Confidentiality of the names of the specific hospitals, chief nursing executives (CNEs) and nurse managers will be protected by assigning and attaching a code letter/number relating to the hospitals, CNEs and nurse managers to each form by the research assistant. The code numbers will be used throughout the data analysis and reporting of the study. The research assistant will maintain and protect the information as confidential throughout the study and destroy the key to the codes upon completion of the research.

If you do not want to participate, please put your name on the demographic form and return the unfilled forms in the envelope provided.

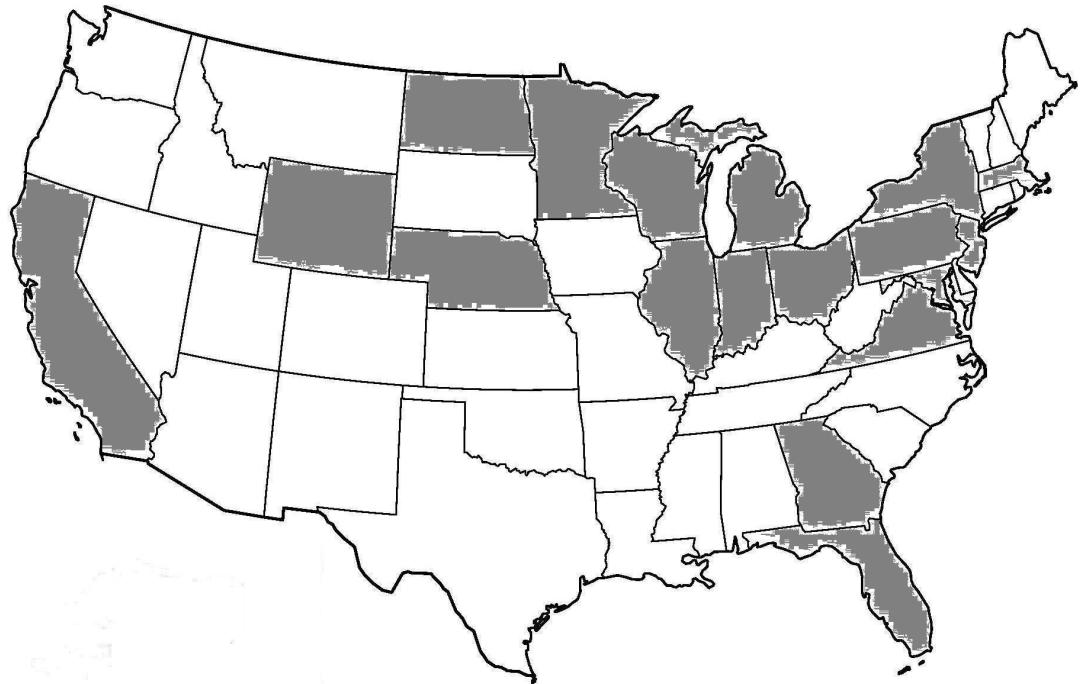
Upon completion of the study by the researcher, each participating organization, through the CNE, will be provided with the data analysis, findings, conclusions and recommendations.

Thank you for your support of this study.

Sincerely,

Kathryn D. Kallas, RN, MSN, PhD Candidate  
University of Minnesota

**Participating hospitals in the United States**



**Follow-up Email (Example) to Onsite Coordinators Who Returned Packets**

Dear \_\_\_\_\_:

This email is to let you know that I received from Kathryn D. Kallas your completed returned envelope(s). First, on behalf of Kathryn, thank you for being the on-site coordinator for this research study, “Profile of an Excellent Nurse Manager,” and for the interest, support and participation of \_\_\_\_\_, CNE, the nurse managers and the other nursing leaders of \_\_\_\_\_ Hospital.

I received five of the six nurse manager packets that were sent to you. I did not receive the Ranking Nurse Managers Based on Excellent Nurse Managers (CNE form) but did receive the Score for Nurse Manager Ability, Leadership, and Support of Nurses/Nursing Management (NDNQI-RN Survey form). If needed, I would appreciate either having a telephone conversation with you or an email exchange to clarify the numbers and documents. This is only to make sure that the study data and results are correct. If needed, I can send you another CNE form. This ranking is important to the study design.

It would also be helpful if you would reply to these three additional questions that have surfaced and been requested as the research study progressed through the various hospital sites.

- 1) Was the research study presented at a nurse manager meeting with the nurse manager envelopes distributed and collected at the meeting?

\_\_\_\_\_ Yes     Amount of time that this took: \_\_\_\_\_ minutes

What was the process used for the nurse managers that were not present?

---

\_\_\_\_\_ No

What was the process used within your hospital?

---

- 2) Are the registered nurses of your hospital union or nonunion?

