THE RELATIONSHIP BETWEEN INDIVIDUAL CHARACTERISTICS OF REGISTERED NURSES, CHARACTERISTICS OF NEW GRADUATE NURSE TRANSITION PROGRAMS AND CLINICAL LEADERSHIP SKILL

by·

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A Dissertation
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of
Doctor of Philosophy
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The Relationship between Individual Characteristics of Registered Nurses, Characteristics of New Graduate Nurse Transition Programs and Clinical Leadership Skill

A Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at George Mason University

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DEDICATION

This work is dedicated to my husband, Steve, and children, Merrie and Emily, for their unwavering patience and support throughout this long journey.

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ABSTRACT

THE RELATIONSHIP BETWEEN INDIVIDUAL CHARACTERISTICS OF REGISTERED NURSES, CHARACTERISTICS OF NEW GRADUATE NURSE TRANSITION PROGRAMS AND CLINICAL LEADERSHIP SKILL

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George Mason University, 2014

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This non-experimental, retrospective study explored the relationship between individual characteristics of registered nurses, characteristics of new graduate nurse transition programs and clinical leadership skill in a cohort of registered nurses with up to two years of clinical experience. The conceptual framework for this study was based on Benner's Novice to Expert model. Independent variables for individual characteristics of registered nurses included age, primary nursing degree, previous leadership experience, previous healthcare experience and months of clinical experience as a registered nurse. Independent variables for new graduate nurse transition programs included length of the new graduate nurse transition program, assigned mentor (first level variable)/quality of mentor support (sublevel variable), participation in classes to improve professional development skill (first level variable)/perceived improvement in professional development (sublevel variable) through participation in supplemental courses designed

to promote critical thinking ability, leadership skills and/or delegation skills; and quality of overall new graduate nurse transition program. Clinical leadership skill (CLS) was the outcome variable for this study. The strongest predictors of clinical leadership skill were overall quality of the new graduate nurse transition program, length of the new graduate nurse transition program and months of clinical experience as a registered nurse. Hierarchical regression modeling using first level variables accounted for 6.9% of the variability in CLS ($R^2 = .084$, $R^2_{adj} = .069$, F = 5.761, p = .000). Hierarchical regression modeling using sublevel variables improved overall model prediction to 12.6% ($R^2 = .162$, $R^2_{adj} = .126$, F = 5.203, p = .001). Additional findings included larger within subjects effect sizes for new graduate nurse transition programs using the University HealthSystem Consortium/American Association of Colleges of Nursing curriculum when compared to other curriculum, and significantly higher retention rates for new graduate nurse transition programs > 24 weeks in length when compared to new graduate nurse transition programs ≤ 12 weeks.

CHAPTER ONE

Introduction

Transforming the current United States health care system into an affordable, safe, high-quality and accessible system will depend on the ability of registered nurses to function as skilled leaders in all practice arenas (IOM, 2011). From advocating for an individual patient at the bedside to advocating for the nursing profession through policy, it is critical that nurses develop leadership skills that enable them to promote collaboration among disciplines, lead innovative change within organizations, and make critical patient-care decisions (Bowles & Candela, 2005). Nurses must be capable of leading care that is both patient-centered and technologically complex. Nurses must be able to lead committees, interprofessional teams, hospitals and health care systems (IOM, 2011).

Nursing leadership has been primarily studied in relation to nurses in formal leadership positions as opposed to nurses providing direct patient care. Increasing evidence has demonstrated, however, that it is essential for bedside clinical nurses to possess and utilize clinical leadership skill to ensure that patients are cared for safely and appropriately (Abraham, 2011; Aiken, Cimiotti, Sloane, Smith, & Neff, 2011; Kliger, Lacey, Olney, Cox, & O'Neil, 2010; Kutney-Lee, Lake, & Aiken, 2009; Lucero, Lake, & Aiken, 2010; Patrick, Laschinger, Wong, & Finegan, 2011; Rani, Brennan, & Timmons,

2010; Tregunno, Jeffs, Hall, Baker, Doran, & Bassett, 2009).   Patrick, Laschinger, Wong & Finnegan (2011) define clinical leadership skill as "staff nurse behaviours that provide direction and support to clients and the health care team in the delivery of patient care" with five defining characteristics: clinical expertise, effective communication, collaboration, coordination and interpersonal understanding. These characteristics were derived from the seminal work conducted by Posner and Kouzes to develop an instrument that measured the behaviors of leaders: the Leadership Practices Inventory (LPI) (Posner & Kouzes, 1988; Posner & Kouzes, 1993). The five factors identified in the LPI instrument include: Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart. Although congruent with the leadership practices of nurses in formal leadership positions, the focus of clinical leadership skill is the client and health care team as opposed to individuals reporting to and working with a nurse in a formal leadership position.

Studies evaluating clinical leadership skill of new graduate nurses have primarily been focused in two areas: outcomes of interventions specifically designed to improve the clinical leadership skill of new graduate nurses independent of processes used to transition them into the practice setting; and outcomes of programs such as residency or internship programs specifically designed to improve the transition of new graduate nurses from academia into the practice setting. Studies evaluating "independent" intervention programs have been conducted with new graduate nurses who were specifically selected based on "high leadership potential" and results have demonstrated an improvement in clinical leadership skill from pre to post-program (Abraham, 2011;

Dyess & Parker, 2012; Dyess & Sherman, 2011; Rae, 2011). Studies evaluating clinical leadership skill as an outcome of a transition program such as a residency or internship have generally demonstrated a progressive improvement of clinical leadership skill from pre to post-program (Blanzola, Lindeman, & King, 2004; Bratt, 2009; Cleary, Matheson, & Happell, 2009; Goode, Lynn, Kresk, & Bednash, 2009; Halfer, Graf, & Sullivan, 2008; Hatler, Stoffers, Kelly, Redding, & Carr, 2011; Kowalski & Cross, 2010; Roud, Giddings, & Koziol-McLain, 2005; Varner & Leeds, 2012; Williams, Goode, Kresk, Bednash, & Lynn, 2007) . Results of these outcome studies, however, have been limited by factors such as small sample sizes, lack of comparison groups, dependence on self-report measures of improvement, and single-site studies. There is limited evidence to demonstrate whether clinical leadership skill improves over time without interventional programs, whether individual characteristics of new graduate nurses have a relationship with clinical leadership skill, or whether different types of transition programs for new graduate nurses improve clinical leadership skill similarly.

Purpose Statement

The purpose of this study was to determine the combination of variables among individual characteristics of nurses and characteristics of new graduate nurse transition programs that best predicted clinical leadership skill in registered nurses within the first two years of practice. Independent variables included individual characteristics of registered nurses (age, primary nursing degree, previous leadership experience, previous experience in health care, and clinical experience as a registered nurse) and characteristics of new graduate nurse transition programs (length of transition program;

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quality of mentor support; perceived improvement in professional development through participation in supplemental courses to promote critical thinking ability, leadership and/or delegation; and quality of overall new graduate nurse transition program). Clinical leadership skill was the outcome variable for this study.

Research Question

1. Which combination of variables best predicts clinical leadership skill in registered nurses with up to two years of clinical practice: age; primary nursing degree; previous leadership experience; previous experience in health care; clinical experience as a registered nurse; length of new graduate nurse transition program; quality of mentor support; perceived improvement in professional development through participation in supplemental courses to promote critical thinking ability, leadership, and/or delegation skills; and quality of overall new graduate nurse transition program?

Significance

In today's acute health care environment, the demand for novice nurses to assume leadership responsibility in the clinical setting has grown exponentially and increasing evidence indicates they are not ready to do so (Berkow, Virkstis, Stewart, & Conway, 2008). As soon as they enter into the practice environment, new graduate nurses must act as leaders when advocating for patient needs, negotiating boundaries with family members and communicating critical information to physician colleagues. They must also be capable of providing direction to others, escalating up the chain of command, and assuming accountability for their own gaps in knowledge or performance (Dyess &

Sherman, 2009; Keller, Meekins, & Summers, 2006). Academic nursing programs begin the process of developing nursing students to function as leaders in the clinical setting but the academic setting will never approach the complexity and demands of the clinical environment (Keller et al., 2006; Ulrich, Krozek, Early, Ashlock, Africa, & Carman, 2010).

Teaching leadership skills to new graduate nurses presents a unique challenge. Novice nurses are overwhelmed upon initial entry into the practice environment (Duchscher, 2001; Keller et al., 2006). They are consumed with juggling multiple priorities, trying to fit in with the team and not harming a patient (Bratt, 2009). They are focused on learning tasks and applying new skills (Halfer & Graf, 2006). Leadership development is not seen as an initial priority. It is believed that clinical leadership skill in new graduate nurses develops over time through the process of mastering tasks, developing the ability to problem solve, and gaining confidence in decision-making (Keller et al., 2006). Developing clinical leadership skill in novice nurses may be particularly challenging because many nurses entering the field, such as those prepared at the associate degree level, may not have had access to fundamental nursing theory and leadership development courses. Yet, in the practice environment, it is essential that all new nurses effectively use clinical leadership skill.

The majority of new graduate nurses take their first positions in acute care hospitals with fast-paced, complex and demanding clinical environments (Bowles et al., 2005). All hospitals provide transition programs for new graduate nurses into the clinical setting though types of transition programs vary significantly in both quality and length

(Baxter, 2010; Kowalski et al., 2010). New graduate nurse transition programs may be limited to a brief hospital orientation followed by a short clinical orientation to the practice environment over a period of as little as 1 – 2 weeks. Or, new graduate nurse transition programs may be robust and comprehensive with a variety of support systems and supplemental experiences that take place over a period of many months. Transition programs for new graduate nurses that include support systems such as mentors and supplemental courses designed to promote professional development of the new nurse are generally referred to as internship or residency programs. Internship and/or residency programs often occur over a period of six or more months.

In 2002, the Joint Commission recommended that hospitals implement nurse residency programs to transition new graduate nurses into the practice setting due in part to the large number of young nurses who left the field within the first two years of practice (IOM, 2011). The Joint Commission did not dictate specific recommendations in relation to length of residency programs but did define the residency period as "planned, comprehensive periods of time during which nursing graduates can acquire the knowledge and skills to deliver safe, quality care that meets defined (organizational or professional society) standards of practice" (IOM, 2011).

Outcomes for new graduate nurses completing new graduate nurse transition programs, most often referred to as internship and/or residency programs in the literature, have been positive. Nurses completing new graduate nurse transition programs have demonstrated an improvement in work satisfaction, employee engagement, self-confidence, commitment to the organization, time management skills, relations with team

members, clinical leadership skill, critical thinking skills, role socialization, absenteeism and clinical competence (Altier & Kresk, 2006; Anderson, Linden, Allen & Gibbs, 2009; Beecroft, Dorey, & Wenton, 2007; Beecroft, Kunzman, & Krozek, 2001; Blanzola et al, 2004; Bratt, 2009; Bratt & Felzer, 2012; Cleary et al., 2009; Goode et al., 2009; Halfer et al., 2006; Halfer et al., 2008; Hatler et al., 2011; Herdich & Lindsay, 2006; Kowalski et al., 2010; Krugman & Bretschneider, 2006; Olson-Sitki, Wendler, & Forbes, 2012: Park & Jones, 2010; Roud et al., 2005; Setter et al., 2011; Ulrich et al., 2010; Varner et al., 2012; Williams et al., 2007). In general, turnover rates of new graduate nurses in organizations that have implemented new graduate nurse transition programs such as internship and/or residency programs have been significantly reduced resulting in a positive return on investment for the organization (Altier et al., 2006; Beecroft et al., 2001; Beecroft et al., 2007; Bratt, 2009; Goode et al. 2009; Halfer et al., 2008; Herdich et al., 2006; Hillman & Foster, 2011; Keller et al., 2006; Kooker & Kamikawa, 2010; Kowalski et al., 2010; Krugman et al., 2006; Maxwell, 2011; Newhouse, Hoffman, Suflita, & Hairston, 2007; Olson-Sitki et al., 2012; Pine & Tart, 2007; Salt, Cummings & Profetto-McGrath, 2008; Setter et al., 2011; Trepanier, S., Early, S., Ulrich, B., & Cherry, B., 2012; Ulrich et al., 2010; Williams, Sims, Burkhead, & Ward, 2002).

Clinical leadership skill as an outcome variable for new graduate nurse transition programs has been evaluated in a small number of studies, and scores have demonstrated an improvement from baseline through the period of internship and/or residency (Cleary et al., 2009; Goode et al, 2009; Halfer et al., 2008; Hatler et al., 2011; Kowalski et al., 2010; Roud et al., 2005; Thomson, 2011; Williams et al., 2007). In most studies

measuring clinical leadership skill as an outcome variable, the transition program was at least 1 year in length. In addition, the majority of published research related to new graduate nurse transition programs and clinical leadership skill has been limited to pre- and post-study outcomes of baccalaureate prepared nurses or have failed to differentiate outcomes by degree type.

The process of developing clinical leadership skill takes place over time. In new graduate nurses, leadership ability grows as the new nurse becomes more confident in the clinical setting. Qualitative studies of new graduate nurses over the first year of practice reveal that they are not ready to assume leadership roles or provide leadership in the clinical setting for at least six months and require support for at least a year or longer (Duchscher, 2001; Dyess et al., 2009; Dyess et al., 2011; Fink, Krugman, Casey & Goode, 2008; Pellico, Brewer, & Kovner, 2009; Rani et al., 2010; Wangensteen, Johansson, & Nordstrom, 2008). Quantitative studies reveal improvement in clinical leadership skill at six months and beyond (Bartlett, Simonite, Westcott, & Taylor, 2000; Blanzola et al., 2004; Bratt, 2009; Cleary et al., 2009; Dyess et al., 2011; Dyess et al., 2012; Goode et al., 2009; Halfer et al., 2006; Halfer et al., 2008; Kowalski et al., 2010; Olson-Sitki et al., 2012; Roud et al., 2005; Thomson, 2011; Varner et al., 2012; Williams et al., 2007). This development over time is congruent with Benner's Novice to Expert framework. In the Novice or Advanced Beginner stage, new graduate nurses are not ready to function in a clinical leadership role. As they move toward the stage of Competent, they become able to apply leadership skills in the clinical setting. Studies evaluating the relationship between clinical leadership skill and academic preparation

have reported that new graduate nurses feel they do not receive sufficient preparation in leadership content, including areas such as delegation and prioritization (Candela & Bowles, 2008; Kramer, Maguire, Halfer, Budin, Hall, Goodloe, Klaristenfeld, Teasley, Forsey, & Lemke, 2012).

In 2011, the Institute of Medicine published The Future of Nursing: Leading Change, Advancing Health (IOM, 2011). Recommendations to transform the future of health care delivery in the United States through the nursing workforce were presented. Specific recommendations included expanding opportunities for nurses to function in leadership roles and widely implementing nurse residency programs (IOM, 2011). In addition, the IOM recommended that the effectiveness of nurse residency programs be evaluated in relation to improving nurse retention, nursing competence and patient outcomes (IOM, 2011).

Clinical leadership skill is a critical competency that registered nurses must possess to provide safe patient care (Patrick et al., 2011). The clinical nurse must possess the knowledge and skills necessary to take care of acutely ill patients, and must also take action if there is any threat to patient safety. The decision to take action is an example of a clinical leadership skill (Tregunno et al., 2009). In a study conducted by the Nursing Executive Center of the Advisory Board Company, only 18% of nursing leaders were satisfied with the ability of new graduate nurses to take initiative (Berkow et al., 2008). Yet, taking initiative is essential if the safety of a patient is threatened. In a qualitative study exploring nursing leadership and patient safety in the critical care environment, researchers recommended that frontline nurses be supported in the clinical leadership role

to ensure patient safety and that they be encouraged to develop advanced communication and conflict resolution skills (Tregunno et al., 2009). In this study, the ability of nurses to ensure patient safety was provided by "on-the-spot leadership" (Tregunno et al., 2009).

In summary, it is critical that registered nurses possess clinical leadership skill to ensure a safe patient environment in complex, acute clinical settings. A growing body of research has provided some evidence that new graduate nurse transition programs such as internships and/or residency programs promote clinical leadership skill, however the majority of research has been limited to baccalaureate prepared new graduate nurses or outcomes have not been differentiated by degree type. In addition, the majority of research has focused on outcomes of programs that are 1 year in length and programs that have included mentorship and supplemental courses to promote professional development. Previous research has minimally explored the relationship between clinical leadership skill and individual characteristics of nurses such as age, degree type, previous leadership experience, previous experience in health care and clinical experience as a registered nurse. Therefore, the most robust predictors of clinical leadership skill are still unknown.

Conceptual Framework

The concept of a new graduate nurse transition program as a strategy to improve the transition from academia into the practice setting is most frequently based on Benner's Novice to Expert conceptual framework though other theoretical models have been cited in the literature including researcher developed models, Donabedian's paradigm of structure, process, outcome; Community Learning Design; Chandler's

Empowerment Model and Bicultural framework; Cohen's Mentor Theory; Schoessler and Waldo's Developmental Transition Model; Experiential Learning Theory; and Performance-Based Development System framework (Altier et al., 2006; Beecroft et al., 2007; Blanzola et al., 2004; Bratt, 2009; Bratt et al., 2012; Goode et al., 2009; Halfer et al., 2008; Hatler et al., 2011; Herdich et al., 2006; Hillman et al., 2011; Keller et al., 2006; Krugman et al., 2006; Maxwell, 2011; National Council of State Boards of Nursing, 2009; Newhouse et al., 2007; Olson-Sitki et al., 2012; Park et al., 2010; Pine et al., 2007; Salt et al., 2008; Schoessler & Waldo, 2006; Setter et al., 2011; Thompson, 2011; Trepanier et al., 2012; Varner et al., 2012; Williams et al., 2002).

According to Benner, new nurses pass through five stages of skill development: Novice, Advanced Beginner, Competent, Proficient and Expert (see Figure 1). In the Novice stage, new nurses lack experience and are incapable of applying concepts taught in the classroom within the clinical setting. In the Advanced Beginner stage, new nurses have some experience in the clinical setting and are just beginning to discriminate between normal and abnormal. They are learning to prioritize tasks in order of importance. In the Competent stage, nurses have a sense of mastery over the clinical setting. They are capable of prioritizing and projecting into the future, however they lack the speed and proficiency of a more experienced nurse. Benner states that the stage of Competent takes approximately 2 – 3 years of work within the same setting to achieve. In the Proficient stage, nurses see situations as a "whole" and uses experience to guide and predict. In the final stage, Expert, nurses have extensive experience and decision-making skills are well internalized. In conjunction with skill development, Benner

described three levels of skill performance including: change from confidence about abstract principles to the application of concrete experience; change in the learner's awareness from sub-parts to the situation as a whole, and; a change from observer to active performer (Benner, 1984).

A new graduate nurse transition program is designed to help the new nurse successfully navigate from the Novice or Advanced Beginner stage to the stage of Competent. Although there is variation in both the length and characteristics of new graduate nurse transition programs, most include at least a hospital/organization orientation followed by a unit-based orientation with a preceptor. During the unit-based orientation, the new graduate nurse works with a preceptor to learn the necessary skills for the practice setting. It is the preceptor's role to provide an environment conducive to learning, breaking down complex skills into smaller, more manageable tasks until the new graduate nurse is capable of "putting it all together." A new graduate nurse learns both from performing skills and vicariously from watching the preceptor perform tasks and problem solve. New graduate nurse transition programs that include additional support systems such as mentoring and courses designed to promote professional development of the new graduate nurse are described by Benner as important for new graduate nurses because they support the experiential learning process that is required for transitioning to higher levels of practice. Benner has estimated that the time required to move from the Advanced Beginner stage to Competent is at least 12 months and one cannot be rushed through the process, which provides some validation for transition programs that support the new graduate nurse for at least one year (Benner, 1984). The

process of developing clinical leadership skill is embedded in Benner's framework and occurs concurrently with the process of developing competency. For example, a nurse in the Novice or Advance Beginner stage must be taught to recognize signs that a patient is deteriorating and know how to take appropriate action which is a clinical leadership skill.

Benner's conceptual framework provided rationale for evaluating the development of clinical leadership skill in new graduate nurses within the first two years of practice. New graduate nurses complete orientation within the first two years of clinical practice, and are moving from the stage of Advanced Beginner towards Competent. The time period of two years allowed the researcher to evaluate the relationship between individual characteristics of nurses, characteristics of new graduate nurse transition programs and clinical leadership skill while minimizing the impact of other variables such as additional work experience, practice-based educational programs/courses, advanced academic degrees, or nursing certification.

