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Transition to Practice Experience: The Impact on Newly Licensed RN Performance

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THE TRANSITION TO PRACTICE EXPERIENCE: THE IMPACT ON NEWLY LICENSED RN PERFORMANCE

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Abstract

This quantitative non-experimental descriptive correlational design sought to answer the question if there was a difference in newly licensed RN (NLRN) performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum. The study utilized the Six Dimension Scale of Nursing Performance (SDNP) and evaluated NLRN performance on six subscales: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development at one-year post hire. Benner's novice-to-expert model served as the theoretical framework for this study. The results of the Mann-Whitney U test revealed there was not a statistically significant difference between the type of nurse residency the NLRN participated in and his or her self-reported performance on the individual subscale scores of the SDNP. The results of the point-biserial correlation based on how well the NLRN performed the task did not reveal any significant correlations between the nurse residency and performance. However, a negative correlation was noted within the critical care (r = -.052) and the planning/evaluation (r = -.050) subscale scores. Results from this study corroborate what the literature has previously noted. NLRNs need an experiential opportunity to transition into the practice environment and progress on the novice-to-expert continuum.

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Chapter One

The Problem and Domain of Inquiry

As newly licensed registered nurses (NLRNs) transition into their first professional practice role within an acute care setting, they face many challenges in today's dynamic healthcare environment. With the advent of computerized licensure testing in 1994, provisional nurse licensure no longer exists; today's NLRNs often start working at their first place of employment as fully licensed practitioners, where they are expected to rapidly function at the same level as their more experienced colleagues (Clark & Springer, 2012; Dyess & Sherman, 2009; National Council of State Boards of Nursing [NCSBN], 2008). Not only are they expected to function at the same level as their more competent colleagues, they must do so within an environment that faces high patient acuity, decreased lengths of stay, staffing shortages, and new technology (Berkow, Virkstis, Stewart, & Conway, 2009; Casey, Fink, Krugman, & Propst, 2004; Clark & Springer, 2012; Dyess & Sherman, 2009; Lawson, 2014; NCSBN, 2008; Olson, 2009; Scott, Engelke, & Swanson, 2008; Spector et al., 2015). The expectation to function as a competent practitioner can lead to stress, which in turn affects the NLRN's ability to provide safe patient care (Clark & Springer, 2012; Moreno & Semko, 2014; Welding, 2011). Spector et al. (2015) also noted that new nurses who are given limited support to transition into the practice environment incur more errors and negative safety practices. The inability to provide the requisite safe patient care may cause the NLRN to experience failure within the practice environment, which may lead the NLRN to

prematurely leave a place of employment (Valdez, 2008; Welding, 2011).

Newly licensed RNs come into the practice environment with a positive outlook of their abilities to function within the healthcare environment; however, within three to six months they become disenchanted, where their satisfaction and self-perception decrease dramatically (Goode, Lynn, Krsek, and Bednash, 2009; Lawson, 2014). During the transition into their practice environment, NLRNs begin to realize the work in nursing is very difficult and they have more to learn as they acclimate to their new role as a registered nurse (Goode et al., 2009; Lawson, 2014). Krugman et al. (2006) noted the transitional phase can take anywhere from nine to 12 months, where NLRNs finally regain a sense of satisfaction and confidence in their role. Some sources suggest it may take even longer for NLRNs to perform competently in their practice environment (Benner, Sutphen, Leonard, & Day, 2010; NCSBN, 2014; Scott et al., 2008; Spector et al., 2015).

A transition to practice experience should provide NLRNs with the time and experience they need to gain skills that enable them to perform at a competent level, where they are able to identify situations from a global perspective and manage the multiple demands placed upon them (Benner, 1984; Goode et al., 2009; Lawson, 2014). Other healthcare professions, such as medicine and pharmacy, provide their novice licensed practitioners with comprehensive transition to practice programs. NLRNs are not afforded the same opportunity to take part in such a formal transitional program that supports them as they begin their entry into the practice environment (Spector et al., 2015). The Institute of Medicine [IOM] (2010b), the American Association of Colleges of Nursing [AACN] (2008), the National Council of State Boards of Nursing [NCSBN]

(2008), and Benner et al. (2010) recommend nurse residency programs as an avenue to transition NLRNs to the practice environment. Benner et al. (2010) also suggest postgraduate residency programs be at a minimum of one year in length and specific to the NLRNs' practice setting. High quality residency programs should assist NLRNs in building the skill set they need to competently function within today's demanding healthcare environment (AACN, 2008; IOM, 2010b; Benner et al., 2010; Lawson, 2014; Letourneau & Fater, 2015; NCSBN, 2008).

Scott et al. (2008) noted that transition to practice programs such as orientation, internships, or preceptor relationships are important toward assisting the NLRN in developing both proficiency and self-assurance. However, orientation, as defined by the American Nurses Association (2010), only provides NLRNs with the philosophy, goals, policies, procedures, and role expectations they need in order to function within that specific organization. Orientation is not intended to provide the ongoing support NLRNs need where they are able to continue building their skill level, gain insight into professional development, and continue to transition into the practice realm (Barnett, Minnick, & Norman, 2014). Experts agree that a successful transitional experience should include some type of extended program for all NLRNs (AACN, 2008; Benner et al., 2010; IOM, 2010b; NCSBN, 2008; Spector et al., 2015; Theisen & Sandau, 2013). In a multisite study by the NCSBN, Spector et al. (2015) found there is a need to support NLRNs through structured and evidence-based transition to practice programs where they have time to learn and the opportunity to apply that learning to their practice environment. Nurse residency programs are built upon that premise of extension and experience; they facilitate and support the continued role transition and professional

development of the NLRN, provide continued education, formal or informal preceptorships or mentorships, extended time to learn, and guidance within their specific area of practice (Barnett, Minnick, & Norman, 2014; Rush, Adamack, Gordon, Lilly, & Janke, 2013; Spector et al., 2015).

Healthcare organizations have taken on the initiative and offer several variations of nurse residency programs (Rush et al., 2013; Scott et al., 2008). The programs differ in their requirements for participation as well as in the length of time dedicated to that transition to practice experience (Casey et al., 2004; Herdrich & Lindsay, 2006; Kramer et al., 2013 Krugman et al., 2006; Rush et al., 2013; Scott et al., 2008). Some programs require the NLRN to have a baccalaureate degree, while others do not specify a particular pre-licensure degree requirement (AACN, 2008; Versant®, 2014). At this time, there is no definitive answer as to the appropriate length of time these transition to practice experiences should be in order for NLRNs to become competent within their practice environment (Goodwin-Esola, Deely, & Powell, 2009; Rush et al., 2013; Spector et al., 2015). Spector et al. (2015) also noted there is no common evidence-based transitional component that should be included in all of these experiences.

The University HealthSystem Consortium (UHC) (2008) and the AACN (2008; Krugman et al., 2006) have developed a yearlong post-baccalaureate nurse residency program that is used in some healthcare organizations throughout the United States. This program focuses on assisting the baccalaureate graduate in the transition into the nursing workforce (AACN, 2008; Krugman et al., 2006). The joint effort between the UHC and AACN provides a standardized curriculum within nurse residency programs (AACN, 2008; Krugman et al., 2006; UHC, 2008). The major caveat to this program initiative is

the requirement of a baccalaureate degree, although some will include the associate or diploma graduate. Another nurse residency program, introduced by Versant®, allows graduates from associate, baccalaureate, or diploma nursing programs to be part of that specific nurse residency program (Al-Dossary, Kitsantas, & Maddox, 2014; Versant®, 2014). Several other organizationally developed nurse residency programs also afford NLRNs from the various pre-licensure programs to participate.

Other programs, such as the new graduate critical care nurse residency program at Massachusetts General Hospital, have been developed in response to an identified need within a specific institution (Adams et al., 2015). This six-month program provides NLRNs with classroom and simulated learning experiences, along with a preceptor supported clinical experience, to assist in their transition to being an independent practitioner within their specific critical care unit (Adams et al., 2015).

Credentialing of transition to practice programs is now available through the Commission on Collegiate Nursing Education (CCNE) (2008) and the American Nurses Credentialing Center [ANCC] (2015). These programs conduct external reviews that ensure transition programs meet a similar standard, which allows for metrics to be collected for further studies.

The major theme in providing these residency programs lies in their onboarding process, which involves an institution-specific orientation program and primary support with a trained preceptor or mentor for ongoing support both professionally and emotionally for a specified length of time (Spector et al., 2015; Versant®, 2014). Many different types of transition to practice experiences are offered within acute care settings. They vary in length, from as little as six weeks to a full year; some may require a specific

pre-licensure preparation and others do not (Berkow et al., 2009 Rush et al., 2013). Others vary depending on the specific need of the institution (Adams et al., 2015). The variation within the different types of nurse residency programs does not demonstrate which component is most important in supporting NLRNs as they transition into the professional practice environment (Spector et al., 2015).

Problem Statement

There is lack of data to support which type of nurse residency program is most effective in supporting newly licensed RN performance at one-year post hire.

Purpose of the Study

While there are many measures of NLRN transition to practice success, the purpose of this study was to evaluate the difference between three different types of nurse residency programs and NLRN performance at one-year post hire on the six subscales of the Six Dimension Scale of Nursing Performance (SDNP): leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development at one-year post hire (Schwirian, 1978). Goodwin-Esola et al. (2009) found that NLRNs need more time to develop a sense of competency; the theme of time is reiterated by Rush et al. (2013) who noted there is a need for research that supports a specific time frame to support NLRNs as they transition into the practice environment. Bratt and Felzer (2011; 2012) noted job satisfaction, organizational commitment, clinical decision-making, and nursing performance significantly improved with time, especially at the 12 month time period. Their study also demonstrated a decrease in job stress at that critical one-year point (Bratt & Felzer, 2011). Thomson (2011) noted transitional experiences for baccalaureate-prepared NLRNs may need to

include more emphasis on gaining technical skills, whereas transitional experiences for associate degree-prepared NLRNs should focus on critical thinking and professional development. Spector et al. (2015) asserted there might be specific elements that are important to factor into all transition to practice experiences for NLRNs; however, these elements are not clearly identified. The researchers know that transition to practice experiences must provide support for NLRNs and be supported within the organizational structure; however, more information is needed to look at the various additional elements within nurse residency programs (Spector et al., 2015).

Research Question and Hypotheses

The following research question guided this study:

Is there a difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum?

H_0: There is no significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

H_a: There is a significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that

does not extend throughout the entire year, or one that does not provide a formalized curriculum.

Significance

The current literature supports the need for a transitional period that extends beyond the customary orientation and probationary period; however, the variety in the type and time of support NLRNs receive continues to exist (Benner et al., 2010; Casey et al., 2004; Krugman et al., 2006; Rush et al., 2013; Scott et al., 2008; Spector et al., 2015). Benner asserted it takes up to two years for the NLRN to become fully competent, yet most transition to practice experiences are much shorter in length (Benner, 2004). Casey et al. (2004) found it often takes NLRNs as long as one year to become confident with their performance within the practice environment. Spector et al. (2015) reiterate the need for an extended transition to practice experience, with a minimum length of six months. In order for nurse residency programs to become recognized as an important component of entry into nursing practice, nurse researchers must take an earnest look at not only the time NLRNs need to begin the transitional process into the practice environment but also the components that provide for an effective transition into practice experience.

This study supports what is already known about NLRNs and their transition into the practice environment. By evaluating NLRN performance 11 to 15 months post hire, the data are consistent with previous studies reiterating the need to provide NLRNs with opportunities to become confident in their performance within the practice environment (Casey et al., 2004). The impact this study may have on nursing education, nursing practice, nursing research, and public policy is discussed. Practice environments can

utilize this information to design transition to practice experiences that better serve the needs of NLRNs during this transitional process (Hickey, 2009).

Nursing Education

The data from this study may provide the impetus to evaluate the educational preparation nurses receive and look toward building a more focused pre-licensure curriculum that readily addresses the preparation-practice gap (Benner et al., 2010; Berkow et al., 2009). By identifying gaps in NLRNs' performance at one year, opportunities for improvement within the academic and practice setting will be exposed; this study provides needed information to promote innovative strategies in preparing the NLRN for knowledgeable performance within the dynamic healthcare environment.

Divergent viewpoints exist regarding NLRNs' educational preparation and their ability to provide safe and effective patient care (Berkow et al., 2009). Ninety percent of leaders within nursing academia believe graduates are prepared for entry into the complex healthcare environment; however, only 10% of nurse executives within healthcare organizations agree with this viewpoint (Berkow et al., 2009 The Advisory Board, 2008). Even though the two viewpoints diverge regarding preparation, Goode et al. (2009) noted nurse executives believe nursing programs provide the foundation NLRNs need to begin safe and effective practice within the healthcare arena.

The need exists to understand where the shortfalls in academic preparation lie (Berkow et al., 2009). Essential evidence-based components that afford all NLRNs success within the transition to practice experience are not well defined (Spector et al., 2015). Currently, pre-licensure education varies from program to program, with each program requiring its own specific requirements for successful completion. This type of

program specificity produces NLRNs who enter the workforce with varying skill levels, ultimately affecting quality and safety in the patient care environment (Benner et al., 2010; Rhodes et al., 2013). The data gleaned from this study provide academicians within various pre-licensure programs with information regarding the performance measures NLRNs must possess to provide safe and effective care within the practice environment. After analysis of the data, educational opportunities in the performance areas within leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communications, and professional development may come to light (Schwirian, 1978). Once these areas are identified, nursing programs can begin working with healthcare organizations to facilitate the learning process during students' clinical experiences (Berkow et al., 2009; Hickey, 2009). Leaders in the academic and practice environment can also begin the transitional process by discussing which competencies are better addressed within the academic setting and which should be addressed during the post-graduation transitional phase within the organization itself (Berkow et al., 2009).