- 3) Is your hospital still a magnet facility?    \_\_\_\_\_ Yes    \_\_\_\_\_ No

Thank you again for your support with this research study, “Profile of an Excellent Nurse Manager.” Please be assured that the research study, findings and recommendations will be presented to your CNE upon completion.

In appreciation,

Thomas Schmidt, MD—Research Assistant  
(952) 237-4418

### Record Keeping Checklist

Hospital/City/State: \_\_\_\_\_

Date: \_\_\_\_\_

1. CNE Contact
  - a. Name and telephone number: \_\_\_\_\_
  - b. Assistant name and telephone number/email: \_\_\_\_\_
  - c. Next steps to process sent on: \_\_\_\_\_
  - d. NDNQI-RN Survey Year: \_\_\_\_\_
2. Explanation of Study
  - a. Abstract sent: \_\_\_\_\_
  - b. On-site coordinator name and telephone number/email: \_\_\_\_\_
3. IRB/Human Subjects Committee
  - a. U of MN IRB document sent on: \_\_\_\_\_
  - b. Exempt from review; yes: \_\_\_\_\_
  - c. Not exempt from review; form: \_\_\_\_\_
  - d. Date of deadline for submission: \_\_\_\_\_
  - e. Contact name and telephone number/email: \_\_\_\_\_
4. Packet(s) with forms sent on: \_\_\_\_\_
5. Excellent Nurse Manager Groups Data
  - a. CNE assessment and ranking
    - i. Date: \_\_\_\_\_
  - b. NDNQI-RN Survey
    - i. Contact name and telephone number: \_\_\_\_\_
    - ii. Date: \_\_\_\_\_
6. Meeting with Nurse Managers
  - a. Date: \_\_\_\_\_
  - b. Approximate number: \_\_\_\_\_
  - c. Number collected: \_\_\_\_\_
  - d. Date: \_\_\_\_\_
7. Return Packet(s) Received
  - a. Date: \_\_\_\_\_
8. Key Completed
  - a. Date: \_\_\_\_\_
9. Thank You Reply to Hospital/CNE
  - a. Date: \_\_\_\_\_
10. Findings Requested
  - a. Yes/No and Date Completed: \_\_\_\_\_

### Record Keeping Checklist (continued)

#### 11. Follow Up

Date	To/From	Name	Reason
a.	_____	_____	_____
b.	_____	_____	_____
c.	_____	_____	_____
d.	_____	_____	_____
e.	_____	_____	_____
f.	_____	_____	_____
g.	_____	_____	_____
h.	_____	_____	_____
i.	_____	_____	_____
j.	_____	_____	_____

**Record Keeping Checklist (continued)**

**Key for Recordkeeping Checklist**

**Hospital Name:**

**Hospital Letter**

**CNE Name:**

**CNE Number**

**Nurse Manager Name:**

**NM Number**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_



## Approval to use LPI-Self Tool

KOUZES POSNER INTERNATIONAL  
1548 Camino Monde  
San Jose, California 95125  
FAX: (408) 554-4553

May 6, 2011

Kathryn Kallas  
3048 North Shore Drive  
Orono, MN 55319

Dear Ms Kallas:

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  
Epeterson4@gmail.com

I understand and agree to abide by these conditions:

(Signed) Kathryn D. Kallas Date: May 7, 2011

Expected Date of Completion is: December 2011

### Demographics of the Study Sample

#### *Gender and Age Group of Nurse Managers*

		<b>Frequency</b>	<b>Percent</b>
Gender	Male	13	6.4
	Female	191	93.6
	<b>Total</b>	<b>204</b>	<b>100</b>
Age Group	<= 30	5	2.5
	31-40	43	21.1
	41-50	69	33.8
	51-60	71	34.8
	>60	11	5.4
	<b>Total</b>	<b>199</b>	<b>97.5</b>
	Missing	5	2.5
	<b>Total</b>	<b>204</b>	<b>100</b>
	<b>Mean</b>	<b>48</b>	

#### *Experience as RN, Nurse Manager, Within Current Organization, and Current Organization as Nurse Manager*

		<b>Years of RN Experience</b>	<b>Years of Nurse Manager Experience</b>	<b>Years in Current Organization</b>	<b>Years in Current Nurse Manager Position</b>
N	Question Completed	202	202	203	202
	Question Blank	2	2	1	2
Mean		13.4	10	15.5	7.1
Median		12	7	13	5
Standard Deviation		7.4	8.4	10.2	6.8
Minimum		.0	.5	.3	.3
Maximum		35	36	40	36