	Novice	Advanced Beginner	Competent	Proficient	Expert
DREYFUS	Novice	Competent	Proficient	Expert	Master
BENNER	Novice	Advanced Beginner	Competent	Proficient	Expert
CHARACTERISTICS	Rule-based Lacks experience Little independence Knows facts	Still rule-based Anxious and excited Learning to recognize cues Beginning to know how	Beginning to analyze Sets goals Able to plan and prioritize Able to do	Analytical Global perspective Holistic view Able to show how	Intuitive Extensive experience
TIME	Nursing student New graduate nurse	New graduate nurse	2 – 3 years of experience	4+ years	May not achieve
NEEDS	Individual assessment Supportive preceptor Prompt feedback	Successful outcomes improve problem solving ability Skilled pattern recognition through holistic assessment Multiple experiences/situations over time		Education Extensive, deliberate practice	

Figure 1. Benner's conceptual framework: Novice to Expert (based on the Dreyfus Model of Skill Acquisition)

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┌─────────────────┐            12 + months            ┌──────────────┐
│ Novice/Advanced  \     ─────────────────────────▶    │  Competent    \
│ Beginner         /                                    │               /
└─────────────────┘                                    └──────────────┘

                              ┌──────────────────────────┐
                              │  New Graduate Nurse       │
                              │  Transition Program       │
          ┌──────────────┐    │                          │
          │ New Graduate │    │  • Length of new graduate │
          │    Nurse     │    │    nurse transition program│
          │              │    │                          │        ┌──────────────┐
          │  • Age       │    │  • Quality of mentor      │        │   Clinical    │
          │              │    │    support               │   ───▶ │  Leadership   │
          │  • Primary   │    │                          │        │    Skill      │
          │    nursing   │    │  • Perceived improvement  │        └──────────────┘
          │    degree    │───▶│    in professional        │
          │              │    │    development of new      │
          │  • Previous  │    │    graduate nurses such as:│
          │    leadership│    │                          │
          │    experience│    │      o  Critical thinking │
          │              │    │                          │
          │  • Previous  │    │      o  Leadership        │
          │    experience│    │                          │
          │    in        │    │      o  Delegation        │
          │    health care│   │                          │
          │              │    │  • Quality of overall new │
          │  • Clinical  │    │    graduate nurse transition│
          │    experience│    │    program               │
          │    as a      │    │                          │
          │    registered│    │                          │
          │    nurse     │    │                          │
          └──────────────┘    └──────────────────────────┘
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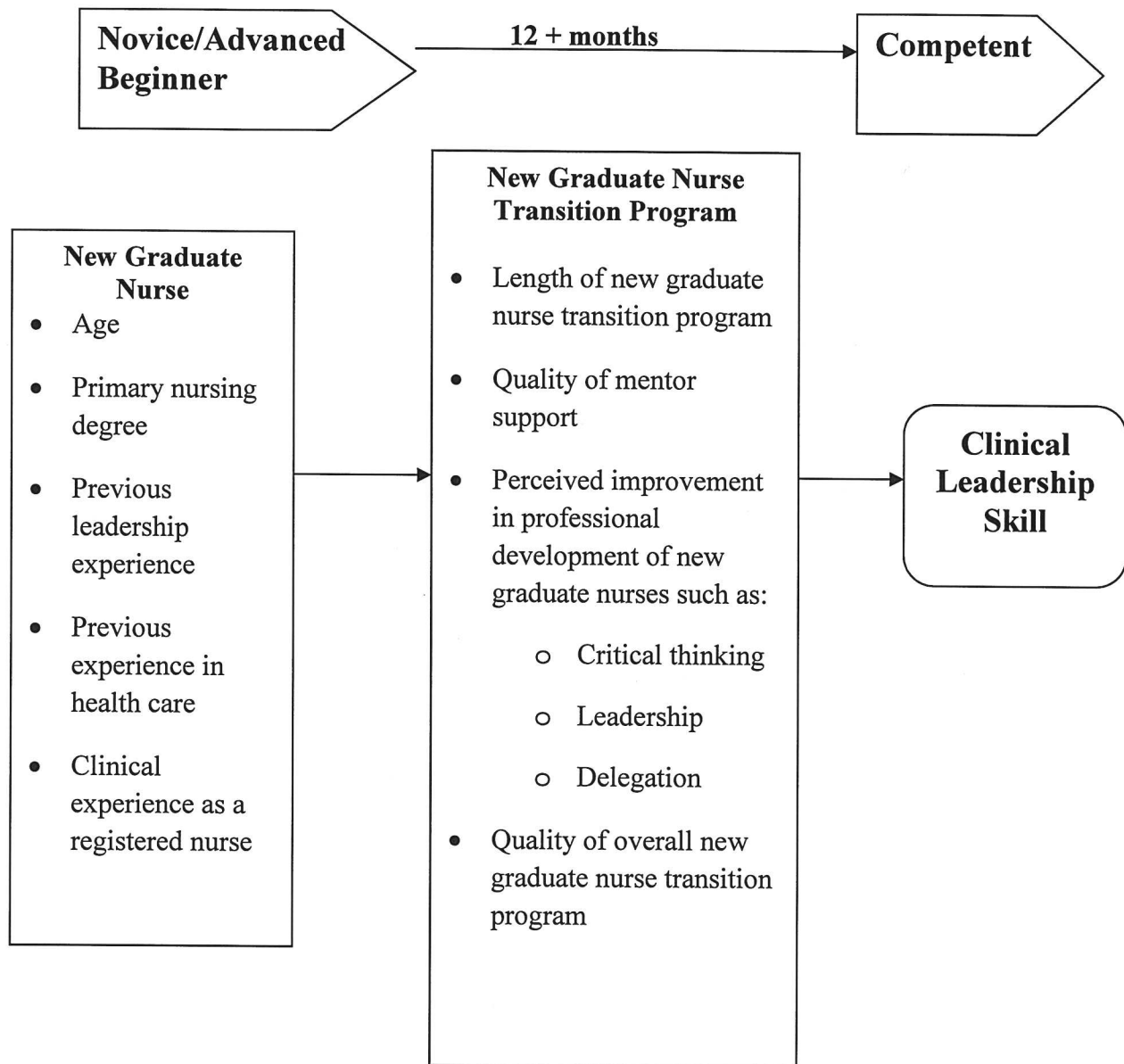
Figure 2. Transition to Practice and Clinical Leadership Skill Model

Conceptual Model

The conceptual model for this study (Figure 2) was developed based on Patricia Benner's Novice to Expert Conceptual Model (Benner, 1984). Benner's work was founded on the Dreyfus Model of Skill Acquisition by Stuart and Hubert Dreyfus (Dreyfus and Dreyfus, 1980).

This research study explored the transition of new graduate nurses from the stages of Novice/Advanced Beginner to the stage of Competent and the impact of specific variables on clinical leadership skill. The relationship between individual characteristics of registered nurses (age, primary nursing degree, previous leadership experience, previous experience in health care, and clinical experience as a registered nurse) and characteristics of new graduate nurse transition programs (length of program; quality of mentor support; perceived improvement in professional development through participation in supplemental courses to promote critical thinking ability, leadership and/or delegation; and quality of overall new graduate nurse transition program) and clinical leadership skill were evaluated.

New graduate nurses first entering the clinical setting are in the stage of Novice or Advanced Beginner, depending on the amount and quality of clinical experience attained during their undergraduate programs. New graduate nurses who have had more exposure to the clinical setting are more likely to exhibit characteristics of nurses in the Advanced Beginner stage, as they have begun to build a body of clinical experience that can be used as a reference for decision-making (Benner, 1984). New graduate nurses also enter the clinical setting with a variety of individual characteristics that include age, type of

primary nursing degree, previous leadership experience, previous experience in health care and clinical experience as a registered nurse. These characteristics may also influence clinical leadership skill in this population, though existing research evaluating these variables is limited.

Characteristics of new graduate nurse transition programs that provide additional support during transition from academia into the clinical setting may have a relationship with clinical leadership skill. Allowing sufficient time for new graduate nurses to attain clinical skills required in the practice setting addresses the task-oriented nature of the new graduate nurse, thereby helping the new nurse to fit in with the team and complete work in a timely manner. Time also provides opportunity for new graduate nurses to move from making decisions based on rules to making decisions based on analysis of data, context and/or patient/family needs. Mentors supplement the work of preceptors by focusing on professional growth needs of the new graduate nurse as opposed to teaching the new graduate nurse technical skills needed to provide care in the clinical setting. With a mentor, new graduate nurses have the opportunity to share feelings and concerns with a support person who is removed the day to day work of providing patient care. Supplemental courses that provide professional growth opportunities for new graduate nurses meet developmental needs specific to the transition period between Novice/Advanced Beginner and Competent. During this period, new graduate nurses need to develop critical thinking ability such as the ability to question, analyze, synthesize and interpret information. New graduate nurses must learn how to be a leader including how to plan and prioritize care in the clinical setting. New graduate nurses also

need to learn how to delegate appropriately as a member of the health care team.

Evidence from a small number of previous research studies has demonstrated a relationship between certain characteristics of new graduate nurse transition programs (length, mentorship and supplemental courses to promote professional development) and clinical leadership skill for primarily baccalaureate prepared nurses, however has minimally explored new graduate nurse transition programs that do not include these specific characteristics (Blanzola et al., 2004; Bratt, 2009; Cleary et al., 2009; Goode et al., 2009; Halfer et al., 2008; Hatler et al., 2011; Keller et al., 2006; Kowalski et al., 2010; Olson-Sitki et al., 2012; Roud et al., 2005; Thompson, 2011; Varner et al., 2012; Williams et al., 2007).

Independent Variables

The independent variables related to individual characteristics of nurses measured in this study included age, primary nursing degree, previous leadership experience, previous experience in health care, and clinical experience as a registered nurse. The independent variables related to new graduate nurse transition programs measured in this study included length of new graduate nurse transition program; quality of mentor support; perceived improvement in professional development through participation in supplemental courses designed to promote critical thinking ability, leadership skills and/or delegation skills; and quality of overall new graduate nurse transition program.

Age. The majority of studies evaluating new graduate nurses reported age as a demographic variable, and chronologic age was rarely been reported in relation to evaluating outcomes of new graduate nurse transition programs or clinical leadership

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skill. Because the majority of research on new graduate nurse transition programs has been conducted with new graduate nurses, the age of participants may vary to a lesser degree. The average age of a new graduate nurse is 31 (Sigma Theta Tau International Nursing Honor Society, 2010). The most common age range for studies of new graduate nurses is mid-20s to mid-30s.

In developing the Clinical Leadership Survey, Patrick (2010) evaluated age as a potential extraneous variable. Age was found to have a weak but statistically significant correlation with clinical leadership skill ($r = .14$, $p < .01$) and was not included in the clinical leadership model for analysis. Previous research studies evaluating age and leadership practices have demonstrated inconsistent findings with some studies finding a relationship between age and leadership practices and other studies finding no relationship (Kouzes & Posner, 2002; Manning, 2002). Age was evaluated as a factor related to turnover intent in one research study, and was determined to have a statistically significant relationship with younger nurses more likely to indicate turnover intent (Beecroft et al., 2007). The relationship of age to development of clinical leadership skill was important to evaluate as new graduate nurses of different ages may require more or less support to transition from academia to the clinical setting.

Type of primary nursing degree. The majority of studies evaluating new graduate nurse transition programs in relation to development of clinical leadership skill has been conducted with graduates of baccalaureate nursing programs, or has been conducted with baccalaureate and associate's degree prepared nurses however outcomes have been reported in aggregate. One research study compared clinical leadership

outcomes of new graduate nurses by degree type. Findings demonstrated no difference in clinical leadership scores on two of three instruments used in the study, and associate degree nurses having higher overall clinical leadership scores on one of three instruments as compared to baccalaureate-prepared nurses. Therefore, there was a lack of sufficient evidence to evaluate whether new graduate nurses prepared at different levels developed clinical leadership skill differently or required more or less support transitioning into the clinical environment.

Because the Essentials of Baccalaureate Education for Professional Nursing Practice requires leadership content such as organizational and systems leadership for quality care and patient safety to be integrated into curricula, there was reason to believe that baccalaureate prepared nurses may have higher clinical leadership skill than nurses prepared at the associates or diploma level (American Association of Colleges of Nursing, 2008).

Previous leadership experience. In developing the Clinical Leadership Survey, Patrick (2010) evaluated self-reported previous leadership training as a potential extraneous variable. Previous leadership training had a small but statistically significant relationship to clinical leadership skill ($r = .10$, $p < .05$). Previous leadership experience, however, was not evaluated by Patrick as a potential extraneous variable nor was data collected on whether participants had previous leadership experience.

The Leadership Practices Inventory, upon which the Clinical Leadership Survey was derived, was developed through case study analysis of individuals' "personal best" experiences as a leader (Posner et al., 1988). According to Posner and Kouzes,

individuals can be taught to use leadership behaviors, and leaders build success from previous positive experiences (Kouzes et al., 2002). According to Bandura's Self-Efficacy Theory, individuals who have had successful leadership experiences in one setting are more confident and may translate those experiences to different settings (Bandura, 1977). This is also congruent with Benner's Novice to Expert theoretical framework in which new graduate nurses progress through stages using experiential learning and draw from previous experiences as a reference for making decisions (Benner, 1984). New graduate nurses with previous leadership experience may therefore have higher clinical leadership skill as compared to new graduate nurses without previous leadership experience.

Previous experience in health care. Previous experience in health care had not been measured as a variable in relation to the outcome variable of clinical leadership skill, however had been evaluated as a variable in relation to clinical competence. In a study evaluating new graduate nurses' perceptions of their own competence and objectively measured using a performance-based clinical competence system, new graduate nurses who had previous experience in health care such as nursing assistants, nursing externs, licensed practical nurses or emergency medical technicians rated themselves higher on perceptions of confidence related to patient care and were more successful in performing skills than new graduate nurses without health care experience (Marshburn, Engelke, & Swanson, 2009).

Based on Bandura's Self-Efficacy Theory and Benner's Novice to Expert theoretical framework, new graduate nurses who have had previous health care

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experience may therefore translate those experiences to different settings and may draw on those experiences to deliver patient care as a new nurse (Bandura, 1977; Benner, 1984).

Clinical experience as a registered nurse. In developing the Clinical Leadership Survey, Patrick (2010) evaluated clinical experience as a registered nurse as potential extraneous variable. Clinical experience was found to have a weak, but statistically significant relationship with clinical leadership skill. Due to the weak magnitude of the correlation ($r = .14$, $p < .01$), Patrick chose not to include clinical experience in the model for analysis.

Other research studies evaluating staff nurse leadership behaviors have demonstrated a relationship between experience/expertise and leadership skill (Tregunno et al., 2009; Rani et al., 2010). A relationship between experience/expertise was identified in nurses seen as the "patient safety" leader on a unit (Tregunno et al., 2009). On a mental health ward, nurses lacking experience/expertise relied on nurses with more experience to provide leadership on the unit (Rani et al., 2010). In Beecroft, Kunzman and Krozek (2001), new graduate nurses participating in a 6 month internship program with an average of 8 months of clinical experience performed as well or better on periodic measures of nursing role conception, nursing autonomy, and skills competency self-confidence as compared to a control group that did not participate in the internship program and had up to 2 years of experience. The results of this study suggested that participation in a new graduate nurse transition program may mediate the effect of clinical experience on clinical leadership skill (Beecroft et al., 2001).

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Length of new graduate nurse transition program. Previous research measuring clinical leadership skill as an outcome variable of new graduate nurse transition programs has demonstrated that nurses participating in transition programs that are at least 6 months in length have an improvement in clinical leadership skill as measured by the Casey-Fink Graduate Nurse Experience Survey, Essentials of Magnetism Scale, Gerber Control Over Nursing Practice Scale, Halfer-Graf Job/Work Environmental Satisfaction Survey, Leader Empowerment Behaviors Scale, McCloskey-Mueller Satisfaction Scale, Nurses' Self-Concept Questionnaire, Schwirian's Six-Dimension Scale of Nursing Performance, Schutzenhofer Professional Nursing Autonomy Scale, Student Leadership Practices Inventory, manager evaluations, and hermeneutic analysis of focus group data (Bratt, 2009; Cleary et al., 2009; Goode et al., 2009; Halfer et al., 2008; Hatler et al., 2011; Keller et al., 2006; Kowalski et al., 2010; Olson-Sitki et al., 2012; Roud et al., 2005; Thomson, 2011; Varner et al., 2012; Williams et al. 2007). Two studies evaluated clinical leadership outcomes using manager evaluations in addition to participant self-assessment. Participants in one new graduate nurse transition program that was 24 weeks in length and implemented in a United States Navy hospital demonstrated an improvement in new graduate nurses' clinical leadership skill as measured by self, manager and peer evaluations (Blanzola et al., 2004). In Blanzola, Lindeman and King (2004), new graduate nurses may not be representative of the general population of new graduate nurses however as military nurses have additional training in leadership development. Another study evaluating outcomes of a two-year residency program reported qualitative findings from Nurse Managers who described

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participants as having higher levels of unit committee involvement and being selected for leadership roles including charge nurse, preceptor, mentor and unit educator earlier than would have otherwise been expected (Varner et al, 2012). Clinical leadership skill has been minimally evaluated as an outcome variable for new graduate nurse transition programs that are less than 6 months in length.

Quality of mentor support. Most new graduate nurse residency programs that measured clinical leadership skill as an outcome variable included mentoring as a component of the program (Beecroft et al., 2007; Blanzola et al., 2004; Bratt, 2009; Cleary et al., 2009; Goode et al., 2009; Halfer et al., 2008; Hatler et al., 2011; Keller et al., 2006; Kowalski et al., 2010; Thomson, 2011; Varner et al., 2012; Williams et al. 2007). Mentoring is a one-to-one trusting relationship that encompasses formal or informal supporting, guiding, coaching, teaching, role modeling, counseling, advocating and networking. The purpose of mentoring is to support the growth and development of nurses as they transition into professional practice (American Nurses Association, 2011). Mentorship has been associated with improved job satisfaction, competency, autonomy, decision making, patient satisfaction, patient outcomes, nursing satisfaction, professionalism and retention in previous research studies (Fox, 2010; Halfer et al., 2008; Komaratat & Oumtanee, 2009; Kooker et al., 2010; Ronsten, Andersson, & Gustafsson, 2005). One study evaluating the relationship between a newly established mentoring program for new graduate nurses demonstrated a significant improvement in retention for one hospital over a 3 year period ($p = .02$) and a significant reduction in vacancy rates for the other participating hospital over a 4 year period ($p = .03$) (Latham, Ringl, & Hogan,

2011). The direct relationship between quality of mentor support and clinical leadership skill had not been evaluated in previous research studies.

Perceived improvement in professional development through participation in supplemental courses to promote critical thinking, leadership and/or delegation. New graduate nurses participating in new graduate nurse transition programs that included supplemental activities designed to promote critical thinking demonstrated a significant improvement in their ability to understand expectations, manage demands of the job, and work effectively as members of the health care team. By the end of the program, they also reported feeling that their professional contributions on the unit were valued, they were more confident in their clinical skills and were generally more satisfied and committed to the organization (Altier et al., 2006; Anderson et al., 2009; Beecroft et al., 2007; Blanzola et al., 2004; Bratt, 2009; Bratt et al., 2012; Hatler et al., 2011; Herdich et al., 2006; Hillman et al., 2011; Maxwell, 2011; Olson-Sitki et al., 2012; Pine et al., 2007; Rosenfeld, 2004; Thomson, 2011; Trepanier et al., 2012; Ulrich et al, 2010;). Nurses completing a one-year new graduate nurse transition program developed by the University HealthSystem Consortium (UHC) and the American Association of Colleges of Nursing (AACN) that included supplemental courses to promote critical thinking ability demonstrated a statistically significant improvement in their ability to organize and prioritize their work, to communicate with team members and patients, and to provide clinical leadership on their units (Fink et al., 2008; Goode et al, 2009; Kowalski et al., 2010; Krugman et al., 2006; Setter et al., 2011; Williams et al., 2007). Critical thinking ability is defined as the ability to use

questioning, analysis, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application, and creativity (American Association of Colleges of Nursing, 2008). Strategies used to improve critical thinking ability include but are not limited to interactive learning techniques such as thoughtful questioning, case study analysis, discussion, debate, journaling and reflection. There is an association between items in the CLS and critical thinking ability such as: "I am able to provide evidence-based rationale for my clinical decisions", and "I engage in reflective practice and try to understand what went well and what did not go well."

Initiatives designed to increase staff nurse leadership ability have demonstrated a statistically significant increase in leadership ability as measured by the Leadership Practices Inventory (LPI) and the Nursing Activity Scale (NAS) (Kliger et al, 2010). These initiatives provide an opportunity for bedside clinical nurses to identify a unit-based quality problem and take leadership in designing interventions to address the problem. Curricula include strategies to improve patient safety, efficiency, effectiveness, communication, project management skills, team building, managing change, leadership and critical thinking. In addition to increase in scores on the LPI and NAS, nurses participating in supplemental courses designed to improve leadership skill increased participation in unit-based and departmental leadership roles, initiated a research study, published an article and were promoted at a rate of 20% compared to 0.3% in the general staff nurse population (Kliger et al., 2010). In Anderson, Linden, Allen and Gibbs (2009), new graduate nurses applied clinical leadership skill such as the ability to prioritize and plan care and work as a member of an interdisciplinary team through

interactive sessions in a new graduate nurse residency program. Outcomes demonstrated that the new graduate nurses participating in this residency program significantly perceived an improved ability to understand performance expectations, manage the demands of the job and work as an accepted and valued member of the healthcare team (Anderson et al., 2009). These items are reflected in the CLS in such items as "I negotiate with and support members of the inter-professional health-care team to help patients achieve their goals," "I engage in meaningful conversations with colleagues to foster our ability to provide patient-centered care" and "I actively listen to colleagues' diverse points of view." In studies evaluating the outcomes of innovative programs designed to improve leadership skills of new graduate nurses, two programs (Novice Nurse Leadership Development Institute and Early Clinical Career Fellowship leadership development pilot) resulted in improvements in the leadership abilities of new graduate nurses (Dyess et al., 2011; Dyess et al., 2012; Rae, 2011).