Another element within pre-licensure programs that must be addressed is the recommendation that nurses should enter the practice environment with a minimum of a baccalaureate degree. Benner et al. (2010) noted accessibility to professional nursing practice via multiple entry level pathways should be applauded; however, these multiple pathways do not allow for the support necessary in providing high-quality teaching and learning experiences for nurses to be adequately prepared to handle the dynamic healthcare environment and ensure improved patient outcomes.

The IOM (2010b) and AACN (2000) recommend the baccalaureate degree as the requirement for entry into professional nursing practice. The Health Resources and

Services Administration [HRSA] (2013) reports many RN candidates are still prepared at the non-bachelor's degree level. However, progress is being made; Fineberg and Lavizzo-Mourey (2013) noted enrollment in both RN to BSN programs and entry-level BSN programs has increased, 22.2% and 3.5% respectively. As of 2011, 50% of employed nurses now have a baccalaureate degree (Fineberg & Lavizzo-Mourey, 2013). The data gleaned from this study will provide academicians with the necessary information they need to provide a more uniform experience at all levels of entry into practice, thus allowing for a smoother transition into the practice environment as well as the continuation to a higher level of education (Benner et al., 2010; IOM, 2010a). Until such time as the baccalaureate degree becomes the mainstay degree for entry into nursing practice, evaluation of educational efforts for associate degree and diploma program nurse graduates exists as well.

Nursing Practice

Newly licensed RNs need the opportunity to begin the transition from advanced beginner to the competent practitioner (Benner, 1982; Benner, 1984; Benner, 2004; Benner et al., 2010; Goode et al., 2009). They are no longer at the stage of a novice nursing student in their first year of nursing school; rather, they have moved beyond that stage and function at the level of an advanced beginner or beginning level staff nurse (Benner, 2004). The literature suggests an important component in facilitating NLRN competence and confidence is through the implementation of extended transition to practice experiences; unfortunately, budgetary constraints have impacted the time frame and even the specific experiences made available to NLRNs during the transitional process (Bratt & Felzer, 2011; Kowalski & Cross, 2010; Spector et al., 2015). Newly

licensed RN transition to practice experiences can range from a period of six weeks to 12 months (Kowalski & Cross, 2010). There is no consistency in the time allowance for NLRNs to effectively transition to practice. The data from this study provide important information for healthcare organizations when making decisions regarding implementation of a standardized time frame for their transitional (residency) programs for all NLRNs.

Klein and Fowles (2009) found lower subscale scores on three subscales of the SDNP: leadership, critical care, and teaching/collaboration. Student age is inversely related to those three subscale scores. As the authors noted, these three areas require more complex cognitive skills, and older students may be able to recognize this complexity more readily than younger students (Klein & Fowles, 2009). This information can be used to modify transitional programs to better fit the needs of the individual NLRN.

Nursing Research

Nursing research has devoted much attention to transitional programs for NLRNs. In their integrative review, Rush et al., (2013) found numerous benefits of new graduate transition to practice experiences for healthcare organizations: improved retention; cost benefit of transition programs; support/satisfaction among NLRNs; and improved competency and critical thinking. However, studies have not delineated the essential components that should be included in all nurse residency programs to ensure competent performance at one-year post hire (Barnett et al., 2014; Spector et al., 2015). This study provides information that is important to the science of nursing education and provides data to improve upon or change nursing education and transition to practice experiences

for future NLRNs, and it provides opportunity for further study comparing various components within nurse residency programs.

Public Policy

Healthcare organizations have found nurse residency programs to be expensive and often cost prohibitive (Goode et al., 2009). In order to rein in costs, some healthcare organizations limit the number of NLRNs they will take into a nurse residency program (Goode et al., 2009). Unlike federal funding for residency programs within medicine, pharmacy, and pastoral care in the form of pass-through dollars from the Centers for Medicare and Medicaid Services (CMS), nurse residency funding rests upon the healthcare organizations themselves (Goode et al., 2009). This study may provide evidence to support this type of federal funding.

Barnett et al. (2014) noted variability continues to exist within different types of transition to practice nurse residency experiences. The authors noted it is important to understand which components need to be consistent within these residency programs to ensure NLRNs are provided with the best opportunity to excel (Barnett el al., 2014). They go on to note that consistency is an important component when gaining nursing policy support (Barnett et al., 2014). Evidence from this study may provide policy makers with important information about specific components of effective transition to practice experiences.

Philosophical Underpinnings

Although objectivity and prediction are the keys to pure science, the understanding of reality is such that an absolute truth of knowledge does not exist (Creswell, 2014; Phillips & Burbules, 2000; Polit & Beck, 2008; Weaver & Olson, 2006).

Knowledge comes from the understanding that science is not steeped in that which we find as absolutely true but rather from the understanding that "…causes (probably) determine effects or outcomes" (Creswell, 2014, p. 7). Therefore, science must not only recognize but also evaluate how certain causes affect outcomes (Creswell, 2014).

This study is based on the philosophical underpinning of postpositivism, which assumes that absolute truth is not attainable and research must look toward developing a causal relationship between variables and find what is probably true rather than what is absolutely true (Creswell, 2014; Polit & Beck, 2006). Through this lens, postpositivism seeks to find the probable evidence within research rather than that of the absolute evidence of its predecessor, positivism (Creswell, 2014; Polit & Beck, 2006). It takes into account that the researcher is not distinct from the study and biases must be taken into account and an evaluation of validity and reliability must occur (Creswell, 2014).

The ontological view of postpositivism is that of critical realism, which analyzes reality to the point of probability but never to that of the absolute (Guba & Lincoln, 1994). Therefore, reality must be critically examined in order to find what is probably true rather than what is absolutely true (Creswell, 2014; Guba & Lincoln, 1994). The epistemology of postpositivism is not objective in nature but rather reductionist in that it tends to reduce ideas into smaller, more manageable variables that test hypotheses (Creswell, 2014; Polit & Beck, 2008). The methodology within postpositivism is either experimental or quasi-experimental, where the inquiry of quantifiable variables tests hypotheses (Guba & Lincoln, 1994; Racher & Robinson, 2003). The goal of postpositivism is to make generalizations and provide a link between cause and effect (Racher & Robinson, 2003).

Postpositivism came about from the inspirational genius of Karl Popper, who believed all discoveries are refutable and can only survive through testing to see if they are refuted or falsified (Godfrey-Smith, 2003, Phillips & Burbules, 2000). Therefore, knowledge is based on conjecture, where it can be refuted and reconsidered (Phillips & Burbules, 2000). Knowledge and theories can be proven wrong, which does not necessarily mean they are totally wrong. Rather, a certain situation may warrant reconsideration because new evidence provides the basis for that reconsideration (Phillips & Burbules, 2000).

Postpositivism is an appropriate philosophical underpinning for this study because the literature supports the need for programs that assist the NLRN in that first year of transition to practice; however, the information is conjectural and needs to be tested. The study also seeks to demonstrate a causal relationship between the variables, which are the type of nurse residency program completed with performance after one-year post hire. Through a systematic evaluation of these data, the study will describe whether there is a causal relationship between these particular variables of interest (Creswell, 2014).

Theoretical Framework

The theoretical framework used for this study is based on Benner's (1984) novice-to-expert model for nurses' professional development as they move through skill acquisition stages. With this model, Benner (1984) explains the type of experiential learning process nurses move through as they develop skills and understanding through both their experience and their sound educational foundation (Benner, 1984; Dracup & Bryan-Brown, 2004). Benner's model has been applied to nursing studies in a variety of settings, including nurse residency programs, clinical ladder programs, expert progression

of advanced practice nurses, and nursing education (Carlson, Crawford, & Contrades, 1989; Fiedler, Read, Lane, Hicks & Jegier, 2014; Jeangsaway, Malathum, Panpakdee, Brooten, & Nityasuddhi; 2012; Shapiro, 1998; Spiva et al., 2013).

Benner based her novice-to-expert model on the Dreyfus model of skill acquisition posited by Dreyfus and Dreyfus (1986) as they studied the skill acquisition of chess players and airline pilots. This model of skill acquisition, with roots in the philosophical doctrine of phenomenology, is leveled into five progressive stages: novice, advanced beginner, competent, proficient, and expert (Benner, 1984; Peña, 2010). As nurses move through these different levels, they change how they practice their profession (Benner, 1984). They experience a paradigm shift, where they no longer rely on abstract principles but rather on past concrete experience to guide their practice (Benner, 1984). They shift their focus, from one where they are able to take only certain parts of a whole situation to prioritizing care for an individual situation (Benner, 1984). They also become engaged in their practice situation; they no longer stand on the outside of a situation but become engaged in what is occurring (Benner, 1984). Through the use of this model, Benner explains not only the level of skill but also the clinical judgment nurses use within these different levels (Benner, 1984).

Theoretical Assumptions

Nurses gain knowledge through experience over a period of time; with this experience, their practice evolves (Carlson et al., 1989). Their intellectual orientation changes; they incorporate and sort out knowledge based on the specific situation, and their decision making refocuses on perceptual awareness rather than process orientation

(Carlson et al., 1989). Nurses experience these changes as they progress from novice to expert (Carlson et al., 1989).

Constructs

Novice. Neophytes have no experience at all (Benner, 1982; 1984). Their behavior and actions are governed by very narrow and strict context-free task oriented rules (Benner, 1982; 1984; Carlson et al., 1989; Dracup & Bryan-Brown, 2004). Because of their limited experiences, novices must rely on those rules to guide their performance; these rules provide them with the guidance they need in order to perform a certain task (Benner, 1982; 1984). Novices, from Benner's standpoint, can be students as well as seasoned practitioners who are transitioning into an unfamiliar role (Benner, 1982; 1984).

Advanced Beginner. Newly licensed RNs enter the practice environment at this level (Benner, 1984; Schoessler & Waldo, 2006). Nurses at this level are able to "demonstrate marginally acceptable performance…" (Benner, 1984, p. 22). These nurses have had experiences with similar situations where they can draw upon certain aspects in order to make sound decisions (Benner, 1982; 1984). Because these aspects draw upon previous experience, advanced beginners are able to transition their practice to one that is less context-free and procedural to one where they are able to rely on their experience to guide their decisions (Benner, 1982; 1984). Although they are now able to rely on certain situational aspects, advanced beginners are not able to distinguish between certain aspects that guide practice (Benner, 1982; 1984). Advanced beginners are not yet able to prioritize those aspects and leave out one aspect if it does not pertain to a particular situation (Benner, 1982; 1984). Advanced beginners do not see themselves as active participants in a situation but rather separate from that specific situation (Schoessler &

Waldo, 2006). They often lack the organizational skills necessary for management of patient care and cannot identify and respond to specific patient care situations (Schoessler & Waldo, 2006).

Competent. Newly licensed RNs begin to believe they are mastering their role; however, they are not yet able to do so with the speed and flexibility associated with a more proficient nurse (Benner, 1982; 1984). Nurses who transition into the competent phase are able to contemplate long-term goals (Benner, 1982; 1984). They contemplate their actions based on conscious, abstract, and analytical analysis where they are not stringently guided by stimulus-response actions (Benner, 1982; 1984). Although competent nurses still lack flexibility and speed, they have a certain level of mastery where they become confident in their practice environment (Benner, 1982; 1984). It takes advanced beginners up to two years to transition to a competent practitioner (Benner, 1982; 1984; Schoessler & Waldo, 2006). Newly licensed RNs often leave their first place of employment long before they become fully competent, which affects their ability to adjust to the practice environment (Schoessler & Waldo, 2006).

Proficient. Nurses at the proficient level are able to rely on their past experiences to guide their practice; they know how to modify plans and have a holistic view of specific situations (Benner, 1982; 1984). Proficient nurses are able to see certain aspects of care that stand out and use maxims to guide their practice (Benner, 1982; 1984). Maxims are defined as those specific nuances within a situation, where certain aspects are taken into consideration (Benner, 1982; 1984). This level is often achieved when nurses work in a similar area for a period of three to five years (Benner, 1982; 1984).

Definition of Terms

Transition to Practice Experience

Transition to practice experience, often referred to as a nurse residency program, is the process of supportive professional development for NLRNs, where they transition from the role of a student in the educational setting to the role of the professional nurse in the practice environment (Casey et al., 2004; Duchscher, 2008; NCSBN, 2008; Olson, 2009; Pennbrant, Nilsson, Öhlén, & Rudman, 2013; Spector et al., 2015). Through experiential learning, novice RNs learn to develop more effective decision-making skills essential for safe and effective professional practice and development of competent nursing practice (AACN, 2008; Benner, 1982; Rhodes et al., 2013; Scott et al., 2008). This time period allows the novice to continue the transitional process with support from their more competent colleagues (Benner, 1982; 1984). The time frame allotted for this transitional experience is variable and dependent upon each NLRN's particular healthcare organization.

Newly Licensed Registered Nurse

A newly licensed registered nurse is a registered nurse who successfully graduates from a pre-licensure RN educational program; achieves a passing score on the National Council Licensure Examination for Registered Nurses (NCLEX-RN); and has less than 12 months of full-time work experience within the professional practice environment (Duchscher, 2008; Dyess & Sherman, 2009; Spiva et al., 2013).

Orientation

Orientation provides a time frame in which experienced or NLRNs are provided with an opportunity to become familiar with the work setting (ANA, 2010; Scott et al.,

2008). This time period is used to introduce new staff to the philosophy, goals, procedures, role expectations, and other important information necessary to function within that particular setting (ANA, 2010). The institution-based orientation is one component of the transition to practice experience (Spector et al., 2015) but does not constitute the entire program.

