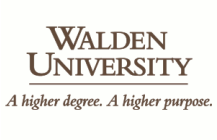



2016

# Assessing Nurse Manager Competencies in a Military Hospital

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This is to certify that the doctoral study by

Ruby Anderson

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2016

Abstract

Assessing Nurse Manager Competencies in a Military Hospital

by

Ruby O. Anderson

MSN, The Catholic University of America, 1980

BSN, Columbia Union College, 1973

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May 2016

## Abstract

Military health care organizations need competent frontline managers with knowledge and skills to manage health care complexity and ensure evidence-based practice. With systematic planned turn over of military managers, more civilian managers are needed to fill permanent positions in military hospitals. The purpose of this project was to provide a better understanding of the competencies perceived by nurse managers at a military medical center and whether they differed by military or civilian status. The American Organization of Nurse Executives competency model and framework provided the theoretical framework for the project. The design was nonexperimental, with an observational, descriptive, cross-sectional approach. The Chase Nurse Manager Competency Instrument was used to collect data from 53 military and civilian nurse managers who ranked the top 10 competencies needed for effective leadership. The top competencies chosen by the managers were the knowledge and ability to use effective communication, decision making, problem solving, nursing practice standards, time management, and effective staffing strategies. Using *t* test statistics, only minimal differences were identified between military and civilian nurse managers' perceptions of the top competencies, which allows the medical center to create one integrated leadership curriculum to assist in the development of a competent, unified leadership team of civilian and military managers. Social change to improve patient outcomes can occur within military health care organizations by assessing and developing leadership competencies in all nurse managers to ensure reliable cultures of safety, quality, and value-based productivity within their military hospital environments.

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# Dedication

This project is dedicated to my husband Gerald, who gave countless hours reviewing my work and providing inspiration through my course of study. To my two daughters, Nicole and Nichelle, and my son, the late Nathan Anderson, who encouraged me, I appreciate each of you.

Acknowledgments

I would like to thank Dr. Sue Bell, my mentor and committee chair during this program. Your continual inspiration and encouragement kept me moving forward to completion. I would also like to acknowledge members of the Medical Center, who made it possible for me to complete this project successfully. Colonel R. Antoine, Chief Nursing Officer, Commander J. McGuire, Director of Clinical Inquiry and my preceptor, Dr. E. Thomas, Educational Specialist, and Mrs. R. Howard, Supervisory Biostatistician.

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## Section 1: Project Overview

Military nurse leaders must lead in a fluctuating health care environment while meeting demanding military operational requirements. Middle managers at a U.S. Military Health System (MHS) Flagship Medical Center include army, navy, air force nursing officers and civilian nurses. Military managers have varying backgrounds, management training, leadership experiences, and competencies. Many organizations have rewarded expert clinical nurses with management promotion without consideration for competency in the new role. Leadership competencies are skills and behaviors that contribute to excellent performance (Kallas, 2014). Within the last 3 years, two military hospitals merged to form a flagship hospital with nurses from all three military services with different leadership development plans.

Because of the diversity of education and experience of the managers, this capstone project was conducted to generate an assessment of the perceived relevant competencies needed by existing and potential nurse managers of the three military services and civilian nurses. The assessment results can serve as a foundation for nurse managers' professional development emphasizing current leadership competencies. The assessment may also be used to enrich and standardize the organization's Leadership Academy curriculum. A possible implication for positive social change includes using this project's assessment to confirm nurse managers competencies used in leadership development and professional practice that results in positive patient outcomes.

Warshawsky, Rayens, Stefaniak, and Rahman (2013) stated that nurse managers help create work environments that promote positive patient outcomes and quality of nursing care.

The Army Nursing Leadership Academy incorporated the American Organization of Nurse Executives Competencies as "a foundation for self-assessments" and minimum competency recommendations for nursing leaders (Dunemn, Hopkins-Chadwick, Connally, & Bramley, 2011). Similar to the army, managers in the navy and air force attend leadership training. Educators and leaders at the flagship medical center recently developed the new Leadership Academy, which is available to middle managers, leaders, and potential leaders. Nurses in military settings include active duty, active reservists, federal civilians, and nonfederal contract workers. Positions vacated when active duty nurses deploy are filled with reserve and contract nurses (Breckenridge-Sproat, Johachantgen, & Patrician, 2012).

In the practice environment, although military nurse managers and military staff nurses may turnover every 2-3 years, staff engage in professional and evidence-based practice. Patients in a military acute care center include active duty, retirees, reservists, veterans, civilians and family members of military service members. Patients served in the military acute care and tertiary care setting range from neonates to seniors. Patients in the military environment, like those in a civilian health care, setting desire safe, evidence-based care delivered by competent professionals. Serving in this environment nurse

managers assessed competencies needed for effective leadership performance that results in positive patient outcomes.

## Problem Statement

The demands and requirements of the nurse manager's role are challenging, and some managers are neither competent nor prepared for their role (Cathcart, 2014). Health care leadership competencies continually change because leadership is dynamic and affected daily by the ever-changing world of health care (Cathcart, Greenspan, & Quin, 2010). Projections indicate that 50% of nurse leaders will retire in the next 5 years creating significant vacancies of nurse managers within organizations (Titzer, Shirley, & Hauck, 2014). Many organizations attempt to decrease management vacancies by rewarding expert clinical nurses with management promotions, without consideration of competency in the new role. Competent nurse managers influence the work environment and, according to The American Organization of Nurse Executives (AONE, 2011), exceptionally competent leadership is essential to ensure outstanding patient care.

In the military health care system, nurse leaders are expected to be adaptive and competent in their core abilities to operate in diverse and constantly changing environments (Funari, Gentzler, Wyssling, & Schoneboom, 2011). With frequent deployment and reassignments, military nurse leaders also face the challenge of placing competent nurse managers in vacated positions. Military nurse corps officers often must assume leadership responsibilities early in their careers. Hence, the development and maintenance of leadership competencies are critical for nurse managers in military health

care organizations (Hacinas, 2012). The specific problem of interest is the lack of clarity regarding the competencies necessary for military and civilian nurse managers to be prepared for leadership roles.

## Purpose

The purpose of this doctoral project was to provide a better understanding of the perceived competencies needed for middle managers at the flagship military medical center. The objectives of the project include the following:

1. Assess military managers' perceived level of competencies in five major areas that include: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills (Chase, 2012). The Nurse Manager Competency Instrument (NMCI) was the assessment tool in this project.
2. Compare the results of the nurse managers'assessments to the Leadership Academy curriculum to address strengths or opportunities to assist in further leadership development.

## Significance to Practice

As the population ages, the need for nurses will increase, creating a shortfall of approximately one million nurses by 2020 (Zinn, Guglielmi, Davis, & Moses, 2012). Researchers suggest that nurse managers play an important role in the retention of nurses and quality of care (Brown, Fraser, Wong, Muise, & Cummings, 2013). Nurse managers must be competent not only in the evaluation of quality, safety, and productivity but also

in building trust among staff for sustaining the excellent practice of nursing care (Cathcart & Greenspan, 2013). Competent and empowered nurse managers help create a positive work environment and serve as role models for potential future leaders and facilitate the recruitment and retention of expert staff nurses (Laschinger, Wong, Read, & Stam, 2011).

Succession planning by competent nurse leaders is a significant factor in health care; it is estimated that approximately 50% of current nurse leaders could retire by 2020 (Zinn, et al., 2012). The use of nurse manager competency development programs assists in succession planning and decreasing the vacancy rate of nurse managers (Prestia, Dyess, & Sherman, 2014). Succession planning is strategic to the role of nursing leaders. The use of this developmental management competencies program helps nursing managers experience enhanced leadership growth and advancement in their organizations (Galuska, 2012). Nursing leaders may also use developmental management competencies for staff nurses as they advance on their leadership journey, creating the next generation of competent nurse leaders (Kallas, 2014).

This capstone project identified relevant, current competencies needed by present and potential nurse managers of the three services, and can serve as a reference for nurse managers to standardize their leadership competencies and enrich the Leadership Academy designed by the organization. Nurses, who are the largest group of health care workers, have essential roles in health care reform providing direct patient care and influencing practice and policy. Nursing education and competence are key strategies for

accomplishing many objectives of The Affordable Care Act (ACA; Kohlenberg, 2011). This project influences practice and policy by identifying current competencies for use in nurse managers' education and contributes to the lifelong learning of nursing professionals as recommended by the Institute of Medicine Initiative (Institute of Medicine, 2010). Wilkinson, Nutley, and Davies (2011) indicated that evidence-based practice (EBP) is more likely to exist in organizations where nursing leaders and nurse managers champion EBP, have positive attitudes, and possess the knowledge and skills in EBP.

## Project Questions

1. What are the perceived top 10 relevant competencies identified by army, navy, air force, and civilian nursing managers as needed for effective leadership?
2. What level of variance exists between military and civilian nurse perceptions of the top 10 relevant nursing management competencies required for effective leadership?
3. What is the impact of an evidence-based best practices leadership educational program on the perceived top 10 relevant competencies identified by army, navy, air force, and civilian nursing managers?

**Organizational Impact**

Specifically for the organization, this project identified the competencies assessed by nurse managers and their perceived level of importance. The nurse managers' competency assessments will provide the following:

1. Managers may use their personal assessment to formulate an individualized developmental plan.
2. A comparison of the role-based competencies of the Leadership Academy with the results of the assessment allows the leaders of the Leadership Academy to enhance their program to include needed competencies, as perceived by the nurse managers.

Because military leaders are required to take leadership roles early in their career (Hacinas, 2012), this project assists in establishing an updated framework for competencies needed to perform effectively as nurse managers in fast-paced military settings. Senior leaders, educators, and managers must be knowledgeable about the assessment of the perceived knowledge, understanding, and ability to use leadership competencies by current and potential nurse managers within their organization. This updated framework may be employed in the Leadership Academy curriculum and serve as a professional development model to assist managers to be more effective, efficient, and successful.

**Social Impact**

Prevention of injury and injurious deaths is one of the leading health indicators for Healthy People 2020 (Healthy People 2020, 2010). Health care workers and providers have caused patient harm, injury, and death to patients within health care institutions. The Institute of Medicine, (IOM) reported that as many as 98,000 people died in hospitals from medication errors (as cited in Hewitt, 2010). Competent nurse managers are essential for evaluating of quality, safety, and productivity, and must have practical wisdom in building trust among staff for sustaining the excellent practice of nursing (Cathcart & Greenspan, 2013).

The Affordable Care Act (ACA, 2010), impacted nursing workforce demands as millions of additional patients received health insurance. Nurses, the largest group of health care workers, have essential roles in health care reform, providing direct care while influencing practice and policy. Nursing education is an important strategy for accomplishing the objectives of the ACA (Kohlenberg, 2011). The ACA also calls health care professionals to provide quality care and report quality improvement measures. Nurse leaders who are knowledgeable about the health care environment, have a pivotal role in leading nurses through the health care reform and setting priorities, allocation resources, and creating a culture of safety (Hader, 2015). Ensuring competencies of the nurse managers may help reduce mortality rates and assist health care organizations in achieving the goals of the ACA.

## Definitions of Terms

*Nurse managers:* Professional, nursing leaders with 24-hour management responsibility for a nursing unit or department. Nurse managers are responsible for establishing and leading the culture of one department and the day-to-day operations while communicating the vision of senior leadership to bedside staff (Chase, 2012).

*Competencies:* Knowledge, skills, and attitudes that establish a comprehensive capacity and ability to be effective in work undertakings (Luo, Shen, Lou, He, & Sun, 2015).

*Nurse manager competencies:* Essential skills, abilities, and behaviors needed to be effective in the role of the nurse manager (Jennings, Scalzi, Roders, & Keane, 2007).

*The nurse manager competency tool:* The Nurse Manager Competency Instrument (NMCI) based on Katz's technical, human, and conceptual competency framework was developed and validated by Chase (2010).

*Leadership:* "A process whereby a person inspires a group of people to achieve a common goal" (Northouse, 2013, p. 5)

*Leadership Academy* of the MHS Flagship  Medical Center: Designed for the professional development and leadership training of leaders and potential leaders, as preparation to meet the challenges of the dynamic health care environment (WRNMMC Education, 2015).

## Assumptions

Assumptions are suppositions that researchers make that are foundational to the relevance of the study (Martin & Parmar, 2012). An assumption of the study was that the perceptions of competencies assessed by nurse managers at Flagship Medical Center were representative of the nurse manager team at the project hospital and nurse managers in MHS throughout the United States. A second assumption was that the nurse managers responding to the NMCI were representative of nurse managers in other medical centers within the United States.

## Scope and the Delimitations

Working as a nurse manager and supervising nurse managers for more than 20 years, I witnessed excellence in nurse management practice by competent nurse managers and teams and observed the devastating, unhealthy work environments and undesirable patient outcomes in departments led by incompetent nurse managers. The role of the nurse manager was the scope of this project; nurse managers are crucial to the success of hospitals in achieving effective patient care and supporting the financial mission (Cathcart et al., 2010). Study delimitations are systemic biases that give the researcher control by establishing and restricting the study's parameters (Price & Murnan, 2004). I restricted the type of nurses taking the survey to nursing leadership, nurse managers and assistant nurse managers instead of all nurses. Therefore, as a researcher, I obtained the assessment of the perceived competencies needed directly from the group performing the role of the nurse manager.

## Summary

Nurse managers serving in a military environment have a 24-hour responsibility for their assigned departments and face rapid changes in health care within their organization as service members are deployed or moved to fill the needs of the military. Military nurse managers must be competent and provide effective leadership for their dynamic environment. The Flagship Medical Center recently developed The Leadership Academy designed for the professional development and leadership training of potential leaders and present leaders, enabling them to meet the challenges of their dynamic health care environment.

The assessment of military middle managers included perceived level of competencies in five major areas: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills (Chase, 2012). The NMCI was the assessment tool. The results of the study may be used for individual managers' development, as well as for modifying the Leadership Academy curriculum to address strengths or opportunities to assist in further leadership development. The review of the literature seeks to establish nurse managers' and leaders' competencies necessary to lead teams of health care professionals in the current health care environment.