Confidence in delegation to unlicensed assistive personnel (UAP) was evaluated in relation to leadership style of staff nurses practicing in a large, non-teaching hospital. Leadership styles were classified as supportive, directive and participative. There was no relationship between leadership styles and confidence in delegation. There was a relationship, however, between experience, academic degree and confidence in delegation. Among less experienced nurses, baccalaureate or higher prepared nurses were more confident in delegating to UAPs than associate or diploma prepared nurses, though as nurses gained experience, the confidence level of associate or diploma prepared nurses increased (Saccamano & Pinto-Zipp, 2010). The ability to successfully

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manage work flow and multiple tasks in the patient care setting includes the ability to delegate appropriately (Saccamano et al., 2010). One item that reflects delegation in the CLS is "I negotiate with and support members of the inter-professional healthcare team to help patients achieve their goals." Overall mean scores for the item "able to delegate effectively" improved from 3 weeks to 8 months for new graduate nurses participating in a one-year residency program, however the increase was not statistically significant (Kowalski et al., 2010). In contrast, the same item in another study and measured at 6 months and 12 months demonstrated a statistically significant increase at $p = .007$ (Olson-Sitki et al., 2012). One recent qualitative research study described new graduate nurse frustration with lack of preparation in delegation as the most commonly cited dimension requiring clarification in the practice setting (Kramer et al., 2012).

Overall quality of new graduate nurse transition program. Overall quality of a new graduate nurse transition program has been associated with a decrease in turnover and higher satisfaction with nursing as a career. In a study conducted by the North Carolina Center for Nursing, perceived quality of orientation had a statistically significant relationship with turnover ($p = .01$). Nurses who perceived that their orientation program met their needs were less likely to leave the organization and were 3.3 times more satisfied with nursing as a career (Scott, Engelke, & Swanson, 2008). Another study conducted in 2010 by Rheume, Clement and LeBell demonstrated no link between satisfaction with orientation program and intent to leave which was contrary to previous research findings.

Dependent or outcome variable. The dependent or outcome variable for this study was the score on the Clinical Leadership Survey (CLS). The CLS measures clinical leadership skill of bedside clinical nurses including clinical expertise, effective communication, collaboration, coordination and interpersonal understanding. Scores are summed and averaged. Higher mean scores on the 15 item instrument indicate higher clinical leadership skill. The concept of clinical leadership skill for bedside nurses is based on the five leadership practices of nurses in formal leadership positions as described in Posner and Kouzes's model of leadership - Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart (Patrick, 2010). Primary study variables are conceptually and operationally defined in Table 1.

Table 1. Conceptual and Operational Definitions of Study Variables.

Variable	Conceptual Definition	Operational Definition
Independent variables:		
Age	Age in years	Age in years
Nursing degree	Associate = 1, Diploma = 2, Baccalaureate (traditional) = 3, Baccalaureate (2nd degree program = 4, Masters = 5	Associate = 1, Diploma = 2, Baccalaureate (traditional) = 3, Baccalaureate (2nd degree program = 4, Masters = 5
Previous leadership experience	Leadership experience gained by holding a formal leadership position in an employed or volunteer position prior to becoming a registered nurse	Length of time (in years or fraction) formal leadership position held in employed or volunteer status
Previous experience in health care	Experience gained through working or volunteering in health care prior to becoming a registered nurse	Length of time (in years or fraction) employed or volunteered in health care prior to becoming a registered nurse
Clinical experience as a registered nurse	Self-reported months of clinical experience	Months of clinical experience
Length of entire new graduate nurse transition program	Number of weeks of new graduate nurse transition program to include hospital orientation, unit-based orientation, mentorship (if any), and supplemental classes (if any)	Number of weeks

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Quality of mentor support	Mentoring is a one-to-one trusting relationship that encompasses formal or informal supporting, guiding, coaching, teaching, role modeling, counseling, advocating and networking. The purpose of mentoring is to support the growth and development of nurses as they transition in professional practice	1 = no support, 2 = little support, 3 = moderate support, 4 = moderately strong support, 5 = strong support
Classes to promote professional development of new graduate nurses to include: critical thinking ability, leadership and/or delegation	Classes designed to improve critical thinking ability - process of questioning, analysis, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application, and creativity OR Classes designed to improve leadership skills such as providing direction and support to clients and the health care team in the delivery of patient care for the purpose of achieving positive patient outcomes OR Classes designed to improve delegation skills or the process of assigning work to another individual while remaining accountable for the task	1 = no improvement, 2 = little improvement, 3 = moderate improvement, 4 = moderately significant improvement, 5 = significant improvement
Overall quality of new graduate nurse transition program	Perceived overall quality of new graduate nurse transition program	1 =poor, 2 = fair, 3 = moderate, 4 = good, 5 = strong
Dependent variable:		
Clinical Leadership Skill	"Staff nurse behaviours that provide direction and support to clients and the health care team in the delivery of patient care" (Patrick, Laschinger, Wong & Finegan, 2011)	Score on the Clinical Leadership Survey instrument (Patrick, Laschinger, Wong & Finegan, 2011); Sum and average Items 1 – 15

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Summary

It is essential that new graduate nurses develop leadership skills that can be applied in the clinical setting. Developing those skills, however, takes time. Initially, new graduate nurses are overwhelmed and focus almost exclusively on mastering tasks, integrating into the health care team and avoiding harming a patient. These behaviors are developmentally appropriate for the stages of Novice and Advanced Beginner according to Benner's theoretical framework. As new graduate nurses become more confident in their abilities, they are able to analyze the care they provide, think more critically and apply clinical leadership skill. They begin to proactively manage their work and assume responsibility for directing the care of their patients. The development of clinical leadership skill is critical for patient safety.

New graduate nurses require a significant amount of time and support to become competent care providers. New graduate nurse transition programs that include support components such as mentors and supplemental classes to promote professional development have been shown to improve clinical leadership skill of new graduate nurses in a small number of studies. The relationship of variables such as age, primary nursing degree, previous leadership experience, previous experience in health care, and clinical experience as a registered nurse to clinical leadership skill in new graduate nurses have been minimally explored in the literature.

In today's health care environment, it is critical that organizations provide sufficient support to ensure that new graduate nurses are able to practice competently and

safely in acute care environments. Resources required to develop and maintain new graduate nurse transition programs are costly, however, and evidence to validate the characteristics of transition programs that are most effective for <u>all</u> new graduate nurses to develop clinical leadership skill is still needed. Currently, there is insufficient evidence to determine whether characteristics of individual nurses (age, degree, previous leadership experience, previous experience in health care and clinical experience as a registered nurse) have a relationship with clinical leadership skill. In addition, there is insufficient evidence to determine the relationship between characteristics of new graduate nurse transition programs (length; inclusion of mentorship; inclusion of classes designed to promote professional development including critical thinking ability, leadership and/or delegation; and quality of overall new graduate nurse transition program) and clinical leadership skill for all new graduate nurses. This study provides empirical evidence of the variables that predict clinical leadership skill in registered nurses within the first two years of practice.

CHAPTER TWO

Review of the Literature

A systematic review of the literature was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009) (Figure 3). Electronic databases (CINAHL, Medline and Cochrane Library) were searched from January 2000 to January 2013 to identify studies evaluating the relationship between new graduate nurses, transition programs into the clinical setting and clinical leadership skill. Search terms included "new nurse", "new graduate", "new graduate nurse", "residency", "internship", "orientation", "transition" and "leadership". Additional limitations on the search included: English language, research studies and published in peer-review journals. Ninety-three articles were identified. An additional 3 articles were identified through bibliography review. Nineteen duplicate articles were eliminated. Upon review of abstracts, 28 articles did not pertain to the topic and were excluded. Forty-six full text articles were assessed for eligibility and 25 articles were excluded. Studies were excluded if they did not evaluate the relationship between new graduate nurses and clinical leadership skill or did not evaluate the relationship between new graduate nurses, new graduate nurse transition programs and clinical leadership skill.
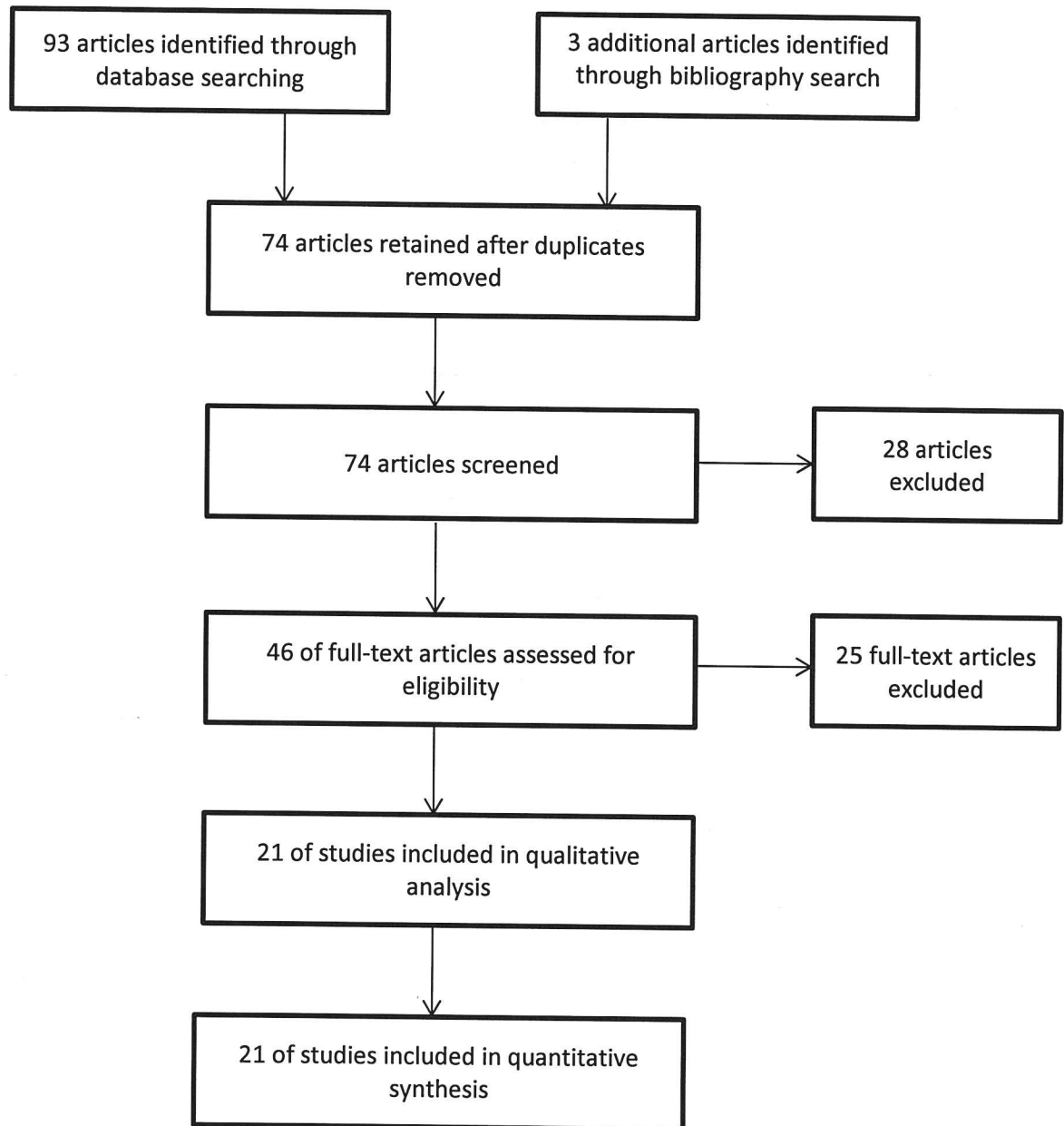
Figure 3. Systematic review process to evaluate the relationship between: 1.) new graduate nurses and clinical leadership skill; and 2.) new graduate nurse transition programs and clinical leadership skill

A total of 21 articles were retained. Five articles were classified as evidence related to clinical leadership skill and new graduate nurses not related to a new graduate nurse transition program. Sixteen articles were classified as evidence related to clinical leadership skill, new graduate nurses and new graduate nurse transition programs.

The following information was evaluated for studies meeting inclusion criteria: participant demographics, program characteristics, and study outcomes (see Tables 2, 3 and 4). Effect sizes were calculated for inclusion studies if data was reported (see Table 4). A synthesis of the 21 articles meeting inclusion criteria are presented in the sections: Clinical Leadership Skill and New Graduate Nurses, and Clinical Leadership Skill, New Graduate Nurses and New Graduate Nurse Transition Programs. An overview of characteristics of new graduate nurses, leadership theory, and leadership in bedside clinical nursing precede these sections and provide background and context for the research question.

Table 2. Participant Demographics.

Author(s)	Sample size	Degree types	Age of participants	Gender of participants
Bartlett, Simonite, Westcott, Taylor (2000)	59	36% Diploma 64% BSN	N.R.	96% F (Dip.) 90% F (BSN)
Beecroft, Dorey, Wenton (2007)	889	43%: ADN or lower 57% BSN or higher	76%: < 30 16%: 31 – 40 8%: > 40	N.R.
Beecroft, Kunzman, Krozek (2001)	75	Intern: 42% ADN, 58% BSN; Control: 24% ADN, 64% BSN, 8% Masters, 4% Other	Intern: 75%: < 30 Control: 74%: < 30	N.R.
Blanzola, Lindeman, King (2004)	18	N.R.	N.R.	N.R.
Bratt (2009)	1100+	N.R.	N.R.	N.R.
Cleary, Matheson, Happell (2009)	45	N.R.	35%: < 30 11% 31 – 40 52%: > 40	75% F
Goode, Lynn, Kresk, Bednash (2009)	655	100% BSN	Mean: 25.6	91% F

Author (year)	N	Education	Age	Gender
Halfer, Graf, Sullivan (2008)	237	N.R.	54.2%: Gen X 45.4%: Gen Y	N.R.
Hatler, Stoffers, Kelly, Redding, Carr (2011)	22	N.R.	N.R.	N.R.
Keller, Meekins, Summers (2006)	72	19% ADN 81% BSN	63%: < 30 23%: 31 – 40 14%: > 40	88% F
Kowalski, Cross (2010)	55	41.8% ADN 58.2% BSN	61.8%: < 30 25.5%: 31 – 40 12.7%: > 40	83.6% F
Olson-Sitki, Wendler, Forbes (2012)	31	42% ADN 58% BSN	74%: < 35	87% F
Roud, Giddings, Koziol-McLain (2005)	33	N.R.	56%: < 25	87% F
Thomson (2011)	84	50% ADN 50% BSN	Mean (ADN): 30.5 Mean (BSN): 28.2	95.2% F (ADN) 97.6% F (BSN)
Turner, Goudreau (2011)	5	80% Diploma 20% BSN	Range: 23 – 35	100% F

Study				
Varner, Leeds (2012)	N.R.	60% ADN 40% BSN	N.R.	N.R.
Williams, Goode, Kresk, Bednash, Lynn (2007)	679	100% BSN	Mean (alpha): 5.16 Mean (beta): 25.55	93% F (alpha) 88% F (beta)
Dyess, Sherman (2009)	81	49% ADN 51% BSN	Mean: 32	93% F
Dyess, Sherman (2011)	109	49% ADN 51% BSN	Mean: 32	93% F
Dyess, Parker (2012)	109	49% ADN 51% BSN	Mean: 32	93% F
Rae (2011)	99	N.R.	N.R.	N.R.

Table 3. *Program Characteristics.*

Author(s)	Study design	Comparison group	Type of program	Curriculum	Length of program
Bartlett, Simonite, Westcott, Taylor (2000)	Repeat measures	Diploma to BSN	None	None	None
Beecroft, Dorey, Wenton (2007)	Pre/post	None	NGNTP	Versant	22 weeks
Beecroft, Kunzman, Krozek (2001)	Repeat measures	Pre-program	NGNTP	Versant	6 months
Blanzola, Lindeman, King (2004)	Pre/post	Pre-program	NGNTP	Organization	24 weeks
Bratt (2009)	Program eval	Pre-program	NGNTP	APP	1 year
Cleary, Matheson, Happell (2009)	Pre/post	None	NGNTP	Organization	1 year
Goode, Lynn, Kresk, Bednash (2009)	Repeat measures	None	NGNTP	UHC/AACN	1 year
Halfer, Graf, Sullivan (2008)	Pre/post	Pre-program	NGNTP	Organization	1 year
Hatler, Stoffers, Kelly, Redding, Carr (2011)	Pre/post	None	NGNTP	Organization	1 year
Keller, Meekins, Summers (2006)	Program eval	None	NGNTP	APP	1 year
Kowalski, Cross (2010)	Pre/post	None	NGNTP	APP	1 year
Olson-Sitki, Wendler, Forbes (2012)	Pre/post	None	NGNTP	Organization	1 year
Roud, Giddings, Koziol-McLain	Pre/post	None	NGNTP	Organization	1 year

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(2005)

Study	Method	Comparison	Program	Model	Duration
Thomson (2011)	Repeat measures and Group comparison	ADN to BSN	NGNTP	UHC/AACN	1 year
Turner, Goudreau (2011)	Case study	None	NGNTP	Organization	1 year
Varner, Leeds (2012)	Program eval	Pre-program	NGNTP	Organization	1 year
Williams, Goode, Kresk, Bednash, Lynn (2007)	Repeat measures	None	NGNTP	UHC/AACN	1 year
Dyess, Sherman (2009)	Focus groups	Non-participants	LDP	APP	1 year
Dyess, Sherman (2011)	Pre/post	Non-participants	LDP	APP	1 year
Dyess, Parker (2012)	Pre/post	Non-participants	LDP	APP	1 year
Rae (2011)	Program eval	Non-participants	LDP	Organization	1 year

Note: NGNTP = New Graduate Nurse Transition Program; LDP = Leadership Development Program; APP = Academic-practice partnership; UHC/AACN = University HealthSystem Consortium/American Association of Colleges of Nursing (UHC/AACN) Nurse Residency Program™; Versant = Versant New Graduate RN Residency™

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Table 4. Instruments, Program Outcomes, Effect Size, and Change in Leadership Score.

Author(s)	Sample size	Instrument	Clinical Leadership Skill	Effect Size Calculated (Cohen's d)	Change in Leadership Score
Bartlett, Simonite, Westcott, Taylor (2000)	59	Schwirian	Mean leadership scores for diploma nurses higher across all 3 time periods as compared to baccalaureate prepared nurses (p <.011); scores for diploma nurses decreased at 6 months then increased higher than baseline; scores for baccalaureate prepared nurses increased steadily over time; ; leadership scores for all nurses increased from pre to post program	Lack of data to calculate	p < .001
Beecroft, Dorey, Wenton (2007)	889	LEB	Higher leadership scores following residency correlated with lower turnover intent (p < .001)	N/A	N.R.
Beecroft, Kunzman, Krozek (2001)	75	Schutzenhofer	No statistically significant differences in leadership scores between new graduate nurses participating in residency program as compared to registered nurses with more than twice clinical experience; total score on instrument higher at baseline, dipped at 6 months, then increased but not back to baseline	Pre to post: .58 (moderate to large effect size)	N.R.