Nurse Residency Program

A nurse residency program is a structured post-licensure program designed to assist NLRNs in their transition from the entry-level advanced-beginner to the competent professional nurse (AACN, 2008; Benner, 1982; Clark & Springer, 2012; Pittman, Herrera, Bass, & Thompson, 2013; Spector et al., 2015). Nurse residency programs provide for an initial orientation to the healthcare organization and additional course work introducing the NLRN to practice guidelines and standards, allowing for increased use of clinical reasoning to provide safe and effective nursing care within their practice environment (Spector et al., 2015; Versant®, 2014). The program is designed to allow the NLRN to become safe, skilled, knowledgeable, and satisfied within their practice environment (Clark & Springer, 2012). The programs vary in length from three months to one year (Pittman et al., 2013).

Competence

Competence in nursing is described as the combination of "skills, knowledge, and behaviors to properly perform in a variety of patient care situations" (Kubin & Fogg, 2010, p. 28). It includes not only the technical skills but also the critical thinking, clinical judgment, clinical reasoning, and communication necessary to be a competent professional within the nursing practice arena (Benner et al., 2010; Kubin & Fogg, 2010).

It is further defined as "performance that meets defined criteria based on the specialty area, context, and model of practice in which an individual nurse is engaged" (ANA, 2010, p. 45).

Performance

Performance will be measured based on the six subscales within the Six Dimension Scale for Nursing Performance (Schwirian, 1978). As the NLRN gains experience, performance within the professional practice areas of leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relationships/communication, and professional development will move from the level of an advanced beginner to that of a competent nurse (Benner, 1982; Schwirian, 1978).

Chapter Summary

The results of this quantitative study identified limitations in NLRN performance via self-evaluation using the Six Dimension Scale of Nursing Performance (Schwirian, 1978) after participation in different types of nurse residency programs. In order to successfully transition into professional practice, NLRNs require additional competencies beyond what they have gained in their pre-licensure programs and orientation (Goode et al., 2009; Olson, 2009). A successful transition to practice experience can provide the NLRN with the necessary tools to promote a sense of confidence, competence, and even satisfaction within the practice environment (Goodwin-Esola et al., 2009; Rush et al., 2013; Scott et al., 2008; Welding, 2011).

At this time, there is insufficient evidence to support a specific set of evidence-based essential components within nurse residency programs that promote competent NLRN performance at one-year post hire. This research may further enhance knowledge

and guide nursing education, as well as practice, in designing effective transition to practice experiences for NLRNs. It may also lead to information needed to guide funding for nurse residency programs, ultimately providing the impetus to change public policy. Lastly, this research may lead to further nursing education research in the transition to practice experience, ultimately contributing to the science of nursing education. To assist NLRNs with their transition to practice experience, the profession must take the time to evaluate best practices that will support these novice nurses as they transition into today's dynamic healthcare environment. In order to gain more insight into the transition to practice experience and identify existing gaps in the evidence, a thorough review of the literature will be described in chapter two.

Chapter Two

Literature Review

This quantitative study seeks to identify differences in NLRN performance via self-evaluation using the Six Dimension Scale of Nursing Performance (Schwirian, 1978) after participation in various types of nurse residency programs. To prepare for this research and gain a better understanding of what is already known about these variables, a review of the literature was conducted. The research included a review of all relevant literature as it relates to the aforementioned variables. Documents relevant to the theoretical framework, Benner's novice-to-expert model, were also reviewed to ensure a complete look at what is known and what is still unknown about the transition to practice experience.

Search Strategy

The search engines utilized for this review included CINAHL Plus with Full Text, Google Scholar, and PubMed. The search was organized based on the following terms: transition to practice, new graduate or newly licensed RN competence, new graduate or newly licensed RN performance, orientation programs, nurse residency programs, and Benner's model novice-to-expert. The initial search was limited to peer reviewed articles in English and was inclusive of all dates. Subsequent articles were also identified from the reference lists within the initial review articles. Relevant statements from professional organizations such as the National Council of State Boards of Nursing (NCSBN), the University HealthSystem Consortium (UHC), the Institute of Medicine (IOM), the

American Nurses Credentialing Center (ANCC), and Commission on Collegiate Nursing Education (CCNE) were also utilized. The review of the literature provides a historical overview of the transition to practice experience, a review of Benner's novice-to-expert model, a look at the newly licensed RN, and a description of the transition to practice experience.

Historical Overview

Although the transitional process novice nurses experience is not a new or unique phenomenon to the profession of nursing, it is one that has taken on renewed importance because of recent changes within healthcare itself (Craig, Moscato, & Moyce, 2012; Spector et al., 2015). The patient population novice nurses encounter within the hospital setting is much sicker and their diverse and complex healthcare needs put a strain on an already taxed nursing workforce (Spector et al., 2015). The looming nursing workforce shortage is also experiencing a shift, where there will be less experienced nurses and more novice nurses caring for this complex patient population (Benner et al., 2010; Spector et al., 2015). Along with this shift, nursing turnover continues to be problematic (Theisen & Sandau, 2013). The enduring nursing shortage, high nursing workforce turnover rates, and increased patient acuity are driving forces in guiding nursing academia and healthcare organizations to revisit the transition to practice experience and how this experience ultimately affects NLRNs' ability to provide safe and effective patient care (Theisen & Sandau, 2013).

Goode, Lynn, Krsek, and Bednash (2009) asserted nursing programs, healthcare organizations, and newly licensed RNs themselves know there is a need to increase the knowledge and skills of what was learned in individual nursing programs nationwide.

Pennbrant, Nilsson, Öhlén, and Rudman (2013) found that newly licensed RNs lack not only the practical knowledge but also the theoretical knowledge they need to ultimately allow them to succeed. These concerns are reiterated by the University HealthSystem Consortium (UHC) (2008) and by Smith and Crawford (2002) who noted NLRNs do not readily recognize abnormal findings, cannot respond to emergency situations in a timely manner, struggle with supervision of unlicensed personnel, and struggle in performing basic technical skills. Renewed efforts in both academia and the workforce must look at evidence-based practice efforts to support NLRNs in their transitional experiences (Lawson, 2014; Theisen & Sandau, 2013). Benner, Sutphen, Leonard, and Day (2010) asserted the time is now to focus on providing an educational path within nursing that is uniform and of the highest quality. This education must provide nurses with the requisite tools they need to succeed as they begin the transitional process from the novice student to a more competent practitioner within an oft noted chaotic healthcare environment (Benner, 1982; 1984; Benner et al., 2010).

Novice-to-Expert Model

The transitional process is likened to Benner's novice-to-expert model, where experiential learning provides the basis for becoming an expert practitioner (Benner, 1982; 1984; Dracup & Bryan-Brown, 2004; Valdez, 2008). As RNs transition from one phase to the next, they bring their experiences forward, building upon the knowledge gained at the previous level (Morrow, 2009). Newly licensed RNs do not have the experience upon which to draw and often make decisions based on theoretical knowledge (Hill, 2010; Morrow, 2009). This lack of previous experience and practical know-how does not allow NLRNs to look at the whole picture; rather, they focus on the technical

tasks associated with patient care (Benner, 1982; 1984; Dracup & Bryan-Brown, 2004; Hill, 2010; Morrow, 2009). At this point in their career, NLRNs are not able to see or respond to the entire picture; instead they focus on individual pieces of information and the tasks involved in providing safe patient care (Dracup & Bryan-Brown, 2004).

NLRNs enter the nursing workforce as an advanced beginner (Benner, 2004; Hickey, 2009; Theisen & Sandau, 2013). At this stage, they rely on policy and procedure to guide their practice decisions (Gentile, 2012). Although they have encountered patient care situations during their educational experiences, these limited experiences do not provide them with the variety of experiences they need to make patient care decisions (Benner, 1984; Gentile, 2012). NLRNs at the advanced beginner stage believe all information is equally important; they are not able to differentiate patient care concerns, and they ignore attributes that may not be as important as other attributes in providing safe care (Benner, 1984; McHugh & Lake, 2010).

McHugh and Lake (2010) noted nursing expertise and years of experience are an important component in providing both quality and safe patient care. Their study intended to provide validation to the Benner model. Their conclusion comes from a secondary analysis of cross-sectional data with a final data set of 8,611 acute care nurses working in 182 acute care hospitals within the state of Pennsylvania (McHugh & Lake, 2010). The average number of respondents per hospital was noted at 86, with a range of 15-225 (McHugh & Lake, 2010). Their outcome variable was defined as nurse-reported level of expertise based on Benner's (1982; 1984) novice-to-expert model (McHugh & Lake, 2010). The independent variables were divided at the nurse and hospital level; education and experience were analyzed at both the nurse and hospital level (McHugh &

Lake, 2010). In order to gain a sense of understanding within the practice environment, the authors included the nurse practice environment as an added independent variable at the hospital level (McHugh & Lake, 2010). The mean level of nursing experience was reported at 13.2 years at the nurse level and 13.6 years at the hospital level (McHugh & Lake, 2010). The authors surmise the difference between these two is related to an uneven distribution across hospitals (McHugh & Lake, 2010). MSN-prepared nurses had an average of 18.9 years of experience; nurses educated at a diploma level had an average of 17.7 years of experience; nurses with a BSN had an average of 10.9 years; and ADN educated nurses had 9.5 years of experience (McHugh & Lake, 2010). Twenty percent rated themselves as competent, 16% rated themselves at the expert level, and 6% rated themselves as being an advanced beginner (McHugh & Lake, 2010). At this individual level, years of experience demonstrated a significant positive correlation with expertise ($r_s = .48$, $p < .001$) (McHugh & Lake, 2010).

According to Benner (1984), expertise does not lie solely in the number of years of experience but rather in the experiences themselves. Therefore, it is important to ensure NLRNs have not only the time to gain experience but also the opportunity to engage in experiences that provide them with the requisite knowledge and skill to move forward (Benner, 1984; Collins, 2008). Collins (2008) noted novice nurses must have the opportunity to apply theoretical knowledge in the real world on a daily basis. These daily opportunities allow for the professional growth that must take place for the novice to move toward competence within their practice realm (Collins, 2008).

In an exploratory case study of 33 participants, Hickey (2009) found NLRNs should be provided with opportunities to enhance their clinical skills, clinical judgment

and reasoning, and move toward independent practice during their transition into the practice environment. An analysis of qualitative responses demonstrated NLRNs noted they had little opportunity during their educational experiences to practice priority setting, time management when caring for more than one patient, and interaction with members of the healthcare team (Hickey, 2009). Their pre-licensure clinical experiences often focused on "nonnursing tasks" equated to the work of nursing aides (Hickey, 2009, p. 39). Respondents noted they did not have enough time to practice "real" nursing and that "nursing is more than taking vital signs, providing hygiene" (Hickey, 2009, p. 39). Another frequent theme noted in this study was the need to interact with preceptors where they are able to gain a more realistic view of the practice of nursing (Hickey, 2009). NLRNs must be afforded learning opportunities during their educational experiences and entry into practice experiences in an environment guided by expert clinicians who allow them the opportunities to become safe and competent practitioners (Hickey, 2009). Although NLRNs are not experts after they complete the transitional process, they begin the process of moving toward the level of a competent practitioner, where they have a broader perspective and are better able to prioritize care based on a patient's long-term needs (Benner, 1982; 1984; Valdez, 2008.

In a review of the literature, Morrow (2009) equates the transition of the NLRN to professional practice with that of the Canadian goose. NLRNs are excited to be leaving the nest and are eager to join the flight within the professional nursing workforce (Morrow, 2009). They have a positive outlook about their abilities to succeed within the organization (Goode et al., 2009). During this time of transition, they must have the continued support of their elders where that transitional experience from novice to

competent practitioner is nourished and simultaneously buffered to afford NLRNs with opportunities for experiential growth (Benner, 1982; 1984; Morrow, 2009). NLRNs have already achieved several milestones along the way: graduation from a nursing program and the passage of the licensure examination. Now these NLRNs are ready to enter the "real world" where they will continue to provide safe care for their patients (Morrow, 2009).

Newly Licensed Registered Nurses

Entry into the professional practice environment is often met with concurrent feelings of excitement and trepidation for newly licensed RNs (Trossman, 2009). The excitement is fostered by the fact these NLRNs have finally left behind the student phase of their chosen career and are now ready to forge ahead in the professional realm. Trepidation occurs because the expectations placed on NLRNs lead to feelings of inadequacy and stress (Fink, Krugman, Casey, & Goode, 2008; Lawson, 2014; Scott et al., 2008 Teoh, Pua, & Chan, 2013, Trossman, 2009). Newly licensed RNs face challenges of time management, priority setting, and communication skills within the professional realm, and, most importantly, skills competency (Casey, Fink, Krugman, & Propst, 2004; Fink et al., 2008; Lawson, 2014). They grapple with the necessary skill set needed to not only competently but also quickly make that transition to the role of competent practitioner (Goodwin-Esola et al., 2009; Lawson, 2014; Morrow, 2009; Welding, 2011; Winfield et al., 2009). Even though NLRNs are eager and excited to become part of professional nursing, many NLRNs become discouraged and often leave their first place of employment within the first year after graduation from their pre-licensure programs (Lawson, 2014; Theisen & Sandau, 2013; Trossman, 2009).