## Section 2: Review of the Literature

Exceptional leadership is essential to ensure outstanding patient care, and nursing management is a nursing specialty where leaders must be competent to practice in this transformational health care arena. To have a better understanding of the perceived competencies of middle managers, I conducted a comprehensive review of the literature. The Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, and the Business Source Complete were used to identify peer-reviewed articles and research during a 5-year period from 2010 to 2015. The search also incorporated seminal and foundational literature and included the search terms *nurse manager, management, leadership, administration, competencies, skills, knowledge, and attributes*. Additional vocabulary searches included words such as *communication, relationship management, health care system, professionalism, business skills, and change management*. Because of the importance of the nurse manager's role in practicing evidence-based management, researchers have sought to study and define competencies essential to this leadership role.

Jennings, Scalzi, Roders, and Keane (2007) reviewed 140 articles and identified 894 leadership and management competencies; 862 were common to both leadership and management. The leadership competencies were placed into categories including personal attributes, interpersonal skills, thinking skills, setting the vision, communicating, initiating change, developing people, health care knowledge, and management and business skills. The management categories mirrored the leadership categories and included human resource management and information management categories. There

were similarities between the competency categories of Jennings et al. (2007) and those found by Chase (2010). Enabling nurse managers to acquire and maintain competencies that strengthen their practice, was the goal of Pallay (2010) who surveyed 420 senior managers with a self-administered, 51-item competency questionnaire. Seven competencies emerged, including Self-management, Controlling, Health/clinical, Organizing, People Management, Planning, and Ethical/legal competencies (SCHOPPE), which formed the foundation for management development competency-based programs.

The military health care system faces challenges similar to those experienced by other health care systems in the United States. Hence, the assessment of military nurse leaders' competencies reveals similarly needed knowledge, skills, and abilities. Military nurse leaders must lead in a fluctuating health care environment while meeting demanding military operational requirements. Palarca, Jahnson, Mangelsdorff, and Finstuen (2008) studied relevant competencies skills, knowledge, and abilities of navy leaders by using an assessment of a sample of 200 senior navy nurses that held the rank of captain. The three top rated skills, knowledge and abilities included communication skills, the ability to lead, and the ability to uphold ultimate integrity (Palarca et al., 2008).

Chase (2010) used a previously developed and validated survey, based on the framework of Katz (1955), which exposed the interconnectedness of three levels of competencies: technical, human, and conceptual. The survey highlighted the necessary competencies needed to perform the essential role of the nurse manager, a role vital to delivering high-quality care throughout hospital departments. Eighty-one nurse managers,

members of the American Organization of Nurse Executives (AONE) Nurse Manager Fellows, completed the online survey. The highest-rated nurse manager competencies reported in the study included effective communication, decision-making skills, retention approaches, and discipline. Chase (2010) also performed a parallel between the Chase instrument and 2005 American Organization of Nurse Executives Nurse Managers Leadership Collaborative Framework, which showed comparable competencies categories.

The AONE began formalizing competencies of nursing leaders and nurse managers in 1992 with a national survey of a random stratified sample of the American Hospital Association nursing leaders. The AONE further refined and expanded the results of that study to produce the current AONE competencies for nursing leaders. The AONE collaborated with the Health care Leadership Alliance in creating the competency model. The Health care Leadership Alliance included The American College of Health care Executives, the Medical Group Management Association, the Health care Information and Management Systems Society, the American College of Physician Executives, and the Health Care Financial Management Association (AONE, 2011).

The resulting five core competencies established by the AONE for nursing leaders are (a) communication and relationship building, (b) knowledge of the health care environment, (c) leadership, (d) professionalism, and (e) business skills (AONE, 2011). The breakdown of the five competencies domains serves as an organizational structure or framework for the literature search. The competency itemization is presented below.

Communication and relationship building competencies include the following:

- effective communication.
- relationship management.
- shared decision-making, and
- ability to work with diversity.

Knowledge of the health care environment includes the following:

- clinical practice knowledge and patient care delivery models;
- health care policy knowledge;
- understanding of evidence-based practice;
- patient safety, quality improvement, metrics; and
- outcome management.

Leadership skills include the following:

- the ability to use systems thinking.
- succession planning, and
- change management.

Professionalism includes the following:

- personal and professional accountability.
- ethics, and
- involvement in professional organizations.

Business competencies and skills include understanding of the following:

- health care financing.
- human resource management.
- strategic management, and
- information management and technology (AONE, 2011).

**Communication and Relationship Building**

Nurse managers must be competent in communication by resolving and managing conflict and promoting excellent quality within an organization. Communication competency is an essential competency for effective leaders. High-reliability organization leaders have developed cultures of open communication about quality and errors without accusing (Daley & Mort, 2014). Warshawsky et al. (2013) stated that nurse managers help create work environments that promote positive patient outcomes and quality of nursing care. Hewitt (2010) reported that many nurses failed to report errors because nurses feared repercussions from their managers, embarrassment, and loss of employment. Rouse and Al-Maqballi (2014) determined that competent nurse managers create an encouraging and communicative work environment promote nursing respect, trust, and dignity. Researchers who interviewed nurse managers in six hospitals concluded that to achieve their responsibilities, nurse managers should develop multifaceted competencies, especially communication (Luo et al., 2015).

Nurse managers often lead teams in which health care workers seldom reflect the ethnic and racial composition of the U.S. population. To address health care disparities,

focusing on the ethnic and cultural diversity of health care workers is a priority (Melillo, Dowling, Abdullah, Findeisen, & Knight, 2013). It is essential for nurse managers to understand generational characteristics of the employees and appreciate the generational values of work-life balance. Self-aware nurse managers adjust leadership styles to lead multigenerational teams successfully. Modes of communication and teamwork differ within generations, as well as ease and appreciation of technology (Hendrick & Cope, 2012). Decision-making involvement has a positive effect on job satisfaction and retention among nurses (Scherb, Specht, & Loes, 2011).

**Knowledge of the Health Care System**

The nurse manager should be knowledgeable about current nursing practice including patient care standards published by professional organizations such as The Joint Commission, the Centers for Medicare and Medicaid Services, State Practice Acts, and Nursing State Board regulations. Knowledge of patient care delivery systems and patient care models is essential to understanding the work environment and processes used in coordinating the delivery of care within the manager's scope of service (AONE, 2011). Nurse managers should also understand health care policy and the role of professional organizations representing nursing in legislative and regulatory processes. Successful nurse managers are instrumental in creating practice environments that produce excellent nursing and effective patient outcomes (Fennimore & Wolf, 2011).

Effective nurse managers use evidence-based practice (EBP) models for organizational changes to produce healthy work environments and favorable patient

outcomes. The academic center for evidence-based practice star model, the Johns Hopkins model, the Iowa model, and the Stetler model are examples of models available for use by the competent nurse manager in the translation of evidence into practice in outcome measurements, patient safety, and quality improvement (Schaffer & Dietrick, 2012). Competent nurse managers have essential responsibilities in developing a culture of safety within departments and organizations (Turunen, Partanen, Kvist, Meittinen, & Vehvilainen-Julkunen, 2013). The IOM reported that as many as 98,000 people have died in hospitals from medical errors (Hewitt, 2010). First-level supervisors play a crucial role in conveying to workers the importance of establishing and maintaining an organizational safety culture (Lingard, Cooke, & Blismas, 2014).

**Leadership**

Nursing managers should have foundational-thinking skills, understanding their beliefs, and values while promoting reflective leadership. Nurse managers should assess their strengths and weakness, by appraising their careers and professional goals, and seeking mentorship from respected professionals (AONE, 2011). With the aging nursing leadership population, ensuring the continuity of competent nurse leaders and establishing succession planning models for nurse managers will prove beneficial to health care organizations for the delivery of excellent patient care. Although decreased numbers of nurses joined the profession in the 1980s and 1990s, the nursing profession experienced a 62% increase in full-time equivalent registered nurses ages 23-26 from 2002 to 2009 (Auerbach, Buerhaus, & Staiger, 2011).

Benner's (1984) from-novice-to-expert theory served as the theoretical framework for nursing management succession planning model research. A quasi-experimental 1-group pretest/ posttest design used by the Titzer et al., (2014) included 12 staff nurse participants who aspired to be nurse managers. The succession planning model covered 12 months of training and began with candidates completing the Kouzers and Posner's Leadership Practice Inventory and the Nurse Manager Skills Inventory Assessment surveys. During the 12-month leadership development program, participants received mentoring, coaching, and leadership workshops. Results of the post-test indicated a statistically significant increase from the participants' pretest scores on the competency perception rating and management skills. Nurse managers and leaders are called to be change agents utilizing change theories and models to lead employees through organizational change processes. Adaptation of leadership styles to the particular need is an essential competency of the nurse manager.

**Professionalism**

Nurse managers and leaders are responsible for their behaviors and actions, creating a culture in which individuals hold each other accountable for their behaviors and actions. Nurse managers not only plan their career development but create an environment in which professional growth flourishes. Lewis and Malecha (2011) established that nurse leaders and managers competencies impact their ability to handle workplace incivility and provide an essential role in securing a healthy work environment. Continuing education is identified as a method of providing specific

competencies training for nurse managers. Lifelong learning is embedded in the nursing leaders role because of system changes in the domain of health care including regulatory requirements, consumer demands, technological changes, and clinical practice advances.

Hess (2013) found that The Cleveland Clinic also used education in the development of competent health care leaders who practice in an ever-changing, chaotic, health care environment. The Cleveland Clinic Academy program sponsored an integrated competency-based curriculum of leadership, management, and personal development. From 2006 to 2013, 5654 physicians, nurses, and administrators attended portions of the Cleveland Clinic Academy. The leadership competencies included emotional intelligence, professionalism, change management, communication, commitment to lifelong learning, finance and IT, and the regulatory environment. Other skills included recruiting and hiring, process assessment and management, medical and legal issues, and managing physicians (Hess, 2013).

Military services also use education to strengthen the role of nurse leaders. Consistent with the concept of competent leaders, the Chief of Army Nurse Corps led a thorough review of the training programs for nurse leaders and designed and implemented the Army Nursing Leader Academy. The Army Nursing Collaborative Learning Framework places the nurse leader in the middle of five interlocking aspects of coaching, professional experience, formal schooling, functional/technical knowledge, and self-development. The AONE competencies serve as a foundation for self-assessment

and guidelines for Army nursing leaders; over 3,792 nurse leaders attended sessions at the Academy between 2008-2011 (Dunemn et al., 2011).

In a study of navy mid-level nursing competencies, Palarca (2007) found that the competencies and skills assess by navy nurses matched those of the civilian counterparts. The skills identified were systems thinking, caring, interpersonal effectiveness, human resources, and financial and personal mastery (Sherman & Bishop, 2007). Identifying the relevant competencies for nurse managers and creating educational programs with didactic, coaching, and mentoring components are essential to assist nurse managers in upgrading their professional knowledge, abilities, and skills.

**Business Skills**

Business skills needed include knowledge of financial management, charging mechanisms, budgeting and allocation of resources, human resource management, strategic management, and educating patient care team members on the economic effects of patient care decisions. Nurse managers need knowledge and skills to provide appropriate staffing and scheduling to meet the needs of the patients and staff members (Finkler, Jones, & Kovner, 2013).

With rapid changes in health care, leaders use strategic planning while becoming more relevant to meeting the health care needs of our communities (Zuckerman, 2014). Zuckerman (2014) shares five imperatives of strategic planning including (a) having sufficient scale and scope, (b) being cost competitive, (c) demonstrating quality, (d) exceptional service, and (e) integration. When pursuing the imperatives of strategic

planning, business planning is essential. The use of business plans in health care helps leaders achieve strategic plans by using innovative ideas to ensure achievement of clinical and financial outcomes. Business plans include a current comprehensive market assessment, legal and regulatory elements summary, implementation plans with timelines, resource needs, financial forecasts, and risks, benefits, and exit strategies (Anderson, Smith, Stinson, & Fitzpatrick, 2014).

## General Literature Review

Successful leaders, whether in health care or business, create and communicate a vision and establish a healthy environment where all employees understand the vision. Competency of managers and leaders, regardless of the environment possess similar characteristics. Tarasovich and Lyon (2015) identified six competencies of exceptional financial leaders including ability to (a) communicate a vision and path, (b) adopt an external orientation, (c) foster breakthrough thinking, (d) develop outstanding financial talents, (e) build-in commitment and, (f) propel to action. Redick, Reyna, Schaffer, and Toomey (2014) developed a four-factor model for effective project leadership competency that included self-leadership and leading others, which then allowed project leaders to identify and manage psychology, and environmental challenges effectively. In the self-leadership factor, the leader communicates goals and clear expectations of stakeholders and facilitates feedback. Leaders inspire and help create cohesive teams and effectively deploy conflict resolution strategies while maintaining a positive attitude. Strategic thinking is critical to leading cohesive teams to successful outcomes.

Three characteristics that leaders need for effective strategic thinking are (a) willingness to create a new mindset, (b) ability to transform ideas into sustained actions, and (c) being at ease, in an environment of shifting contexts (Austin, 2013). Strategic thinking and planning cannot be minimized in business climates where declining resources require short and long-term focus, flexibility, and adaptability (Zuckerman, 2014).

One of the greatest roadblocks to conflict resolution is the hubristic behavior of a leader regardless of the area of professional expertise. If a health care leader subscribes to hubristic behavior, the ultimate outcome results in poor patient outcomes and sub-par organizational performance. An effective way for leaders in health care to remove restraints to best practices is by eliminating hubris, avoiding ego-centric behavioral patterns, and staying connected to his or her true self (Petit & Bollaert, 2012). Leaders who practice an authentic leadership style demonstrate mastery of the four components of authentic leadership/followership, self-awareness, relational transparency, balanced processing, and internalized moral perspective (Hinojosa, McCauley, Seng, & Gardner, 2014).