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Study	n	Instrument	Findings	Effect size	Statistical significance
Blanzola, Lindeman, King (2004)	18	Researcher-developed	Leadership skills improved baseline to 6 months for pilot group, statistical significance not reported; leadership scores higher for pilot group as compared to control group at 6 months as scored by peer evaluation (p = .005)	Lack of data to calculate	N.R.
Bratt (2009)	1100+	None	Managers described "pool of ready leaders"; assumed preceptor and charge RN roles faster	N/A	N/A
Cleary, Matheson, Happell (2009)	45	NSCQ	Leadership scores improved pre to post program; reported as not statistically significant but no p value	N/A	No
Goode, Lynn, Kresk, Bednash (2009)	655	CF, CONP, MMSS	Leadership scores increased over 12 month residency on CF (p = .000), CONP (p = .026); on MMSS, scores decreased then improved (p = .000)	Pre to post: CF Communication and Leadership = .64 (moderate to large effect size); CONP Clinical Leader = .12 (small effect size); MMSS Control/Responsibility γ = .21 (small effect size)	CF: p = .000 CONP: p = .026 MMSS: p = .000
Halfer, Graf, Sullivan (2008)	237	Halfer-Graf	Overall understanding of leadership expectations improved from pre to post program	Lack of data to calculate	p < .0001

Study	N	Instrument	Findings	Effect Size	Significance
Hatler, Stoffers, Kelly, Redding, Carr (2011)	22	Essentials of Magnetism	Increase in control over nursing practice, statistical significance not reported	Pre to post: .19 (small effect size)	N.R.
Keller, Meekins, Summers (2006)	72	None	Program incorporated graduate level leadership development content; content perceived positively but moved to later in program as residents not ready at beginning	N/A	N/A
Kowalski, Cross (2010)	55	CF	Leadership scores increased from pre to post program on CF ($p = .022$)	Lack of data to calculate	$p = .022$
Olson-Sitki, Wendler, Forbes (2012)	31	Researcher-developed and CF	Significant differences on 5 of 6 items within the subscale of communication/leadership from pre to post program	Lack of data to calculate	$p < .05$
Roud, Giddings, Koziol-McLain (2005)	33	Schwirian and researcher-developed	Frequency of leadership behavior increased from evaluation at 7 weeks to evaluation at 7 months	Pre to post: .57 (moderate to large effect size)	$P = .002$

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Study	N		Findings	
Thomson (2011)	84	CF, CONP, MMSS	No statistically significant differences in leadership scores between ADN and BSN nurses on CF and CONP; statistically significant difference between ADN and BSN on MMSS (control and responsibility) (p = .0249); leadership scores for both ADN and BSN nurses improved over time in the CF Communication and Leadership domain; scores on the CONP Clinical Leadership domain and the MMSS Control and Responsibility domains were higher at baseline, dipped at 6 months then increased but not back to baseline	N.R.
				Lack of data to calculate
Turner, Goudreau (2011)	5	None	Analysis of case study narratives revealed that new graduate nurses exhibited a growing sense of professionalism including "the practice of clinical leadership"	N/A
				N/A
Varner, Leeds (2012)	Not reported	None	Manager satisfaction with resident performance strong; cited quality patient care, increased unit involvement and selection for leadership roles	N/A
				N/A

Study	N	Instrument	Findings	Effect size	Significance
Williams, Goode, Kresk, Bednash, Lynn (2007)	679	CF, CONP, MMSS	Leadership scores progressively increased on CF and CONP; scores on MMSS decreased then increased; all scores statistically significant at $p \leq .05$	Pre to post: CF Communication and leadership = 1.29/1.22 (alpha/beta sites) (large effect size); CONP Clinical Leader = .26/.33 (alpha/beta sites) (small to moderate effect size); MMSS Control/Responsibilit y = .25/.09 (alpha/beta sites) (small effect size)	$p \leq .05$
Dyess, Sherman (2009)	81	N/A (focus groups)	New graduate nurses perceived leadership development program to be critical support for successful transition into practice	N/A	N/A
Dyess, Sherman (2011)	109	SLPI	Leadership scores improved from baseline to 12 months; focus group themes: after program, novice nurses had improved leadership skill	Pre to post: .35 (moderate effect size)	$p = .004$

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Dyess, Park (2012)	109	SLPI	Leadership scores improved from baseline to 12 months	Pre to post: .35 (moderate effect size) $p = .004$
Rae (2011)	99	None	Post program, fellows seen by managers as suitable candidates for promotion, contributed at the local and national level, published in academic journals and spoke at national conferences	N/A N/A

Note. Casey-Fink Graduate Nurse Experience Survey (CF), Gerber Control Over Nursing Practice Scale (CONP), Halfer-Graf Job/Work Environment Nursing Satisfaction Survey (Halfer-Graf), Leader Empowerment Behaviours Scale (LEB), McCloskey-Mueller Satisfaction Scale (MMSS), Nurses' Self-Concept Questionnaire (NSCQ), Student Leadership Practices Inventory (SLPI), Schutzenhofer Professional Nursing Autonomy Scale (Schutzenhofer), Schwirian Six-D Scale (Schwirian), Student Leadership Practices Inventory (SLPI); ADN = associate degree in nursing; BSN = baccalaureate degree in nursing; University HealthSystem Consortium/ American Association of Colleges of Nursing (UHC/AACN); N.R. = Not Reported

New Graduate Nurses – The First Two Years of Practice

According to a survey conducted by the Nursing Executive Center, Advisory Board in 2007, new graduate nurses account for approximately 10% of a hospital's nursing workforce, with the number expected to increase as the current nursing workforce approaches retirement (Berkow et al., 2008). New graduate nurses are entering practice environments that are extremely demanding, requiring a high degree of clinical proficiency, critical thinking ability and clinical leadership skill. The transition process from academia to practice has been characterized as a period of extreme stress for new graduate nurses as they struggle to learn the requisite skills and behaviors of professional registered nurses. Studies provide evidence that new graduate nurses need considerably more support in the clinical environment than they are currently receiving (Bowles et al., 2005; Duchscher, 2001; Dyess et al., 2009; Fink et al., 2008; Halfer et al., 2006; Pellico et al., 2009; Romyn, Linton, Giblin, Hendrickson, Limacher, Murray, Nordstrom, Thauberger, Vosburgh, Vye-Rogers, Weidner, & Zimmel, 2009; Wangensteen et al., 2008; Zeller, Doutrich, Guido, & Hoeksel, 2011).

The first work experience of new graduate nurses in their own voices.
New graduate nurses describe the transition process from academia into the practice setting as a period of extreme stress with associated high levels of anxiety, fear, and frustration (Bowles et al., 2005; Duchscher, 2001; Dyess et al., 2009; Fink et al., 2008; Halfer et al., 2006; Pellico et al., 2009; Romyn et al., 2009; Wangensteen et al., 2008). They describe feeling unprepared by their academic programs for the demands of the clinical environment and frequently blame their nursing schools for being unable to easily

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transition. Initially, they focus on trying to fit in with the staff, mastering clinical skills associated with the new role and completing work within the allotted shift. As they gain experience, they begin to reconcile the expectations they originally held of the clinical setting and begin to adapt to the realities of the work demands. As they continue to grow and develop, they are able to focus beyond the immediate task at hand and appreciate their role as a registered nurse, including their ability to provide care to ill patients and their families.

A number of studies have explored the initial work experiences of new graduate nurses, and the transition process has been remarkably similar over time and in a number of different countries. Qualitative studies have provided the most vivid descriptions through the voices of new graduate nurses in their own words. Frequently, these studies have recommended increasing support provided to new graduate nurses over a prolonged period of time.

Duchscher (2001) explored the perceptions of new graduate nurses in the first six months of practice in an acute care environment using a qualitative phenomenological approach. Although the sample size was small (n = 5), study findings were explored in detail through two in-depth interviews as well as personal journaling by subjects over a period of six months. Overall, the subjects in this study described the transition process as traumatic which was consistent with previous studies and felt that their academic programs had not adequately prepared them to function as registered nurses in the clinical setting (Duchscher, 2001). Duchscher (2001) concluded that new graduate nurses require a significant amount of support from preceptors, nursing staff and nursing managers as

well as an "adequate" length of orientation to successfully transition, though adequate was not defined specifically with a measure of time.

Researchers used a descriptive survey to examine the perceptions of new graduate nurses' first work experience in the state of Nevada (Bowles et al., 2005). A total of 352 nurses completed the survey which equated to a 12% response rate. Over 90% of new graduate nurses classified the work as "stressful" and not conducive to providing safe patient care. New graduate nurses also reported that administration failed to listen to their concerns or provide opportunity for advancement (Bowles et al., 2005).

Halfer and Graf (2006) explored the experience of 84 new graduate nurses completing a structured orientation to a pediatric unit over a period of 18 months. Similar to previous study findings and congruent with Benner's Novice to Expert conceptual framework, new graduate nurses were focused on mastering tasks and getting the job done within the time allotted for the first three – six months of practice. At 12 months, new graduate nurses began to describe feeling satisfied with their level of competence and being part of the health care team. Recommendations from this study included providing professional development opportunities and mentoring for up to 18 months (Halfer et al., 2006).

Analysis of open ended questions using the Casey-Fink Graduate Nurse Experience Survey validated high levels of stress for new graduate nurses within the first six months of practice (Fink et al., 2008). Role transition difficulties included issues related to role change such as autonomy, responsibility, and the charge nurse role; lack of confidence is areas such as skills, delegation, and critical thinking; workload such as

challenges with organizing, prioritizing, and time management; fear related to passing the NCLEX, harming a patient, and making a medication error; and orientation issues related to technology, multiple preceptors, and information overload. Although levels of stress reduced over time, over 40% of new graduate nurses still expressed challenges with role transition at one year post-hire (Fink et al., 2008). New graduate nurses expressed a desire for additional support throughout the first year which included manager support and feedback, mentorship, consistent preceptors, gradual increase in patient/nurse ratios and opportunity to socialize with physicians and staff (Fink et al., 2008).

Qualitative analysis of secondary data from a nationwide study of newly licensed registered nurses (n = 612) revealed similar findings as previous studies (Pellico et al., 2009). Five overall themes were identified and researchers described them as: colliding expectations, the need for speed, you want too much, how dare you, and change is on the horizon. Researchers recommend comprehensive residency and orientation programs for new graduate nurses to support transition into the clinical setting (Pellico et al, 2009).

Dyess and Sherman (2009) explored new graduate nurses' transition and learning needs using a qualitative approach and hermeneutic analysis. Participants described the first year as feeling both "confident and fearful," In addition, participants described poor communication with physicians and other members of the interdisciplinary team, horizontal violence in the workplace, and a feeling of professional isolation without supportive guidance. They described work environments that required complex critical thinking skills, and receiving contradictory information from colleagues which resulted in further confusion. Researchers recommended long-term transition programs for at least

one year, training in interprofessional communication skills, teaching strategies to respond to horizontal violence, a link to leadership support persons, and consistent preceptors who focus on the positive (Dyess et al., 2009)

The experiences of new graduate nurses are similar in the United States as in other developed countries, providing evidence that the transition process from academia into the practice setting is challenging despite cultural differences. In a qualitative study of new graduate nurses in Canada, new nurses described a practice gap between educational preparation and requirements in the clinical environment, unrealistic expectations of those in the clinical environment in relation to new graduate nurse competency, insufficient opportunity for developing skills in nursing programs, the requirement for supportive preceptors and mentors, and the need for new graduate nurse transition programs such as internships or residencies (Romyn et al., 2009). New graduate nurses in Norway described a pattern of progression over a year, moving from fear and chaos in the first few months, through gaining experience, and finally toward becoming competent. Consistently, these nurses identified the need for extended support in a positive environment. Being put into a leadership role such as a charge nurse in the early stages of transition were particularly stressful to the new graduate nurse (Wangensteen et al., 2008).

In summary, evidence from qualitative research studies has demonstrated that the transition period from academia into the practice setting is extremely stressful for new graduate nurses regardless of clinical setting and is congruent among nurses from different countries. Studies suggest that new graduate nurses require transition programs

that include opportunities for professional development over a prolonged period of time, which may be up to 12 – 18 months. In addition, evidence suggests that new graduate nurses benefit from the support of a mentor throughout the transition period.

Why new graduate nurses leave their first position. The turnover rate of new graduate nurses has continued to remain shockingly high, with rates approaching 50% or more. The immediate fiscal impact to an organization of the loss of one nurse may be as high as $88,000 (Krsek, 2011). The long term effect of not being able to sustain a nursing workforce is a major public concern. Researchers have explored why new graduate nurses leave their first position in an attempt to understand and then address the high turnover rate.

In a study of new graduate nurses employed for five years or less, researchers found that 30% of nurses left their first position within one year and 57% had left their first position within two years (Bowles et al., 2005). Results revealed that most new graduate nurses perceived the work environment to be stressful and not conducive to providing safe patient care. There were no significant differences in the perceptions of new graduate nurses in relation to education (ADN vs BSN). The most common reasons new graduate nurses cited for leaving their first job were related to patient care concerns and concerns about the work environment. Recommendations included empowering staff nurses, providing opportunities for shared-decision making on the unit, extending orientation with assigned preceptors and mentors, and developing leadership skills in new nurses (Bowles et al., 2005).

In a longitudinal study of new graduate nurses over a period of five years, researchers in Canada explored the relationship between characteristics of a new graduate nurse transition program (orientation and mentorship), psychological empowerment and perceptions of the work environment with intent to leave (Rheume, Clement, & LeBel, 2010). Researchers found no relationship between the following variables: "length of orientation program, satisfaction with orientation program, length of mentorship program and satisfaction with mentorship program" and the variable "intent to leave" which was contrary to previous research findings. Clinical leadership skill of new graduate nurses was not explored in this study, though leadership and support provided by nurse managers was found to have a statistically significant inverse relationship with intent to leave.

A qualitative study of six registered nurses with 24 – 30 months of clinical experience explored why they chose to stay employed in their first nursing position. Results revealed that these new graduates remained with their current employer because they experienced a culture of support at all levels of nursing, from staff to managers to nursing executive leaders. They also described themselves as having the personal ability to persevere in the face of frustration or adversity, understanding that competence as a nurse developed over time. These new graduate nurses described frustration with their academic preparation and strongly recommended that nursing students have increased exposure to the clinical setting earlier and for longer periods of time (Zeller et al., 2011). In this study, residency and mentorship programs were not specifically cited as part of the decision to remain in nursing, however the characteristics of workplace support and need

for extended orientation/clinical exposure described by these nurses are congruent with support provided through residency programs with mentorship.

In a study conducted within hospitals designated by the American Nurses Credentialing Center's Magnet Recognition Program™, researchers explored the relationship between characteristics of new graduate nurse transition programs, characteristics of a healthy work environment and turnover rates. New graduate nurses employed in units classified as Very Healthy Work Environments (VHWI) and Healthy Work Environments (HWE) were significantly more likely to stay employed as compared to new graduate nurses who were employed in units classified as Work Environments Needing Improvement ($p = .000$) (Kramer, Halfer, Maguire, & Schmalenberg, 2012). Researchers found no relationship between academic preparation, type of clinical unit, type of new graduate nurse transition program and retention rate. New graduate nurse transition programs were classified in the study as transition plus integration (mean length = one year), transition plus some integration (mean length = one year), and transition only (mean length = three months). Researchers cited lack of data from academic medical centers as a concern in evaluating the relationship between type of new graduate nurse transition program and retention rate. Four of six academic medical centers failing to submit retention data had transition only programs therefore limiting the ability to adequately test the relationship between different types of transition programs and retention rate (Kramer et al., 2012).

In summary, studies evaluating why new graduate nurses leave their first positions have demonstrated that a significant number leave due to high levels of stress or

a stressful work environment, concerns related to patient safety such as nurse/patient ratios, and lack of empowerment. Research on nurses who chose to stay in their first positions reflected a collaborative and supportive work environment, the nurse's personal ability to persevere over time, and the understanding that competence developed over time. The need for a supportive environment with an extended support infrastructure was commonly cited as critical to ensuring new graduate nurses are successful in the transition into the clinical setting.

Job satisfaction of new graduate nurses. Researchers have explored variables related to job satisfaction and the relationship of job satisfaction to intent to stay and/or turnover in new graduate nurses.

Roberts, Jones & Lynn (2004) explored the differences in job satisfaction for four different categories of registered nurses: 1.) recent graduates of a baccalaureate of science in nursing (BSN) program working in med/surg, psychiatric, pediatric and maternal health specialty areas; 2.) newly licensed RNs and registered nurses who had returned to complete a BSN-RN program; 3.) RNs working in the inpatient or outpatient setting; and 4.) RNs who were likely to remain in their current position as compared to those unlikely to remain. The researchers wanted to better understand what impacted job satisfaction in order to develop better recruitment and retention strategies for new graduate nurses. One significant finding from the study revealed that nurses who were likely to remain in their jobs for at least one year reported significantly higher job satisfaction on seven of eight dimensions of the McCloskey-Mueller Satisfaction Scale. Researchers concluded that it is critical for nursing administrators to measure and address

job satisfaction for newly licensed RNs as it may significantly impact future job intentions (Roberts et al., 2004).

A secondary analysis of data collected by the North Carolina Center for Nursing was used to explore job and career satisfaction, intent to leave and turnover for new graduate nurses with more than six months but less than 24 months experience (Scott et al, 2008). New graduate nurses' turnover was significantly associated with orientation length (p = .008) as well as perceived quality of orientation (orientation met needs) (p = .01). New graduate nurses who indicated that their orientation met their needs were 3.3 times more satisfied with nursing as a career. Job satisfaction, career satisfaction and attending a continuing education program on job delegation were significant predictors of intent to leave current position. Researchers concluded that orientation to the first position is a critical component of both job satisfaction and turnover. Results were also congruent with Benner's conceptual framework and the amount of time that it takes a new graduate nurse to become a competent practitioner, suggesting a relationship between length of orientation and the development of competence with overall job satisfaction (Scott et al., 2008).

In a study of newly registered nurses with an average of 11 months of work experience, researchers evaluated job satisfaction, organizational commitment, search behavior and intent to stay employed in their current position (Kovner, Brewer, Greene, & Fairchild, 2009). Job satisfaction and organizational commitment were positively and significantly associated with autonomy and mentor support. There was an inverse relationship between newly registered nurses with a baccalaureate degree and intent to

stay, similar to a previous study which suggested that baccalaureate nurses were less likely to tolerate unacceptable work conditions (Scott et al., 2008). This study demonstrated that transition programs including mentorship are important to ensuring job satisfaction in new graduate nurses.

In summary, research on job satisfaction in new graduate nurses and the relationship between job satisfaction and intent to stay has demonstrated that that the following variables are positively related to intent to stay: autonomy, opportunity for professional development, supervisory/mentor support, workgroup cohesion, overall job satisfaction, length of orientation, and perceived quality of orientation program. First experiences of new graduate nurses play an important role in levels of future satisfaction, which may impact decision to remain employed within an organization. Therefore, it is critical that transition programs for new graduate nurses are of sufficient length and quality.

New graduate nurse competence. The competence of new graduate nurses entering the acute care clinical setting is of significant concern to both nursing administrators as well as to new graduate nurses themselves. Neither group feels that a new graduate nurse is competent to provide care in the clinical setting upon initial entry into practice.

A study conducted by Berkow and colleagues (2008) evaluated new graduate nurse performance of 36 different measures using a researcher developed instrument. The instrument was developed using an iterative process with input from over 100 different industry experts. Overall, frontline nursing leaders on units staffed with more

BSN graduates were more satisfied with new graduate competence. The competencies with the lowest satisfaction ratings were ability to keep track of multiple responsibilities (12%), conflict resolution (12%), ability to prioritize (12%), ability to anticipate risk (11%) and delegation of tasks (10%). All six items categorized as management of responsibilities ranked in the bottom third of the list indicating that frontline managers are least satisfied with new graduate nurses' competence in this area.

Marshburn, Engelke and Swanson (2009) evaluated the relationship between new graduate nurses' perception of their own competence using the Casey-Fink Graduate Nurse Experience Survey (subscales patient care and professional role) and competence as objectively measured using a performance-based clinical competence system. New graduate nurses with previous health care experience were more likely to meet criteria for problem management than nurses without previous health care experience. In addition, nurses who met criteria for problem management on the performance-based clinical competence system scored significantly higher on perceptions of competence related to patient care and professional role than nurses who did not meet criteria. Study findings demonstrated that there is a positive relationship between self-confidence in performing skills and successful performance. In addition, there was a positive relationship between previous work experience in health care and successful performance.

In summary, research evaluating the competence of new graduate nurses has demonstrated that frontline nursing leaders are more satisfied with the competence of baccalaureate prepared nurses as compared to associate's degree prepared nurses and least satisfied with the competence of new graduate nurses in skills associated with

management of responsibilities. One study demonstrated a positive relationship between self-confidence in skills and successful performance of skills and previous work experience in health care and performance of skills.

Leadership Theory

Leadership as a construct has been studied for decades and continues to develop as researchers explore what is known and what is not known about leaders and leadership (Avolio, Walumbwa, & Weber, 2009). Leadership theory has evolved from studying the individual in isolation which resulted in theories such as trait theory (one possesses leadership traits) to studying the individual in relation to interactions with others (followers, peers, supervisors), interactions with the environment (work setting, different cultures), or as part of a model within a larger context (strategic, global, social) (Avolio et al., 2009). Recent research in leadership has focused on a more holistic view of leadership, how the process of developing leadership skills occurs, and multi-modal methods of studying leadership (Avolio et al., 2009).

One model of leadership that has been used in nursing research is Posner and Kouzes leadership model (Kouzes et al., 2002; Cardin & McNeese-Smith, 2005; Loke, 2001; Williams, McDowell, & Kautz, 2011). Posner and Kouzes (1988) explored behaviors, as opposed to an individual's personal traits, of managers through in-depth analysis of case studies in which the manager described an experience when he/she accomplished something extraordinary within an organization, a "personal best." Through analysis, five practices of great leaders emerged. These practice behaviors were described by Posner and Kouzes as: Challenging the Process, Inspiring a Shared Vision,

Enabling Others to Act, Modeling the Way, and Encouraging the Heart (Posner et al., 1988; Posner et al., 1993).

The behavior, "Challenging the Process," describes leaders who search for opportunities, experiment and take risk. "Inspiring a Shared Vision" is the ability of a leader to envision the future and enlist the support of others to achieve goals. Leaders who use behaviors that are described as "Enabling Others to Act" are capable of fostering collaboration and strengthening others through their own actions. "Modeling the Way" describes a leader who sets an example and one who plans for and celebrates small wins. Finally, "Encouraging the Heart" is a leader behavior in which the leader recognizes the contributions of others and celebrates accomplishments (Posner et al., 1988).

Posner and Kouzes developed their model of leadership and their instrument to measure leadership behavior, the Leadership Practices Inventory (LPI), from studying the behaviors of individuals who were currently working in formal leadership/managerial roles. Patrick (2010) used Posner and Kouzes' leadership model as the foundation to develop an instrument to measure clinical leadership skill of bedside clinical nurses working in a staff position. Using characteristics identified from analysis of literature, Patrick (2010) defined clinical leadership behaviors as clinical expertise, effective communication, collaboration, coordination and interpersonal understanding. Bedside nurses having clinical expertise are those that are capable of challenging the status quo, questioning, and negotiating the best care for patients (Patrick, 2010). Effective communication was defined as the ability to inspire and empower others, articulate clearly, and clarify information (Patrick, 2010). Collaboration and coordination included

the ability to build trusting relationships, share information, negotiate, remain flexible and inspire others (Patrick, 2010). Interpersonal understanding was defined as the ability to establish personal relationships, to clarify values and to possess interpersonal competence (Patrick, 2010). Patrick aligned these clinical leadership behaviors with Posner and Kouzes leadership model as follows (Patrick et al., 2011):

Posner and Kouzes Leadership Behaviors	Patrick's Clinical Leadership Behaviors
Challenging the Process	
Continuous learning	Clinical expertise
Question the status quo	Clinical expertise
Debrief failures and successes	Interpersonal understanding
Inspiring a Shared Vision	
Setting vision or purpose	Effective communication
	Collaboration
Finding a common ground	Effective communication
	Collaboration
Enabling Others to Act	
Sharing information and resources	Collaboration
Building trusting relationships	Effective communication
	Interpersonal understanding
Modeling the Way	
Creating shared values	Interpersonal understanding
Achieving small wins	Collaboration, coordination
Encouraging the Heart	
Creating supportive relationships	Interpersonal understanding
	Effective communication
Recognizing contributions	Interpersonal understanding
	Collaboration

Leadership in Bedside Clinical Nursing

The vast majority of published literature on leadership and nursing is focused on nurses in formal leadership roles such as managers, directors and chief nursing officers. Leadership has been predominantly studied in relation to such variables as leadership

style, the impact of leadership behaviors on staff and patient outcomes, and staff perceptions of leadership behaviors and style. There is a growing body of evidence that bedside clinical nurses must demonstrate leadership skill in an increasingly acute healthcare environment to ensure that patients are cared for safely and appropriately (Abraham, 2011; Kliger et al., 2010; Patrick et al., 2011; Rani et al., 2010; Saccomano et al., 2010; Tregunno et al., 2009).