As previously noted, NLRNs are at a vulnerable stage and must be supported during the first critical year of transition (Casey et al., 2004; Fink et al., 2008; Lawson, 2014; Welding, 2011; Winfield et al., 2009). Newly licensed RNs are key to replacing an aging workforce and providing a pipeline for the continued nursing shortage that is projected to exist for many years (Pennbrant et al., 2013; Spiva et al., 2013; Theisen & Sandau, 2013; Valdez, 2008; Winfield et al., 2009). The excitement of being a newly licensed RN decreases by six months, where disenchantment takes hold; NLRNs' self-perception and professional satisfaction with the work environment decreases dramatically (Goode et al., 2009). Professional satisfaction significantly declines from a mean of 3.54 at the start of the participants' nurse residency program to a mean of 3.43 at six months followed by a mean of 3.39 at the completion of the program (Goode et al., 2009).

NLRNs face the reality about the work of nursing and realize they have much more to learn (Goode et al., 2009; Lawson, 2014). As they continue the transitional process, NLRNs are faced with the challenges of nursing today, and they begin to question their abilities and the role they play within the profession (Goode et al., 2009). This transitional period continues throughout that first year of practice and often beyond that point (Benner et al., 2010; Goode et al., 2009; Spector et al., 2015). The one-year mark signifies an important milestone for the NLRN; self-confidence and the ability to cope with multiple demands are regained (Goode et al., 2009; Lawson, 2014). Respondents report a greater ability to organize and prioritize, with a mean of 2.68 at the beginning of the nurse residency program, progressing to a mean of 2.97 at midpoint, and commencing with a mean of 3.10 at the completion of the program (Goode et al., 2009).

NLRN Performance

Newly licensed RN performance is multifaceted. Performance is not a specific skill set that must be demonstrated. Rather, it comprises the ability to perform specific technical skills, make clinical judgments, lead and manage patient care situations, communicate within the healthcare team, and demonstrate professionalism (Berkow et al., 2009; Etheridge, 2007; Fink et al., 2008; Schwirian, 1978). Roud, Giddings, and Koziol-McLain (2005) examined self-reported changes in nursing performance of newly licensed RNs who took part in a yearlong transition to practice program in New Zealand. Their longitudinal cohort study of 54 newly licensed RNs' participation in an entry into practice program examined changes in frequency and quality of nurses' self-perceived performance as measured using a modified version of Schwirian's (1978) Six Dimension Scale of Nursing Performance (Roud et al., 2005). The researchers collected data at two points, at seven weeks (T1) of entry into the practice program and again at seven months (T2) post entry into the practice program (Roud et al., 2005). Participants reported significant increases in both the frequency and quality of nursing performance from seven weeks to seven months (Roud et al., 2005). One of the most significant changes noted was that in the domain of leadership, with a mean score change of 0.44 in the frequency of leadership performance on the SDNP ($p < .05$) (Roud et al., 2005). Frequency scores, with a possible range of one to five, demonstrated a mean of 3.51 with a standard deviation of 0.88 at T1 and a mean of 3.95 with a standard deviation of 0.65 at T2 (Roud et al., 2005). As the study indicates, with time and support from the healthcare organization, newly licensed RNs readily assimilate into the healthcare environment (Roud et al., 2005).

Vanetzian and Higgins (1990) found evaluation of nursing performance of newly licensed RNs significantly increased at one year of practice. Using the Six Dimension Scale of Nursing Performance (Schwirian, 1978), this longitudinal descriptive study compared new graduate self-appraisals of nursing performance with those appraisals administered by their evaluators (Vanetzian & Higgins, 1990). Participants completed the survey at six months and one-year post graduation (Vanetzian & Higgins, 1990). At one year of practice, evaluators rated NLRNs' performance higher in all subscales within the Six Dimension Scale for Nursing Performance than they did at six months post graduation (Vanetzian & Higgins, 1990). The greatest change is noted in the area of planning/evaluation, where evaluators' appraisal of new graduates' performance demonstrated a noteworthy mean increase of 0.458, from a mean of 2.689 to a mean of 3.147 (Vanetzian & Higgins, 1990). In their comparison of new graduates' self-evaluation, the new graduates evaluated themselves higher in the planning/evaluation subscale with a mean change of 0.225 from six months (M = 3.004) to one year [M = 3.229] (Vanetzian & Higgins, 1990). This information supports the need to provide, at a minimum, yearlong entry into practice experiences for newly licensed RNs (Vanetzian & Higgins, 1990).

Failla, Maher, and Duffy (1999) found similar results in their descriptive comparative study of new graduates from an associate degree program. The study evaluated the nursing performance of associate degree graduates by the graduates themselves, their faculty members, and employers (Failla et al., 1999). Graduates and their respective faculty members completed a modified Six Dimension Scale of Nursing Performance survey at the time of their graduation (Failla et al., 1999). Six months post

graduation, the new graduates and their employers were asked to complete the survey (Failla et al., 1999). Their findings indicate a significant inverse relationship, as perceived by the new graduates, in planning/evaluation subscale at six months post-graduation (Failla et al., 1999). A mean difference of -0.28 is noted from the graduates' self-evaluation at the time of graduation (M = 3.47) to six months post-graduation [M = 3.19] (Failla et al., 1999). The authors question if the nurse graduates' perception of performance at graduation is realistic because their prior experience is limited to the learning environment, which is more controlled than their practice environment (Failla et al., 1999). This study again corroborates the need to extend transition to practice experiences to provide newly licensed RNs with the requisite time to increase their performance. Although NLRN transition to practice remains multifaceted, time remains a constant theme throughout many studies (Failla et al., 1999; Roud et al., 2005; Vanetzian & Higgins, 1990). Newly licensed RNs must have the appropriate time to transition into their practice environments.

In their exploratory comparative analysis of nursing competency of senior level nursing students (*n* = 391), Klein and Fowles (2009) noted student age inversely affects three subscales within the Six Dimension Scale of Nursing Performance. With students' increase in age, scores within the subscales of leadership, critical care, and teaching/collaboration decreased (Klein & Fowles, 2009). The authors noted this may be related to self-confidence in relation to complex cognitive skills within those subscales, where older students recognize the complexity of these issues and younger students do not readily recognize that same complexity (Klein & Fowles, 2009). Conversely, they

noted previous healthcare experience positively affected leadership scores (Klein & Fowles, 2009). Summary data were reported without specific statistical representations.

The Transition to Practice Experience

As previously stated, the transition to practice experience is not a new or unique phenomenon in nursing, but it has new implications within the realm of the dynamic healthcare system NLRNs join today. Hickey (2010) noted a significant change in health care has prompted a new look at the transitional experience of NLRNs. The gap between education and practice is well documented. According to research conducted by the Nursing Executive Center, 90% of academic leaders believe graduates are fully prepared to enter the nursing workforce whereas only 10% of health care nurse executives believe this of new graduates (Berkow et al., 2009). Thomas, Bertram, and Allen (2012) reiterated this concern and noted newly licensed RNs do not have experience managing the care of several patients and have very limited, if any, experience interacting with physicians. Newly licensed RNs also lack the ability to connect their classroom learning to the practice environment and lack the time management skills necessary in managing a group of patients, especially patients who are considered higher acuity (Halfer & Graf, 2006; Welding, 2011). Many initiatives are underway to smooth the transitional experience from student to professional nurse. A closer look at support for the transition to practice experience and the lack of support for the transition to practice experience will provide insight into the need to evaluate the transitional experience.

Support for Transition to Practice

Change in Education. Nursing education has taken on a new persona. Prior to the mid 1900s nurses graduated from hospital based diploma programs where they spent

their senior year building their skillset and functioning in the role as a team leader (Hansen, 2014; Trossman, 2009). Students practiced under the tutelage of experienced clinicians who were not only their clinical instructors but also their theoretical nurse educators fostering their learning (Hansen, 2014). Graduates of diploma programs had excellent technical and even time management skills because of the opportunities afforded them during the lengthy time they spent in the clinical setting (Hansen, 2014).

As nursing education began to shift toward the collegiate realm, the focus of educating nursing students changed. Students were no longer required to spend extended hours in the clinical arena; rather they were focused on gaining knowledge in the arts and sciences, which provided a more well rounded education (Hansen, 2014). Unfortunately, this shift affected the amount of time students spent in the clinical arena, where novices previously had the necessary time to transition to the practice setting (Hansen, 2014; Trossman, 2009).

Changes in Licensure Practices. Although NLRNs are still required to graduate from an approved nursing program and pass the national licensure examination, the advent of computerized testing has changed the professional practice arena (Clark & Springer, 2012; Dyess & Sherman, 2009). Newly licensed RNs often start at their first place of employment already licensed as a registered nurse (Dyess & Sherman, 2009). They are able to take their licensure examination shortly after graduation from their nursing program and have their license processed almost immediately (Clark & Springer, 2012; Dyess & Sherman, 2009). This situation allows the nurse graduate to enter the workforce as a fully licensed RN rather than as a nurse graduate with a provisional license (Clark & Springer, 2012; Dyess & Sherman, 2009). This sense of immediacy

transfers to the workplace, where they are now expected to work as a fully licensed RN (Clark & Springer, 2012; Dyess & Sherman, 2009).

Gap in Practice Readiness. Leaders within the academic and healthcare environment do not agree that NLRNs are ready to take on the challenges within the healthcare system of today (Berkow et al., 2009). A study undertaken by the Nursing Executive Center demonstrates only 10% of the nurse executives within healthcare organizations believe NLRNs are competent and safe, whereas 90% of the academic leaders believe these same NLRNs are able to provide safe and effective care (Berkow et al., 2009). Although this gap exists, efforts continue to provide NLRNs with transitional experiences to assist them in gaining the necessary experiences to provide competent and safe patient care (Berkow et al., 2009).

A Different Type of Healthcare Environment. The healthcare environment of today is very complex and dynamic. Patients within the acute care setting are sicker and require more specialized care (Institute of Medicine, 2010b; Morrow, 2009; Rush, Adamack, Gordon, Lilly, & Janke, 2013). Clark and Springer (2012) noted new graduates describe their typical day as overwhelming because of the workload demands and frenetic pace. They do not have time to think through processes because they are too busy receiving report, assessing patients, and administering medications (Clark & Springer, 2012). This type of pace and situation sets NLRNs up for failure and risks patient care.

Limited funding and cost containment are another threat to the NLRN transition experience (Dyess & Sherman, 2009). Nurse leaders are tasked to contain costs by reducing staff and often shorten orientation for NLRNs (Dyess & Sherman, 2009). Reducing orientation allows nurse leaders to move the NLRN from a protected role not

counted into the staffing mix to a staffing role where they are assigned a full patient load (Dyess & Sherman, 2009). These types of measures directly impact the NLRN transitional experience and ultimately threaten patient safety.

Lack of Support for Transition to Practice Programs

Although a plethora of literature exists regarding the NLRN transitional experience, many studies focus on retention or the stressors associated with the transitional experience (Kowalski & Cross, 2010). Several studies discuss the need for longer transitional processes that allow NLRNs time to acclimate to the professional practice environment; however, no studies have provided conclusive evidence to support a specific time frame for that transitional experience (Clark & Springer, 2012; Rush et al., 2013). Although studies regarding academic preparation of RNs exist, studies do not address how academic preparation affects the transitional process (Rush et al., 2013). Studies addressing the transitional process and NLRN performance or program outcomes are limited (Krugman et al., 2006). In order to set best practice standards, more inquiry into the area needs to occur.

Length of Transitional Process. Krugman et al. (2006) noted the literature supports the need for an extended transitional process for NLRNs; however, the lengths of these supportive programs vary, and they do not demonstrate consistency from program to program. Clark and Springer (2012) discuss the need for extended time to provide NLRNs with the experiential learning to become accomplished practitioners, and they noted the first six months of practice focus on learning and surviving within the professional practice environment. Bratt and Felzer (2011) noted clinical decision-making, job satisfaction, and job stress all improved at the one-year endpoint of that

particular study. Using a repeated measures study design, 468 NLRNs were surveyed at the beginning of their residency program, at six months, and again at 12 months using two instruments, one of these being a modified version of the Six Dimension Scale of Nursing Performance (Bratt & Felzer, 2011). The most significant difference was seen within the subscale of teaching/collaboration at both six months and 12 months after the NLRNs began their residency program (Bratt & Felzer, 2011). The baseline mean increased from 28.6 to 30.3 at six months to 33.5 at 12 months (Bratt & Felzer, 2011). This increase of 4.9 in the mean within this specific subscale provides important support for revisiting the effectiveness of a yearlong transition to practice program.

Rush et al. (2013) reiterate the need for further study in the area of orientation length to provide evidence for best practice standards. The literature supports the need to provide sufficient time to support NLRNs as they transition into the practice environment; they are particularly vulnerable at six months post-graduation and tend to become more comfortable with their performance at the end of 12 months (Bratt & Felzer, 2011; Rush et al., 2013).

Pre-licensure Education. Rush et al. (2013) discussed the need to inquire about the academic preparation of NLRNs and if there are any specific differences in the transitional process and support needed for graduates from the different types of degree programs. They specifically noted this in reference to baccalaureate and associate degree-prepared nurses; however, the need to include the small number of diploma graduates still exists (Rush et al., 2013).

Performance Measures. Hickey (2009) noted information from preceptors regarding NLRN performance can provide valuable information to guide reform in both

pre-licensure education and during the transition to practice experience (Hickey, 2009). However, current feedback is often anecdotal and little research exists that provides information regarding preceptors' perceptions of NLRN performance (Hickey, 2009). Vanetzian and Higgins (1990) noted performance expectations between new graduates, their preceptors, and nursing leadership differ and may limit newly licensed RNs' performance more than expected. Roberts and Farrell (2003) found NLRNs often rate themselves higher on performance evaluations than their preceptors do. The authors surmised these findings might be because preceptors are more cautious in their evaluation of NLRN performance whereas, NLRNs' higher self-evaluations may be related to their pre-licensure education, where they have previously been deemed competent by faculty within their programs (Roberts & Farrell, 2003).