Erskine et al. (2013) in a quantitative study, described how health care leaders establish positive changes in their organization using various quality improvement tools to reduce medical errors and improved organizational efficiencies. Senior leaders consistently stressed that successful implementation of improvement programs occurs when all levels of the organization share responsibility for improvement strategies.

Competent nurse managers are knowledgeable of creating effective teams that share the responsibility for a change. Methods of group orientation may enhance effective teams and raise the competencies of teams in caring for patients. Health care facilities investigated different methods to reduce medical errors. Two groups of employees are oriented using different methods. Group one oriented individually while group two trained together. When evaluated, group two showed a high level of teamwork (Prewett, Brannick, & Peckler, 2013).

## Conceptual Model and Nursing Theoretical Models

Benner's high middle-range theory, novice-to-expert, outlines five stages of skill acquisition. These stages of proficiency are (a) Novice, (b) Advanced Beginner, (c) Competent, (d) Proficient, and (e) Expert (Benner, 2001). The Dreyfus model of skill acquisition shapes the groundwork for Benner's work (Saver, Habel, & Alfaro-LeFevre, 2014). Benner's model is one of the most extensively utilized models for staff and professional development, and many research studies use Benner's model (Saver, et al., 2014). The framework that supports the concept of lifelong learning for nurses is applicable for practice, education, research, and administration. Brenner's theory, originating from critical care environments, migrated to universities, health care education departments, preceptor-to-mentoring programs, and nursing leadership (Altmann, 2007).

Situational leadership theory is one of the contingency theories developed by Hersey and Blanchard (1969) and is one of the most widely used leadership models

because leaders understand how situations vary, as do leadership approaches (Yoder-Wise & Kowalski, 2006). Northouse (2013) described situational leadership as not being static; rather one set of circumstances calls for a particular leadership style while another set of conditions requires a different leadership style. Subordinates move in both directions along the developmental continuum of competency and commitment. Leaders modify their styles to meet the developmental levels of subordinates.

According to the theory, the selection of the leadership style depended on the worker's readiness level. Readiness levels include: (a) workers lack ability and competence; (b) employees are motivated and confident, but may lack ability; (c) workers have the ability; and (d) workers are competent, committed, and confident. There are four leadership strategies or styles used by leaders to influence others that match the workers readiness levels: (a) directing style where the leader gives explicit directions for goal achievement by subordinate and high supervision; (b) coaching style as the leader focuses still on goal achievement and uses explanation and persuasion; (3) supporting level of encouraging, participation, and problem-solving together; and (4) delegating, the leader can monitor and observe the worker (Papworth, Milne, & Boak, 2009). The situational leadership II model developed by Blanchard (1985) is an extension of the model developed by Hersey and Blanchard (Northouse, 2013).

To maximize the effectiveness of this theory, I suggest combining situational leadership with transformational leadership. Transformational leaders attract followers who want increased competency levels that often entail higher education or skill

enhancement (Du, Swaen, Lindgreen, & Sen, 2013). Both theories, Benner's novice-to-expert, and Hersey and Blanchard's situational leadership (SL) support the concept of a competent manager leading effectively. For greater value, the concepts merged, form a stronger model shown in Figure 1. Blanchard's concepts of directing, coaching, supporting, and delegating coincide with Benner's stages of novice and advanced beginner, competent, proficient, and expert. Each of the concepts of the models is represented in the Nurse Manager Competency Instrument, which was used by the managers in their assessment of competency.

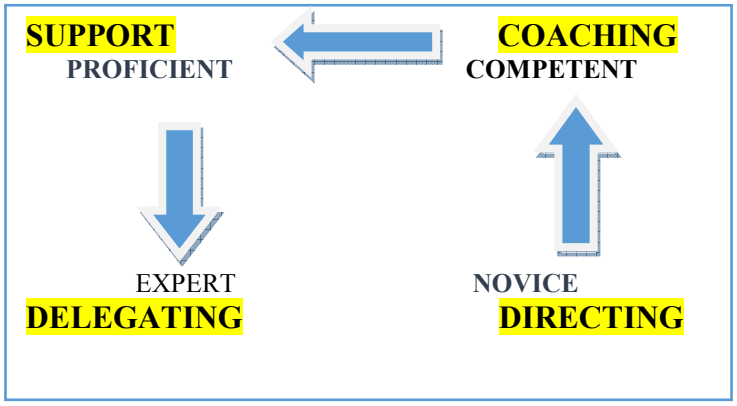


***Figure 1*: adapted from Hersey and Blanchard (1977 and Benner (1984).**

Nurse managers need high competency levels in the fast-paced military setting to be effective in their leadership roles. Both Benner's model and the AONE competency model are foundational to this capstone project. Benner's model, novice-to-expert, and the competency assessment in this project will both enhance the professional development of nurse managers. Benner's model and this capstone assessment both support the concept of lifelong learning for nurses. The AONE competency model framework provides a structure for the Chase Nurse Manager Competency Instrument used as an assessment tool in the project.

Having supervised and mentored numerous managers for over 20 years, I had the opportunity to assess competency levels of middle managers. New managers may be competent or proficient clinical nurses and called upon to perform as clinical leaders. New in their role, nurse managers may start as advanced beginners moving quickly to the competent stage and the progress through the Benner's stages at different rates, depending on preparation, knowledge, competency, and problem-solving skills.

Managers must have a clear understanding of their leadership capabilities which assists their development as they progress through the stages of proficiency, strengthening skills as they apply solutions to organizational problems (Northouse, 2013).

A model, which provided a nursing theoretical foundation for the project, is the AONE competency model, the nurse manager leadership collaborative framework. The five core competencies established by the AONE for nursing leaders are (a) communication and relationship building, (b) knowledge of the health care environment, (c) leadership, (d) professionalism, and (e) business skills (AONE, 2011). The AONE framework also correlates with and corroborates the Chase Nurse Manager Competency Instrument survey tool for use in this project.

The evidenced-based model, which will be used to move the evidence from the literature and needs assessment into practice, will be the *ACE Star* Model of Knowledge Transformation. The ACE Star Model illustrates five stages of knowledge transformation including discovery, evidence summary, translation, integration, and evaluation (White & Dudley-Brown, 2012). Scientifically based quality evidence successfully replicated in research and application, drives excellence in practice as well as expansion and growth of the nursing practice.

## Summary

Throughout the research of literature, similarities in expectations for competencies existed among nursing, health care, business, and project management for managers and leaders in organizations. The central themes and most frequently-cited

competencies were communication, leadership, strategic thinking, professionalism, self-awareness, knowledge of the health care environment, change management, financial knowledge, and business skills. Exceptional leadership is essential to ensure outstanding patient care, and leaders must be competent to practice in this transformational health care arena.

Effective communication is one of the primary competencies found throughout the literature. Leaders use the skill in creating healthy work environments through relationship building, trust and mutual respect, shared decision-making, and the ability to work with diversity (Rouse & Al-Maqballi, 2014). Knowledge of the health care environment is an essential competency and encompasses knowledge of evidence-based practice, standards of care and practice, models of care, and regulatory, professional, safety and quality guidelines (AONE, 2011). Another major theme found in the review of literature is the development of skills and ability to lead effectively. Leaders should have a clear understanding of values and mission, and are often required to be change agents, and successful strategic planners (Tarasovich & Lyons, 2015). Professionally, the competent manager personalizes lifelong learning (Hess, 2013). Lifelong learning included competencies in business skills such as strategic management, budgeting, allocation of resources, in addition to staffing and scheduling (Finkler, et al., 2013).

Many studies focused on leadership and management competencies, but fewer studies focused on military middle management. Military nurse managers experienced purposeful turnover because of deployment and relocation. However, are the

competencies needed for military nursing managers the same as civilian nurse managers? The intent of this project was to decrease the gap in knowledge by examining the results of assessments completed by managers that highlighted the perceived competencies needed by military nurse managers. I worked primarily at every level of nursing management in the civilian sector of health care and also worked with managers in the military. This project explored specific competencies that successful military nurse managers possess in creating a healthy work environment within their units.

## Section 3: Approach and Methods

The purpose of this doctoral project was to provide a better understanding of the perceived competencies of middle managers at a major military medical center. The objectives of the project included an assessment of middle managers perceived competencies using the framework of competencies outlined by the American Organization of Nurse Executives (AONE, 2011). Middle managers assessed their perceived level of competencies in the five major areas: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills. The Nurse Manager Competency Instrument (NMCI) was the assessment tool (Chase, 2012). A comparison of the results of the nurse manager competency assessments and the Leadership Academy curriculum of the assessment site was conducted to address strengths and opportunities to assist in further leadership development.

It is essential for the choice of research methodology to be relevant to the topic being studied and the questions or hypotheses of the study (Maher, Harries, Nachega, & Jaffar, 2012). The researcher selects the appropriate methodology including experimental or observational, randomized or non-randomized, and analytical or descriptive. Further questions must be addressed about the effectiveness, appropriateness and feasibility of the project (Morrow, 2010).

## Design

The methodology for this quantitative assessment project included a non-experimental design with an observational, descriptive, cross-sectional approach within a hospital setting. Knowledge and beliefs based on quantitative premises promote a separation between fact and values, thus permitting the researcher to study the phenomenon without being manipulated by it, or inadvertently influencing the phenomenon of interest (Slevitch, 2011). Descriptive studies are appropriate methods of data collection, gaining information on current knowledge and practices and deciphering correlations (Grove, Burns, & Gray, 2013). Descriptive designs are appropriate for understanding correlations between, military and civilian leaders' perceptions of needed leadership competencies. Cross-sectional surveys give a one-time snapshot of information necessary for drawing inferences from individuals within a group (Department of Health and Human Services, 2014).

Nurse managers and leaders took an online competency assessment survey that elicited demographic information including age, education, gender, tenure in their current position, tenure in management, years as registered nurses, military service or civilian delineation, and current position. The results from the leadership competency assessment project allowed for the development of recommendations for methods to enhance and standardize education and skills for all managers. The project deliverables were the results of the cross-sectional leadership competency assessment, the recommendations for enhanced education based on skill level, and a plan for the implementation of education.

## Population and Sample

The sample chosen was a purposeful sampling of service chiefs (nurse managers) and assistant service chiefs (assistant nurse managers), and nursing administrators and directors. The survey was available to all of the nurse management within the flagship military hospital, which is representative of all military hospitals and their nurse managers. Nurse managers at the military hospital are a homogeneous population, so there was low risk of bias in using a convenience sample. Because the population consisted of fewer than 100 managers, the entire population was asked to participate.

The managers represented all inpatient care units, the emergency department, the specialty clinics, and nursing administration. The inpatient units included three medical-surgical units, a cardiac step-down unit, and a behavioral health unit, a labor and delivery unit, postpartum, newborn nursery, neonatal intensive care, a pediatrics unit, surgical intensive care, medical intensive care, emergency department, surgery, post anesthesia care unit, and the ambulatory procedure care unit. The nurse managers include nursing leaders from the army, air force, navy, and civilian workforce.

The group was essentially homogenous, consisting of military leaders and civilians who work in a military setting. The military leaders are committed and reliable in their dual roles as managers and military officers. Nurse managers in this project have 24-hour responsibilities of at least one inpatient unit and have at least one assistant nurse manager assigned to each clinical unit. The nursing division's professional model, the Patient Caring Touch System (PCTS), was created to reduce clinical quality variances by

implementing evidence-based practices (EBP: Army Nurse Corps, 2014). The PCTS promotes standards for nursing and allows measurement of nurse-sensitive outcomes. Five main categories of the system encircle the patient and the family at the center of the model. The categories include enhanced communication, capability building, EBP, healthy work environments, and patient advocacy.

Through the practicum experience, I had the opportunity of interacting with the brigadier general (who is the hospital's president), the chief nursing officer, and the nursing leadership group throughout the year. The development of a professional working relationship with the leadership enhanced the recruitment of nurse managers' participation in the survey. Throughout the year, I attended weekly nursing managers meeting, the monthly nursing executive meeting, and the hospital leadership meeting. I made rounds of the units and talked directly with managers and staff concerning issues in nursing practice. I also participated in unit-based evidence-based projects along with the clinical nurse scientist. During the nurse managers meeting, I discussed the nurse manager competency survey and the value of involvement by each manager. I also attended the Leadership Academy, which was currently voluntary for nurse managers.

Confidentiality of the participants was maintained by using coded identities so that subjects could retrieve their data for personal improvement plans. I ensured that data were deidentified. At leadership meetings, nurse managers were educated regarding the purpose and use of the survey. At the beginning of the actual, a cover sheet clarified the purpose, the voluntary nature of the survey, and the confidentiality of participants. With

the use of an online survey, the investigator confirmed with the information technology department that the Internet protocol address (IP) and tracking links were at the level to provide anonymity (Baker, 2012). The medical center researchers use data collection tool such as Survey Monkey in the collection of online surveys and analyze data using Statistical Package for the Social Sciences (SPSS).

The Walden University Institutional Review Board (IRB) approved the project verified by number 10-16-15-0481872. Confidentiality and informed consent of survey participants were maintained as well as voluntary participation. Results from the anonymous survey collected electronically ensured that the investigator did not know the identity of the participants. I also received permission from the chief nursing officer at the military medical center and the center of nursing science and clinical inquiry executive committee. Permission to use the NMCI instrument was obtained from Linda K. Chase at lchase@clarian.org (Chase, 2010). Nursing leaders received notification of the survey via e-mail and in person as I attended nurse management meetings and explained the reason for the assessment, confidentiality, and the ease of collection of data. Flyers sent to their offices served as reminders of the upcoming survey.

## Data Collection and Analysis

The instrument used in this study was the Nurse Managers Competency Instrument (NMCI) developed by Chase in 1994 and revised in 2010. In 1994, the validity of the instrument was established by face and content validity. Test- retest was the process used to determine reliability in 1994 and 2010. Participants in the military

medical center of this project used a Likert-scale that indicated the level of competency rating on a 1 to 4 scale for both knowledge and ability levels. Level 4 = essential for first-line nurse managers, 3 = contributes significantly, 2 = contributes moderately, and 1 = contributes minimally. The second part or addendum to the instrument included demographic information, including age, education, gender, tenure in their current position, tenure in management, years as registered nurses, military service or civilian delineation, and current position. In 2010, the tool was organized using the five categories designated by the AONE. The NMCI contains 106 competencies (53 knowledge and 53 ability), and the competency rating provided by the nurse managers for each item was totaled and standard deviation calculated. To identify the overall competency, rating and ranking of the mean values occurred.