Evaluating leadership skill at the clinical level has been a recent focus of nursing research. The predominance of literature in this area has been published within the past ten years as a building body of evidence has demonstrated the relationship between nursing care and positive patient outcomes (Aiken et al., 2011; Kutney-Lee et al., 2009; Lucero et al., 2010). Nurses at the bedside are responsible for consistent surveillance and assessment of patients to identify any sign of abnormality or concern that might require closer monitoring, intervention or communication to and/or assistance of other members of the health care team. Bedside nurses, then, must possess the leadership skill required to identify and use evidence for making practice decisions, communicate clearly and effectively with all members of the health care team, maintain a patient-centered focus of care, and question patient care decisions that may not be evidence-based or in the best interest of a patient (Patrick et al., 2011). The following is a summary of research studies related to leadership ability in bedside clinical nurses, with two studies comparing less experienced nurses to those with more experience.

In an effort to understand nursing leadership in the context of a safe patient environment in a critical care unit, researchers conducted multi-disciplinary focus groups

to evaluate key characteristics of a nurse leader (Tregunno et al., 2009). Staff nurses, physicians, allied health providers and nursing leaders participated in a total of 31 focus groups and totaled 188 participants. The "patient safety" nurse leader was described as an experienced nurse who others "go to" for help. This individual has extensive knowledge in nursing and critical care and a proven track record in providing safe care (Tregunno et al., 2009). The "patient safety" nurse has a good overview of unit operations, demonstrates responsibility in ensuring safe patient care, identifies situations that place patients at risk and intervenes to prevent or reduce risk. The "patient safety" nurse also advocates for patients, mentors less experienced colleagues and communicates the value of changes designed to improve patient care. Patient safety was viewed as the responsibility of frontline nurses who are most readily able to identify and intervene in situations to ensure patient safety (Tregunno et al., 2009).

Initiatives such as Transforming Care at the Bedside (TCAB), the Integrated Nurse Leadership Program (INLP) and the Clinical Scene Investigator (CSI) Academy are all grant-funded, demonstration projects designed to increase staff nurse leadership capability and competence in quality improvement strategies such as identifying problems, implementing innovative change and evaluating outcomes (Kliger et al., 2010). TCAB is a program dedicated to improving a selected patient outcome with a secondary purpose of developing leadership ability of bedside nurses to proactively identify and solve problems. Rapid response teams, improved communication strategies, and workplace redesign are several of the initiatives that have been supported through the TCAB grant and have demonstrated success in the clinical setting at improving patient

safety. The Nursing Leadership Perspectives Program (NLPP) is a program developed and implemented at the Mayo Clinic in Rochester, Minnesota (Abraham, 2011). The NLPP is designed to improve the leadership skills and professional behaviors of staff nurses within the organization. Data collected pre and post program using the Leadership Practices Inventory (LPI) instrument and the Nursing Activity Scale (NAS) demonstrated a statistically significant difference in scores. Other outcomes of the program included increased participation in unit-based and departmental leadership roles, initiation of a research study, and publication of an article. Promotion rate of participants in the NLPP was 20% as compared to 0.3% in the general staff nurse population.

Researchers in Ireland conducted a qualitative study to explore how staff and middle-level managers developed leadership skills to include taking charge of a shift/unit in a mental hospital (Rani et al., 2010). Focus groups of managers, staff nurses and care technicians were conducted with staff nurses subcategorized into two groups: newly graduated (qualified) or new to the mental hospital setting and staff nurses with greater than five years of experience within the setting. Results of the study demonstrated that staff nurses experienced a gap between their academic preparation and the requirements of the clinical setting which resulted in reliance on more experienced nurses for decision-making (Rani et al., 2010). Managers concurred that staff nurses new to the clinical setting were not prepared to assume leadership roles (Rani et al., 2010). Managers and staff nurses identified lack of clinical leadership training or transition programs to the clinical setting as a concern and that training in leadership should not be provided until the new nurse had been in the clinical setting for a period of six to eight months. Clinical

leadership skills recommended by managers, staff nurses and care officers alike included communication, assertiveness, confidence, conflict resolution, delegation, decision-making and time management.

A study was conducted to evaluate leadership style of staff nurses and their confidence in delegating to unlicensed assistive personnel (UAP) (Saccomano et al., 2010). Delegation is one component of clinical leadership skill cited in the literature. Leadership style was measured using the Path-Goal Leadership Questionnaire (PGLQ) and confidence in delegation was measured using the Confidence and Intent to Delegate Scale (CIDS). A total of 158 registered nurses participated in the study and were classified into two groups based on experience: less than five years and greater than five years of experience. Educational preparation was distributed among diploma or associates degree prepared nurses (52%), baccalaureate prepared nurses (42%) and non-nursing baccalaureate or masters degree preparation (6%). In nurses with less than five years of experience, baccalaureate or higher prepared nurses were more confident in delegating to UAP. As nurses gained more experience, the confidence level of diploma or associates degree prepared nurses was greater than that of baccalaureate or higher prepared nurses. There was no relationship between leadership style (supportive, participative or directive) and confidence in delegating to UAP in this study. Limitations in this study included convenience sample from one organization limiting generalizability of findings; method of categorizing leadership style through use of the PGLQ instrument; and the inability to connect leadership score to type of unit on which the nurse was

employed thereby the researchers were unable to determine if nurses in units such as critical care were limited in the ability to delegate tasks due to patient acuity.

In summary, research studies evaluating leadership ability in bedside clinical nurses is limited as the majority of leadership research has focused on nurses in formal leadership positions. A small number of studies evaluating leadership ability in bedside nurses have demonstrated that the leadership skills of frontline nurses have a positive impact on patient safety. In addition, intervention strategies to increase the leadership skills of bedside nurses have resulted in an improved patient safety environment, increased participation of bedside nurses in organizational leadership roles, initiation of research studies by bedside nurses, publications by bedside nurses and a significant increase in promotion rates of nurses participating in intervention programs as compared to the general population of nurses. One international study of new graduate nurses described an academic – practice gap in relation to leadership development and researchers recommended that leadership training be provided to new nurses after they had been in the clinical setting for at least 6 months. Confidence in delegating to unlicensed assistive personnel was evaluated in relation to leadership styles of staff nurses. No relationship between leadership style and confidence in delegation was found. Researchers did find a relationship between confidence in delegation, academic preparation and length of clinical experience with baccalaureate –prepared nurses more confident initially and diploma or associate's degree prepared nurses becoming more confident with greater clinical experience.

Clinical Leadership Skill and New Graduate Nurses

Few studies have explored clinical leadership skill in new graduate nurses beyond measuring clinical leadership skill as an outcome variable of a new graduate nurse transition program. One program highlighted in the literature, however, describes an innovative academic-practice partnership program specifically designed to promote leadership skills of new graduate nurses (Dyess et al., 2009; Dyess et al., 2011; Dyess et al., 2012). This program was independent of a new graduate nurse transition program. International studies from the United Kingdom and Scotland have also described clinical leadership development of recently graduated nurses independent of new graduate nurse transition programs (Bartlett et al., 2000; Rae, 2011).

To address the academic-practice gap identified both in the literature and by nursing leaders of local health care organizations, a qualitative study was designed to determine learning needs of new graduate nurses in preparation for creating a Novice Nurse Leadership Development Institute (NNDI) (Dyess et al., 2009). Pre and post-program focus groups with 81 new graduate nurses were conducted and data were analyzed using a hermeneutic method. All new graduate nurses had less than 12 months of experience and were specifically selected by their organization to participate in the NNDI based on a high potential for professional and leadership contribution to the organization (Dyess et al., 2009). Demographics revealed that 80% of the nurses were employed in an acute care facility, predominantly in med/surg or telemetry units. The NNDI was a stand-alone program, held in addition to the orientation programs that currently existed. Results of the analysis resulted in several recommendations by the

researchers to effectively support new graduate nurses in the transition from academia to the practice setting. New graduate nurses need at least 12 months of support to transition into the practice setting including further support in developing clinical judgment and skills and orientations greater than 12 months for specialty clinical areas. New graduate nurses need training in interprofessional communication skills and strategies to handle horizontal violence. New graduate nurses need access to nursing leadership for support and guidance as well as consistent preceptors who are supportive and encouraging.

In 2011 and 2012, quantitative outcomes of the Novice Nurse Leadership Development Institute (NNDI) were described in the literature (Dyess et al., 2011; Dyess et al., 2012). A total of 109 participants had completed the program. Outcome measures included scores on the Student Leadership Practices Inventory (SLPI), a self-report instrument developed by Kouzes and Posner; and the PES-NWI, an instrument to measure characteristics of the practice setting. At the conclusion of the NNDI, participant scores on the SLPI significantly improved from baseline ($p = .004$). Scores on the PES-NWI, however, decreased significantly from baseline ($p = .001$) though this was attributed to the expected dissatisfaction of new graduate nurses adjusting to the practice setting as described in previous research studies (Duchscher, 2001).Researchers in the United Kingdom conducted a prospective, longitudinal study to compare nursing competence of baccalaureate prepared nurses (BA (Hons) Adult Nursing, four year program) and diploma program nurses (Project 2000 diplomates, three year program) over the first post-graduate year (Bartlett et al., 2000). Data were collected upon graduation and at six and 12 months post-graduation. Results demonstrated that

leadership scores for both baccalaureate-prepared and diplomates improved from baseline to 12 months. Leadership scores for diplomate nurses were slightly higher overall than the scores of baccalaureate-prepared nurses at baseline and at 12 months. In addition, self-assessment scores of newly graduate nurses and their supervisors/mentors were generally in agreement indicating that the new graduates had a realistic assessment of their own abilities (Bartlett et al., 2000).

An Early Clinical Career Fellowship (ECCF) leadership development pilot program was implemented in 2007 by the National Health System (NHS) Scotland for newly registered nurses and midwives with less than two years of clinical experience. The goal of the ECCF pilot was early investment in candidates deemed to have high potential for career progression into leadership positions. Evaluation of the program in 2010 demonstrated that ECCF fellows were seen as suitable candidates for promotion, contributed at both the local and national level to nursing practice and professional development, published in academic journals and spoke at national conferences. In addition, they worked with local colleagues to promote practice improvements and were promoted to higher grade positions such as charge nurses earlier in their careers than would otherwise have been expected. Researchers concluded that investing in new graduate nurses and midwives with high potential for leadership ability resulted in development of clinical leaders (Rae, 2011).

In summary, evidence from an innovative leadership development program for novice nurses and from two international studies have demonstrated that investment in new graduate nurses who are deemed to have high potential for future leadership

positions has been positive. One international study evaluating the progression of leadership skills for baccalaureate and diploma prepared nurses provided evidence that leadership skills improve over the first post-graduate year regardless of educational preparation.

Clinical Leadership Skill, New Graduate Nurses and New Graduate Nurse Transition Programs

Reports in the literature have demonstrated a relationship between some types of new graduate nurse transition programs and clinical leadership skill of new graduate nurses as evidenced by both self-reported measures and peer/supervisor evaluation (Beecroft et al., 2001; Blanzola et al., 2004; Bratt, 2009; Cleary et al., 2009; Goode et al., 2009; Halfer et al., 2008; Hatler et al., 2011; Kowalski et al., 2010; Olson-Sitki et al., 2012; Roud et al., 2005; Thomson, 2011; Turner & Goudreau, 2011; Varner et al., 2012; Williams et al., 2007). Clinical leadership skill was most often measured through self-report though three studies did evaluate leadership ability using peer and supervisor evaluation of the new graduate nurse (Blanzola et al., 2004; Bratt, 2009; Varner et al., 2012). A review of studies is presented chronologically.

Outcomes of a six month RN internship pilot in a pediatric acute care setting demonstrated that the clinical leadership skill of new graduate nurses as measured by the Schutzenhofer Professional Nursing Autonomy Scale were comparable to or better than the clinical leadership skill of registered nurses with more than twice the clinical experience (Beecroft et al., 2001). The Schutzenhofer Professional Nursing Autonomy Scale is an instrument that measures professional autonomy defined as "the practice of

one's occupation in accordance with one's education, with members of that occupation governing, defining, and controlling their own activities in the absence of external controls." While the Schutzenhofer Professional Nursing Autonomy Scale was not designed to specifically measure clinical leadership skill, items on the scale reflect behaviors that are defined by Patrick (2011) as clinical leadership skill including: "Voice opposition to any medical order to discharge a patient without an opportunity for nursing follow-up if the teaching plan for the patient is not completed" and " Refuse to administer a contraindicated drug despite the physician's insistence that the drug be given" and "Develop effective communication channels in my employing institution for nurses' input regarding policies that affect patient care" (Beecroft et al, 2001). A total of 50 new graduate nurses participated in the pilot program and were compared to 25 new graduate nurses who completed orientation prior to the implementation of the pilot. New graduate nurses were prepared at the associate, baccalaureate and master's degree levels. Results were reported in aggregate between pilot and control groups, and were not differentiated by degree type.

Blanzola, Lindeman and King (2004) reported that Navy Nurse Corps new graduate nurses completing a newly developed internship program demonstrated an improvement in clinical leadership skill through an improvement in confidence, competency and personal comfort with the nursing role. Using a quasi-experimental design with control and experimental groups, new graduate nurses completing the internship program (experimental group) rated themselves higher on core clinical competencies than the control group, including showing initiative, communicating clearly

and proactively solving problems. Peer and manager evaluations corroborated the higher

self-assessment scores. In addition, qualitative data from new graduate nurses in the

experimental group indicated they were more confident in their ability to take complex

assignments, heavier patient loads and charge nurse responsibilities. Qualitative peer

input revealed that new graduate nurses in the experimental group demonstrated higher

leadership, clinical skills and knowledge, teamwork, attitude and communication as

compared to new graduate nurses in the control group (Blanzola et al., 2004). Sample

size was small, limiting generalizability of results. All new graduate nurses were

prepared at the baccalaureate level.

A study of new graduate nurses participating in a 12 month entry into practice

program in Aotearoa/New Zealand demonstrated a statistically significant improvement

in the frequency of leadership behaviors (p = .002) between the start of the program (at 7

weeks) and the conclusion of the program (at 7 months) using the Schwirian's 6-

Dimensions of Nursing Practice (6-DNP) scale (Roud et al., 2005). There was no

significant difference in the quality of leadership behaviors. Five items measured the

domain of leadership. Study limitations include small sample size (n = 33) and moderate

reliability and validity measures for the Schwirian 6-DNP instrument domains (.60 - .76).

Educational preparation was described as "newly graduated registered comprehensive

nurses."

Leadership content was incorporated into a residency program at the Texas

Medical Center in response to observation that new graduate nurses needed leadership

skill development to function as safe, competent direct care providers (Keller et al.,

2006). Graduate level leadership content included such topics as evaluating own personality styles and leadership traits, understanding formal and informal leadership roles, and handling conflict. Teaching/learning strategies included lecture, discussion, role playing and writing exercises. Leadership content was originally included in the first six months of the program but program coordinators found that new graduate nurses were not ready for the material at that time. Subsequently, leadership content was moved to later in the residency program. Retention was the only reported quantitative outcome measure (89.2% at one year) however anecdotal evidence that leadership content was perceived positively was reported by new graduate nurses (Keller et al., 2006). Program directors reported that they expected an improvement in outcomes of care, patient safety, clinical productivity and patient and staff satisfaction as a result of the residency program (Keller et al., 2006). Nurses prepared at both the baccalaureate and associate degree levels participated in the program. Results were reported in aggregate for degree.

Beecroft, Dorey and Wenton (2007) evaluated the relationship of new graduate nurse turnover intent with individual characteristics, work environment variables, and organizational factors. In addition, prospective prediction of new nurse turnover was compared to actual nurse turnover at 18 months of employment following completion of a 22 week new graduate nurse residency program. Leadership was measured by the Leader Empowerment Behaviours Scale (LEB), with higher scores indicating higher levels of empowerment. New graduate nurses who had higher leadership scores on the LEB following completion of a new graduate nurse residency program were less likely to express turnover intent than nurses with lower leadership scores (p < .0001) (Beecroft et

al., 2007). Nurses education levels were classified as "AA (associate arts) and lower" and "BS (bachelor of science) or higher." Turnover intent for degree types was evaluated at an outcome level, with nurses prepared at the BS or higher as exhibiting elevated levels of TI as compared to nurses prepared at the AA or lower level. This finding is congruent with previous research findings indicating that baccalaureate prepared nurses may be less likely to tolerate unsatisfactory work environments (Scott et al., 2008; Kovner et al., 2009).

In studies evaluating clinical leadership skill of new graduate nurses participating in transition programs developed collaboratively by the University Health System Consortium and the American Association of Colleges of Nursing (UHC/AACN), clinical leadership skill improved over the period of the internship and/or residency program from baseline through one year (Goode et al., 2009; Williams et al., 2007). The UHC/AACN Residency Program uses two different measures to assess new graduate nurse confidence in clinical leadership skill, the Casey-Fink subscale of Communication/Leadership and the Gerber Control Over Nursing Practice subscale of Clinical Leader. New graduate nurses (n = 655) progressively increased in clinical leadership skill over the one year residency program and score increases were statistically significant at p < .001 (Communication/Leadership subscale) and p < .03 (Clinical Leader) (Goode et al., 2009). All nurses were prepared at the baccalaureate level or higher.

In response to high turnover rates of new graduate nurses in an acute care pediatric hospital (20%), an internship program was developed using evidence from

previous successful programs as well as feedback from new graduate nurses in the organization (Halfer et al., 2008). Comparisons were made between two groups of new graduate nurses, those oriented before the internship was developed (pre-implementation, n = 84) and those oriented after the internship was developed (post-implementation, n = 212). Data were collected using an instrument developed and tested by the researchers, the Halfer-Graf Job/Work Environment Satisfaction Survey. Items on the survey related to leadership include: "understanding leadership expectations", "ability to manage the demands of the job", and "input used to address unit issues." The item "understanding leadership expectations" increased over time, from baseline to 18 months ($p < .0001$). The item "ability to manage the demands of the job" increased after 6 months ($p < .0001$). And, the item "input used to address unit issues" increased over time ($p < .005$). Overall job satisfaction was significantly higher in the post-implementation group as compared to the pre-implementation group ($p = .046$), turnover rate was improved to 12% from 20% and the lower rate was sustained through two years. Authors noted that support for new graduate nurses is indicated for at least 18 months. Educational preparation was not reported.

A year-long residency program designed by the Wisconsin Center for Nursing, a collaborative academic/practice/association partnership, resulted in "transformative" changes for nurses participating in the program, particularly in rural areas of the state (Bratt, 2009). Nurse residents, those nurses who participated in the residency program, were described by their managers as being a "pool of ready leaders" and were guided toward leadership training programs. Nurse residents actively participated on hospital

committees and projects to improve care or the work environment. They also assumed preceptor and coaching roles at a faster rate than nurses who had not participated in the residency program (Bratt, 2009). Educational preparation was not reported.

Participants completing a one year transition to practice mental health nursing program for new graduate nurses in Australia demonstrated an improvement in self-reported leadership skills from baseline to post-program. Data were collected using the Nurses' Self-Concept questionnaire developed by Corwin, a 36-item instrument measuring six factors: nurse general self-concept, caring, staff relations, communication, knowledge and leadership (Cleary et al., 2009). Sample size was small (n = 44) and content was specifically chosen for new graduate nurses entering the field of mental health nursing limiting generalizability of results. Educational preparation was not reported.

With support of a grant from the Health Resources and Services Administration (HRSA), two hospitals in Las Vegas, Nevada developed a one-year new graduate nurse residency program with the goal of preparing and retaining safe, competent practitioners (Kowalski et al., 2010). Baccalaureate-prepared and associate-degree nurses participated in the residency program. Outcomes were evaluated using the following instruments: Preceptor Evaluation of Resident (developed by hospital staff educators), Pagana's Clinical Stress Questionnaire, Spielberger's State-Trait Anxiety Inventory, and the Casey-Fink Graduate Nurse Experience Survey. Scores on the communication/Leadership domain of the Casey-Fink instrument increased significantly from baseline (three months) to post-program (12 months) for all nurses (p = .022),

though only 14 nurses completed both pre and post measures limiting generalizability of results (Kowalski et al., 2010). Baccalaureate and associate-degree nurses participated in the residency program. Data were reported in aggregate for degree.