Newly licensed RNs need time to gain the experience to become proficient in their performance; however, limited studies exist that demonstrate a change in newly licensed RN performance over time, especially within that one year transitional period (Vanetzian & Higgins, 1990). Roud et al. (2005) found nursing performance over time is readily evaluated using Schwirian's (1978) Six Dimension Scale of Nursing Performance. Using the performance measures within the scale offers insight into the needs of newly licensed RNs within the six domains: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development (Roud et al., 2005; Schwirian, 1978). The scale provides information not only in regard to quality of nursing performance but also how often the nurse performs the task (Roud et al., 2005; Schwirian, 1978). The information on

frequency and quality provides needed information for nurse educators in developing transitional experiences that enhance newly licensed RNs' performance.

The Orientation Process

An onboarding initiative for NLRNs, as well as all newly hired employees, is not new within the healthcare system; these programs, often termed orientation, provide a classroom experience with an introduction to the healthcare system followed by a unit-specific clinical experience where the NLRN works with a preceptor (Kowalski & Cross, 2010; Krugman et al., 2006; Park & Jones, 2010). Traditionally, these orientation programs have been conducted during a six to 12 week time frame, which does not provide the support NLRNs need to effectively transition into practice (Dyess & Sherman, 2009; Kowalski & Cross, 2010; Rush et al., 2013). Although NLRNs receive protected time during the orientation phase and are not used as part of the staffing mix, evidence is inconclusive as to the length of time required for an orientation period (Dyess & Sherman, 2009; Rush et al., 2013).

An important goal during orientation is to provide NLRNs with the experiences they need to readily transition into competent practice, where they are able to demonstrate confident and acceptable performance (Benner, 1982; 1984; Park & Jones, 2010). This time period must include structured time away from the clinical setting, clinical time with a preceptor, and ongoing support from the institution to foster a positive experience (Park & Jones, 2010). Continued variability in length is the major theme that reiterates in the literature; research must support the most effective length of time NLRNs need to effectively make that transition to competent practitioner (Park & Jones, 2010; Rush et al., 2013).

Nurse Residency Programs

The Institute of Medicine (2010a) calls for nursing to provide opportunities for newly licensed RNs to obtain the necessary skills to provide safe and quality care within the healthcare system. Nurse residency programs provide safe and protected opportunities for NLRNs to bridge the gap between education and practice (Bratt, Baernholdt, & Pruszynski, 2014; IOM, 2010a; Olson-Sitki, Wendler, & Forbes, 2012). Nurse residency programs have distinct features that provide additional benefits for the newly licensed RN (Krugman et al., 2006). These programs are able to provide the additional support newly licensed RNs need to become practice ready, where they develop proficiency, find satisfaction in their work, and often decrease their intent to leave (Bratt et al., 2014; Casey et al., 2004; Scott, Engelke, & Swanson, 2008).

Nurse residency programs vary widely in scope and in time in the program. Some of them are extensions of traditional nurse orientation programs, while other programs are more formal and follow a set curriculum. Olson-Sitki and colleagues (2012) described a new graduate experience at a Magnet® designated medical center that consists of three distinct phases: (1) new employee onboarding and centralized nursing orientation; (2) unit-based orientation; and (3) the nurse residency program. During the first stage, newly licensed RNs are immersed in a weeklong overview of the mission, vision, and policies and procedures (Olson-Sitki et al., 2012). The second phase consists of unit-based orientation with the assignment of a primary preceptor who guides the NLRN's progress through the remainder of the orientation program, which is usually three months in length (Olson-Sitki et al., 2012). The nurse residency program supplements the orientation program and provides a series of monthly, four-hour educational and networking days

where new graduates come together as a group (Olson-Sitki et al., 2012). This program begins after unit-based orientation and extends throughout the first year of the transitional experience (Olson-Sitki et al., 2012).

A yearlong nurse residency program developed by the University HealthSystem Consortium (UHC) and the American Association of Colleges of Nursing (AACN) has the primary premise "…to promote the development of nurse leadership at the point of patient care" (Goode et al., 2013, p. 74). This curriculum is composed of three core areas: (1) leadership, focusing on managing teams and collaborating within the team environment; (2) patient safety and outcomes; and (3) the role of the professional nurse (Goode et al., 2013). Participants must also complete an evidence-based project (Goode et al., 2013). Nurse residents attend monthly seminars focusing on professional reflection, peer discussion, and clinical or case studies of different topics (Goode et al., 2013). The curriculum also incorporates simulation and interprofessional exercises that enhance collaboration (Goode et al., 2013). Although the programs differ in delivery, their primary focus is to guide newly licensed RNs during their transitional experience (Goode et al. 2013). The program allows protected time where NLRNs are able to gain the necessary experience to function within today's dynamic healthcare environment.

Research initiatives of nurse residency programs have provided insight into the needs of NLRNs; however, evaluation of their effectiveness is often embedded within the context of an orientation program (Krugman et al., 2006; Olson-Sitki et al., 2012). "The first year in a profession establishes an individual's career framework and influences long-term professional development and satisfaction" (Scott et al., 2008, p. 75). This critical time period is one where nurses begin that process of integration into the

profession; therefore, nurse residency programs must evaluate the efficacy of this time frame to ensure nurses have the opportunity to begin that all important integration process (Scott et al., 2008; Rush et al., 2013). With the limited studies available regarding the specific time frame needed to transition into practice, education and practice are unable to use evidence-based models to provide the most effective transitional experiences for newly licensed RNs.

Goode et al. (2009) asserted that baccalaureate degree nursing programs are providing the foundation for entry into practice; however, they do not discuss how associate degree or diploma programs are doing. Until such time as the baccalaureate degree becomes the mainstay degree for entry into nursing practice, evaluation of educational efforts for associate degree and diploma program nurse graduates exists. The lack of studies relating to the needs and performance for these two types of graduates must be included. They will provide insight to ensure all onboarding programs for newly licensed RNs, regardless of pre-licensure degree obtained, will provide them with the necessary tools to ease the transitional process.

The research is replete with literature that supports nurse residency programs. A report presented by Smith and Crawford (2002) for the NCSBN notes new graduate nurses are not ready to be safe and effective practitioners; they need time to transition into the professional role. This transitional process should occur post-graduation (IOM, 2010a). This time period post-graduation will allow newly licensed RNs the opportunity to build upon the performance outcomes they have already gained during their pre-licensure education. Therefore, nurse residency programs must be included as part of the transitional experience for newly licensed RNs.

Chapter Summary

This literature review supports the need to further evaluate effective methods to assist newly licensed RNs with their transition into the acute care practice environment. Not only does the literature provide insight into the length of time NLRNs need to make an effective transition, it also supports the need to further evaluate that length and the opportunities available to NLRNs during that time frame (Bratt & Felzer, 2011; Clark & Springer, 2012; Dyess & Sherman, 2009; Goode et al., 2009; Goode, Lynn, McElroy, Bednash, & Murray, 2013; Kowalski & Cross, 2010; Krugman et al., 2006; Rush et al., 2013; Spector et al., 2015). Although nurse residency programs are important avenues in assisting NLRNs' transition to practice, they are still not part of a national effort to ease the transition to practice experience (Bratt et al., 2014; Goode et al., 2013; IOM, 2010a; Olson-Sitki et al., 2012; Scott et al., 2008; Smith & Crawford, 2002; Spector et al., 2015). The lack of consensus regarding the inclusion of a nurse residency program as part of all transitional experiences makes it necessary to evaluate these programs. The information gleaned from this study will provide insight into important components that will not only enhance the transition to practice experience, but may also lead to important information for pre-licensure programs as well (Hickey, 2009)

Chapter Three

Methods

As described in chapter two, there are gaps in nursing education science related to performance and essential elements within nurse residency programs that provide a successful transition to practice experience for NLRNs. The purpose of this study was to evaluate if there was a difference in NLRN performance one-year post hire after participation in nurse residency programs that offer different types of transition to practice experiences. In this chapter, the research design, assumptions, setting, sampling plan, and eligibility criteria are outlined. The study instrument, the Six Dimension Scale for Nursing Performance (SDNP), is described in detail, including reports of reliability and validity.

Purpose

The purpose of this study was to evaluate whether a significant difference exists between a nurse residency program that offers a formalized curriculum and extends throughout the entire year, a nurse residency program that also offers a formalized curriculum but does not extend throughout the entire year, or a nurse residency program that does not have a formalized curriculum and NLRN performance at one-year after hire based on the six subscales of the SDNP: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development (Schwirian, 1978).

Research Question

The research question that guided this study was as follows:

Is there a difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum?

H_0: There is no significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

H_a: There is a significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

Research Design

This quantitative study used a non-experimental descriptive correlational design. Since the independent variables for this study (the three different types of nurse residency programs) and the dependent variable (NLRN self-evaluation of performance) cannot be manipulated, the study is considered to be non-experimental (Polit & Beck, 2008, 2010). The correlational design provided information about the strength of the relationship

between the independent variables and the dependent variable (Nieswiadomy, 2008; Polit & Beck, 2008, 2010).

Strengths

Although not as strong a study as an experimental design, non-experimental studies often provide the necessary information to conduct more rigorous experimental studies (Polit & Beck, 2008). As Polit and Beck (2008) noted, nursing studies look at many aspects that cannot be manipulated but provide important information; therefore, a non-experimental study can demonstrate crucial information that can further enhance nursing science. A correlational study also allows for the examination of several variables at one time, where the degree of the relationship can be determined (Polit & Beck, 2008; Trochim & Donnelly, 2008). Overall, correlational studies provide a sense of reality within the realm of discovery; thus they are an important component for discovery within the science of nursing and nursing education (Polit & Beck, 2008, 2010).

Weaknesses

The major weakness within a non-experimental design is the inability to prove causation (Nieswiadomy, 2008; Polit & Beck, 2008, 2010). The participants within the group may create a selection bias based on the fact that they form a pre-existing group, NLRN one-year post hire, not one that is randomly selected (Polit & Beck, 2010). There may be pre-existing conditions within the group that affect the outcome, which may provide alternative explanations for the proposed relationship (Polit & Beck, 2008; 2010). Information regarding the strengths and limitations within this study were taken into account.

Research Assumptions

Assumptions do not provide factual information; rather they relay beliefs that something is true until proven otherwise (Nieswiadomy, 2008; Polit & Beck, 2008, 2010). This study was based on the following research assumptions:

- the Six Dimension Scale of Nursing Performance accurately reflected the knowledge and skills the NLRN must possess in order to perform competently;
- the Six Dimension Scale of Nursing Performance measured NLRN performance;
- the NLRNs who participated in this study meet the eligibility requirements;
- the NLRNs who answered the survey understood all items on the survey;
- the NLRNs answered the survey questions truthfully and honestly;
- taking into account some error, the score received provided an accurate picture of the NLRN's performance;
- the error within the score may be attributed to the test itself, the NLRN who participated in the survey, or the environment.

Setting

The participants recruited for this study were NLRNs currently practicing in nursing, who participated in either a nurse residency program or a program that did not provide a formalized nurse residency curriculum. The nurse residency programs were categorized into the following: (A) a nurse residency program with a formalized curriculum that is one year in length; (B) a nurse residency program with a formalized curriculum that is less than one year in length; (C) a nurse residency program that does not follow a prescribed formalized curriculum; or (D) a program that does not follow a

prescribed formalized curriculum and provides orientation to the organization and unit only.

Setting A was described as a formalized orientation and transition to practice plan that was one year in length. In included an organization-based and area specific orientation. It provided NLRNs a time for reflection through meetings or journaling, and it included educational experiences that focused on the following that included components suggested by Spector et al. (2015) and guidelines from UHC (2008):

a. Leadership
b. Professional development
c. Patient-centered care
d. Communication and teamwork
e. Quality improvement
f. Evidence-based practice (EBP)
g. Informatics
h. Patient safety
i. Clinical reasoning
j. Feedback from preceptors and supervisory personnel

This program was designed to assist the NLRN in transitioning to a competent professional nurse, develop skills to strengthen clinical judgment and performance, increase competence in clinical leadership when providing patient centered care, develop a sense of professional identity, and utilize evidence-based research in their practice environment (Spector et al., 2015; UHC, 2008).

Setting B was described as a formalized orientation and transition to practice plan that was less than one year in length. In included an organization-based and area specific orientation. It provided NLRNs a time for reflection through meetings or journaling, and it included any of the following educational experiences (Spector et al., 2015; UHC, 2008; Versant®, 2014):

a. Leadership
b. Professional development
c. Patient-centered care
d. Communication and teamwork
e. Quality improvement
f. EBP
g. Informatics
h. Patient safety
i. Clinical reasoning
j. Feedback from preceptors and supervisory personnel

This program focused on structured clinical experiences with a preceptor, simulated and classroom experiences that promote competence, formal mentoring, and debriefing that included self care sessions (Versant®, 2014).

Setting C was described as a transition to practice experience where only two of the following four criteria apply:

a. Formalized orientation and transition to practice experience that was less than one year in length;
b. Inclusion of an organization-based and area specific orientation only;

c. Inclusion of educational experiences that focused on any of the following (Spector et al., 2015; UHC, 2008; Versant®, 2014):
   i. Leadership
   ii. Professional development
   iii. Patient-centered care
   iv. Communication and teamwork
   v. Quality improvement
   vi. EBP
   vii. Informatics
   viii. Patient safety
   ix. Clinical reasoning
   x. Feedback from preceptors and supervisory personnel
d. Provided a time for reflection through meetings or journaling.