Baseline demographic characteristics of the sample presented as means with standard deviations, medians with interquartile ranges (for non-normally distributed data), and counts with proportions. The baseline demographics included age, education, gender, tenure in the current position, tenure in management, years as a registered nurse, military service or civilian delineation, and current position (see appendix C). Exploratory analysis including linear regression analysis was used to determine whether baseline demographics were confounding factors with the mean competency score variable. Linear regression was run for each of the subscales of the NMCI as well as the overall mean score.

There were 53 individual competency statements in the tool, and each one was scored for knowledge and understanding and for the ability to implement and use. The statements were grouped into five subscales, and each subscale was computed as the average of the individual competency statements for that subscale. The subscales or constructs of the NMCI tool are demonstrations of the theoretical framework of the AONE competency model.

The primary outcomes were the scores for the five nurse manager competency subscales:

- AONE: Knowledge of Health care Environment (Chase Technical: Statements 1-11)
- AONE: Communication and Relationship Management (Chase Human: Statements 12-24)
- AONE: Professional (Chase Conceptual: Statements 25-32)
- AONE: Leadership (Chase Leadership: Statements 33-46)
- AONE: Business Skills and Principles (Chase Financial Management: Statements 47-53)

Analysis for Question 1: What are the perceived top 10 relevant competencies identified by army, navy, air force, and civilian nursing managers as needed for effective leadership? The mean and standard deviation for each competency statement was presented for the entire sample of subjects. Data were analyzed according to answers for knowledge and understanding and for the ability to implement and use. Presented are the

number of subjects who responded to each statement and the rank for each competency. Listed are the top ten competency statements, as well as the rank order of the five AONE subscales.

Analysis for Question 2: What level of variance exists between military and civilian perceptions of the top ten relevant nursing management competencies required for effective leadership? The mean and standard deviation for each competency statement were presented for each service, for the total sample of military subjects, and for the civilian subjects. Data were presented according to answers for knowledge and understanding and for the ability to implement and use. I presented the number of subjects who responded to each statement and the rank for each competency for each subgroup. The top ten competency statements were listed as well as the rank order of the five AONE subscales. Mean responses for each AONE category were compared between military and civilian nurse managers using either an ANOVA or a two-sample *t* test depending on the number of groups being compared.

Analysis for Question 3: What is the impact of an evidence-based best practices leadership educational program on the perceived top-ten relevant competencies identified by army, navy, air force, and civilian nursing managers? I presented the mean and standard deviation for each competency statement for subjects who did or did not attend the Leadership Academy. The top 10 competency statements were listed as well as the rank order of the five AONE categories. Mean responses for each AONE category were compared using the two-sample *t* test between nurse managers who did and did not attend

the Leadership Academy. I also conducted linear regression analysis to determine whether age, experience, status (military versus civilian), or education level were confounding factors, with the mean competency score for a category as the dependent variable.

## Summary

Exceptional leadership is essential to ensure outstanding patient care, and nursing management is a nursing specialty in which leaders must be competent to practice in this transformational health care arena. Enabling nurse managers to acquire and maintain competencies that strengthen their practice starts with an assessment of competencies. The project included a descriptive, nonexperimental design. The perceived competencies of nurse managers were assessed using the NMCI, a valid and reliable tool. Data were collected electronically using confidential and ethical methods. The results of the assessed nurse managers' competencies in this project can be used in the development of individual nurse managers and enhance the content of the Leadership Academy for further leadership development.

Section 4: Discussion and Implications

## Introduction

The purpose of this doctoral project was to provide a better understanding of the perceived competencies needed for middle managers at the Flagship Military Medical Center. The three questions addressed were (a) what are the perceived top ten relevant competencies identified by army, navy, air force, and civilian nursing managers as needed for effective leadership? (b) what differences exist between military and civilian nurse perceptions of the top 10 relevant nursing management competencies required for effective leadership? and (c) what is the impact of an evidence-based best practices leadership educational program on the perceived top 10 relevant competencies identified by army, navy, air force, and civilian nursing managers?

To provide clarity regarding the competencies needed by nurse managers in a military setting, data were collected and analyzed using the conceptual framework of the AONE competency model, the nurse manager leadership collaborative framework. The assessment of military nursing managers perceived level of competencies included five major areas: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills (Chase, 2012). The top 10 competencies assessed came from three of the five major areas. Four of the 10 competencies were from leadership, three were communication competencies, and three were from knowledge of the health care environment. Competencies from two of the

major areas, professionalism, and business skills were absent from the top 10 assessed important competencies (see Table 2).

When comparing the top 10 competencies assessed in the knowledge and understanding category to the ability category, four competencies remained in the top 10 in both groups including effective communication, decision-making, nursing practice standards, and effective staffing strategies competencies. Civilian and military managers' assessment of the top 10 competencies showed minimal variance. However, there was significant statistical variance in other competencies not listed in the top 10. Similar findings emerged in comparisons of managers who did or did not attend the Leadership Academy.

## Findings and Discussion

The invitation to participate in the assessment, sent to 86 nursing management personnel, resulted in 53 responses, a 62% response rate. Participants responded to an online survey during a 15-day period. More than 75% of the sample respondents consisted of service chiefs (nurse managers) and assistant service chiefs (assistant nurse managers), and the remaining 25% consisted of nursing administrators and directors. Almost 60% of the survey sample was under the age of 45 years and only 11% was over 55 years old. Females composed 75.47% of the sample while males were 24.53%. Over 50% of the nursing leaders who took the survey had Master's degrees while 7.5% had doctoral degrees. While 69.8% of the survey sample had 10 years or more of experience as a registered nurse, 44.6% had 5 or more years of experience as a manager. The navy,

army, and civilian management participants had similar levels of representation, but the air force represented only 1.8 % of the sample. Only one air force manager and non-nursing manager responded to the survey (see Table 1). Managers who attended, at least, one of the organization's Leadership Academy composed 66.04% of the sample.

Table 1

*Demographic Information*

| | | participants | % |
|---|---|---|---|
| Age | <25 years | 1 | 1.9 |
| | 25-34 | 8 | 15.1 |
| | 35-44 | 22 | 41.5 |
| | 45-54 | 16 | 30.2 |
| | 55 and over | 6 | 11.3 |
| Gender | Female | 40 | 75.5 |
| | Male | 13 | 24.5 |
| Highest education | Associate/ Diploma | 3 | 5.7 |
| | BSN | 19 | 35.8 |
| | Master's degree | 27 | 50.9 |
| | Doctoral degree | 4 | 7.5 |
| Position | Department Chiefs, Directors and Assistant Directors | 13 | 24.5 |
| | Manager/Service Chiefs | 21 | 39.6 |
| | Assistant Manager or Assistant Service Chiefs | 19 | 35.9 |
| Years as a Registered Nurse* | 1-4 | 3 | 5.7 |
| | 5-9 | 12 | 22.6 |
| | 10 or more years | 37 | 69.8 |
| Years as a manager** | Less than a year | 5 | 9.43 |
| | 1-2+ years | 10 | 18.18 |
| | 3-4+ years | 10 | 18.18 |
| | 5-9+ years | 10 | 18.18 |
| | 10 or more years | 14 | 26.42 |
| Service/Civilian | Navy | 18 | 34.0 |
| | Army | 19 | 35.8 |
| | Air Force | 1 | 1.9 |
| | Civilian | 15 | 28.3 |
| Attendance at leadership academy | Yes | 35 | 66.0 |
| | No | 18 | 34.0 |

*Note*. * One manager was not a registered nurse ** Four participants did not answer the question.

The assessment of military and civilian managers' perceived level of competencies, comprised five major areas: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills (Chase, 2012). The NMCI tool contained 106 competencies: 53 knowledge and understanding (or K) competencies and 53 ability to implement or use (or A) competencies. The important overall competency rating and ranking of the mean values provided by the nurse managers for each item was totaled and the standard deviation calculated.

Managers used a Likert scale that indicated the level of competency rating on a 1 to 4 scale for both knowledge and ability levels. Level 4 = essential for first-line nurse managers, 3 = contributes significantly, 2 = contributes moderately, and 1 = contributes minimally. Competency ratings assigned to each item, between 1 and 4, were totaled and used for calculations of item means and standard deviations. The higher the scores, the higher the participants rated the importance of the competency.

**Question 1**

The results of the assessment revealed that out of the 106 competencies, the top 10 perceived competencies needed for effective leadership and their means (*m*) were as follows: effective communication (*m*= 3.94), decision-making (*m* = 3.89), problem-solving (*m* = 3.89), nursing practice standards (*m* = 3.87), nursing practice standards (*m* = 3.85), effective communication (*m* = 3.84), time management (*m* = 3.81), conflict resolution (*m* = 3.79), infection control practices (*m* = 3.77), and effective staffing

strategies (*m* = 3.77). Table 2 presents the top 10 competencies, the type of competency, as well as the means, standard deviations (*SD*), standard errors of the mean (*SEM*) and major areas of competency for each item.

Table 2

*Top 10 Competencies*

| Competencies | *M* | *SD* | *SEM* | Major Areas of competencies |
|---|---|---|---|---|
| Effective communication (K) | 3.94 | 0.23 | 0.03 | Communication/relationship building |
| Decision-making (K) | 3.89 | 0.42 | 0.06 | Leadership |
| Problem-solving (K) | 3.89 | 0.32 | 0.04 | Leadership |
| Nursing practice standards (K) | 3.87 | 0.39 | 0.05 | Knowledge of health care environment |
| Nursing practice standards (A) | 3.85 | 0.36 | 0.05 | Knowledge of health care environment |
| Effective communication (A) | 3.83 | 0.55 | 0.07 | Communication/relationship building |
| Time management (K) | 3.81 | 0.52 | 0.07 | Leadership |
| Conflict resolution (K) | 3.79 | 0.53 | 0.07 | Leadership |
| Infection control practices (A) | 3.77 | 0.47 | 0.06 | Knowledge of health care environment |
| Effective staffing strategies (K) | 3.77 | 0.54 | 0.07 | Communication/relationship building |

*Note*. Type of Competency: K = Knowledge and Understanding; A = Ability to implement or use.

Ninety-three of 106 competencies had a mean of 3.0 or above. Hence, 93 of 106 competencies were assessed by participants as contributing significantly to the job of the middle manager. Managers assessed knowledge and understanding of effective communication as the most important competency. Managers also noted that it was

critical to have knowledge and understanding of leadership competencies as seven of 10 top competencies came from the leadership major area. However, communication competencies constituted six of the top 10 competencies important in the ability to implement and use rating (see Table 3A and 3B).

Table 3A

*Top 10 Competencies: Knowledge and Understanding*

| Competencies | *M* | *SD* | *SEM* | Category |
|---|---|---|---|---|
| Effective communication | 3.94 | 0.23 | 0.03 | Communication/ relationship building |
| Decision-making | 3.89 | 0.42 | 0.06 | Leadership |
| Problem-solving | 3.89 | 0.32 | 0.04 | Leadership |
| Nursing practice standards | 3.87 | 0.39 | 0.05 | Knowledge of health care environment |
| Time management | 3.81 | 0.52 | 0.07 | Leadership |
| Conflict resolution | 3.79 | 0.53 | 0.07 | Leadership |
| Effective staffing strategies | 3.77 | 0.54 | 0.07 | Communication/ relationship building |
| Delegation | 3.77 | 0.47 | 0.06 | Leadership |
| Policies and procedures | 3.77 | 0.54 | 0.07 | Leadership |
| Stress management | 3.75 | 0.55 | 0.08 | Leadership |

Table 3B

*Top 10 Competencies: Ability to Implement and Use*

| Competencies | *M* | *SD* | *SEM* | Category |
|---|---|---|---|---|
| Nursing practice standards | 3.85 | 0.36 | 0.05 | Knowledge of health care environment |
| Effective communication | 3.83 | 0.55 | 0.07 | Communication/ relationship building |
| Infection control practices | 3.77 | 0.47 | 0.06 | Knowledge of health care environment |
| Decision-making | 3.75 | 0.55 | 0.08 | Leadership |
| Effective staffing strategies | 3.72 | 0.63 | 0.09 | Communication/ relationship building |
| Constructive performance evaluation | 3.7 | 0.7 | 0.1 | Communication/ relationship building |
| Effective counseling strategies | 3.68 | 0.64 | 0.09 | Communication/ relationship building |
| Staff development strategies | 3.66 | 0.62 | 0.08 | Communication/ relationship building |
| Nursing care delivery systems | 3.64 | 0.56 | 0.08 | Knowledge of health care environment |
| Optimism | 3.64 | 0.62 | 0.09 | Communication/ relationship building |

**Question 2**

Question 2 addressed the differences between military and civilian nurse perceptions of the top 10 relevant nursing management competencies required for effective leadership. The results of the assessment showed that there were minimal differences between military and civilian nurse managers' perceptions of the top 10 relevant nurse manager competencies. Of the top 10 ability to use competencies, decision- making was the only competency having a significant statistical variance ($p = 0.04$) between the military ($m = 3.68$) and civilian ($m = 3.93$) rating.

Seven additional competencies not ranked within the top 10 presented significant differences, which included nursing care delivery systems, research, evidence-based practice, humor, ethical principles, change process, and staff education. The competency with the most significant difference in the mean scores was nursing care delivery systems, with the military averaging 3.61 ($SD = 0.59$), compared to a higher rating by the civilians of 4.0 ($SD = 0$, all civilians answered 4, $p < 0.001$). In all eight competencies with statistical differences, the civilians' average mean scores were consistently higher than the mean scores of their military counterparts. Table 4 shows the eight competencies with statistically significant differences, mean scores, standard deviations, and $p$ values.