Using a Dedicated Transition Unit (DTU) as part of a one year transition to practice program with Clinical Scholar preceptors and Advanced Practice Nurse mentors, new graduate nurses scored higher on post-program measures of nurse-physician relationships, autonomy and control over practice as compared to pre-program measures using the Essential of Magnetism scale by Kramer and Schmalenberg (Hatler et al., 2011). Though clinical leadership skill was not measured directly, teamwork and having control over practice decisions are elements of the Clinical Leadership Survey. Educational preparation was not reported.

Outcomes of new graduate nurses prepared at both the baccalaureate and associate-degree level were compared following participation in a new graduate residency program in a large, Magnet designated academic medical center in North Carolina. Data were collected using the McCloskey-Mueller Satisfaction Scale (MMSS), the Casey-Fink Graduate Nurse Experience Survey (CF), and the Gerber Control Over Nursing Practice Scale (CONP). There were no statistically significant differences between baccalaureate and associate-degree nurses for communication and leadership (CF) and clinical leadership (CONP) scores. There was a statistically significant difference between baccalaureate and associate-degree nurses for control and responsibility scores (MMSS), with associate-degree nurses having higher scores as compared to baccalaureate nurses. Scores for communication and leadership (CF)

improved steadily from baseline through 12 months for both baccalaureate and associate-degree nurses. Scores for control and responsibility (MMSS) and clinical leadership (CONP) demonstrated the same pattern for both baccalaureate and associate-degree nurses with higher scores at baseline, dipping at six months and increasing though not returning to baseline at 12 months (Thomson, 2011).

Using a qualitative study design, researchers documented the experience of new graduate nurses transitioning into the Emergency Department (ED) while participating in supplemental educational support seminars during the first year of employment. The support seminars were conducted every three weeks throughout the traditional orientation and precepted-experience. Analysis of narratives revealed that new graduate nurses transitioning into the ED exhibited a growing sense of professionalism including "the practice of clinical leadership" (Turner et al., 2011). New graduate nurses identified the supplemental seminars as contributing to their professional growth. Five nurses participated in the study. Four nurses were prepared at the diploma level. One nurse was prepared at the baccalaureate level. All were female.

Researchers in Illinois used a non-experimental, repeated measure mixed-methods design to evaluate the impact of a new graduate nurse residency program on overall new graduate nurse experience, satisfaction, and retention. Baccalaureate-prepared and associate-degree nurses participated in the residency program. Using the Casey-Fink tool administered at six months and 12 months post-program start, there was a statistically significant improvement in five of the six items within the domain of communication and

leadership (p < .05) (Olson-Sitki et al., 2012). Sample size was small (n = 31) limiting generalizability of results. Data were reported in aggregate for degree.

Following a merger into a larger health system, two hospitals in southwestern Ohio experienced "overwhelming" nurse vacancy rates and a new graduate nurse turnover rate of 50% in the first year of employment (Varner et al., 2012). In response, the organizations developed a two year new graduate nurse residency program with the goals of recruiting and retaining the nursing workforce while promoting lifelong learning. An additional goal of the program was development of clinical leadership skill. Evaluation measures were obtained from stakeholder groups including new graduate nurses participating in the program, nursing managers/leaders, and patients. Managers provided qualitative data of program outcomes including increased unit committee involvement and selection for leadership roles including charge nurse, preceptor, mentor and unit educator (Varner et al, 2012). Nurses prepared at the baccalaureate and associate degree levels participated in the program. Data were reported in aggregate for degree.

In summary, overall studies evaluating clinical leadership skill as an outcome variable of new graduate nurse transition programs have demonstrated an increase in leadership ability from baseline to post-program. Three studies revealed leadership scores in at least one domain dipping at six months from baseline and improving by 12 months. Studies have generally been limited to comparison of pre and post measures in single convenience samples, though four studies did compare pre and post measures of an intervention group to a control group that had completed an orientation prior to the

revised intervention residency program. One study compared clinical leadership outcomes of baccalaureate-prepared nurses with associate-degree nurses. One study evaluated the relationship between leadership and turnover intent.

Gap in the Literature

Research evidence has demonstrated that the transition process for new graduate nurses from academia into the clinical setting continues to be a period of significant stress, often resulting in high turnover rates within the first two years of practice. Outcomes of new graduate nurses participating in new graduate nurse transition programs have included a reduction in turnover rates, as well as an improvement in new graduate nurses' confidence and clinical competence. Few studies have examined the relationship between age, academic degree, prior leadership experience, prior health care experience, clinical experience as a registered nurse and clinical leadership skill. A small number of studies have demonstrated a relationship between participation in a new graduate nurse transition program and an improvement in clinical leadership skill. The majority of published research related to new graduate nurse transition programs and clinical leadership skill has been conducted using convenience samples with pre and post program measures and no comparison or control group. In addition, most studies aggregated results to include nurses prepared at all degree levels without differentiation by degree or were conducted with baccalaureate prepared nurses only.

It is critical that bedside clinical nurses possess clinical leadership skill in today's fast-paced, acute care environment yet there was minimal evidence in existing literature in relation to the variables that predicted clinical leadership skill. For registered nurses

within the first two years of practice, individual characteristics of nurses entering new graduate nurse transition programs and specific characteristics of new graduate nurse transition programs are likely to have a relationship with clinical leadership skill. Therefore, this study explored the relationship between these variables and clinical leadership skill in registered nurses with up to two years of clinical practice. Hierarchical regression was used to evaluate the explained variance in clinical leadership skill in relation to the predictor variables of characteristics of individual nurses and characteristics of new graduate nurse transition programs.

CHAPTER THREE

Methods

This chapter describes how the study was conducted. It includes the research design, population, sample, setting, instruments, data collection procedures, data analysis, and ethical considerations of this study.

Research Design

This research study utilized a non-experimental, retrospective, descriptive design to evaluate the combination of variables that best predicted clinical leadership skill in new graduate nurses with up to two years of clinical experience. Study variables were analyzed in relation to characteristics of individual registered nurses (age, primary nursing degree, previous leadership experience, previous experience in health care and clinical experience as a registered nurse), characteristics of new graduate nurse transition programs (length of new graduate nurse transition program; quality of mentor support ; perceived improvement in professional development through participation in supplemental courses to promote critical thinking ability, leadership and/or delegation; and quality of overall new graduate nurse transition program) and the relationship of these variables with clinical leadership skill.

Population and Sample

Population. The population for this study was all new graduate nurses employed in an acute health care setting with up to 24 months of clinical experience. The sample was drawn from acute care hospitals that agreed to allow data collection for the purpose of this study. The researcher obtained support for the study from two Directors of national new graduate nurse residency programs as well as a Chief Nursing Officer of a large healthcare system in Virginia and the Director of Research at a large health care system in New York that had no formal national residency programs.

Sample and Setting. Twenty-three hospitals throughout the United States participated in data collection. All but two hospitals were part of a larger healthcare system. Hospitals and healthcare systems represented: Colorado, Hawaii, Kansas, Illinois, Nevada, New York, Pennsylvania, Texas, Virginia, and Washington, DC.

There were 4617 registered nurses within the participating hospitals and/or hospital systems meeting eligibility requirements. A total of 306 surveys were analyzed which was a response rate of 6.6%. For a hierarchical regression analysis with 9 predictors, Mertler and Vannatta (2005) recommend using 15 subjects per independent variable to provide a reliable regression equation. The recommended sample size for this study was 135. To allow for cases that were not complete or not usable for analysis, the sample size goal was 200 cases. Final sample for analysis in this study was 306 cases which provided sufficient power for analysis.

Inclusion criteria. All registered nurses with up to 24 months of clinical experience were invited to participate in the study. Participants were included if they met

the following criteria: currently employed in an acute care hospital as a registered nurse, less than or equal to 24 months of clinical experience as a registered nurse, consented to participating in the study, and fluent in English.

Instrumentation

Evaluating and measuring clinical leadership skill in bedside clinical nurses has been conducted using both qualitative and quantitative methods. Qualitatively, researchers have used data from focus groups, individual nurses, peers and/or supervisors to evaluate clinical leadership skill of bedside nurses. Quantitatively, clinical leadership skill has been measured using instruments such as the Casey-Fink Graduate Nurse Experience Survey, Essentials of Magnetism Scale, Halfer-Graf Job/Work Environmental Satisfaction Survey, Schwirian's Six-Dimension Scale of Nursing Performance, Student Leadership Practices Inventory and the Schutzenhofer Professional Nursing Autonomy Scale. A newly developed instrument derived from a valid and reliable tool used to measure leadership ability of nurses in formal leadership positions, the Leadership Practices Inventory (LPI), had recently been published. This new instrument is the Clinical Leadership Survey (CLS) and was developed by Patrick (2010). The CLS was used to measure the outcome variable, clinical leadership skill, in this study.

Characteristics of individual nurses (age, degree, previous leadership experience, previous experience in health care, and clinical experience as a registered nurse) and characteristics of new graduate nurse transition programs (length of program; quality of mentor support; perceived improvement in professional development through participation in supplemental courses designed to promote critical thinking, leadership

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and/or delegation; and quality of overall new graduate nurse transition program) were collected using a researcher developed questionnaire. The dependent variable was measured using the Clinical Leadership Survey (CLS) instrument, which was developed by a Canadian nursing researcher (Patrick, 2010). The CLS was a newly developed instrument designed to measure clinical leadership skill in staff nurses. It is based on the five leadership practices in Posner and Kouzes' leadership model (Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart), a model which has been used to evaluate leadership practices of nurses in formal leadership positions (Posner et al., 1988; Posner et al., 1993). Face and content validity of the instrument were demonstrated by a panel of six experts, and the Content Validity Index was reported as 85% which is considered acceptable for a new instrument. Following face and content validity, the researchers surveyed 1160 staff nurses working in acute care settings using a registration list from the Colleges of Nurses of Ontario. The final sample size was 480, which was equivalent to a 46% response rate. The newly developed CLS was administered to staff nurses concurrently with two other valid and reliable instruments, Posner and Kouzes' Leadership Practices Inventory (LPI) and the Conditions for Work Effectiveness Questionnaire II (CWEQ-II) based on Kanter's organizational empowerment theory. The LPI measures staff nurses perceptions of nurse manager leadership behaviors. The overall Cronbach alpha reported in the study was 0.97 with subscale ranges from 0.93 to 0.95. The CWEQ-II measures staff nurses' structural empowerment. The overall Cronbach alpha reported in the study was 0.89 with subscale ranges from 0.64 to 0.85. The CLS instrument initially contained 41 items and

measured staff nurses' clinical leadership behaviors. Responses were rated using a 5 point Likert scale ranging from almost never to almost always. Subscales of the newly developed instrument were based on the five leadership practices of Posner and Kouzes' leadership model (Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart) and included: Clinical leadership - challenging the process, Clinical leadership - inspiring a shared vision, Clinical leadership - enabling others to act, Clinical leadership - modeling the way, and Clinical leadership - encouraging the heart. The original instrument was modified following confirmatory factor analysis, and resulted in a final instrument of 15 items with 3 items measuring each clinical leadership construct. Initial Cronbach alpha's for the subscales ranged from .64 - .78 and overall Cronbach alpha was 0.86. In addition to the CLS, researchers added two items to measure overall perception of staff nurses' perception of themselves as a clinical leader. Cronbach alpha of the two-item scale was 0.78. The conceptual model was used to evaluate the structure of the instrument using structural equation modeling and demonstrated a good fit (χ^2 = 402.7, d.f. = 101, p < .05, CFI = 0.95, TLI = 0.94, RMSEA = 0.08).

Data Collection Procedures

Data were collected using an electronic survey tool with encryption, SurveyMonkey™. Study information and informed consent were included on the first page of the survey.

A pilot study was conducted following IRB approval to test the methods of data collection and to evaluate the format of and items in the electronic survey. Data from

pilot testing were used to make minor revision to the electronic survey to improve clarity of items. IRB re-approval was obtained following minor changes in wording and formatting.

The electronic survey was delivered via electronic transmission (email or letter attached to email) to new graduate nurses with up to two years of clinical experience or posted within hospitals such as on an intranet to all nurse employees. Reminders were initiated by hospital points of contact. Time to complete the survey was reported as 15 – 20 minutes.

All data remained confidential using a password protected survey tool site and a password protected computer. No individual other than the researcher had access to the data. Once data were downloaded from the electronic survey tool into the password protected computer, the data set in the electronic survey tool was deleted. Once all data were downloaded, the IP address, which could link to an individual, was deleted from the data set in the password protected computer.

An incentive award was used to entice nurses to participate in the study, with the exception of one healthcare system that required removal of the incentive award. Two VISA gift cards valued at $100 each were awarded to two different nurses. To be eligible for the VISA gift card, participants were required to enter an email address when completing the study. All email addresses were held confidentially with the researcher in the password protected computer. The VISA gift card was awarded to two participants randomly by counting the total number of participants, then using a computer program to select two random numbers (http://andrew.hedges.name/experiments/random/). All

nurses who entered an email address were eligible for the incentive award. An email address was not required for participation in the survey but was required to receive the incentive. The VISA gift card was awarded after reaching at least 200 subjects participating in the survey.

Data Analysis

Data were cleaned, coded and analyzed using PASW Statistics 18 (formerly SPSS) software. Once downloaded and IP addresses were removed, the data set was re-saved into a separate file which was used for analysis. Each data set by participant entry was assigned an identification number starting with one and numbered consecutively until the last data set entry. Data were pre-screened prior to conducting analysis to evaluate accuracy of data collected, identify and assess effect of missing data, assess outliers, and assess adequacy of fit between the data and the specific statistical test (Mertler et al., 2005).

Missing data were evaluated by calculating frequencies with potential effects determined by assessing range, minimum and maximum. Missing data were evaluated to assess whether the missing values occurred in a random manner or if there was a pattern to the missing data. Missing data were random and minimal per case, and analysis proceeded without replacing data. Cases that included a substantial amount of missing data such as failure to complete the survey were deleted.

Univariate outliers for variables in the data set were identified by visually inspecting each case and by calculating box plots. Outliers that were significant were individually evaluated to assess for data entry error. Outliers were re-entered if the

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researcher was able to determine the correct entry such as re-entering the value "three days" when the entry was a decimal. If the researcher was unable to determine the correct value, the outlier was deleted. There were a significant number of outliers from expected values in variables "length of time for hospital orientation" and "length of clinical orientation with preceptor." These variables were retained in the data set however were not used in analysis as it appeared individuals failed to correctly interpret the item on the survey.

Normality of the independent variables (age, clinical experience as a registered nurse, length of new graduate nurse transition program, quality of mentorship and overall quality of new graduate nurse transition program) and of the dependent variable (mean score on CLS) were evaluated for normality by calculating skewness and kurtosis. Within a normal distribution, skewness and kurtosis values should lie between +1 and -1 (Mertler et al., 2005). The following variable failed to demonstrate normal distribution: age (positively skewed distribution). Linearity was assessed through examination of standardized residual plots. Distributions were moderately clustered to the right of the residual plot indicating some violation of normality within the variables (Mertler et al., 2005). Transformation of age was evaluated in the regression analysis, however results were unchanged therefore the untransformed value was used.

Following data cleaning and analysis for normality, descriptive data were re-calculated including frequencies, mean, standard deviation, and range as appropriate for the variable. Correlation was performed for quantitative variables.

To assess group differences in select variables, analysis was conducted using t-tests, ANOVA and ANCOVA. Evaluation of CLS scores by type of leadership position held prior to RN (employed vs volunteer) and by type of healthcare position prior to RN (employed vs volunteer) was conducted using t-tests. Evaluation of CLS scores by primary nursing degree was conducted using ANOVA (diploma removed as only 1 case). Evaluation of CLS scores by primary nursing degree controlling for clinical experience as a registered nurse was conducted using ANCOVA (diploma removed as only 1 case).

A series of stepwise linear regression models were developed to evaluate the relationship between predictor or independent variables and the dependent variable. Prior to conducting stepwise linear regression, primary nursing degree was re-coded into dummy variables to allow for entering into the regression equation. In addition, the variables quality of mentor support and extent to which classes improved professional development skills were classified as sublevel variables as not all participants had a mentor or professional development classes associated with their new graduate nurse transition programs. First level variables were added to the model which included assigned mentor (yes/no) and participated in classes to promote professional development skill (yes/no). Analysis was conducted with both first level and sublevel variables.

Predictor variables entered into the equation included age, primary nursing degree (dummy coded), previous leadership experience, previous healthcare experience, clinical experience as a registered nurse, length of new graduate nurse transition program, assigned mentor/quality of mentor support, classes included/extent to which classes improved professional development skills, and quality of overall new graduate nurse

transition program. Predictor variables chosen for the regression equation were based on the study conceptual model. The dependent variable was mean score on the CLS.

A series of hierarchical regression models were developed to evaluate the relationship between the predictor or independent variables and the dependent variable. Hierarchical regression models allow for analysis of clustered data. Predictor or independent variables should be minimally correlated with each other and be highly correlated with the dependent variable. When predictor or independent variables are moderately to highly correlated with each other, multicollinearity exists, meaning that they are measuring the same, or much of the same, information. Multicollinearity was assessed by looking at the correlation matrix of the independent variables to identify moderate to high correlations. In addition, tolerance statistics (tolerance and variance inflation factor) were obtained for each independent variable to assess for multicollinearity.

Because individual characteristics of new graduate nurses are pre-existing conditions, i.e. they are present or not present prior to the new graduate nurse participating in a transition program, initial hierarchical regression models were conducted with the independent variables: age, primary nursing degree (dummy coded), previous leadership experience, previous experience in health care and clinical experience as a registered nurse. Analysis then proceeded with entering the independent variables that pertain to the characteristics of new graduate nurse transition programs including: length of program, assigned mentor/quality of mentor support, classes included/perceived improvement in professional development through participation in

supplemental courses designed to promote critical thinking, leadership and/or delegation, and quality of overall new graduate nurse transition program.

Results of the regression equation were analyzed in terms of how well the predictor or independent variables explained scores on the dependent variable. First, the model summary was evaluated. The model summary displays correlation indices including: multiple correlation (R), squared multiple correlation (R^2), and adjusted squared multiple correlation (R^2_{adj}). The squared multiple correlation represents the amount of variance in the dependent variable that is explained by each predictor or independent variable. In addition to the model summary, an ANOVA table with F-test and level of significance was created for each step in the model. A significant F-test is interpreted to mean that the model significantly predicted the dependent variable. The final table produced in analysis is the coefficients table which includes the unstandardized regression coefficient (B), the standardized regression coefficient (ß), t, and p values. Collinearity statistics are also reported as part of the coefficients table.

In addition to regression modeling, evaluation of effects of healthcare systems and/or hospitals on the dependent variable was conducted by calculating intraclass correlation (ICC). ICC is the ratio of variance between groups at the second level of hierarchy, or healthcare system and/or hospital level, to the variance within those groups (Tabachnick & Fidell, 2007). Evaluation of ICC permits the researcher to assess whether there is an association between the healthcare system and/or hospital and the dependent variable, i.e. whether there are differences in the dependent variable that are associated with characteristics of the healthcare system and/or hospital. If ICC is minimal, there is

no meaningful average difference between groups at the healthcare system and/or hospital level, then analysis may proceed at the individual (first) level (Tabachnick et al, 2007). Increase in ICC results in a higher Type I error rate.

Human Subjects Protection

Approval for this study was obtained from the George Mason University Office of Research Subject Protection (Human Subjects Review Board). Participating hospitals were provided with the HSRB approval letter. If required by the participating hospital, the researcher also completed IRB applications for the specific organization.

Confidentiality of individual and hospital data was strictly maintained by the researcher. Email addresses that link response data to the email address were separated prior to data analysis. Email addresses were kept in a separate electronic file from the response data. The IP addresses were removed from the data set permanently. The resulting data set was stored electronically as the final data set for analysis. Although the data set included some personal identifiers such as age, current clinical unit, and years of clinical experience, due to the number of hospitals participating in the study, it was impossible to identify an individual. All data are reported in aggregate and data are not able to be linked to a specific organization.

CHAPTER FOUR

This chapter reports the results of statistical analyses used to examine the relationship between individual characteristics of registered nurses (RN) and characteristics of new graduate nurse transition programs (NGNTP) that best predicted clinical leadership skill (CLS) in RNs with up to two years of experience. The chapter begins with an overview of participant and NGNTP characteristics. Results of hierarchical modeling and additional findings follow.

Data were collected in 23 hospitals throughout the United States. A total of 306 surveys were included in the final data set for analysis (response rate 6.6%). Frequencies, means, standard deviations and ranges were calculated for quantitative variables as appropriate. Correlation was performed to evaluate those with a statistically significant relationship with the dependent variable. T-tests, ANOVA and ANCOVA were conducted to test group differences for study variables. A series of regression models were evaluated to identify statistically significant predictors of CLS among study variables. Intraclass correlation was evaluated to assess the relationship between the healthcare system and/or hospital and CLS.

Participant and program characteristics

The mean age of respondents was 27.94 years (range 20 – 58), with 72% of respondents age 20 – 29 years old. The majority of respondents were female (90.6%),

non-hispanic (91.9%), and Caucasian/white (74.1%). Over 75% of respondents were prepared at the baccalaureate level. The remainder of the sample was prepared at the associate-degree level (20.9%), masters-degree level (1%) or by diploma program (0.3%).