These practice settings used an organizational designed nurse residency program that allowed NLRNs to gradually transition to the professional practice environment (Novant Health, 2015). These practice settings included orientation to the corporation, unit specific orientation, and work with an assigned preceptor. One of the three programs also included a transition to practice workshop (Novant Health, 2015).

Setting D was described as one without a prescribed formalized curriculum that offered orientation to the organization and unit only. Although this setting was offered as an option for NLRNs to choose from, no one chose this setting. All NLRNs who participated in the study were in a transition to practice experience described as setting A, B, or C.

Sampling Plan

Sampling Strategy

This study utilized a nonprobability convenience-sampling plan because the population of participants, NLRNs, was readily available to respond to the particular survey that was being conducted (Nieswiadomy, 2008; Polit & Beck, 2008, 2010). Because of the nature of the research questions, only NLRNs were able to participate in the study. As Nieswiadomy (2008) asserted, convenience sampling does not ensure that each element within the population is included in the sample group. Although all the NLRNs who participated in the study met the inclusion criteria, it still does not mean the sample can be generalized to the entire population of NLRNs who fall into the same inclusion criteria (Nieswiadomy, 2008; Polit & Beck, 2008, 2010). The strength of this type of sampling strategy is the factor of convenience, which allows the researcher to use a sample of subjects who are readily accessible (Lawson, 2013; Polit & Beck, 2010). Data were collected in a window of time that allowed for meeting the sample size from each type of setting.

Eligibility Criteria

Participant recruitment included NLRNs who participated in a nurse residency or an orientation program to the organization and to the specific unit in which the NLRN was working.

Inclusion criteria. Participants included in this study met the following criteria:

- Within 11- 15 months of their start date from their first place of employment following graduation from a pre-licensure program;

- Participation in a nurse residency or orientation program designed for newly licensed RNs.

Exclusion criteria. Participants were excluded from the study based on the following criteria:

- advanced practice RN;
- greater than 15 months' experience;
- more than one facility of employment as NLRN within the first 12 months;

Determination of Sample Size: Power Analysis

Munro (2005) noted it is important to determine the sample size before data collection in order to ensure there is an adequate sample from which to conduct a study. Gaskin and Happell (2014) noted nursing researchers not only need to report *a priori* power analyses, they also need to report and be able to interpret effect sizes. *A priori* power analysis provides an estimation of the sample size that is needed to ensure the study produces significant results (Polit & Beck, 2008, 2010). An *a priori* power analysis using G*Power 3.1 was conducted to determine the appropriate sample size for this study (Heinrich-Heine Universität Düsseldorf, 2013). A review of previous studies does not provide much information on the use of an appropriate effect size; however, Spector et al. (2015) utilized a moderate effect of .40 in their study. Therefore, the effect size for this study was set at .40. The probability of committing a Type I error, a false positive, was set at .05. Although Polit and Beck (2008, 2010) recommend setting the power, or the probability of committing a Type II error, also known as a false negative, at .80, this study utilized a power of .98, similar to the study conducted by Spector et al. (2015). Based on *a priori* analysis with a moderate effect size of .4, probability of .05, power of

.98, number of groups set at 3, and number of measurements set at 6, the total sample size for this study was calculated to be 75.

Although the aforementioned *a priori* power analysis suggested a total sample size of 75 participants, a total of 22 completed surveys were received. One participant did not meet the inclusion criteria of 11 to 15 months of employment; therefore, only 21 surveys were used for data analysis. Post hoc analysis using G*Power 3.1 (Heinrich-Heine Universität Düsseldorf, 2013) was conducted to determine the power of this study. Based on post hoc analysis with a moderate effect size of .4, probability of .05, and sample size of 21, the power for this study was calculated to be .48.

Protection of Human Subjects

Institutional Review Board (IRB) approval was obtained from the researcher's university (see Appendix A) and from the organizations in which the participants were recruited as required by the specific organizations (Polit & Beck, 2008, 2010). If the institution did not require a separate IRB approval, a site approval letter was obtained from the appropriate personnel. Participation in the study was voluntary at both the organizational and individual level (Polit & Beck, 2008, 2010). In order to maintain anonymity, the survey instrument was distributed to potential participants via a designated gatekeeper within each organization (Polit & Beck, 2008). Participant involvement was through completion of the survey instrument; informed consent was implied when the participant completed and submitted the electronic survey (Polit & Beck, 2008, 2010).

Risks and benefits of participation. There was minimal potential risk involved in participating in this study. The survey was anonymous and was not intrusive.

Responses were submitted online and were not linked to any participant. Consent was yes/no after reading the content of the consent, without a formal signature. The survey was completed at the participants' convenience. There was no direct benefit to the individual participant. Knowledge gained from this study provided valuable information for nurse educators in developing curricula both in pre-licensure programs and in transitional programs for NLRNs. Furthermore, in understanding NLRN performance within the individual subscales of the SDNP, program leaders can better identify appropriate learning opportunities during pre-licensure education and after graduation that will enhance transition to the professional practice environment.

Data storage. All data are stored on a secure network and two encrypted jump drives in the home office of the researcher; paper documents are stored securely in the home office of the researcher. All survey information will be maintained for three years, after which all computer files will be destroyed and deleted from the encrypted jump drives. The researcher and the researcher's dissertation committee have access to the data.

Procedures

Organizational and individual recruitment proved challenging. A total of 29 healthcare organizations and 73 nursing programs were recruited to participate in the study. Only six healthcare organizations and three nursing programs agreed to participate through approval via their IRB or via a site approval letter. Three of the six healthcare organizations required IRB approval through their individual organizations. Three healthcare organizations and the three nursing programs submitted approval letters. Appendix B provides the template of the approval letter for healthcare organizations and

Appendix C provides the template of the approval letter from the pre-licensure RN programs. Newly licensed RNs were identified through a designated gatekeeper within each facility, who agreed to forward an email that explained the study to all eligible participants. The email included a description of the study, information about informed consent, inclusion/exclusion criteria, and a link to the survey that included demographic data information and the SDNP survey tool. See Appendix D for the introduction to the study. The survey data were collected and managed using Research Electronic Data Capture (REDCap) tool hosted at Nova Southeastern University (NSU). REDCap provided a secure, web-based application that allows for data collection and management during research studies (Harris et al., 2009). The instructions asked potential participants to read the consent and click yes to participate in the survey or no to exit the survey. If participants consented to the survey, they were directed to the link to complete both the demographic data and the SDNP survey. The email was sent to eligible participants two times, at two-week intervals; the second email was a reminder for participants to participate in the survey. Once the participant completed the demographic information and the SDNP survey, participation in the study ended.

After receiving NSU IRB approval, healthcare organizations were invited to participate and asked to pass this survey through to their NLRNs who met the inclusion criteria. Although there was interest from a state consortium that provided the type of residency program described as Setting A, organizational directors did not respond to the requests to participate. A smaller healthcare organization in another state agreed to participate. After multiple emails and phone calls over a two-month time period, the gatekeeper sent the approved participant site letter and then sent the recruitment email to

that organization's potential participants. Unfortunately, this group was very small; there were only seven potential participants and only one completed survey was received. One other healthcare organization in another state agreed to participate; however, this required a proposal to its nurse research council. After several emails and a lengthy wait, approval to move forward with the study resulted in that site's gatekeeper forwarding the recruitment email to three different cohorts of potential participants. There were a total of 67 potential participants from this site; only five completed surveys were received.

Recruitment for participants from Setting B began in November 2015. Initially, this site stated they would not be able to participate. After more discussion and several phone calls with regional directors, support was garnered for this study. In order to move forward with this site, a lengthy IRB approval had to be submitted, which required a wait of another month to gain approval. After gaining approval for this site, the gatekeeper sent the recruitment email to 120 potential participants. Only one completed survey was received.

Recruitment for Setting C was similar to the previous settings. The first organization required completion of several nurse research internship requirements, submission of the research protocol to that organization's IRB, followed by a presentation of the research proposal to its nurse research council. Once approval was received, the gatekeeper sent the recruitment email to 51 potential participants who completed their residency between July and September 2016.

In the hope of increasing the number of participants for this setting, another organization was recruited to participate. This site did not require IRB approval and site approval was obtained very quickly. That site's gatekeeper sent out the recruitment email

to 16 potential participants in July 2016. A total of 11 completed surveys were received from both of these sites.

In an attempt to achieve the minimum number of required participants for this setting, a third healthcare organization that did not provide a formalized curriculum was also recruited. That site also required IRB approval. After receiving a quick response from this site's IRB, the gatekeeper from this site sent out 34 emails to their potential participant pool of NLRNs. Only three completed surveys were received from this site.

After consultation with the dissertation committee, another route for recruitment was attempted. After submitting a revision to NSU IRB and subsequently receiving approval for the change, 73 program directors of all pre-licensure nursing programs in a southeastern state were contacted via a recruitment email. Although a few programs made further inquiries and had subsequent requests for more IRB submissions, only three pre-licensure nursing programs agreed to act as gatekeepers to push through this survey. One program sent the recruitment email to 55 potential participants. Another program sent the recruitment email to 25 participants. The last program sent the recruitment email to eight potential participants. Only one completed survey was received from these pre-licensure programs. Although a total of 383 potential NLRNs were recruited for this study, only 22 completed surveys were received. Of those 22 surveys, one participant did not meet the inclusion data of 11 to 15 months of employment. Therefore, this potential participant's data were not utilized for data analysis.

Instrumentation

The survey that was used in the study is the Six Dimension Scale of Nursing Performance (Schwirian, 1978). It evaluated NLRN performance when the NLRN was within 11-15 months of his or her start date from the first place of employment following graduation from a pre-licensure program. A detailed description of the SDNP, with its reliability, validity, and scoring, follows.

Instrument – Six Dimension Scale of Nursing Performance

The Six Dimension Scale of Nursing Performance was first developed by Patricia Schwirian, PhD, RN, while conducting research on the prediction of successful nursing performance in the academic and clinical setting (Schwirian, 1978). The impetus behind the development of this survey was the need to develop a valid tool that operationalized "nursing performance" (Schwirian, 1978, p. 347). The SDNP is suitable to use as a performance evaluation or as a research tool within the academic and practice settings (Dufault, 1990; Schwirian, 1978). When used as a performance evaluation the SDNP can be used for self-appraisals of performance, supervisor appraisals of performance, or educator appraisals of performance (Schwirian, 1978). The tool is also useful in a variety of settings and is not limited to acute care (McCloskey & McCain, 1988a; Schwirian, 1978). Permission to use and modify the SDNP in this study was granted by Patricia Schwirian, PhD, RN (see Appendix E).

The final 52 item SDNP was developed from the original analysis of data collected on a performance appraisal instrument of 76 nurse behaviors that incorporated specific constructs (dimensions) of nursing performance: planning nursing care, implementing nursing care, evaluating nursing care, teaching, interpersonal relations,

leadership, and professional development (Schwirian, 1978). This earlier 76-item questionnaire was sent to a potential new graduate respondent group of 3,000 graduates from 151 participating schools, of which 722 new graduate nurses participated (Schwirian, 1978). This same questionnaire was also submitted to those new graduates' immediate supervisors, of whom 587 responded (Schwirian, 1978). These questionnaires were subjected to factor analysis, which resulted in a final 52-item questionnaire with six subscales: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development (Schwirian, 1978). The area of professional development was not subject to factor analysis because these questions are conceptually different from the other nurse behaviors and, with modification of terminology, can be used to evaluate behaviors in other professions as well (Schwirian, 1978). The SDNP also found that new graduates who were evaluated by their pre-licensure program faculty as having the most potential for success scored higher than their colleagues who were not rated as having the most potential for success (Gortner & Schwirian, 1977, as cited in Schwirian, 1978; McCloskey & McCain, 1988b). The first 42 items within the SDNP are not grouped together within each subscale; rather they are randomized throughout the survey (Vanetzian & Higgins, 1990). The last ten items within the subscale professional development are grouped together (Vanetzian & Higgins, 1990). The SDNP is multidimensional; each of the subscales provides unique information that can be readily used to enhance learning within any of these domains (P. M. Schwirian, personal communication, October 18, 2014).

Although developed over 35 years ago, the SDNP is very applicable within the context of today's healthcare environment. The SDNP in its original form is presented in

Appendix F. The survey was modified, especially in the subscale of critical care, or the care of critically ill patients, to better reflect the terminology used today. The demographic data and SDNP with its modifications are presented in Appendix G. An overview of the six subscales ensues.

Leadership. The leadership component has five items evaluating behaviors specific to leadership function (Schwirian, 1978). This subscale does not indicate a need for a particular leadership title; rather it evaluates such leadership functions as delegating tasks, providing feedback, guiding a team, and accepting responsibility for actions (Schwirian, 1978). As described in the SDNP, items in this particular area relate to the ability to delegate responsibility and provide guidance to members of the healthcare team (Schwirian, 1978). Leadership also looks at the ability to accept responsibility for the care provided to patients and families and to engage in… "leadership function regardless of one's specific job title" (Schwirian, 1978, p. 350).

Critical Care. The seven items within the subscale of critical care speak to nursing care of critically ill patients, including the dying patient (Schwirian, 1978). As described in the SDNP, items in this specific area relate to the nursing care performed by the RN, such as technical procedures, using specific mechanical devices, providing emotional care to individuals, families, or groups, functioning calmly and competently during emergency situations, and providing appropriate care during critical situations (Schwirian, 1978). These items relate to the use of specific equipment used in the care of a critically ill or dying patient, specific care provided to a critically ill or dying patient, providing emotional support to both the patient and the family, and functioning in a calm and competent manner during an emergency situation (Schwirian, 1978). Item number 18

was modified, and the word *Gomco* was deleted because the words *suction machine* are already included in the survey and are more applicable to the terminology used in today's healthcare environment.