### Additional Detail on Nurse Managers' Educational Preparation

		<b>Frequency</b>	<b>Percent</b>
Highest Educational Preparation	Diploma	14	6.9
	Associate	17	8.3
	Bachelors	91	44.6
	Masters	82	40.2
	<b>Total</b>	<b>204</b>	<b>100</b>
Type of Bachelor Degree	Nursing	129	90.2
	Other	14	9.8
	<b>Total</b>	<b>143</b>	<b>100</b>
Type of Master Degree	Nursing	53	64.6
	Healthcare Administration	11	13.4
	Business	10	12.2
	Other	8	9.8
	<b>Total</b>	<b>82</b>	<b>100</b>
Type of Second Master Degree	Healthcare Administration	4	57.1
	Business	2	28.6
	Other	1	14.3
	<b>Total</b>	<b>7</b>	<b>100</b>
Enrolled in Education Program	Yes	66	32.5
	No	137	67.5
	<b>Total</b>	<b>203</b>	<b>100</b>
Type of Education Program	BSN	17	25.8
	BSN/MSN	1	1.5
	DNP	3	4.5
	MBA	1	1.5
	MHCAdmin	1	1.5
	MSMgmt	1	1.5
	MSN	30	45.5
	MSN NP	2	3
	MSN/MBA	1	1.5
	Post Mas	1	1.5
	Unidentified	8	12.1
	<b>Total</b>	<b>66</b>	<b>100</b>

**Demographics of Excellent and Competent Nurse Manager Ratings  
as Assessed by the CNE**

	<b>Excellent Nurse Manager Ratings Mean (SD)</b>	<b>Competent Nurse Manager Ratings Mean (SD)</b>	<b>t, df</b>	<b>p- value</b>
<b>Demographics</b>				
Male n =	4	9		
Female n=	101	119		
Age	47.4 (8.8)	47.2 (9.7)	-1.1, df = 226	.90
Years of Experience as a RN	13.8 (7.4)	12.4 (7.3)	-1.5, df = 229	.14
Years of Experience as a Nurse Manager	9.6 (7.8)	10.1 (8.7)	.4, df = 229	.67
Years of Experience within current organization	16.0 (10.2)	14.6 (10.0)	-1.1, df = 230	.29
Years of Experience in current Nurse Manager position	7.3 (6.9)	6.9 (6.6)	-.5, df = 229	.59
<b>Highest Educational Preparation (n = 233)</b>				
Diploma	8	6		
Associate	5	13		
Bachelors	68	94		
--Nursing	64	83		
--Other	4	11		
Master	52	46		
--Nursing	36	31		
--Healthcare Administration	7	4		

	Excellent Nurse Manager Ratings Mean (SD)	Competent Nurse Manager Ratings Mean (SD)	t, df	p- value
--Business	5	5		
--Other	4	6		
Second Masters	4	3		
--Healthcare Administration	1	3		
--Business	2	0		
--Other	1	0		
<b>Enrolled in Educational Program</b>				
Yes	33	39		
No	70	89		
--BSN	6	11		
--MSN	14	20		
--DNP	3	0		
--Various Masters, Post Masters	5	4		
--Unidentified	5	4		

**Demographics of Excellent, Competent and In-Development Nurse Manager  
Ratings as Assessed by the NDNQI-RN Survey (RN staff)**

	<b>Excellent Nurse Manager Ratings (≥75%) n = 52</b>	<b>Competent Nurse Manager Ratings (50- 74%) n = 64</b>	<b>In Develop- ment Nurse Manager Ratings (&lt;50%) n = 117</b>	<b>f, df</b>	<b>p-value</b>	<b>Significant Pairs</b>
<b>Demographics</b>						
Male n =	3	3	7			
Female n =	49	61	110			
Age	46.1 (9.3)	48.8 (8.9)	47.0 (9.4)	1.3, df = 2, 225	.27	
Years of Experience as a RN	13.4 (7.2)	14.6 (7.7)	12.0 (7.1)	2.7, df = 2, 228	.07	
Years of Experience as a Nurse Manager	9.1 (8.6)	9.2 (7.4)	10.6 (8.5)	.9, df = 2, 228	.40	
Years of Experience within current organization	16.2 (9.2)	17.3 (10.8)	13.7 (9.9)	3.0, df = 2, 229	.05	p = .053 50-74% v. <50%
Years of Experience in current Nurse Manager position	6.4 (6.5)	7.4 (7.4)	7.1 (6.5)	.3, df = 2, 228	.70	
<b>Highest Educational Preparation (n = 233)</b>						
Diploma	2	6	6			
Associate	4	5	9			
Bachelors	40	43	79			
--Nursing	37	37	73			
--Other	3	6	6			
Master	22	23	53			
--Nursing	15	16	36			
--Healthcare Administration	2	2	7			
--Business	2	3	5			