The mean length of clinical experience as an RN was 10.88 months (range 1 – 24 months). Most respondents were still employed in the same organization as originally hired (86.3%), and of those employed within the same organization; most remained on the same unit as originally hired (88.6%). The majority had not been employed (78.4%) or volunteered (72.9%) in a formal leadership position before becoming an RN. The majority of respondents were employed in healthcare before becoming an RN (55.9%) and a large number volunteered in healthcare before becoming an RN (41.8%). Almost all respondents were employed in a staff nurse position (99.7%). The majority did not function in the charge nurse role, precept nursing students or precept new nursing employees.

The average length of a NGNTP was 22.6 (range 4 – 52 weeks). The majority of programs were less than 24 weeks in length (72.5%). Approximately half of all NGNTPs included mentor support (49.5%). If mentor support was provided, most respondents used the mentor as a resource (75.6%) and described mentor support as moderately strong or strong (72%). Almost all NGNTPs included classes to improve clinical skill ability (95.5%). RNs participated in classes to improve clinical skills and the majority described the extent to which classes improved clinical skills as moderate improvement (39.9%) and moderately significant improvement (32.5%). The majority of NGNTPs included

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classes to improve professional development skill (84.6%). RNs participated in classes to improve professional development skill and the majority described the extent to which classes improved professional development skill as moderate improvement (36.4%) and moderately significant improvement (35.7%). Overall quality of the NGNTP was described by respondents as good (46.3%) and strong (30.1%).

Results

Based on the study conceptual model, a series of hierarchical regression models using both first level and sublevel variables were created. The strongest predictors of CLS were self-reported overall quality of the NGNTP, length of the NGNTP and months of clinical experience as an RN. Among individual characteristics of RNs, months of experience as an RN was a statistically significant predictor of CLS and accounted for 1.1% of the variability in CLS ($R^2 = .014$, $R^2_{adj} = .011$, F = 4.296, p = .039). When entered as a group of variables, months of clinical experience as an RN and characteristics of NGNTPs predicted 6.9% of the variability in CLS ($R^2 = .084$, $R^2_{adj} = .069$, F = 5.761, p = .000). Analysis was also conducted with sublevel variables. Hierarchical regression modeling with months of clinical experience as an RN and NGNTP characteristics including sublevel variables (n = 122) improved overall model prediction to 12.6% ($R^2 = .162$, $R^2_{adj} = .126$, F = 5.203, p = .001). Intraclass correlation coefficient was .0913 suggesting minimal variation at the hospital/health care system level.

Additional findings

Previous leadership or healthcare experience. There was no statistically significant difference in CLS between respondents who had held an employed or

volunteer leadership position prior to becoming an RN as compared to those respondents who had not held a similar position (p = .210). There was no statistically significant difference in CLS between respondents who were employed or volunteered in healthcare prior to becoming an RN as compared to those respondents who had not held a similar position (p = .737).

Academic preparation. There was no statistically significant difference CLS for respondents with different academic preparation for primary nursing degree (p = .281). There was no statistically significant difference in CLS for respondents with different academic preparation for primary nursing degree when controlling for months of clinical experience as an RN (p = .129).

Remaining employed within the organization. Odds ratio calculation demonstrated that RNs participating in NGNTPs > 24 weeks were 21 times more likely to remain employed within the organization when compared to NGNTPs ≤ 12 weeks in length.

CHAPTER FIVE

This chapter provides a summary of study findings, including how these findings provide a better understanding of the relationship between individual characteristics of registered nurses (RN), characteristics of new graduate nurse transition programs (NGNTP), and clinical leadership skill (CLS). Implications of study results will be presented. The chapter concludes with strengths, limitations and recommendations for future research.

Summary of findings

In this study, the combination of variables that best predicted CLS in registered nurses with up to two years of clinical practice were months of clinical experience as an RN and characteristics of NGNTPs including length of the NGNTP, quality of mentor support, perceived improvement in professional development skill through participation in supplemental courses to promote critical thinking ability, leadership, and/or delegation skills, and overall quality of the NGNTP. These variables accounted for 12.6% of the variability in CLS ($R^2 = .162$, $R^2adj = .126$, F = 5.203, p = .001). Among all variables, self-reported overall quality of the NGNTP was the strongest predictor of CLS (p < .001). Individual characteristics of nurses including age, primary nursing degree, previous leadership experience and previous healthcare experience were not statistically significant predictors of CLS.

Overall quality of the NGNTP, while the strongest predictor of CLS, is difficult to interpret though is consistent with previous research findings (Scott et al., 2008). There was limited data collected in this study to evaluate what characteristics of a NGNTP relate to overall quality. Evidence from this study suggests that NGNTPs > 12 weeks are associated with the perception of higher quality. In addition, the correlation between quality of mentor support and self-reported overall quality of a NGNTP suggests that mentors may play a role in perception of quality ($r = .434$, $p = .000$).

In this study cohort, there were no statistically significant differences in CLS between RNs who had different primary nursing degrees, previous leadership experience, or previous health care experience. There was also no statistically significant relationship between age and CLS. These results imply that all RNs may benefit from participation in NGNTPs regardless of individual characteristics, and that NGNTPs do not need to be tailored to accommodate RNs with different backgrounds.

In this study cohort, CLS was negatively correlated with length of a NGNTP ($r = -.138$, $p < .05$). This may reflect a pattern variation as described in previous research studies whereby RNs have higher CLS scores at baseline, which then dip at 6 months and increase but do not return to baseline at 12 months. Nurses may enter the practice setting confident in their clinical leadership skill but confidence may wane as the nurse adjusts to the realities of the clinical setting. It may also imply that longer NGNTPs do not positively impact CLS.

Organizational retention was significantly higher for NGNTPs > 16 weeks in length when compared to NGNTPs ≤ 12 weeks in length. In the longest NGNTPs (> 24

weeks), RNs were 21 times more likely to remain employed within the organization as compared to RNs participating in NGNTPs ≤ 12 weeks (p = .003). This is a significant finding as the investment in NGNTPs can be substantial and retention is one outcome that can be used to justify the investment. This finding is also consistent with previous research on retention and turnover in this population.

In summary, RNs with up to 24 months of clinical experience have higher CLS when they participate in NGNTPs that they perceive to be of high quality. They also are significantly more likely to remain employed within the organization as originally hired when they participate in NGNTPs that are greater than 12 weeks in length. Much of the variance in CLS however remains unexplained.

Strengths

A major strength of this study was the sampling method which permitted evaluation of the relationship between individual characteristics of nurses, characteristics of NGNTPs and CLS within multiple facilities across the United States. This improves the generalizability of findings. In addition, this study was among the first to evaluate outcomes for NGNTPs that were less than 22 weeks in length.

Limitations

This study has several limitations. First, the study design was limited to self-report measures of quality. This limits the ability to evaluate and control for specific characteristics of NGNTPs such as type of curriculum, number and quality of supplemental experiences provided, number of hours of precepted and/or mentor time, and the quality of the relationship between the RN and the preceptor or mentor. Data

were not collected on organizational characteristics which limit the ability to evaluate and control for variables that might impact CLS. Reliance on self-report measures of program length is a limitation as RNs may not accurately recall specific time frames. Finally, the response rate of 6.6% was relatively low and may not accurately reflect the population of RNs with up to 24 months of clinical experience.

APPENDICES

APPENDIX A

Permission to use Clinical Leadership Survey

March 11, 2012

Kathy Chappell

Kathy.Chappell@ana.org

Dear Kathy,

Thank you for your request to use the Clinical Leadership Survey (CLS) in your dissertation. I am giving you permission to reproduce the instrument as outlined in your request.

Best wishes for your success.

Allison Patrick, RN, PhD

Allison.Patrick1@sympatico.ca

APPENDIX B

Data Collection Instrument

Overview of Research Study and Informed Consent

RESEARCH PROCEDURES

This research is being conducted to evaluate the relationship between individual characteristics of registered nurses, characteristics of new graduate nurse transition programs and clinical leadership skill in registered nurses with less than 24 months of clinical experience. If you agree to participate, you will be asked to complete an electronic survey which will take approximately 20 – 30 minutes to complete.

RISKS

There are no foreseeable risks for participating in this study.

BENEFITS

There are no benefits to you as a participant other than to further research in the field of new graduate nurse transition programs.

CONFIDENTIALITY

The data in this study will be confidential. All data will be collected using a password protected survey tool site with encryption and stored in a password protected computer. No individual other than the researcher will have access to the data. Once data have been downloaded from the electronic survey tool into the password protected computer, the data set in the electronic survey tool will be deleted. Once all data are downloaded, the IP address, which could link to an individual, will be immediately deleted from the data set in the password protected computer. Your name will not be included on the survey and other collected data. A code will be placed on each survey response and other collected data, and all responses will be reported in aggregate. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission.

PARTICIPATION

Individuals will be eligible to participate in this study if they meet the following criteria: currently employed in an acute care hospital as a registered nurse, less than or equal to 24 months of clinical experience as a registered nurse, give consent for participation in the study, fluent in English. Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party. All email addresses will be held confidentially with the researcher in the password protected computer.

CONTACT

This research is being conducted by Kathleen Chappell, MSN, RN at George Mason University. She may be reached at 571-259-8743 for questions or to report a research-related problem. The responsible faculty is Dr. Kathy Richards. Dr. Richards may be reached at 703-993-1962. You may contact the George Mason University Office of Research Integrity & Assurance at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

Version date: 3.12.13

Overview of Research Study and Informed Consent

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This research has been reviewed according to George Mason University procedures governing your participation in this research.

Version date: 3.12.13

✳1. Do you agree to participate in this survey?

◯ Yes

◯ No

Introduction

INDIVIDUAL CHARACTERISTICS OF REGISTERED NURSES AND CHARACTERISTICS OF NEW GRADUATE NURSE TRANSITION PROGRAMS SURVEY

Thank you for participating in this important study to evaluate individual characteristics of registered nurses, characteristics of new graduate nurse transition programs and clinical leadership skill. Clinical leadership skill is a critical competency that registered nurses must possess to provide safe patient care in today's acute care clinical environment. This study will help to identify the variables that contribute to the development of clinical leadership skill in new graduate nurses transitioning from academia into the clinical setting. All data will be kept confidential and will only be reported in aggregate.

Please respond to every item on the survey as applicable. Most items are answered in multiple choice format. A few items are answered in open-ended free text.

The time required to complete the survey is approximately 20 – 30 minutes.

Kathy Chappell

Individual Characteristics of Registered Nurses

The following questions (2 - 37) collect information about the individual characteristics of registered nurses. Some questions require a response and some questions only require a response if applicable. This section should take approximately 10 - 15 minutes to complete.

＊2. Please enter your age in years:

＊**3. Please indicate your gender:**

○ Female

○ Male

＊**4. Please indicate your ethnicity:**

○ Hispanic

○ Not Hispanic

＊**5. Please indicate your race:**

○ African-American

○ Asian

○ Caucasian/White

○ Hispanic

○ Mutiracial

○ Native American

○ Native American/Eskimo

○ Other

○ Unknown

＊**6. Please enter the nursing degree you obtained upon graduating from nursing school prior to starting your first job as a new graduate registered nurse:**

○ Associate degree

○ Diploma

○ Baccalaureate degree (traditional)

○ Baccalaureate degree (2nd degree)

○ Masters degree

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7. Please enter the highest degree you have obtained that was not a degree in nursing (non-nursing degree):

◯ Associate

◯ Diploma

◯ Baccalaureate

◯ Masters

◯ Doctorate

◯ N/A or no other degree

＊8. Please enter the number of months that you have been working as a registered nurse since graduating from nursing school:

_____

＊9. Please enter the name of the organization where you are currently employed:

_____

＊10. Are you currently employed in the same organization where you were first hired as a registered nurse:

◯ No

◯ Yes

11. If you are not currently employed in the same organization where you were first hired as a registered nurse, how many organizations have you worked in since graduating from nursing school:

12. If you are not currently employed in the organization where you were first hired as a registered nurse, what was the reason you left the organization?

◯ Move/transfer

◯ Dissatisfied/unhappy

◯ Better pay/benefits elsewhere

◯ Return to school

◯ Fired/involuntarily terminated position

◯ Did not pass NCLEX

◯ Promotion opportunity elsewhere

◯ Position in area of interest available elsewhere

◯ Other

◯ N/A (still in same organization)

13. Free text response to Other from Question 12:

* 14. Are you currently working on the same unit where you were first hired as a registered nurse?

◯ No

◯ Yes

15. If you are not currently working on the same unit where you were first hired as a registered nurse, how long were you employed on the first unit as a registered nurse before leaving (number of months):

16. If you are not currently working on same unit where you were first hired as a registered nurse, what was the reason you left the first position?

◯ Dissatisfied/unhappy with manager

◯ Dissatisfied/unhappy with clinical area

◯ Dissatisfied/unhappy with co-workers

◯ Did not pass NCLEX

◯ Position of interest available elsewhere

◯ Promotion opportunity elsewhere

◯ Other

◯ N/A (still working on same unit)

17. Free text response to Other from Question 16:

* 18. Prior to your first job as a registered nurse, did you hold a formal leadership position in an employed position (i.e. Director, Manager or similar in which you supervised other people)?

◯ No

◯ Yes

19. If you held a leadership position prior to your first job as a registered nurse, please indicate the formal leadership position held in an employed position (free text):

20. If you held a leadership position prior to your first job as a registered nurse, please indicate the length of time you held the formal leadership position in an employed position (respond in number of years; use fraction for less than 1 year, i.e. 6 months = ½ year):

∗21. Prior to your first job as a registered nurse, did you hold a formal leadership position in a volunteer position (i.e. Director, Chair or similar in which you supervised or directed others –could include such positions as Parent/Teacher Association President/ Vice-President; local community taskforce; sports club leader)?

◯ No

◯ Yes

22. If you held a leadership position prior to your first job as a registered nurse, please indicate the formal leadership position held in a volunteer position (free text):

|_____

23. If you held a leadership position prior to your first job as a registered nurse, please indicate the length of time you held the formal leadership position in a volunteer position (respond in number of years; use fraction for less than 1 year, i.e. 6 months = ½ year):

|_____

∗24. Prior to your first job as a registered nurse, were you employed in health care?

◯ No

◯ Yes

25. If yes to question 24, please indicate health care field:

◯ Nursing (tech, aide or similar)

◯ Licensed Practical Nurse

◯ Nursing Extern/Intern

◯ Medical (physician's assistant)

◯ Pharmaceutical (pharmacy tech or similar)

◯ Dentistry (hygienist or similar)

◯ Occupational Therapy (tech, aide or similar)

◯ Physical Therapy (tech, aide or similar)

◯ Respiratory Therapy (tech, aide or similar)

◯ Radiology (tech, aide or similar)

◯ Emergency Medical Technician

◯ Other

◯ N/A

26. Free text response to Other from Question 25:

|_____

27. If you were employed in health care prior to your first job as a registered nurse, how many years were you employed in health care (use fraction for less than 1 year, i.e. 6 months = ½ year):

*28. Prior to your first job as a registered nurse, did you volunteer in health care?

◯ No

◯ Yes

29. If you volunteered in health care prior to your first job as a registered nurse, please indicate health care field:

◯ Nursing

◯ Emergency medicine (EMT, EMT Cardiac, EMT Paramedic or similar)

◯ Fire Fighter

◯ Other

◯ N/A

30. Free text response to Other from Question 29:

31. If you volunteered in health care prior to your first job as a registered nurse, how many years did you volunteer in health care (respond in number of years; use fraction for less than 1 year, i.e. 6 months = ½ year):

✱32. Please indicate the type of clinical unit on which you are currently working (choose unit type that most closely resembles your unit):

- ◯ Adult Critical Care Unit
- ◯ Emergency Department
- ◯ Float Pool
- ◯ General Medical
- ◯ General Pediatrics
- ◯ General Surgical
- ◯ Heme-Oncology
- ◯ Mixed Med/Surg
- ◯ Neonatal Intensive Care
- ◯ Obstetrics
- ◯ Other
- ◯ Pediatric Intensive Care
- ◯ Perioperative/OR
- ◯ Post Partum
- ◯ Perioperative/PACU
- ◯ Psychiatry
- ◯ Telemetry
- ◯ Transplant Unit
- ◯ Other

33. If Other to question 32, please indicate type of unit (free text):

[   ]

✱34. Please indicate your current position as a registered nurse (select position that most closely describes your role):

- ◯ Staff nurse
- ◯ Manager/Assistant Manager (mid-level manager) with at least 50% direct patient care responsibility
- ◯ Manager/Assistant Manager (mid-level manager) with <50% direct patient care responsibility
- ◯ Director/Assistant Director with at least 50% direct patient care responsibility
- ◯ Director/Assistant Director with <50% direct patient care responsibility

✱35. Do you function in the Charge nurse role (individual in charge for a clinical shift)?

- ◯ No
- ◯ Yes

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✱36. Do you currently precept nursing students?

◯ No

◯ Yes

✱37. Do you currently precept new nurse employees?

◯ No

◯ Yes

Characteristics of New Graduate Nurse Transition Programs

The following questions (38 - 52) collect information about characteristics of new graduate nurse transition programs. Some questions require a response and some questions only require a response if applicable. This section should take approximately 5 - 10 minutes to complete.

＊38. How long was your entire new graduate nurse transition program (to include general hospital orientation, unit-based orientation, mentorship (if any), supplemental classes held as part of the transition program (if any)) – please answer in number of weeks:

＊39. How long was your general hospital orientation only (in number of weeks; use fraction for less than 1 week):

＊40. How long was the unit-based, clinical orientation with a preceptor (in number of weeks):

＊41. Did you have an assigned mentor associated with your new graduate nurse transition program? (A Mentor is not your preceptor but someone else who is formally assigned or available to you to provide guidance and support for your professional development in a one-to-one trusting relationship that encompasses formal or informal supporting, guiding, coaching, teaching, role modeling, counseling, advocating and networking during your orientation program).

○ No

○ Yes

42. If you had an assigned mentor associated with your new graduate nurse transition program, how long was the mentor available for you (in number of weeks):

43. If you had an assigned mentor available for you, did you use the mentor as a resource?

○ No

○ Yes

44. If you used your mentor as a resource, please rate the quality of support provided by your mentor on a scale of 1 – 5 (1 = no support, 2 = little support, 3 = moderate support, 4 = moderately strong support, 5 = strong support):

◯ 1 = no support

◯ 2 = little support

◯ 3 = moderate support

◯ 4 = moderately strong support

◯ 5 = strong support

45. If you had an assigned mentor available for you and you did not use the mentor as a resource, why not (free text)?

*46. Did your new graduate nurse transition program include classes that were specifically designed to improve your clinical skills? (Clinical skills are defined as tasks or procedures required to take care of patients and might include such skills as IV insertion, blood glucose monitoring, electrocardiograph reading/interpretation, IV pumps).

◯ No

◯ Yes

47. If your new graduate nurse transition program included classes to improve your clinical skills, did you participate in classes that were designed to improve your clinical skills?

◯ No

◯ Yes

48. If you participated in classes that were designed to improve your clinical skills to what extent did these classes improve your ability to perform clinical skills on a scale of 1 - 5? (1 = no improvement, 2 = little improvement, 3 = moderate improvement, 4 = moderately significant improvement, 5 = significant improvement)

◯ 1 = no improvement

◯ 2 = little improvement

◯ 3 = moderate improvement

◯ 4 = moderately significant improvement

◯ 5 = significant improvement

*49. Did your new graduate nurse transition program include classes that were specifically designed to promote your professional development such as critical thinking ability, leadership skills and/or delegation skills?

- Classes designed to improve critical thinking ability might include questioning, analysis, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application, and creativity. Examples might include using interactive learning techniques such as thoughtful questioning, case study analysis, discussion/debate, journaling or reflection.

- Classes designed to improve leadership skills might include items such as providing direction and support to clients and the health care team in the delivery of patient care for the purpose of achieving positive patient outcomes. Examples might include advocating for a patient, following the chain of command, identifying and using resources.

- Classes designed to improve delegation skills or the process of assigning work to another individual while remaining accountable for the task. Examples might include delegating to unlicensed assistive personnel or understanding when it is appropriate to delegate a task.

◯ No
◯ Yes

50. If your new graduate nurse transition program included classes to promote your professional development such as critical thinking ability, leadership skills and/or delegation skills, did you participate in classes that were designed to promote your professional development?

◯ No
◯ Yes

51. If you participated in classes that were designed to promote your professional development such as critical thinking ability, leadership skills and/or delegation skills to what extent did these classes improve your professional development on a scale of 1 – 5? (1 = no improvement, 2 = little improvement, 3 = moderate improvement, 4 = moderately significant improvement, 5 = significant improvement)

○ 1 - no Improvement

○ 2 - little Improvement

○ 3 - moderate Improvement

○ 4 - moderately significant Improvement

○ 5 - significant Improvement

*52. On a scale of 1 – 5, please rate the overall quality of your new graduate nurse transition program: (1 = poor, 2 = fair, 3 = moderate, 4 = good, 5 = strong)

○ 1 - poor

○ 2 - fair

○ 3 - moderate

○ 4 - good

○ 5 - strong

Clinical Leadership Survey

In your role as a staff nurse providing direct patient care, you are being asked to reflect on a wide range of leadership behaviors that you may use in your practice. Look at the rating scale and decide how frequently you engage in the behavior described. Indicate your choice by entering the appropriate rating (1-5) in the blank space beside the number. Please assign a rating for every statement.

*53. Please response to each item.