Table 4

*Competencies with statistically significant differences between military and civilian managers*

| Competencies | Military-Civilian | *n* | *M* | *SD* | *SEM* | *p* value |
|---|---|---|---|---|---|---|
| Nursing care delivery systems (K) | Military | 38 | 3.61 | 0.59 | 0.10 | <0.001 |
| | Civilian | 15 | 4.00 | 0.00 | 0.00 | |
| Research and evidence-based practice (K) | Military | 38 | 3.21 | 0.70 | 0.11 | 0.014 |
| | Civilian | 15 | 3.73 | 0.59 | 0.15 | |
| Research and evidence-based practice (A) | Military | 38 | 3.24 | 0.59 | 0.10 | 0.008 |
| | Civilian | 15 | 3.73 | 0.59 | 0.15 | |
| Humor (A) | Military | 38 | 3.18 | 0.80 | 0.13 | 0.048 |
| | Civilian | 15 | 3.67 | 0.72 | 0.19 | |
| Ethical principles (K) | Military | 38 | 3.50 | 0.56 | 0.09 | 0.039 |
| | Civilian | 15 | 3.80 | 0.41 | 0.11 | |
| Change process (K) | Military | 38 | 3.42 | 0.68 | 0.11 | 0.003 |
| | Civilian | 15 | 3.87 | 0.35 | 0.09 | |
| Staff education (K) | Military | 38 | 3.53 | 0.60 | 0.10 | 0.014 |
| | Civilian | 15 | 3.87 | 0.35 | 0.09 | |
| Decision-making (A) | Military | 38 | 3.68 | 0.62 | 0.10 | 0.044 |
| | Civilian | 15 | 3.93 | 0.26 | 0.07 | |

*Note*. Type of Competency: K = Knowledge and Understanding; A = Ability to implement or use.

Analysis of variance (ANOVA) was used in the analysis of the differences among and between the mean scores of the navy, army, and civilian services managers. Statistically significant differences were found on 20 of the 106 competencies. Knowledge and understanding of conflict resolution was the only competency in the ANOVA that was also rated as one of the top 10 competencies. The difference found ($p$ = 0.027) on this item was the mean score of the navy ($m$ = 3.50) and the army ($m$ = 3.95). Statistically significant differences were found on 15 of the 20 competencies, and nine differences were found between the navy and civilian managers' rating. There were no statistically significant differences found between the army and civilian managers' ratings (see Table 5).

Table 5

*Competencies with Statistical Differences between Navy, Army and Civilian*

| Competency (Type) | Navy *M* (*SD*) | Army *M* (*SD*) | Civilian *M* (*SD*) | *p* value | | | |
|---|---|---|---|---|---|---|---|
| | | | | ANOVA | navy v army | navy v civilian | army v civilian |
| Nursing Care Delivery (K) | 3.44 (0.62) | 3.79 (0.54) | 4.00 (0.00) | 0.008 | 0.094 | 0.007 | 0.450 |
| Research & EBP (K) | 3.00 (0.69) | 3.67 (0.68) | 3.71 (0.61) | 0.015 | 0.222 | 0.011 | 0.312 |
| Patient Acuity (A) | 3.17 (0.51) | 3.73 (0.45) | 3.64 (0.63) | 0.005 | 0.005 | 0.039 | 0.869 |
| Research and EBP (K) | 3.06 (0.54) | 3.37 (0.60) | 3.71 (0.61) | 0.010 | 0.241 | 0.007 | 0.220 |
| Recruitment strategies (K) | 2.44 (0.70) | 3.42 (0.69) | 3.00 (1.11) | 0.003 | 0.002 | 0.156 | 0.329 |
| Retention strategies (K) | 3.00 (0.59) | 3.79 (0.42) | 3.5 (0.94) | 0.003 | 0.002 | 0.093 | 0.429 |
| Recruitment strategies (A) | 2.44 (0.78) | 3.26 (0.81) | 3.07 (1.00) | 0.016 | 0.015 | 0.109 | 0.801 |
| Retention strategies (A) | 2.78 (0.65) | 3.63 (0.76) | 3.50 (0.94) | 0.004 | 0.005 | 0.032 | 0.881 |
| Group process (A) | 3.11 (0.58) | 3.68 (0.75) | 3.50 (0.76) | 0.049 | 0.042 | 0.271 | 0.735 |
| Ethical principles (K) | 3.28 (0.57) | 3.74 (0.45) | 3.79 (0.43) | 0.007 | 0.018 | 0.016 | 0.957 |
| Strategic planning/ goal development (A) | 3.06 (0.73) | 3.68 (0.58) | 3.14 (0.95) | 0.030 | 0.036 | 0.942 | 0.109 |
| Ethical principles (A) | 3.00 (0.69) | 3.84 (0.37) | 3.71 (0.61) | 0.000 | 0.001 | 0.003 | 0.798 |
| Political process and advocacy (A) | 2.72 (0.75) | 3.26 (0.81) | 2.5 (0.85) | 0.023 | 0.111 | 0.718 | 0.025 |
| Power and empowerment (K) | 3.28 (0.83) | 3.90 (0.32) | 3.86 (0.36) | 0.003 | 0.005 | 0.015 | 0.980 |
| Change Process (K) | 3.17 (0.71) | 3.68 (0.58) | 3.86 (0.36) | 0.004 | 0.026 | 0.005 | 0.679 |
| Conflict resolution (K) | 3.50 (0.79) | 3.95 (0.23) | 3.93 (0.27) | 0.018 | 0.027 | 0.056 | 0.994 |
| Motivational strategies think is (K) | 3.22 (0.73) | 3.79 (0.54) | 3.64 (0.63) | 0.028 | 0.025 | 0.164 | 0.791 |
| Staff education (K) | 3.28 (0.67) | 3.79 (0.42) | 3.86 (0.36) | 0.003 | 0.010 | 0.007 | 0.925 |
| Interdisciplinary Care coordination (K) | 3.11 (0.76) | 3.68 (0.67) | 3.64 (0.63) | 0.031 | 0.040 | 0.090 | 0.984 |

*Note*. Type of Competency: K = Knowledge and Understanding; A = Ability to implement or use.

**Question 3**

Nine competences with statistically significant differences emerged between 35 managers who attended, at least, one of the Leadership Academy classes and the 18 managers who did not attend any Leadership Academy classes. The ability to implement and use nursing practice standards was the only one of the nine competencies with statistically significant differences that was also rated among the top 10 competencies. The statistical difference ($p = 0.017$) emerged between class attendees $m = 3.80$ and non-attendees $m = 4.00$. The other eight competencies with differences were infection control practices, nursing care planning, staff development strategies, group process, team building strategies, ethical principles, stress management, and unit budget control measures. In each of the nine competencies, the managers who attended the leadership class rated the importance of the competency lower than the managers who did not attend the class**.** Overall, regardless of class attendance managers rated the importance level of nine of the top ten competencies statistically the same (see Table 6).

Table 6

*Competencies with Statistically Significant Differences in Attendance at Leadership Academy Classes*

| Competencies | Attendance | *n* | *M* | *SD* | *SEM* | *p value* |
|---|---|---|---|---|---|---|
| Nursing practice standards (K) | Yes | 35 | 3.80 | 0.47 | 0.08 | 0.017 |
| | No | 18 | 4.00 | 0.00 | 0.00 | |
| Infection control practices (K) | Yes | 35 | 3.46 | 0.61 | 0.10 | 0.001 |
| | No | 18 | 3.89 | 0.32 | 0.08 | |
| Nursing care planning (A) | Yes | 35 | 3.46 | 0.70 | 0.12 | 0.045 |
| | No | 18 | 3.78 | 0.43 | 0.10 | |
| Staff development strategies(K) | Yes | 35 | 3.57 | 0.61 | 0.10 | 0.028 |
| | No | 18 | 3.67 | 0.49 | 0.11 | |
| Group process (K) | Yes | 35 | 3.51 | 0.66 | 0.11 | 0.026 |
| | No | 18 | 3.56 | 0.62 | 0.15 | |
| Team-building strategies (K) | Yes | 35 | 3.46 | 0.74 | 0.13 | 0.005 |
| | No | 18 | 3.89 | 0.32 | 0.08 | |
| Ethical principles (K) | Yes | 35 | 3.49 | 0.56 | 0.10 | 0.041 |
| | No | 18 | 3.78 | 0.43 | 0.10 | |
| Stress management (K) | Yes | 35 | 3.66 | 0.64 | 0.11 | 0.022 |
| | No | 18 | 3.94 | 0.24 | 0.06 | |
| Unit budget control measures (K) | Yes | 35 | 3.20 | 0.93 | 0.16 | 0.042 |
| | No | 18 | 3.61 | 0.50 | 0.12 | |

*Note*. Type of Competency: K = Knowledge and Understanding; A = Ability to implement or use.

Since more than 75% of the sample respondents consisted of service chiefs (nurse managers) and assistant service chiefs (assistant nurse managers), and the remaining 25% consisted of nursing administrators and directors, differences in their responses were analyzed. Eight competencies surfaced with statistically significant differences related to positions as nursing administrators and directors, compared to nurse managers and assistant nurse managers. The eight competencies were the ability to understand regulatory agency standards, nursing care planning, staff development strategies,

knowledge of group process, humor, teaching and learning theories, political processes and advocacy, and quality process improvement (see Table 7).

Table 7

*Competencies with Statistical Differences According to Position*

| Competency | Position | *n* | *M* | *SD* | *SEM* | *p* value |
|---|---|---|---|---|---|---|
| Nursing care planning (A) | Department Chief/Director | 13 | 3.92 | 0.28 | 0.08 | 0.001 |
| | Serve Chief and Assistants | 40 | 3.45 | 0.68 | 0.11 | |
| Regulatory agency standards (A) | Department Chief/Director | 13 | 3.85 | 0.38 | 0.10 | 0.015 |
| | Serve Chief and Assistants | 40 | 3.48 | 0.64 | 0.10 | |
| Group process(K) | Department Chief/Director | 13 | 3.69 | 0.48 | 0.13 | 0.014 |
| | Serve Chief and Assistants | 40 | 3.23 | 0.77 | 0.12 | |
| Humor (K) | Department Chief/Director | 13 | 3.77 | 0.44 | 0.12 | 0.004 |
| | Serve Chief and Assistants | 40 | 3.20 | 0.88 | 0.14 | |
| Staff development strategies (A) | Department Chief/Director | 13 | 3.92 | 0.28 | 0.08 | 0.011 |
| | Serve Chief and Assistants | 40 | 3.58 | 0.68 | 0.11 | |
| Teaching/learning theories (K) | Department Chief/Director | 13 | 3.69 | 0.48 | 0.13 | 0.037 |
| | Serve Chief and Assistants | 40 | 3.23 | 0.73 | 0.12 | |
| Political process and advocacy (K) | Department Chief/Director | 13 | 3.08 | 0.64 | 0.18 | 0.045 |
| | Serve Chief and Assistants | 40 | 2.60 | 0.90 | 0.14 | |
| Quality/process improvement (K) | Department Chief/Director | 13 | 3.85 | 0.38 | 0.10 | 0.013 |
| | Serve Chief and Assistants | 40 | 3.48 | 0.60 | 0.09 | |

*Note.* Type of Competency, K = Knowledge and Understanding; A = Ability to implement or use.

Use of multivariate linear regression further explores the effect of confounding variables such as status (military versus civilian), class attendance, position, and participants' age on each competency. Knowledge and understanding of ethical principles in Table 8A, 8B, and 8 C, and the ability to understand nursing care planning, noted in Table 9A, Table 9B, and 9C, were significantly different in two or more of these factors. Only attendance at the Leadership Academy was statistically significant in both regression models in Table 8 and Table 9.

Table 8A
*Model Summary*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .465[a] | .216 | .151 | .49284 |

Table 8B
*ANOVA*[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 3.209 | 4 | .802 | 3.303 | .018[b] |
| | Residual | 11.659 | 48 | .243 | | |
| | Total | 14.868 | 52 | | | |

*Note*. a. Dependent Variable: Ethical principles-K
b. Predictors: (Constant), Leadership Academy classes attendance, Position, Age, Military Civilian.

Table 8C
*Coefficients*[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.150 | .473 | | 6.660 | .000 |
| | Military/Civilian | .473 | .169 | .403 | 2.809 | .007 |
| | Age | -.042 | .079 | -.074 | -.531 | .598 |
| | Position | -.307 | .172 | -.250 | -1.789 | .080 |
| | Have you attended one or more Leadership Academy classes? | .379 | .146 | .339 | 2.592 | .013 |

When examining status, class attendance, position, and age in a linear regression model, both position and class attendance were statistically significant factors, $F$=3.01, $p$=0.27 in explaining the rating for nursing care planning (Ability). Senior leaders rated nursing care planning more highly, compared to their middle management counterparts. Managers who did not attend the Leadership Academy rated nursing care planning more highly than those who attended the class.

Table 9A

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .448[a] | .201 | .134 | .59164 |

*Note*. a. Predictors: (Constant), Leadership Academy classes attendance, Position, Age, Military Civilian

Table 9B

*ANOVA*[a]

| Model | | Sum of Squares | *df* | Mean Square | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 4.217 | 4 | 1.054 | 3.012 | .027[b] |
| | Residual | 16.802 | 48 | .350 | | |
| | Total | 21.019 | 52 | | | |

*Note.* a. Dependent Variable: Nursing care planning-A
b. Predictors: (Constant), Leadership class attendance. Age, military and civilian, position

Table 9C

*Coefficients*[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|---|---|---|---|---|---|---|
| | | *B* | Std. Error | Beta | *t* | |
| 1 | (Constant) | 3.743 | .568 | | 6.592 | *.000* |
| | Military/Civilian | .271 | .202 | .194 | 1.341 | *.186* |
| | Age | -.013 | .095 | -.019 | -.134 | *.894* |
| | Position | -.570 | .206 | -.389 | -2.761 | *.008* |
| | Have you attended one or more Leadership Academy classes? | .386 | .175 | .290 | 2.201 | *.033* |

*Note*. a. Dependent Variable: Nursing care planning-A

The results of this assessment provide a better understanding of the perceived competencies needed for middle managers at the Flagship Medical Center. The top 10 competencies included three major categories, communication and relationship building, leadership, and knowledge of the health care environment. The mean ratings of the importance of the competencies ranged from 2.72, contributes moderately to the role of the nurse manager to 4.0 contributes significantly and essentially to the role of the nurse manager. The five competencies, rated of highest importance among the top 10 competencies in both knowledge and ability categories, were effective communication, nursing practice standards, effecting staffing strategies, decision-making, and policies and procedures.