	<b>Excellent Nurse Manager Ratings (<math>\geq 75\%</math>) n = 52</b>	<b>Competent Nurse Manager Ratings (50-74%) n = 64</b>	<b>In Development Nurse Manager Ratings (&lt;50%) n = 117</b>	<b>f, df</b>	<b>p-value</b>	<b>Significant Pairs</b>
--Other	3	2	5			
Second Masters	0	1	6			
--Healthcare Administration	0	1	3			
-Business	0	0	2			
--Other	0	0	1			
<b>Enrolled in Educational Program</b>						
Yes	14	22	36			
No	38	40	81			
--BSN	3	7	7			
--DNP	1	0	2			
--MSN	7	9	18			
--Various Masters, Post Masters	1	3	5			
--Unidentified	2	3	4			

**Demographics of Excellent and Competent Nurse Manager Ratings as Assessed by Both the CNE and NDNQI-RN Survey (RN staff)**

	<b>Excellent Nurse Manager Ratings Mean (SD)</b>	<b>Competent Nurse Manager Ratings Mean (SD)</b>	<b>t, df</b>	<b>p-value</b>
<b>Demographics</b>				
Male n =	1	12		
Female n =	29	191		
Age	47.7 (8.8)	47.2 (9.4)	-.2, df = 226	.81
Years of Experience as a RN	13.7 (7.1)	12.9 (7.4)	-.5, df = 229	.60
Years of Experience as a Nurse Manager	10.1 (8.6)	9.7 (8.2)	-.7, df = 229	.48
Years of Experience within current organization	16.6 (9.8)	15.1 (10.1)	-.7, df = 230	.43
Years of Experience in current Nurse Manager position	7.9 (7.2)	7.0 (6.7)	-.7, df = 229	.50
<b>Highest Educational Preparation (n = 233)</b>				
Diploma	2	12		
Associate	2	16		
Bachelors	22	140		
--Nursing	20	127		
--Other	2	13		
Master	13	85		
--Nursing	7	60		
--Healthcare Administration	2	9		
--Business	2	8		
--Other	2	8		
Second Masters	7	0		
--Healthcare Administration	4	0		
--Business	2	0		
--Other	1	0		
<b>Enrolled in Educational Program</b>				



	<b>Excellent Nurse Manager Ratings Mean (SD)</b>	<b>Competent Nurse Manager Ratings Mean (SD)</b>	<b>t, df</b>	<b>p-value</b>
Yes	10	62		
No	20	139		
--BSN	2	15		
--DNP	1	2		
--MSN	4	30		
--Various Masters, Post Masters	1	8		
--Unidentified	2	7		

### Summary of Findings Regarding the Profile of an Excellent Nurse Manager

Profile of an Excellent Nurse Manager as Assessed by the CNE			
Characteristic	Mean (SD)	Percentile and Range*	Preferred Response
The Five Practices of Exemplary Leadership:			
Model the Way	52.0 (4.5)	Slightly above 75 <sup>th</sup> , high	N/A
Inspire a Shared Vision	48.6 (7.5)	Slightly below 70 <sup>th</sup> , high moderate	
Challenge the Process	49.0 (6.9)	65 <sup>th</sup> , moderate	
Enable Others to Act	53.4 (4.1)	Slightly above 70 <sup>th</sup> , high	
Career Aspiration Scale			
<i>I hope to move up through any organization or business I work in. (Intention for promotion)</i>	3.4 (1.1)	N/A	“Very true of me” to “Quite a bit true of me”
Aspiration			
<i>I would like to be in a director role.</i>	3.0 (1.5)	N/A	“Quite a bit true of me”
<i>If I were offered the director position in my section/department, I would likely accept.</i>	3.1 (1.4)	N/A	“Quite a bit true of me”

\* Based on Kouzes and Posner Database

Profile of an Excellent Nurse Manager as Assessed by the NDNQI-RN Survey (RN Staff)

Characteristic	Mean (SD)	Percentile and Range*	Preferred Response
Aspiration <i>I would like to be in a director role.</i>	2.2 (1.7)**	N/A	“Moderately true of me.”

Profile of an Excellent Nurse Manager as Assessed by the Both the CNE and NDNQI-RN Survey (RN Staff)

Characteristic	Mean (SD)	Percentile and Range*	Preferred Response
The Five Practices of Exemplary Leadership:			
Model the Way	52.5 (4.1)	Above 80 <sup>th</sup> , high	N/A
Challenge the Process	50.1 (6.1)	70 <sup>th</sup> , high	
Enable Others to Act	54.1 (4.5)	80 <sup>th</sup> , high	
Encourage the Heart	52.3 (6.1)	Slightly above 70 <sup>th</sup> , high	

\* Based on Kouzes and Posner Database

\*\* Actually reflects lower aspiration than in-development nurse managers.