Teaching/Collaboration. The 11 items within the subscale of teaching/collaboration evaluate behaviors of nurses when they are teaching patients or families (Schwirian, 1978). This domain also includes evaluation of behaviors specific to collaboration occurring with patients, families, and members of the interdisciplinary team who contribute to the care of the patient (Schwirian, 1978). As described in the SDNP, nurses are expected to educate others and collaborate within the healthcare team. Teaching/collaboration is defined as the ability to educate individuals, families, or groups of patients with regard to care needs and the ability to work within an interdisciplinary environment to meet the care needs of individuals, families, or groups (Schwirian, 1978).

Planning/Evaluation. The seven items within the subscale of planning/evaluation assess the planning and evaluation that occur when providing patient care (Schwirian, 1978). Questions relate to specific behaviors such as care coordination, identification of anticipated changes, development of patient specific care, inclusion of priority care, and evaluation of nursing care (Schwirian, 1978). As described in the SDNP, within the area of planning/evaluation, nurses must identify, coordinate, plan, and evaluate the care needs of individuals, families, or groups of individuals (Schwirian, 1978). Nurses must be astute in identifying and prioritizing care based on the individual patients' needs, and they must do so quickly and efficiently (Schwirian, 1978).

Interpersonal Relations/Communication. The 12 items within the subscale of interpersonal relations/communication evaluate the nurse's ability to effectively

communicate and develop a professional relationship with patients, families, and the healthcare team (Schwirian, 1978). Behaviors specific to verbal, nonverbal, and written context provide an appraisal of the nurse's ability to be an effective communicator who is able to develop working relationships with patients, families, and colleagues (Schwirian, 1978). As described in the SDNP, nurses must develop working relationships that contribute to a mutual sense of trust, acceptance, and respect toward their patients, families, and the healthcare team (Schwirian, 1978).

Professional Development. The ten items within the subscale of professional development assess accountability and responsibility for personal and professional growth (Schwirian, 1978). As previously stated, these items are not specific to the profession of nursing but rather to professions in general (Schwirian, 1978). Questions in this domain evaluate self-direction, responsibility for one's actions, assumption of new responsibilities, the demonstration of a positive attitude, and acceptance and use of constructive criticism (Schwirian, 1978). Two behaviors speak to legal boundaries and ethics within the practice of nursing (Schwirian, 1978). Appendix H presents the SDNP grouped according to subscale, the numerical order of the item within the survey, and the survey item itself (Schwirian, 1978).

Validity

Because of the subjective nature of the SDNP it was imperative to make certain survey items truly measure the identified constructs (Kimberlin & Winterstein, 2008). In order to ensure the content validity of nursing performance and make sure the SDNP truly measures what Schwirian (1978) refers to as "effective nursing performance" (p. 348) or performance that represents a "successful nurse" (p. 348), Schwirian and her

team reviewed the literature and obtained recommendations from experts within the field of nursing (Kimberlin & Winterstein, 2008; Schwirian, 1978). Experts within nursing academia, research, and administration reviewed the scale and provided recommendations for the development of the survey items (Schwirian, 1978). A pilot test with nine newly graduated nurses was also conducted to provide further information for the instrument's content validity (Schwirian, 1978). Consultants and pilot respondents were also queried whether the items included in the questionnaire provided information that would bias them toward one type of pre-licensure nursing program over another type; they did not perceive any bias (Schwirian, 1978).

The development of the final 52 item SDNP occurred after the initial 76-item questionnaire was administered as a self-appraisal to 722 newly graduated nurses and 587 of their immediate supervisors (Schwirian, 1978). The self-evaluations from the new graduate nurses and the performance appraisal from their immediate supervisors were subjected to principal component analyses, which resulted in the final six subscales of the SDNP (Schwirian, 1978).

Reliability

In order to reduce measurement error, reliability must be estimated on an instrument (Kimberlin & Winterstein, 2008). According to Schwirian (1978), internal consistency was measured for each of the six subscales of the SDNP. The internal consistency was measured for both the new graduates' self-appraisal and their immediate supervisors' appraisal (Schwirian, 1978). The lowest alpha measured was in the subscale of leadership where immediate supervisors evaluated performance; the alpha coefficient value was .844 (Schwirian, 1978). The subscale professional development provided the

highest level of internal consistency with an alpha coefficient of .978 (Schwirian, 1978). McCloskey and McCain (1988a) reported high reliability with alpha coefficients that ranged from .75 to .98. Vanetzian and Higgins (1990) demonstrated internal consistency from a low of .644 in the critical care subscale to a high of .899 in the interpersonal relations/communication subscale. McCloskey and McCain (1983) also demonstrated interrater reliability for the SDNP of .89 for the total scores and .72 to .94 for the six subscales.

Scoring

The first 42 items of the SDNP are based on two sets of questions, each with ordinal scale responses. The first question assesses quantity: "How often do you perform these activities in your current job?" (Schwirian, 1978, p. 350). The responses are based on a four point ordinal scale: (1) not expected in this, (2) never or seldom, (3) occasionally, (4) frequently (Schwirian, 1978). The second question assesses quality: "For those activities that you do perform in your current job, how well do you perform them?" (Schwirian, 1978, p. 350). The responses are based on the following four point ordinal scale: (1) not very well, (2) satisfactorily, (3) well, (4) very well (Schwirian, 1978). Responses to the ten items in the professional development subscale are scored on the four point ordinal scale based on the same quality indicators as noted for the second question in the first 42 questions (Schwirian, 1978).

The number of items in each subscale of the SDNP varies from five to 12 items within the individual subscales (Schwirian, 1978). Respondents only answer items that apply to their practice environment, which can lower their scores within a specific subscale (Schwirian, 1978). Therefore, scoring within the subscales must be based on an

average of the respondents' answers (Schwirian, 1978). The formula to calculate this average takes the sum of the numerical rating for each behavior in a specific subscale divided by the total number of items within a specific subscale minus the number of items the NLRN answers (Schwirian, 1978). Subscale scores for the SDNP are thereby determined by obtaining an average score for each subscale (Failla, Maher, & Duffy, 1999; Schwirian, 1978). According to Schwirian (personal communication, October 18, 2014), the total score is not calculated because the multidimensional instrument is intended to evaluate those specific domains and provide insight into areas of strengths and weaknesses. The total score for the SDNP does not have meaning; meaning is attached to the subscale scores (P.M. Schwirian, personal communication, October 18, 2014). Although this was Schwirian's original intent during development of the SDNP, other researchers have used an overall score and provided their own meaning to that total score (P. M. Schwirian, personal communication, October 18, 2014). McCloskey and McCain (1988a) calculated an overall mean score but did not indicate how it was used.

General Statistical Strategy

Statistical analysis was conducted using IBM® SPSS ® v24.0 software. Prior to analysis, data were assessed for any errors, such as outliers or missing data (Munro, 2005). Evaluation of the descriptive data provided important information regarding the study sample (Polit & Beck, 2008). Data were analyzed for two characteristics: central tendency, namely means, and variability based on standard deviation (Polit & Beck, 2008). Parametric data were analyzed for normality using the Shapiro-Wilk test and Q-Q plots (Ghasemi & Zahediasl, 2012; Mertler & Vannatta, 2010). The Shapiro-Wilk test evaluates the data for normality and is often recommended for such testing (Ghasemi &

Zahediasl, 2012). Q-Q plots allow for a visual inspection of the data on a line (Ghasemi & Zahediasl, 2012; Mertler & Vannatta, 2010). The closer the plots are to the line, the more normally distributed the data (Ghasemi & Zahediasl, 2012; Mertler & Vannatta, 2012).

Data Cleaning

Data were reviewed to check for errors, such as coding problems or missing information in order to ensure conclusions drawn from those data were as accurate as they can be (Mertler & Vannatta, 2010; Polit & Beck, 2008). The data were assessed for outliers or wild codes, those codes that are not possibly correct, and missing data (Polit & Beck, 2008). As Mertler and Vannatta (2010) noted, outliers can affect the analysis and have an effect on the statistical implications of the tests. The data set was evaluated using box plots. Box plots provide a visual display of the data; cases close to the mean are boxed in, whereas outliers are not within that box (Mertler & Vannatta, 2010).

Data from the SDNP were analyzed for missing information (Munro, 2005). One respondent did not answer any questions related to how often the NLRN performed the task. Those data were not used to analyze information based on the query how often. Listwise deletion was employed to use only those data sets with complete information (Munro, 2005). Listwise deletion is the most direct method when working with missing data because only those values with complete data were used (Munro, 2005).

Descriptives

Descriptive statistics were utilized to describe the data sample (Polit & Beck, 2008). Demographic data included the following information: gender, age, employment length, initial pre-licensure degree earned, and type of residency. Frequency distributions

were used to organize numerical data and to provide a better understanding of the highest or lowest score and the most common score (Polit & Beck, 2008). Measurements of central tendency provided information regarding the sample mean (Munro, 2005; Polit & Beck, 2008). To gain a clearer understanding of the data dispersion, measures of variability were evaluated (Munro, 2005; Polit & Beck, 2008). The standard deviation provided more information regarding the variability within the data set (Munro, 2005; Polit & Beck, 2008). Continuous variables were assessed through correlational analysis (Polit & Beck, 2008). Data analysis is presented in chapter four.

Reliability Testing

The data from the survey were subjected to reliability testing (Polit & Beck, 2008). Cronbach's alpha was used to determine internal consistency to evaluate the SDNP for consistency in measuring the construct nursing performance within each of the subscales (Polit & Beck, 2008). Reliability testing was conducted on the individual items that correlated with each subscale: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development. The first five subscale scores queried respondents as to how often and how well they performed a specific item within the particular subscale. Internal consistency was calculated and analyzed based on the subscale scores for these two queries. The sixth subscale, professional development, only queried respondents on how well they performed the items within that subscale; therefore, internal consistency was only calculated and analyzed based on that single query. Reliability was only measured on the six subscale scores and not a total overall score. Results of the reliability testing are discussed in chapter four.

Hypothesis Testing

Testing the hypotheses allows the researchers to use a sample of NLRNs to provide inferences that apply to all NLRNs (Munro, 2005; Polit & Beck, 2008). Data were subjected to parameter estimation by evaluating the central tendency and variability (Munro, 2005; Polit & Beck, 2008). Through parameter estimation, the information from the study sample allowed inferences that apply to the entire population (Munro, 2005).

Subjecting the data to an analysis of central tendency allows clarification of the data set (Polit & Beck, 2008). The mean provides the most information regarding central tendency, so it is important to compare data based on the level of measurement (Polit & Beck, 2008). To further evaluate the means, standard deviations were used to evaluate the distribution of the data set (Polit & Beck, 2008). All continuous data were evaluated for normality and homogeneity (Munro, 2005; Polit & Beck, 2008).

The surveys were distributed to NLRNs currently working in both university based healthcare organizations and community based healthcare organizations. The dependent variable, NLRN performance, is divided into six subscales, each of which is considered a dependent variable. Therefore, data analysis occurred based on the following dependent variables: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communications, and professional development.

Research Question

Although the intent of the study was to evaluate whether or not a difference exists in NLRN performance, as evaluated on the SDNP survey, at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that

extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum, this was not possible. Even though the surveys were sent to potential participants in the three described nurse residency programs, only one survey was received from the potential pool of participants in setting B. After conferring with the statistician, it was decided to only analyze the responses from surveys received in Residency A and C. The data analysis based on those two groups provided the conclusions of the hypothesis testing.

The SDNP asked respondents to answer a series of questions that reflected the six subscales. For each of these questions, the respondents were asked to answer based on two queries, how often they perform the task and how well they perform the task. Therefore, the research question was subjected to the same hypothesis testing based on each of these queries. Since the data were not normally distributed, the non-parametric independent samples Mann-Whitney U test was used to test differences in the group means (Polit & Beck, 2017). In order to identify any correlations, a point-biserial correlation was conducted to examine the relationship between the subscale scores and the type of residency in which the NLRN participated. Point-biserial correlations provide a means to analyze a dichotomous variable, in this case Residency A or C, with a continuous variable, in this case the individual subscale scores within the six dimensions of the SDNP.

Limitations

Threats to Internal Validity

Polit and Beck (2008) noted that the use of correlational research designs allow for competing explanations that may be the cause of an outcome. One major threat to internal validity is temporal ambiguity because correlational studies do not necessarily set up a cause and effect relationship between the independent and dependent variables (Polit & Beck, 2008). Selection bias may occur because the groups were not randomly selected (Polit & Beck, 2008). History may also play an important part in this study, because some NLRNs may have previous healthcare experience, which may impact their performance (Polit & Beck, 2008). Each of these threats can provide for an alternative explanation of NLRN performance because they compete with the three independent variables (Polit & Beck, 2008).

Threats to External Validity

Attempting to generalize the outcome of the study must include an evaluation of any threats to external validity (Polit & Beck, 2008). It is difficult to generalize to the general population, which in this case is NLRNs. It may be difficult to make generalized correlations for NLRNs in other countries because their pre-licensure education may not be similar to that of NLRNs within the United States (Polit & Beck, 2008). Real-world circumstances may affect NLRN performance, thus affecting study results (Polit & Beck, 2008). Interactions between the NLRNs and their colleagues may impact their performance (Polit & Beck, 2008). Intangible elements may affect NLRN performance, which can threaten the validity of the study (Polit & Beck, 2008). These threats must be taken into account when evaluating the results of this study.