There were minimal differences in ratings of the top 10 competencies by the navy, army, and civilian managers. Only 7.5% of all assessed competency ratings showed statistically significant differences between military and civilian managers. There were no statistically significant differences in ratings between the army and civilian managers. However, the army and navy ratings showed statistical variances in 13% of the competencies, and the navy, and civilian managers results showed statistically significant differences in ratings in 8.5% of the competencies. Although this project focused on the top 10 competencies, it was noted that managers rated four of the seven business competencies among the bottom 10 with means of 2.85, and below. The business competencies that rated the lowest, as shown in Appendix Table A2, were the ability to

use financial resources, cost-benefit analysis, financial resource procurement, and operational and capital budget forecasting.

**Context of Literature and Framework**

This section elaborates on findings of the top competencies rated by the managers in the context of literature and framework. The Chase nurse managers competencies instrument (NMCI) used in this assessment has a robust conceptual framework (Katz, 1955), in combination with the nurse manager collaborative framework of the American Organization of Nursing Executives (AONE, 2011). In 2010, Dr. Chase repeated the study of nurse managers competencies, validated the tool, and found effective communication rated the highest and the most important competency to the role of the nurse manager (Chase, 2010).

In the present survey, managers working in the Military Medical Center perceived that effective communication was also the most important competency assessed for effective leadership. Leaders must exhibit competency with effective communication in sharing visions, goals, performance expectations, and responsibility (Redick, et al., 2014). Leaders, competent in effective communication, inspire their teams, by sharing ideas, effectively listening, instilling a sense of comprehensive support and providing feedback to team members. Competent leaders communicate with integrity, thereby building trust, increasing employee satisfaction, and enhancing change (Day, D., Hand, M., Jones, A., Harrington, N., Best, R., & LeFebvre, K., 2014).

Knowledge of effective staffing competencies, one of the communication competencies, rated in the top ten competencies in the managers survey. Shekelle (2013) reported in an important study that 4,535 out of 232,342 patients died within 30 days of

discharge and suggested that the change in nurse-to-patient ratios, from 4:1 to 8:1, may have contributed to the patient deaths. Nurse managers must take into consideration effective staffing models, including adequate resources, and the competency levels of staff members while developing a safe environment that results in optimal patient outcomes (Wallace, 2013). In the State of California, registered nurses' satisfaction rates increased between 2004 and 2008 after the California staffing law passed. Increased nurse satisfaction and moral have decreased patient mortality (Tellez & Seago, 2013; Tellez, 2012).

The managers also assessed that seven of the top 10 knowledge competencies were from the leadership category. Their assessment coincided with the AONE's depiction of the nurse manager leadership collaborative framework model, see Figure 2, which places leadership competencies in the center and overlapping the other four major categories of competencies. Four of the overall top 10 rated competencies were from the leadership category: problem-solving, decision-making, conflict resolution, and time management.

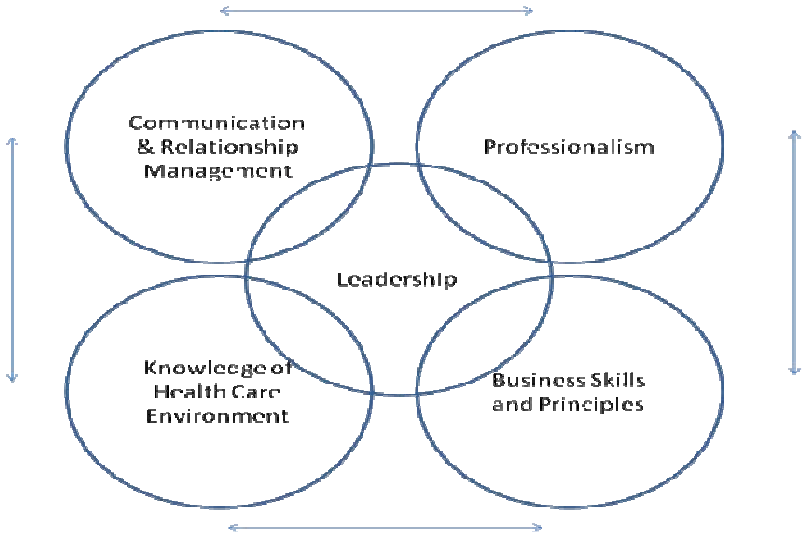


*Figure 2*. *AONE Nurse manager leadership collaborative framework (AONE, 2005)*

Decision-making was the second highest rated competency by the military management team. Decision-making is essential in transformational and transactional leadership. Leaders competent in making consistent, effective decisions impact positively on their organizations (Riaz & Khalili, 2014). Managers constantly face competing demands for resource allocation, customer service, and satisfaction, while coordinating and being responsible for patient outcomes and the safety and care for patients. Pressures to manage paradoxical requirements demand ongoing responses and prompt decision-making (Smith, 2014). Hence, decision-making is an essential competency for the nurse manager.

The problem-solving competency, highly rated in this assessment by nursing management, requires logical thought processes and resolve in removing obstacles to planning and implementation of goals and effective decision-making (Burr & Leung, 2015). In health care today, managers must address increasing problems and concerns

with patient outcomes, patient safety, patient complaints, and employee satisfaction. The resolutions of these concerns are not only patient-focused but are required by Federal and State governments, and The Joint Commission (Piper & Tallman, 2015).

Managers identified the knowledge of conflict resolution competency as being essential to the role of effective management. Managers often experience conflict when balancing the financial needs of organizations and allocating resources with ensuring the quality of care and clinical nursing values. Managers must identify the sources of conflicts in their areas of responsibility and implement effective conflict management strategies (Redick, et al., 2014; Kumar, Adhish, & Chauhan, 2014). As complexities of the health care environment increase, it is essential that managers address the resolution of conflicts and dilemmas which, if left unattended, negatively impact the quality of patients care and nurses' working environment (Ganz, Wagner, & Toren, 2015).

The time management competency emphasizes establishing priorities, as well as developing and then employing the priorities within a specified timeframe. The priorities set the focus for activities in the direction of the vision and goals established for success. Leaders prioritize essential tasks with a high return on investment and eliminate futile tasks (Kumar, et al., 2014). Nursing practice standards set guidelines reflecting the current state of knowledge of professional nurses, specifying the direction that endorses safe, competent nursing care for patients (Mc-Innis-Perry, Green, & Mina, 2015). The knowledge of and the ability to use practice guidelines by nurse managers is essential for supporting legal positions on practices issues and behaviors of staff nurses.

The ability to understand and implement infection control practices competency was also highly rated by the nurse managers (Thomas-Hawkins, Flyn, Lindgren, & Weaver, 2015). Managers, along with leadership teams in health care organizations must comply with the Joint Commission's infection control standards, and state health departments, and federal guidelines. Managers are responsible for working with team members in understanding, implementing, and monitoring infection control evidence-based policies and procedures (Murray, 2015).

# Implications

## Practice

Conversations with the leadership at the site of the managers' assessment of leadership competency revealed considerable implications for the organization. Managers in this study assessed knowledge, understanding, and ability to implement nursing practice standards competencies as the fourth and fifth most important competencies of the 106 competencies. Managers also assessed that effective communication, decision-making and problem-solving were the most essential competencies. The identified competencies assist with facilitation of practice standards, within their departments, promoting excellence in patient care.

One of the purposes of the organization is cultivation and maintenance of leadership and skill development platform. The organization emphasizes sustained development of leadership staff to a superior level of personal competency, with the ability to lead others in achieving mutual, corporate, patient-centered goals. The organization recently implemented a Leadership Academy that assists the development of leadership competencies in potential, new, and existing managers. Results of this assessment may be useful in updating the Leadership Academy curriculum. An example of this update may include expanding the communication module, as communication competencies ranked high in importance in the survey. Another update to the curriculum may include enhancements to the business competencies. It was noted that managers rated four of the seven business competencies in their ability to use or implement them among the bottom

10 of the 106 competencies. The use of nurse manager competency development programs assists in succession planning, which decreases the vacancy rate of nurse managers (Prestia, et al., 2014).

The organization recently embarked on the American Nurses Credentialing Center (ANCC) Pathway to Excellence Program. Competency assessment by the leadership is the first step in the completion of one of the 12 standards required for the ANCC certification. Competency and accountability of nurse managers is the specific standard that this assessment addresses (Wilson, M., Sleutel, M., Newcomb, P., Ehan, D., Walsh, J., Wells, J., & Baldwin, K., 2015). The assessment of nurse manager competency impacts nurse managers' development and performance, ultimately establishing an environment for enriching patient outcomes (Chase, 2012).

**Future Research**

Currently, there is limited research published on managers' competencies within military facilities. Expanding the use of this survey to other military facilities may be helpful because organizations often share educational programs about the development of leaders. Future benefits of this assessment may be experienced, such as leadership competency reassessment by the organization after leaders have attended the Leadership Academy and with an updated curriculum. The use of the nurse management competency instrument by the nursing leadership group could be extended to include all managers and leaders within the facility. The competency of all leadership contributes to organizational growth and success as leaders work together in an era of complex and

rapid changes in health care (Sherman, 2014). Further research may be helpful to assess managers' competencies in relationship to nursing-sensitive outcomes (Chase, 2012).

**Social Change Impact**

The Affordable Care Act (ACA) in 2010 called for accountability of health care professionals to provide quality care and report quality improvement measures. Competent nurse managers are essential for evaluating quality, safety, and productivity, and must have practical wisdom in building trust among staff for sustaining the excellent practice of nursing (Cathcart & Greenspan, 2013). I noted in this project that managers realized the importance of competencies and scored 50% of the competencies at a mean of 3.5 or above, signifying that the competencies contribute significantly to or are essential for the job of nurse managers. The top 50% of rated competencies came from four of the five competency categories including communication, knowledge of the health care system, leadership, and professionalism. An opportunity exists for further management development in the area of business skills and principles competencies that all rated in the bottom 25% on the survey. Organizations utilize value-based purchasing principles that focus on the financial impact of patient safety, patient satisfaction, and clinical outcomes (CMS, 2015). Competent nurse managers have essential responsibilities for developing a culture of safety within departments and organizations and must understand the role of value-based purchasing and organizational decision-making (Turunen et al., 2013).

## Project Strengths and Limitations

### Strengths

A primary strength of this project was the environment chosen for this leadership assessment data collection. The culture of the organization equated to a learning organization where senior leadership shared their vision consistently with employees, offered numerous educational classes, and developed and implemented the Leadership Academy 5 months before the collection of the survey. Throughout the practicum experience at that Medical Center, senior leaders supported the researcher, who attended leadership meetings, planning sessions, evidence-based practice unit councils and experienced the culture of the organization.

Data collection through the online Survey Monkey proved beneficial with a 62% response rate. Managers had access to the survey in the privacy of their offices. Another strength of the project was the variety and composition of the response sample. The sample consisted of managers of varied ages, the length of time as registered nurses, educational levels, and diverse tenure as nurse managers. Senior leadership supported the survey, although conveying that participation was optional. Another strength of this project is the Chase Nurse Manager Competency Instrument (NMCI) which is a valid and reliable tool. Dr. Chase first developed and used the tool in 1994 and 2010 further validated the properties of the instrument (Chase, 2012).

## Limitations

The primary limitation of the project was the small number of Air Force managers at the facility. Therefore, the primary sample of nurse leaders consisted of Army (35.8%), Navy (34%), Civilian (28.3%), and Airforce (1.9%). This assessment survey may be repeated at a Medical Center, with a larger population of Air Force personnel, hence expanding the number of Air Force managers participating and providing their competency assessment. The secondary limitation of this project was the timeframe for the data collection which extended over two weeks. In a busy, well-established organization, multiple surveys and projects occur simultaneously causing overload and survey fatigue. An extended survey completion time may have produced a larger sample.

## Recommendations

Further recommendations include the use of the NMCI assessment to guide leadership development of novice leaders. Knowledge, understanding, and the ability to implement effective communication, problem-solving, decision-making, nursing practice standards, time management, and conflict resolution were the top assessed competencies needed, and these competencies may be assessed during the recruitment and hiring process for new leaders. Current managers within the facility may continue to use the NMCI assessment as an ongoing self-evaluation for further development. Senior leaders may also incorporate these competencies into the annual evaluation and developmental programs of the staff members they supervise.

# Analysis of Self

## As a Scholar

Integrating into the leadership of the major medical center was a challenging undertaking. With the assistance of an experienced preceptor, a meeting with the Chief Nursing Officer (CNO) assisted with this integration. Wilkes, Mannix, and Jackson (2013) expounded on Boyers's framework of scholarship and Glassic's development of six standards from the framework. The standards include the creation of clear goals, sufficient preparation, utilization of appropriate methods, achieving noteworthy results, effective communication, and reflective critique. Having worked as a nursing leader and experiencing different levels of nurse manager competency that led to differences in staff and patient outcomes, I had clear goals that included assessing the competencies necessary for military and civilian nurse managers in preparation for effectiveness in leadership roles. An exhaustive review of the literature confirmed my experiences and produced a valid tool useful in the assessment of nurse managers' competency. Guided by my academic experience, appropriate methods were used to achieve remarkable results. The use of effective communication through presentations, email, flyers, reminder notices, and one-on-one communication with managers, facilitated a successful project. Dissemination of the results to the project site and professional organizations will embody reflective critique in the future.