	1 = almost never	2 = occasionally	3 = some of the time	4 = most of the time	5 = almost always
When I am concerned about the patient's well being, I take risks by questioning orders and/or treatments.	◯	◯	◯	◯	◯
I am able to provide evidence based rationale for my clinical decisions.	◯	◯	◯	◯	◯
I engage in reflective practice and try to understand what went well and what did not go well.	◯	◯	◯	◯	◯
I negotiate with and support members of the inter-professional health-care team to help patients achieve their goals.	◯	◯	◯	◯	◯
I am engaged when communicating with patients to achieve patient-centered goals.	◯	◯	◯	◯	◯
I engage in meaningful conversations with colleagues to foster our ability to provide patient-centered care.	◯	◯	◯	◯	◯
I actively listen to colleagues' diverse points of view.	◯	◯	◯	◯	◯
I establish therapeutic relationships with patients and their families that are based on trust.	◯	◯	◯	◯	◯
I develop cooperative relationships with my peers and colleagues.	◯	◯	◯	◯	◯
I do my best to follow through on the promises and commitments I make to patients.	◯	◯	◯	◯	◯
I try to ensure we work toward achievable goals and establish measureable objectives in achieving	◯	◯	◯	◯	◯

clinical patient outcomes.					
I am committed to patient-centered care.	○	○	○	○	○
I publicly acknowledge my colleagues who exemplify commitment to professional values.	○	○	○	○	○
I provide positive feedback to colleagues when their actions contribute to the well being of patients and their families.	○	○	○	○	○
I find ways to celebrate colleagues' accomplishments.	○	○	○	○	○
Overall, I consider myself a clinical leader in my practice.	○	○	○	○	○
I demonstrate leader behaviors in my practice.	○	○	○	○	○

Thank you

Thank you for participating in this important study to evaluate individual characteristics of registered nurses, characteristics of new graduate nurse transition programs and clinical leadership skill.

If you have any questions or concerns after participating in this survey, please contact Kathy Chappell at 571-259-8743.

54. Please include any comments related to this survey that would be valuable to improve the data collection process. Thank you!

55. How long did it take you to complete the entire survey?

REFERENCES

Abraham, P.J. (2011). Developing Nurse Leaders: A Program Enhancing Staff Nurse Leadership Skills and Professionalism. *Nursing Administration Quarterly, 35(4),* 306 – 312.

Aiken, L.H., Cimiotti, J.P., Sloane, D.M., Smith, H.L., & Neff, D.F. (2011). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Medical Care, 49(12),* 1047 – 53.

Altier, M.E., & Krsek, C.A. (2006). Effects of a 1-Year Residency Program on Job Satisfaction and Retention of New Graduate Nurses. *Journal for Nurses in Staff Development, 22(2),* 70 – 77.

American Association of Colleges of Nursing. (2008). The Essentials of Baccalaureate Education for Professional Nursing Practice. Retrieved from: http://www.aacn.nche.edu/education-resources/BaccEssentials08.pdf

American Hospital Directory. (2011). Hospital statistics by state. Retrieved from: http://www.ahd.com/state_statistics.html

American Nurses Association. (2011). ANA Demonstration Mentoring Program. Retrieved from: http://www.nursingworld.org/DocumentVault/NewsAnnouncements/ANA-Demonstration-Mentoring-Program-Memo.pdf

Anderson, T., Linden, L., Allen, M., & Gibbs, E. (2009). New Graduate RN Work Satisfaction After Completing an Interactive Nurse Residency. *The Journal of Nursing Administration, 39(4),* 165 – 169.

Avolio, B.J., Walumbwa, F.O., & Weber, T.J. (2009). Leadership: Current Theories, Research and Future Directions. *Annual Review of Psychology, 60,* 421 – 449.

Bandura, A. (1977). *Social Learning Theory.* New Jersey: Prentice Hall.

Bartlett, H.P., Simonite, V., Westcott, E., & Taylor, H.R. (2000). A comparison of the nursing competence of graduates and diplomates from UK nursing programmes. *Journal of Clinical Nursing, 9,* 369 – 381.

Baxter, P.E. (2010). Providing Orientation Programs to New Graduate Nurses: Points to Consider. *Journal for Nurses in Staff Development, 26(4),* E12 – E17.

Beecroft, P.C., Dorey, F., & Wenton, M. (2007). Turnover intention in new graduate nurses: a multivariate analysis. *Journal of Advanced Nursing, 62(1),* 41 – 52.

Beecroft, P.C., Kunzman, L., & Krozek, C. (2001). RN Internship: Outcomes of a One-Year Pilot Program. *The Journal of Nursing Administration, 31(12),* 575 – 582.

Benner, P.E. (1984). *From Novice to Expert: Excellence and power in clinical nursing practice.* Menlo Park, CA: Addition-Wesley.

Berkow, S., Virkstis, K., Stewart, J., & Conway, L. (2008). Assessing New Graduate Nurse Performance. *The Journal of Nursing Administration, 38(11),* 468 – 474.

Blanzola, C., Lindeman, R., & King, M.L. (2004). Nurse Internship Pathway to Clinical Comfort, Confidence and Competency. *Journal for Nurses in Staff Development, 20(1),* 27 – 37.

Bowles, C. & Candela, L. (2005). First Job Experiences of Recent RN Graduates. *The Journal of Nursing Administration, 35(3),* 130 – 137.

Bratt, M.M. (2009). Retaining the Next Generation of Nurses: The Wisconsin Nurse Residency Program Provides a Continuum of Support. *The Journal of Continuing Education in Nursing, 40(9),* 416 – 425.

Bratt, M.M., & Felzer, H.M. (2012). Predictors of New Graduate Nurses' Organizational Commitment During a Nurse Residency Program. *Journal for Nurses in Staff Development, 28(3),* 108 – 119.

Candela, L., & Bowles, C. (2008). Recent RN Graduate Perceptions of Educational Preparation. *Nursing Education Perspectives, 29(5),* 266 – 271.

Cardin, S., & McNeese-Smith, D. (2005). A Model for Bridging the Gap From Theory to Practice to Reality. *Nursing Administration Quarterly, 29(2),* 154 – 161.

Cleary, M., Matheson, S., & Happell, B. (2009). Evaluation of a transition to practice programme for mental health nursing. *Journal of Advanced Nursing, 65(4),* 844 – 850.

Dreyfus, H. & Dreyfus, S. (1980). A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition. Retrieved from: http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA084551&Location=U2&doc=GetTRDoc.pdf

Duchscher, J.E. (2001). Out in the Real World: Newly Graduated Nurses in Acute-care Speak Out. *The Journal of Nursing Administration, 31(9),* 426 – 439.

Dyess, S., & Parker, C.G. (2012). Transition support for the newly licensed nurse: a programme that made a difference. *Journal of Nursing Management, 20,* 615 – 623.

Dyess, S.M., & Sherman, R.O. (2009). The First Year of Practice: New Graduate Nurses' Transition and Learning Needs. *The Journal of Continuing Education in Nursing, 40(9),* 403 – 410.

Dyess, S., & Sherman, R. (2011). Developing the Leadership Skills of New Graduates to Influence Practice Environments: A Novice Nurse Leadership Program. *Nursing Administration Quarterly, 35(4),* 313 – 322.

Fink, R., Krugman, M., Casey, K., & Goode, C. (2008). The Graduate Nurse Experience. *The The Journal of Nursing Administration, 38(7/8),* 341 – 348.

Fox, K.C. (2010). Mentor Program Boosts New Nurses' Satisfaction and Lowers Turnover Rate. *Journal of Continuing Education in Nursing, 41(7),* 311 – 316.

Goode, C.J., Lynn, M.R., Krsek, C., & Bednash, G.D. (2009). Nurse Residency Programs: An Essential Requirement for Nursing. *Nursing Economics, 27(3),* 142 – 159.

Halfer, D. & Graf, E. (2006). Graduate Nurse Perceptions of The Work Experience. *Nursing Economics, 24(3),* 150 – 155.

Halfer, D., Graf, E., & Sullivan, C. (2008). The Organizational Impact of a New Graduate Pediatric Nurse Mentoring Program. *Nursing Economics, 26(4),* 243 – 249.

Hatler, C., Stoffers, P., Kelly, L., Redding, K., & Carr. L.L. (2011). Work Unit Transformation To Welcome New Graduate Nurses: Using Nurses' Wisdom. *Nursing Economics, 29(2),* 88 – 93.

Herdich, B., & Lindsay, A. (2006). Nurse Residency Programs: Redesigning the Transition Into Practice. *Journal for Nurses in Staff Development, 22(2),* 55 – 62.

Hillman, L., & Foster, R. (2011). The impact of a nursing transitions programme on retention and cost savings. *Journal of Nursing Management, 19,* 50 – 56.

IOM (Institute of Medicine). (2011). *The Future of Nursing: Leading Change, Advancing Health.* Washington, DC: The National Academies Press.

Keller, J.S., Meekins, K., & Summers, B.L. (2006). Pearls and Pitfalls of a New Graduate Academic Residency Program. *The Journal of Nursing Administration, 36(12),* 589 – 598.

Kliger, J., Lacey, S.R., Olney, A., Cox, K.S., & O'Neil, E. (2010). Nurse-Driven Programs to Improve Patient Outcomes. *The Journal of Nursing Administration, 40(3),* 109 – 114.

Komaratat, S., & Oumtanee, A. (2009). Using a Mentorship Model to Prepare Newly Graduated Nurses for Competency. *Journal of Continuing Education in Nursing, 40(10),* 475 – 480.

Kooker, B.M., & Kamikawa, C. (2010). Successful strategies to improve RN retention and patient outcomes in a large medical centre in Hawaii. *Journal of Clinical Nursing, 20,* 34 – 39.

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

Kovner, C.T., Brewer, C.S., Greene, W., & Fairchild, S. (2009). Understanding New Registered Nurses' Intent to Stay At Their Jobs. *Nursing Economics, 27(2),* 81 – 98.

Kowalski, S., & Cross, C.L. (2010). Preliminary outcomes of a local residency programme for new graduate registered nurses. *Journal of Nursing Management, 18,* 96 – 104.

Kramer, M., Halfer, D., Maguire, P., & Schmalenberg, C. (2012). Impact of Healthy Work Environments and Multistage Nurse Residency Programs on Retention of Newly Licensed RNs. *Journal of Nursing Administration, 42(3),* 148 – 159.

Kramer, M., Maguire, P., Halfer, D., Budin, W.C., Hall, D.S., Goodloe, L., Klaristenfeld, J., Teasley, S., Forsey, L., & Lemke, J. (2012). The Organizational Transformative Power of Nurse Residency Programs. *Nursing Administration Quarterly, 26(2),* 155 – 168.

Krsek, C. (2011). Investing in nursing retention is a smart move in today's economy. *American Nurse Today, 6(4).* Retrieved from http://www.americannursetoday.com/article.aspx?id=7704&fid=7658

Krugman, M., Bretschneider, J., Horn, P.B., Krsek, C.A., Moutafis, R.A., & Smith, M.O. (2006). The National Post-Baccalaureate Graduate Nurse Residency Program: A Model for Excellence in Transition to Practice. *Journal for Nurses in Staff Development, 22(4),* 196 – 205.

Kutney-Lee, A., Lake, E.T., & Aiken, L.H. (2009). Development of the Hospital Nurse Surveillance Capacity Profile. *Research in Nursing & Health, 32(2),* 217 – 228.

Latham, C.L., Ringl, K., & Hogan, M. (2011). Professionalization and Retention Outcomes of a University-Service Mentoring Program Partnership. *Journal of Professional Nursing, 27(6),* 344 – 353.

Loke, J.C.F. (2001). Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Journal of Nursing Management, 9,* 191 – 204.

Lucero, R.J., Lake, E.T., & Aiken, L.H. (2010). Nursing care quality and adverse events in US hospitals. *Journal of Clinical Nursing, 19(15 – 16),* 2185 – 95.

Manning, T.T. (2002). Gender, managerial level, transformational leadership and work satisfaction. *Women in Management Review, 17 (5),* 207-216.

Marshburn, D.M., Engelke, M.K., & Swanson, M.S. (2009). Relationships of New Nurses' Perceptions and Measured Performance-Based Clinical Competence. *The Journal of Continuing Education in Nursing, 40(9),* 426 – 432.

Maxwell, K.L. (2011). The Implementation of the UHC/AACN Graduate Nurse Residency Program in a Community Hospital. *Nursing Clinics of North America, 46,* 27 – 33.

Mertler, C.A., & Vannatta, R.A. (2005). Advanced and Multivariate Statistical Methods: Practical Application and Interpretation, 3rd Edition. Glendale, CA: Pyrczak Publishing.

Moher, D., Liberati, A. Tetzlaff, J., & Altman, D.G. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine, 151(4),* 264 – 269.

National Council of State Boards of Nursing, (2009). Transition to Practice Model. Retrieved from: https://www.ncsbn.org/363.htm#model

Newhouse, R.P., Hoffman, J.J., Suflita, J., & Hairston, D.P. (2007). Evaluating an Innovative Program to Improve New Nurse Graduate Socialization Into the Acute Healthcare Setting. *Nursing Administration Quarterly, 31(1),* 50 – 60.

Olson-Sitki, K., Wendler, M.C., & Forbes, G. (2012). Evaluating the Impact of a Nurse Residency Program for Newly Graduated Registered Nurses. *Journal for Nurses in Staff Development, 28(4),* 156 – 162.

Park, M. & Jones, C.B. (2010). A Retention Strategy for Newly Graduated Nurses: An Integrative Review of Orientation Programs. *Journal for Nurses in Staff Development, 26(4),* 142 – 149.

Patrick, A. (2010). *The Effect of Nursing Leadership and Structural Empowerment on Staff Nurse Clinical Leadership* (Doctoral dissertation). Retrieved from Digital Dissertations. (*ISBN:* 978-0-494-73389-9).

Patrick, A., Laschinger, H.K., Wong, C., & Finegan, J. (2011). Developing and testing a new measure of staff nurse clinical leadership: the clinical leadership survey. *Journal of Nursing Management, 19,* 449 – 460.

Pellico, L.H., Brewer, C.S., & Kovner, C.T. (2009). What newly licensed registered nurses have to say about their first experiences. *Nursing Outlook, 57(4),* 194 – 203.

Peterson, C.L., & Burton, R. (2007). U.S. Health Care Spending: Comparison with Other OECD Countries. Retrieved from: http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1316&context= key_workplace

Pine, R., & Tart, K. (2007). Return on Investment: Benefits and Challenges of a Baccalaureate Nurse Residency Program. *Nursing Economics, 25(1),* 13 – 18, 39.

Posner, B.Z. & Kouzes, J.M. (1988). Development and validation of the leadership practices Inventory. *Educational and Psychological Measurement, 48,* 483 – 496.

Posner, B.Z. & Kouzes, J.M. (1993). Psychometric properties of the leadership practices inventory – updated. *Educational and Psychological Measurement, 53,* 191 – 99.

Rae, A. (2011). Leadership scheme targets new nurse and midwifery graduates. *Nursing Management, 18(5),* 20 – 22.

Rani, S., Brennan, M., & Timmons, D. (2010). Development of a leadership role in a secure environment. *Journal of Forensic Nursing, 6,* 96 – 103.

Rheume, A., Clement, L., & LeBel, N. (2010). Understanding intention to leave among new graduate Canadian nurses: A repeated cross-sectional survey. *International Journal of Nursing Studies, 48,* 490 – 500.

Roberts, B.J., Jones, C., & Lynn, M. (2004). Job Satisfaction of New Baccalaureate Nurses. *Journal of Nursing Administration, 34(9),* 428 – 435.

Romyn, D.M., Linton, N., Giblin, C., Hendrickson, B., Limacher, L.H., Murray, C., Nordstrom, P., Thauberger, G., Vosburgh, D., Vye-Rogers, L., Weidner, A., & Zimmel, C.M. (2009). Succesful Transition of the New Graduate Nurse. *International Journal of Nursing Scholarship, 6(1),* 1 – 17.

Ronsten, B., Andersson, E., & Gustafsson, B. (2005). Confirming Mentorship. *Journal of Nursing Management, 13,* 312 – 321.

Rosenfeld, P., Smith, M.O., Iervolino, L., & Bowar-Ferres, S. (2004). Nurse Residency Program: A 5-Year Evaluation from the Participants' Perspective. *Journal of Nursing Administration, 34(4),* 188 – 194.

Roud, D., Giddings, L.S., & Koziol-McLain, J. (2005). A Longitudinal Survey of Nurses' Self-reported Performance During an Entry to Practice Programme. *Nursing Praxis in New Zealand, 21(2),* 37 – 46.

Saccomano, S.J., & Pinto-Zipp, G. (2011). Registered nurse leadership style and confidence in delegation. *Journal of Nursing Management, 19,* 522 – 533.

Salt, J., Cummings, G.G., & Profetto-McGrath, J. (2008). Increasing Retention of New Graduate Nurses: A Systematic Review of Interventions by Healthcare Organizations. *The Journal of Nursing Administration, 38(6),* 287 – 296.

Schoessler, M., & Waldo, M. (2006). The first 18 months in practice: A developmental transition model for the newly graduated nurse. *Journal for Nurses in Staff Development, 22(2),* 47 – 52.

Scott, E.S., Engelke, M.K., & Swanson, M. (2006). New graduate nurse transitioning: Necessary or nice? *Applied Nursing Research, 21,* 75 – 83.

Setter, R., Walker, M., Connelly, L.M., & Peterman, T. (2011). Nurse Residency Graduates' Commitment to Their First Positions. *Journal for Nurses in Staff Development, 27(2),* 58 – 64.

Sigma Theta Tau International Honor Society of Nursing. (2011). Facts on the Nursing Shortage in North America. Retrieved from: http://www.nursingsociety.org/Media/Pages/shortage.aspx

Smith, A., & Chalker, N.J. (2005). Preceptor Continuity in a Nurse Internship Program: The Nurse Intern's Perception. *Journal for Nurses in Staff Development, 21(2),* 47 – 52.

Sorenson, H.A.J., & Yankech, L.R. (2008). Precepting in the Fast Lane: Improving Critical Thinking in New Graduate Nurses. *The Journal of Continuing Education in Nursing, 39(5),* 208 – 216.

Thomson, S. (2011). Transition Into Practice: A Comparison of Outcomes Between Associate- and Baccalaureate-Prepared Nurses Participating in a Nurse Residency Program. *Journal for Nurses in Staff Development, 27(6),* 266 – 271.

Tregunno, D., Jeffs, L., Hall, L.M., Baker, R., Doran, D., & Bassett, S.B. (2009). On the Ball: Leadership for Patient Safety and Learning in Critical Care. *The Journal of Nursing Administration, 39(7/8),* 334 – 339.

Trepanier, S., Early, S., Ulrich, B., & Cherry, B. (2012). New Graduate Nurse Residency Program: A Cost-Benefit Analysis Based on Turnover and Contract Labor Usage. *Nursing Economics, 30(4),* 207 – 214.

Turner, N., & Goudreau, J. (2011). From Student to Emergency Nurse. *Journal for Nurses in Staff Development, 27(5),* 210 – 215.

Ulrich, B., Krozek, C., Early, S., Ashlock, C.H., Africa, L.M., & Carman, M.L. (2010). Improving Retention, Confidence, and Competence of New Graduate Nurses: Results from a 10-Year Longitudinal Database. *Nursing Economics, 28(6),* 363 – 375.

Varner, K.D., & Leeds, R.A. (2012). Transition Within a Graduate Nurse Residency Program. *The Journal of Continuing Education in Nursing, 43(11),* 491 – 499.

Wangensteen, S., Johansson, I., & Nordstrom, G. (2008). The first year as a graduate nurse – an experience of growth and development. *Journal of Clinical Nursing, 17,* 1877 – 1885.

Williams, C.A., Goode, C.J., Krsek, C., Bednash, G.D., & Lynn, M.R. (2007). Postbaccalaureate Nurse Residency 1-Year Outcomes. *The Journal of Nursing Administration, 37(7/8),* 357 – 365.

Williams, R.L., McDowell, J.B., & Kautz, D.D. (2011). A Caring Leadership Model for Nursing's Future. *International Journal for Human Caring, 15(1),* 31 – 35.

Williams, T., Sims, J., Burkhead, C., & Ward, P.M. (2002). The Creation, Implementation, and Evaluation of a Nurse Residency Program Through a Shared Leadership Model in the Intensive Care Setting. *Dimensions of Critical Care Nursing, 21(4),* 154 – 161.

Zeller, E.L., Doutrich, D., Guido, G.W., & Hoeskel, R. (2011). A Culture of Mutual Support: Discovering Why New Nurses Stay in Nursing. *The Journal of Continuing Education in Nursing, 42(9),* 409 – 414.

BIOGRAPHY

Kathy B. Chappell has over 25 years of nursing experience including clinical practice as a direct care nurse in critical care and emergency nursing; hospital administration as an assistant head nurse and hospital supervisor; project management for programs such as the Magnet Recognition Program, NDNQI, quality improvement and shared governance; and hospital-system strategic planning for support of professional nursing practice including nursing clinical education, nursing student recruitment and research. As the Director of the American Nurses Credentialing Center's Accreditation Program, Kathy is responsible for the accreditation of organizations as providers and approvers of continuing nursing education (Primary Accreditation), joint accreditation of organizations providing interprofessional continuing education (Joint Accreditation), accreditation of courses validating nursing skills or skill sets (Nursing Skills Competency Program), and accreditation of residency and fellowship programs for registered nurses and advanced practice registered nurses (Practice Transition Accreditation Program). Kathy received her baccalaureate in nursing with distinction from the University of Virginia and her masters of science in advanced clinical nursing from George Mason University.