**As a Practitioner**

There is a gap in time between the production of knowledge in health care and in the translation of that knowledge into practice. As a practitioner in the leadership specialty of nursing, it is my responsibility to deepen my expertise and also assist middle managers to incorporate evidence-based practice into their professional practice. This entire program, and specifically this project, facilitated a deeper understanding of the complexity of roles within nursing management as leaders provide care and lead others to adopt evidence-based practice models used in delivering patient-centered care.

I noted the growth of staff nurses as they assumed leadership unit-based responsibilities with evidence-based practice projects while being supported by their managers. The unit-based evidence projects focused on assessment of practice, nursing practice improvements, patient safety, and quality outcomes. As a leader and senior mentor, I expanded my competency in teaching and facilitating classes, enhancing the leadership skills of junior nurses, and assisting nurses to reach their highest potential.

Highlighting the need for and providing the tools for nurse managers' competency assessment within the organization assisted in their journey on the pathway toward excellence. I further developed my communication and presentation skills by educating managers on the American Organization of Nursing Executives (AONE, 2011) competency framework that included communication, knowledge of the health care system, leadership, professionalism, and business skills. Having completed the assessment, managers verbalized that they will use it as a self-assessment tool and realize

areas for needed growth. The results of the assessment enhanced my understanding of the perceived current competencies needed by nurse managers and the competencies the managers rated as less essential to their knowledge, understanding, and ability to implement.

**As a Project Developer**

Competencies and skills gained during the DNP project development are transferable to multiple situations and employment venues. During the project, many valuable opportunities arose including meetings with senior leaders and gaining from their vision and direction. In working with staff nurses and managers on evidence-based processes, staffing effective initiatives through new scheduling technologies, participating in patient safety initiatives, assessing patient satisfaction, enhancing technologies within the simulation lab, and attending research symposia, many additional skills were gained. The opportunities working with staff at all levels of the organization have formed the foundation for implementation of the nurse manager competency assessment into the future.

**Reflections**

The desire to delve deeper into nurse manager competencies came from my past experiences as a Nurse Manager, Nursing Director, and Chief Nursing Officer in a variety of health care organizations. Patient outcomes, nurse and patient satisfaction, and the work environment differed vastly across units of the same organization. The literature review for this project highlighted the concepts that competent nurse managers rated as essential for creating healthy work environments where employees flourish and impact positive patient outcomes.

The results of the survey may be used at the project site in the recruitment process for new managers, as a self-assessment for current managers, as a supervisor's evaluation of managers, and for enhancement of the curriculum of the Leadership Academy. As a nursing leader, this information and assessment tool are essential for my professional practice as I guide and mentor present and future nurse leaders in their developmental journeys. The depth and breadth of competencies needed for nurse managers must resonate with chief nursing officers, chief executive officers, and chief financial officers so that they will encourage educating new nurses about the value, impact, and scope of the nurse manager's job.

## Summary

Leadership is dynamic and affected daily by the ever-changing world of health care. Competent nurse managers must be prepared and are essential to the efficient operation of health care organizations. Managers at the Military Medical Center clearly identified a substantial number of competencies essential for effective leadership. Top competencies identified were knowledge and understanding of effective communication, decision-making, problem-solving, nursing practice standards, time management, conflict resolution, effective staffing strategies, nursing practice standards, and infection control practices. Competencies focusing on business skills, nursing theories, political process and advocacy, and research process rated less important and may present an opportunity for future development of managers. Throughout the review of the literature, it is noted that effective communication is one of the most desired competency among all leaders. This finding was demonstrated among the managers who participated in the project and bodes well for additional effort to enhance management skills throughout the organization.

## Section 5: Scholarly Product for Dissemination

The dissemination of this project is twofold: presentations to the medical center leaders and a manuscript for publication submission. First, the project will be disseminated to two groups of nurse leaders at the Military Medical Center, which was the site for the assessment. The two groups are The Executive Council of Nursing Leaders and the Nurse Management Council. The Medical Center leaders requested results of this project to assist them in their continued development of competent nurse managers. The following scholarly product that will be used in the presentations is the draft manuscript for publication. The manuscript will be tailored for submission to *Nursing Management Journal*, which serves as a resource for nursing leaders in the advancement of knowledge and leadership education.

## Abstract

Military health care organizations need competent frontline managers with knowledge and skills to manage health care complexity and ensure evidence-based practice. With systematic planned turn over of military managers, more civilian managers are needed to fill permanent positions in military hospitals. The purpose of this project was to provide a better understanding of the competencies perceived by nurse managers at a military medical center and whether they differed by military or civilian status. The American Organization of Nurse Executives competency model and framework provided the theoretical framework for the project. The design was nonexperimental, with an observational, descriptive, cross-sectional approach. The Chase Nurse Manager Competency Instrument was used to collect data from 53 military and civilian nurse managers who ranked the top 10 competencies needed for effective leadership. The top competencies chosen by the managers were the knowledge and ability to use effective communication, decision making, problem solving, nursing practice standards, time management, and effective staffing strategies. Using *t* test statistics, only minimal differences were identified between military and civilian nurse managers' perceptions of the top competencies, which allows the medical center to create one integrated leadership curriculum to assist in the development of a competent, unified leadership team of civilian and military managers. Social change to improve patient outcomes can occur within military health care organizations by assessing and developing leadership

competencies in all nurse managers to ensure reliable cultures of safety, quality, and value-based productivity within their military hospital environments.

## Introduction

The demands and requirements of the nurse manager's role are challenging, and some managers are neither competent nor prepared for their role (Cathcart, 2014). Health care leadership competencies continually change because leadership is dynamic and affected daily by the ever-changing world of health care (Cathcart, et al., 2010). Projections indicate that 50% of nurse leaders will retire in the next 5 years creating significant vacancies of nurse managers within organizations (Titzeret, al., 2014). Military nurse leaders must lead in a fluctuating health care environment while meeting demanding military operational requirements.

Within the last three years, two military hospitals merged to form a flagship hospital with nurses from all three military services with different leadership development plans. Middle managers at a U.S. Military Health System (MHS) Flagship Medical Center include army, navy, air force nursing officers and civilian nurses. Military managers have varying backgrounds, management training, leadership experiences, and competencies. Leadership competencies are skills and behaviors that contribute to excellent performance (Kallas, 2014). Competent nurse managers influence the work environment and, according to The American Organization of Nurse Executives (AONE, 2011), exceptionally competent leadership is essential to ensure outstanding patient care.

In the military health care system, nurse leaders are expected to be adaptive and competent in their core abilities to operate in diverse and constantly changing environments (Funari, et al., 2011). With frequent deployment and reassignments, military nurse leaders also face the challenge of placing competent nurse managers in their vacated positions. Hence, the development and maintenance of leadership competencies are critical for nurse managers in military health care organizations (Hacinas, 2012). The specific problem of interest is the lack of clarity regarding the competencies necessary for military and civilian nurse managers to be prepared for leadership roles.

## Background and Context

The purpose of this project was to provide a better understanding of the perceived competencies needed for middle managers at the flagship military medical center. The objective of the project includes the assessment of military managers perceived level of competencies in five major areas: communication and relationship management, leadership, knowledge of the health care environment, professionalism, and business skills (Chase, 2012). The Nurse Manager Competency Instrument (NMCI) was the assessment tool.

Because military leaders are required to take leadership roles early in their career (Hacinas, 2012), this project assists in establishing an updated framework for competencies needed to perform effectively as nurse managers in fast-paced military settings. Senior leaders, educators, and managers must be knowledgeable about the

assessment of the perceived knowledge, understanding, and ability to use leadership competencies by current and potential nurse managers within their organization. Researchers suggest that nurse managers play a significant role in the retention of nurses and quality of care (Brown, et, al., 2013). Nurse managers must be competent not only in the evaluation of quality, safety, and productivity but also in building trust among staff for sustaining the excellent practice of nursing (Cathcart & Greenspan, 2013).

The Institute of Medicine (IOM) reported that as many as 98,000 people have died in hospitals from medication errors (as cited in Hewitt, 2010). Competent nurse managers are essential for evaluating quality, safety, and productivity, and must have practical wisdom in building trust among staff for sustaining the excellent practice of nursing (Cathcart & Greenspan, 2013). Nurse leaders who are knowledgeable about the health care environment, have a pivotal role in leading nurses through the health care reform and allocating resources, and creating a culture of safety (Hader, 2015). Ensuring competencies of the nurse managers may help reduce mortality rates and assist health care organizations in achieving the goals of the Affordable Care Act.

Benner's model is one of the most extensively utilized models for staff and professional development, and many research studies use Benner's model (Saver, et al., 2014). The framework that supports the concept of lifelong learning for nurses and is applicable for practice, education, research, and administration. Benner's stages of proficiency are (1) Novice, (2) Advanced Beginner, (3) Competent, (4) Proficient, and (5) Expert (Benner, 2001). The AONE competency model framework provides a structure

for the Chase Nurse Manager Competency Instrument used as an assessment tool in the project. The five core competencies established by the AONE for nursing leaders are (1) communication and relationship building, (2) knowledge of the health care environment, (3) leadership, (4) professionalism, and (5) business skills (AONE, 2011).

## Design

The methodology for this quantitative assessment project included a non-experimental design, with an observational, descriptive, cross-sectional approach within a hospital setting. An online survey proved beneficial for gathering information from the nurse managers applying a self-administered nurse manager competency instrument. The sample chosen consisted of nursing management, nurse managers, and assistant managers also called service chiefs and assistant service chiefs at the Military Medical Center. Nurse managers submitted demographic information including age, education, gender, tenure in the current position, tenure in management, years as registered nurses, military service or civilian delineation, and current position. The results from the leadership competency assessment project were used for development of recommendations for methods to enhance and standardize education and skills for all managers. The project deliverables were the results of the cross-sectional leadership competency assessment, the recommendations for enhanced education based on skill level, and a plan for the implementation of education.

There were 53 individual competency statements in the tool, and each one was scored for knowledge and understanding and for the ability to implement and use. The

statements were grouped into five subscales, and each subscale was computed as the average of the individual competency statements for that subscale. The subscales or constructs of the NMCI tool are demonstrations of the theoretical framework of the AONE competency model. Participants in the military medical center of this project used a Likert-scale that indicated the level of competency rating on a 1 to 4 scale for both knowledge and ability levels. Level 4 = essential for first-line nurse managers, 3 = contributes significantly, 2 = contributes moderately, and 1 = contributes minimally. The competency rating provided by the nurse managers for each item was totaled and standard deviation calculated. To identify the overall competency, rating and ranking of the mean values occurred.

## Results and Discussion

The invitation to participate in the assessment, sent to 86 nursing management personnel, resulted in 53 responses, a 62% response rate. Participants responded to an online survey during a 15-day period. More than 75% of the sample respondents consisted of service chiefs (nurse managers) and assistant service chiefs (assistant nurse managers), and the remaining 25% consisted of nursing administrators and directors. Almost 60% of the survey sample was under the age of 45 years and only 11% was over 55 years. Females composed 75.47% of the sample while males were 24.53%. Over 50% of the nursing leaders who took the survey had Master's degrees while 7.5% had doctoral degrees. While 69.8% of the survey sample had 10 years or more of experience as a registered nurse, 44.6% had 5 or more years of experience as a manager. The navy, army,

and civilian management participants had a similar level of representation, but the air force represented only 1.8 % of the sample. Only one air force manager and non-nursing manager responded to the survey. Managers that attended at least one of the organization's Leadership Academy composed 66.04% of the sample.

The survey results revealed that ninety-three of 106 competencies had a mean of 3.0 or above. Hence, 93 of 106 competencies were assessed by participants as contributing significantly to the job of the nurse manager. The results of the assessment revealed that out of the 106 competencies, the top 10 perceived competencies needed for effective leadership and their means ( *m*) were as follows: effective communication –K ( *m* = 3.94), decision-making ( *m* = 3.89), problem-solving ( *m* = 3.89), nursing practice standards-K ( *m* =3 .87), nursing practice standards-A ( *m* = 3.85), effective communication-A ( *m* = 3.84), time management ( *m* = 3.81), conflict resolution ( *m* = 3.79), infection control practices ( *m* = 3.77), and effective staffing strategies ( *m* = 3.77).

Of the top 10 ability to use competencies decision-making was the only competency having a significant statistical variance ($p = 0.04$) between the military ($m = 3.68$) and civilian ($m = 3.93$) rating. There are seven additional competencies, not ranked within the top 10, with significant variances which included nursing care delivery systems, research and evidence-based practice in the knowledge and ability categories, humor, ethical principles, change process, and staff education. The competency with the most significant difference in the mean scores was nursing care delivery systems, with the military averaging 3.61 ($SD = 0.59$), compared to a higher rating by the civilians of 4.0 ( $SD = 0$,

all civilians answered 4, $p < 0.001$). In all eight competencies with statistically significant differences, the civilians' average mean scores were consistently higher than the mean scores of their military counterparts.

Nine competencies with statistically significant differences emerged between 35 managers who attended, at least, one of the Leadership Academy classes and the 18 managers who did not attend any Leadership Academy classes. The ability to implement and use nursing practice standards was the only one of the nine competencies with statistically significant differences ($p = 0.017$) that also rated in the top 10 competencies with class attendees $m = 3.80$ and non-attendees $m = 4.00$. The other eight competencies with differences were infection control practices, nursing care planning, staff development strategies, group process, team building strategies, ethical principles, stress management, and unit budget control measures. In each of the nine competencies, the managers who attended the leadership class rated the importance of the competencies lower than the managers who did not attend the class**.** Overall, regardless of class attendance managers rated the importance level of nine of the top 10 competencies statistically the same.

The use of multivariate linear regression further explored the effect of confounding variables such as status (military versus civilian), class attendance, position, and participants' age on each competency. Knowledge and understanding of ethical principles and the ability to understand nursing care planning were significantly different on two or

more of these factors. Only attendance at the Leadership Academy was statistically significant in both regression models.

## Strengths and Limitations

### Strengths

A primary strength of this project was the environment chosen for this leadership assessment data collection. The culture of the organization equated to learning organization where senior leadership shared their vision consistently with employees, offered numerous educational classes, and developed and implemented the Leadership Academy 5 months before the collection of the survey. Throughout the practicum experience at that Medical Center, senior leaders supported the researcher who attended leadership meetings, planning sessions, evidence-based practice unit councils and experienced the culture of the organization.

Data collection through the online Survey Monkey proved beneficial with a 62% response rate. Managers had access to the survey in the privacy of their offices. Another strength of the project was the variety and composition of the response sample. The sample consisted of managers of varied ages, length of time as registered nurses, educational levels, and diverse tenure as nurse managers. Senior leadership supported the survey although conveying that participation was optional. Another strength of this project is the Chase Nurse Manager Competency Instrument (NMCI) which is a valid and reliable tool. Dr. Chase first developed and used the tool in 1994 and 2010 further validated the properties of the instrument (Chase, 2012).

## Limitations

The primary limitation of the project was the small number of air force managers at the facility. Therefore, the primary sample of nurse leaders consisted of army (35.8%), navy (34%), civilian (28.3%) and air force (1.9%). This assessment survey may be repeated at a Medical Center, with a larger population of air force personnel, hence expanding the number of air force managers participating and providing their competency assessment. The secondary limitation of this project was the timeframe for the data collection, which extended over two weeks. In a busy, well-established organization, multiple surveys and projects occur simultaneously causing overload and survey fatigue. An extended survey completion time may have produced a larger sample.

## Summary

Leadership is dynamic and affected daily by the ever-changing world of health care. Competent nurse managers are essential to the efficient operation of health care organizations. Managers at the Military Medical Center clearly identified a substantial number of competencies essential for effective leadership. Top competencies identified were knowledge and understanding of effective communication, decision-making, problem-solving, nursing practice standards, time management, conflict resolution, and effective staffing strategies, nursing practice standards, and infection control practices. Competencies focusing on business skills, nursing theories, political process and advocacy, and research process rated less important and may present an opportunity for future development of managers. Throughout the review of the literature, it is noted that

effective communication is one of the most desired competency among all leaders. This finding was demonstrated among the managers who participated in the project and bodes well for additional efforts to enhance management skills throughout the organization.

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# Appendix A. Nurse Manager Competency Instrument

*Chase N**urse Manager Competency Instrument***

Instructions: Please rate the importance of each competency statement as it applies to the first-line nurse manager role by circling the appropriate number for both sections.

Use the following rating scale.

4 = Essential for first-line nurse manager competencies
3 = Contributes significantly to first-line manager competencies
2 = Contributes moderately to first-line manager competencies
1 = Contributes minimally to first-line nurse manager competencies

| AONE knowledge of healthcare environment (NMCI technical) | | Knowledge and understand of | | | | Ability to implement and/or use | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Nursing practice standards | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 2. | Nursing care delivery systems | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 3. | Nursing care planning | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 4. | Clinical skills | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 5. | Patient acuity systems | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 6. | Infection control practices | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 7. | Research and evidence-based practice | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 8. | New technology | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 9. | Case management | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 10. | Information systems and computers | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 11. | Regulatory agency standards | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| | AONE communication and relationship management (NMCI human) | Knowledge and understand of | | | | Ability to implemer and/or use | | | |
| 12 | Effective communication | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 13. | Effective staffing strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 14. | Recruitment strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 15. | Retention strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 16. | Effective discipline | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 17. | Effective counseling strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 18. | Constructive performance evaluation | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 19. | Staff development strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 20. | Group process | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 21. | Interviewing techniques | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 22. | Team-building strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 23. | Humor | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 24. | Optimism | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| | AONE professional (NMCI conceptual) | Knowledge and understand of | | | | Ability to implement and/or use | | | |
| 25. | Nursing theories | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 26. | Administrative/organizational theories | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 27. | Strategic planning/goal development | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 28. | Ethical principles | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 29. | Teaching/learning theories | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 30. | Political process and advocacy | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 31. | Quality/process improvement | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 32. | Legal issues | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| | AONE leadership (NMCI leadership) | Knowledge and understand of | | | | Ability to implement or/and use | | | |
| 33. | Decision making | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 34. | Power and empowerment | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 35. | Delegation | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 36. | Change process | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 37. | Conflict resolution | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 38. | Problem solving | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 39. | Stress management | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 40. | Research process | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 41. | Motivational strategies | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 42. | Organization of unit of work and workflow process | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 43. | Policies and procedures | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 44. | Staff education | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 45. | Time management | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 46. | Interdisciplinary care coordination | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |

| | AONE business skills and principles (NMCI financial | Knowledge and understand of management) | | | | Ability to implement and/or use | | | |
|---|---|---|---|---|---|---|---|---|---|
| 47. | Cost containment and cost avoidance practices | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 48. | Productivity measurements | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 49. | Operational and capital budget forecasting and generation | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 50. | Cost benefit analysis | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 51. | Unit budget control measures | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 52. | Financial resource procurement | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| 53. | Financial resource monitoring | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |

# Appendix B: Competency Rankings

Table A1

*Competency ranking with knowledge and ability*

| Competencies | Knowledge And Understanding | | | | Ability to Implement/Use | | | |
|---|---|---|---|---|---|---|---|---|
| KNOWLEDGE OF THE HEALTH CARE SYSTEM | *M* | *SD* | *SEM* | Rank | *M* | *SD* | *SEM* | Rank |
| Nursing practice standards | 3.87 | 0.39 | 0.05 | 4 | 3.85 | 0.36 | 0.05 | 1 |
| Nursing care delivery systems | 3.72 | 0.53 | 0.07 | 12 | 3.64 | 0.56 | 0.08 | 9 |
| Nursing care planning | 3.42 | 0.72 | 0.1 | 32 | 3.57 | 0.64 | 0.09 | 18 |
| Clinical skills | 3.6 | 0.57 | 0.08 | 20 | 3.62 | 0.53 | 0.07 | 12 |
| Patient acuity systems | 3.53 | 0.64 | 0.09 | 27 | 3.51 | 0.58 | 0.08 | 23 |
| Infection control practices | 3.6 | 0.57 | 0.08 | 20 | 3.77 | 0.47 | 0.06 | 3 |
| Research and evidence-based practice | 3.36 | 0.71 | 0.1 | 33 | 3.38 | 0.63 | 0.09 | 29 |
| New technology | 3 | 0.83 | 0.11 | 48 | 3.15 | 0.69 | 0.09 | 41 |
| Case management | 2.91 | 0.79 | 0.11 | 52 | 2.92 | 0.85 | 0.12 | 45 |
| Information systems and computers | 3.3 | 0.7 | 0.1 | 39 | 3.32 | 0.75 | 0.1 | 31 |
| Regulatory agency standards | 3.51 | 0.61 | 0.08 | 28 | 3.57 | 0.6 | 0.08 | 18 |
| **COMMUNICATION** | | | | | | | | |
| Effective communication | 3.94 | 0.23 | 0.03 | 1 | 3.83 | 0.55 | 0.07 | 2 |
| Effective staffing strategies | 3.77 | 0.54 | 0.07 | 7 | 3.72 | 0.63 | 0.09 | 5 |
| Recruitment strategies | 2.96 | 0.92 | 0.13 | 49 | 2.92 | 0.92 | 0.13 | 45 |
| Retention strategies | 3.45 | 0.72 | 0.1 | 30 | 3.32 | 0.85 | 0.12 | 31 |
| Effective discipline | 3.62 | 0.71 | 0.1 | 17 | 3.62 | 0.66 | 0.09 | 12 |
| Effective counseling strategies | 3.72 | 0.57 | 0.08 | 12 | 3.68 | 0.64 | 0.09 | 7 |
| Constructive performance evaluation | 3.7 | 0.67 | 0.09 | 14 | 3.7 | 0.7 | 0.1 | 6 |
| Staff development strategies | 3.68 | 0.61 | 0.08 | 15 | 3.66 | 0.62 | 0.08 | 8 |
| Group process | 3.34 | 0.73 | 0.1 | 34 | 3.42 | 0.75 | 0.1 | 27 |
| Interviewing techniques | 3.15 | 0.84 | 0.12 | 44 | 3.04 | 0.92 | 0.13 | 43 |
| Team-building strategies | 3.6 | 0.66 | 0.09 | 20 | 3.6 | 0.69 | 0.09 | 15 |
| Humor | 3.34 | 0.83 | 0.11 | 34 | 3.32 | 0.8 | 0.11 | 31 |
| Optimism | 3.62 | 0.6 | 0.08 | 17 | 3.64 | 0.62 | 0.09 | 9 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PROFESSIONALISM** | | | | | | | | |
| Nursing theories | 2.94 | 0.69 | 0.09 | 51 | 2.92 | 0.83 | 0.11 | 45 |
| Administrative/organizational theories | 3.26 | 0.68 | 0.09 | 42 | 3.23 | 0.8 | 0.11 | 38 |
| Strategic planning/goal development | 3.34 | 0.71 | 0.1 | 34 | 3.3 | 0.77 | 0.11 | 35 |
| Ethical principles | 3.58 | 0.53 | 0.07 | 23 | 3.51 | 0.67 | 0.09 | 23 |
| Teaching/learning theories | 3.34 | 0.71 | 0.1 | 34 | 3.26 | 0.79 | 0.11 | 36 |
| Political process and advocacy | 2.72 | 0.86 | 0.12 | 53 | 2.83 | 0.87 | 0.12 | 49 |
| Quality/process improvement | 3.57 | 0.57 | 0.08 | 24 | 3.51 | 0.7 | 0.1 | 23 |
| Legal issues | 3.28 | 0.82 | 0.11 | 41 | 3.17 | 0.87 | 0.12 | 40 |
| **LEADERSHIP** | | | | | | | | |
| Decision-making | 3.89 | 0.42 | 0.06 | 2 | 3.75 | 0.55 | 0.08 | 4 |
| Power and empowerment | 3.66 | 0.62 | 0.08 | 16 | 3.55 | 0.67 | 0.09 | 21 |
| Delegation | 3.77 | 0.47 | 0.06 | 7 | 3.6 | 0.69 | 0.09 | 15 |
| Change process | 3.55 | 0.64 | 0.09 | 25 | 3.4 | 0.69 | 0.09 | 28 |
| Conflict resolution | 3.79 | 0.53 | 0.07 | 6 | 3.57 | 0.82 | 0.11 | 18 |
| Problem-solving | 3.89 | 0.32 | 0.04 | 2 | 3.62 | 0.79 | 0.11 | 12 |
| Stress management | 3.75 | 0.55 | 0.08 | 10 | 3.43 | 0.82 | 0.11 | 26 |
| Research process | 2.96 | 0.83 | 0.11 | 49 | 2.75 | 0.87 | 0.12 | 53 |
| Motivational strategies | 3.55 | 0.67 | 0.09 | 25 | 3.32 | 0.75 | 0.1 | 31 |
| Organization of unit of work and workflow process | 3.74 | 0.56 | 0.08 | 11 | 3.53 | 0.72 | 0.1 | 22 |
| Policies and procedures | 3.77 | 0.54 | 0.07 | 7 | 3.64 | 0.62 | 0.09 | 9 |
| Staff education | 3.62 | 0.56 | 0.08 | 17 | 3.34 | 0.81 | 0.11 | 30 |
| Time management | 3.81 | 0.52 | 0.07 | 5 | 3.6 | 0.79 | 0.11 | 15 |
| Interdisciplinary care coordination | 3.47 | 0.72 | 0.1 | 29 | 3.25 | 0.87 | 0.12 | 37 |
| **BUSINESS SKILLS** | | | | | | | | |
| Cost-containment and cost-avoidance practices | 3.3 | 0.77 | 0.11 | 39 | 3.09 | 0.93 | 0.13 | 42 |
| Productivity measurements | 3.45 | 0.7 | 0.1 | 30 | 3.21 | 0.91 | 0.12 | 39 |
| Operational and capital budget forecasting and generation | 3.11 | 0.8 | 0.11 | 46 | 2.83 | 0.89 | 0.12 | 49 |
| Cost-benefit analysis | 3.08 | 0.87 | 0.12 | 47 | 2.83 | 0.98 | 0.13 | 49 |
| Unit budget control measures | 3.34 | 0.83 | 0.11 | 34 | 3.02 | 0.97 | 0.13 | 44 |
| Financial resource procurement | 3.13 | 0.83 | 0.11 | 45 | 2.81 | 0.92 | 0.13 | 52 |
| Financial resource monitoring | 3.23 | 0.8 | 0.11 | 43 | 2.85 | 0.93 | 0.13 | 48 |

Appendix C: *Demographic Questions*

Instructions: Please select the most appropriate answer from each category

What best describes your age?

- o <25 years
- o 25-34 years
- o 35-44
- o 45-54
- o 55 and older

What is your Gender

- o Male
- o Female

What is your highest level of education preparation?

- o Associate degree
- o Nursing Diploma
- o Baccalaureate degree
- o Master's degree
- o Doctorate degree

What is your current position?

- o Director/Assistant Director
- o Department Chief
- o Service Chief
- o Assistant Service Chief
- o Other?

How long have you been in your current management position?

- o < 1 year
- o 1-2+ years
- o 3-4+ years

- 5-9+
- 10 or more years

What is the total tenure time you have served as a nurse manager?

- < 1 year
- 1-2+ years
- 3-4+ years
- 5-9+
- 10 or more years

How long have you practiced as a Registered Nurse?

- < 1 year
- 1-2+ years
- 3-4+ years
- 5-9+
- 10 or more years

What is your military service branch or civilian status?

- Navy
- Army
- Air Force
- GS/Civilian
- Contract/civilian

What is your rank/grade?

- E1-E3 Military
- E4-E6 Military
- E7-E9 Military
- O1-O3 Military
- O4-O5 Military
- O5-O7 Military

- GS9-GS11 Civilian
- GS12-GS13 Civilian
- GS14-GS15 Civilian
- Contractor Civilian

Have you attended one or more Leadership Academy Classes?

- Yes
- No