Chapter Summary

This study attempted to discover whether or not the type of nurse residency or no formalized residency curriculum a NLRN participated in impacted performance between 11- to 15 months post hire. This chapter summarizes the methodology that was used in this non-experimental correlational design. Healthcare organizations provided a readily available convenience pool for recruitment. However, it was difficult to obtain the minimum number of 75 participants needed to obtain the data required for this study, and only 22 participants completed the survey. The SDNP survey was modified to ensure the terminology was applicable in today's healthcare environment. The statistical strategy as it relates to testing the hypothesis was outlined within this chapter. The study results are presented in chapter four.

Chapter Four

Results

Although recruitment for the study proved more difficult than anticipated and data collection took longer than expected, the data obtained provide insight into NLRN performance after completion of the organization's transition to practice program. The purpose of this study was to evaluate the difference between three different types of nurse residency programs and NLRN performance at one-year post hire on the six subscales of the Six Dimension Scale of Nursing Performance (SDNP): leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional. This chapter describes the data that were collected. It reviews the descriptive statistics, reliability testing, hypothesis testing, and the results. The response rate was 5.7%, which is lower than expected; however, the data do provide important information regarding NLRN performance. The research plan consisted of the nonparametric test Mann-Whitney U and point-biserial correlational analysis. Statistical analysis was performed using IBM® SPSS ® v24.0 software.

Data Cleaning

In order to ensure accuracy of the data obtained, data were reviewed for coding errors, such as data that were not correct, missing data, and outliers (Mertler & Vannatta, 2010; Polit & Beck, 2008). The raw data set from the 22 surveys was reviewed for completeness and correct responses. A thorough review to evaluate correct data was conducted. Two respondents entered incorrect data. One respondent indicated a start date

of 08/13/16; however, the survey was completed on 08/03/16. Logically, this indicated the respondent meant to enter the start date of 08/13/15. This was changed to reflect the correct start date. Another respondent indicated a start date of 09/10/16; however, the survey was completed on 07/29/16. Again, this was not logical; therefore, the respondent's start date was changed to 09/10/15. One respondent's data indicated only 10 months of experience; therefore, that respondent's data were deleted and not used. With the removal of that data set, there were only 21 surveys that were used for data analysis for this study. No other incorrect data were noted.

Missing Data

All respondents answered some of the questions; however, one respondent did not answer any questions that related to how often the NLRN performed the task. The respondent provided answers to all questions related to how well the NLRN performed the task. The data from that respondent were not used to analyze any information in relation to how often the task was performed. However, the data were used during analysis of any information related to how well the task was performed. Three other respondents sporadically did not answer the questions in relation to how often tasks were performed; their answers to those specific domains were not used to analyze data in that specific dimension.

Outliers

In order to better evaluate if all respondents met the inclusion criteria of a minimum of 11 months and a maximum of 15 months experience within their current place of employment, a data set was computed to assess the number of months from the respondents' start date to the date the survey was completed. As previously noted, one

respondent's survey showed only 10 months of experience; therefore, that respondent's data were deleted.

The data set was further explored to assess for any outliers. Five respondents' data demonstrated an extreme outlier of seven on the scale of one through four. Each respondent's survey in REDCap was reviewed for accuracy, and each respondent did choose both 3 and 4 for that particular item. Mertler and Vannatta (2010) noted it is important to evaluate the outlier and decide what it means. Since each of these five respondents checked both three and four on an individual item, the researcher took this to indicate they had difficulty deciding whether they performed the task well or very well. After consultation with the statistician, in order to make these data more meaningful, the scores on any items where the score totaled seven were transformed to an average of 3.5. Therefore, those responses provide information on a scale of one to four.

Data Transformation

In order to analyze the data based on the six dimensions of performance within the SDNP, the raw data were transformed into subscale scores based on each of those performance dimensions. A subscale score was obtained rather than a total score because each dimension had a different number of items associated with it (Schwirian, 1978). Also, some respondents may not have answered the item because it did not pertain to their current position (Schwirian, 1978). Therefore, a subscale score provided a means to evaluate the data fairly and equally (Schwirian, 1978).

Descriptives

Description of the Sample

In order to gain a clearer understanding of the sample set, demographic data provide an overview of the participants. The data analyzed include gender, age, pre-licensure degree earned, length of employment, and type of NLRN residency.

Gender. Ninety-five percent of the participants indicated their gender as female and only 5% of the participants indicated their gender as male. Although data indicate more men are entering the workforce, this gender gap is not unusual. According to the 2015 National Nursing Workforce Study conducted by the NCSBN, more men are entering nursing (NCSBN, 2017). Between the years 2013 to 2015, 14.1% of the nursing workforce was male (NCSBN, 2017).

Age. Participants' ages ranged from 22 years to 41 years of age. Thirty-three percent of the respondents were 22 to 25 years of age. Thirty-eight percent of the respondents were 26 to 30 years of age. Ten percent of the respondents were between the ages of 31 to 35, and 19% of the respondents indicated they were between the ages of 36 to 41. The average age of all the respondents was 28.5, which is lower than the average age of 31.6 years for those nurses who responded to the "2014 Practice Analysis: Linking the NCLEX-RN® Examination to Practice: U.S. and Canada (NCSBN, 2015). Table 1 presents the age distribution amongst the participants.

Table 1

Age Distribution of NLRN Participants

Age in Years	*n*	%
22-25	7	33.33
26-30	8	38.10
31-35	2	9.52
36-41	4	19.05
Total	21	100.00

Employment Length. Employment length at the time of the survey was calculated to ensure each participant's length of employment fell within the inclusion criteria of 11-15 months of experience with their current place of employment. Approximately 81% of the participants were employed between 11 to 12 months, while the remaining 19% were employed 13 to 14 months. Table 2 presents the data for employment length.

Table 2

Employment Length in Months of NLRN Participants

Employment Length (Months)	*n*	%
11	4	19.0
12	13	61.9
13	3	14.3
14	1	4.8
Total	21	100

Initial Pre-Licensure Degree Earned. All participants provided information regarding the initial pre-licensure degree they obtained. Sixty-two percent obtained a bachelor's of science in nursing degree and 38% obtained either an associate of science degree in nursing, an associate of applied science in nursing degree, or a diploma in nursing. In reviewing data from NCSBN, these percentages do not correlate with national trends in nursing education. According to the 2015 NCLEX-RN data provided by NCSBN, 45% of all candidates taking the NCLEX-RN examination in 2015 earned a baccalaureate degree, while 55% of all candidates earned an associate degree or diploma (NCSBN, 2016). However, Budden, Moulton, Harper, Brunell, and Smiley (2016) noted younger nurses tend to earn baccalaureate degrees more so than older nurses. The authors noted nurses older than age 45 completed their degrees at the associate or the diploma level (Budden et al., 2016). Since all of the respondents in this study were less than 45 years of age, the data supports the findings from Budden et al. (2016). Table 3 presents the data for the initial pre-licensure degree the NLRN earned.

Table 3

Initial Pre-Licensure Degree Earned by NLRN Participants

Initial Pre-Licensure Degree Earned	*n*	%
BSN	13	61.9
ASN/ADN/Diploma	8	38.1
Total	21	100

Type of Residency. Each participant took part in a residency program described as setting A, B, C, or D. No one participated in the program described as setting D. Of the 21 NLRNs who participated in the survey, 33.3% took part in Residency A; only 4.8% participated in Residency B and 61.9% participated in Residency C. Table 4 provides data for the type of residency in which the NLRN participated.

Table 4

Type of Residency in Which the NLRN Participated

Type of Residency	*n*	%
A	7	33.3
B	1	4.8
C	13	61.9
Total	21	100

Responses to the Measurements

Mertler and Vannatta (2010) note it is important to describe the data by evaluating responses to certain measurements of central tendency and variability. The most commonly used measurement of central tendency is the calculation of the mean score (Mertler & Vannatta, 2010). The mean provides the average of all of the values within that specific distribution (Mertler & Vannatta, 2010). Although the mean provides important information about the data set, it may not provide information on the distribution of the scores within that data set (Mertler &Vannatta, 2010). As Polit and Beck (2014) noted, it is important to know that two means that are the same could vary in pattern, where one may be more heterogeneous and the other more homogenous. The analysis of the standard deviation of the scores provides information on their variability

(Polit & Beck, 2014). A heterogeneous group shows a wider range of scores, whereas a homogenous group will demonstrate a smaller range of scores (Polit & Beck, 2014).

The Six Dimension Scale of Nursing Performance (SDNP) consists of six subscale domains: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development (Schwirian, 1978). Each subscale area has a specific number of questions that relate to that specific domain. The first 42 items within the SDNP are based on two questions that assess how often and how well the NLRN performs the activity. The remaining ten questions within the professional development subscale assess how well the respondent performs the activity (Schwirian, 1978). An analysis of the measurements of central tendency and variability was performed on each of the six subscale sores.

When comparing how often or how well the NLRN performed the items within each subscale, the mean scores (M =3.00) within the critical care domain were identical. However, the standard deviation for the two sets of scores differed greatly. The standard deviation for how often the NLRN performed the items within the critical care subscale was 1.03, whereas the standard deviation for how well the NLRN performed the task was .54. There was more variability in how often the NLRN performed the task versus how well the NLRN performed the task. The scores were more homogenous when looking at how well the NLRN performed the task (Polit & Beck, 2014). The scores demonstrated the NLRNs were comfortable performing the tasks within the critical care domain regardless of how often they performed the task.

The mean scores, M = 2.86 for how often and M = 2.83 for how well, for the subscale teaching/collaboration were lower than the other subscale scores. The standard

deviation for the subscale scores within teaching/collaboration domain demonstrated more variability for how often (SD = 1.08) than they did for how well (SD = .49). Since the mean scores were the lowest in this domain and the standard deviation demonstrated greater variability for how often the NLRN performed the task, NLRNs may need more time to become competent within this domain.

Although the mean score (M = 3.72) for the subscale scores in planning/evaluation domain demonstrated the highest score, when the NLRN answered how often the item was performed, the mean score for how well the NLRN performed did not reflect a similar high mean score (M = 3.11). The mean score (M = 3.41) for the subscale scores within the professional development domain was the highest in the category evaluating how well the NLRN performs the items listed. Table 5 provides the mean and standard deviation for each of the six subscale scores from the SDNP based on the five domains that ask how often the NLRN performs the listed items and on the six domains that ask how well the NLRN performs the listed item.

In order to gain a sense of NLRN performance based on the different types of residency the NLRN participated in, Residency A and Residency C were analyzed. These two groups were chosen because these two groups had the highest number of responses. There was only one response for participants in Residency B. Respondents in Residency A had the lowest mean (M = 2.40) in the subscale scores within the teaching/collaboration mean, and they demonstrated greater variability (SD = 1.69) than their colleagues who participated in Residency C (M =3.09 and SD=.49). Participants in Residency A would benefit from more time to devote to teaching/collaboration.

Table 5

Mean and Standard Deviation of SDNP Six Subscale Scores Based on How Often and How Well the NLRN Performed the Item

	How Often			How Well		
Subscale Item	*M*	*SD*	*n*	*M*	*SD*	*n*
Critical Care	3.00	1.03	19	3.00	.54	21
IPR/Communications	3.42	1.10	18	3.31	.49	21
Leadership Dimension	3.29	.81	18	3.09	.57	21
Planning/Evaluation	3.72	.34	17	3.11	.44	21
Teaching/Collaboration	2.86	1.08	20	2.83	.49	21
Professional Development				3.41	.37	21

Note. The subscale item Professional Development only asked how well the NLRN performed the task.

Respondents in Residency C demonstrated the lowest mean score in the critical care domain (M =2.92). However, the variability in their scores (SD=.78) was lower than the scores for the respondents in Residency A (SD=1.52). Participants in Residency C would benefit from more time in performing items related to the critical care domain. Both groups demonstrated greatest comfort in the planning/evaluation domain with the least amount of variability. Respondents in Residency A demonstrated a higher mean and lower standard deviation (M = 3.91, SD=.13) than their colleagues in Residency C (M = 3.61, SD=.37). Table 6 provides the mean and standard deviation based on residency type and how often the NLRN performed the item within the different domains.

Table 6

NLRN Performance Based on Residency Type and How Often the NLRN Performed the Item within the Different Dimensions

	Residency A			Residency C		
Subscale Scores How Often	*M*	*SD*	*n*	*M*	*SD*	*n*
Leadership	3.60	.40	5	3.15	.95	12
Critical Care	3.02	1.52	6	2.92	.78	12
Teaching/Collaboration	2.40	1.69	7	3.09	.49	12
Planning/Evaluation	3.91	.13	5	3.61	.37	11
IPR/Communication	3.22	1.58	6	3.49	.86	11

Data were also analyzed to evaluate the mean and standard deviation based on residency type and how well the NLRN performed the item within the different dimensions. Respondents in both Residency A and C demonstrated the lowest mean (M = 2.78 and 2.86 respectively) in the area of teaching/collaboration. Both groups were homogenous (SD = .33 and .58 respectively). However, respondents in Residency A were more homogenous than those in Residency C. Respondents in both groups need more opportunity to perform the items within the teaching/collaboration dimension. However, when comparing the two groups as to how often they perform the item, the respondents in Residency A (M=2.40, SD 1.69) may need more opportunity to do so than the respondents in Residency C (M = 3.09, SD = .49).

It is interesting to note the respondents in Residency C demonstrated the highest mean and least variability (M = 3.52, SD = .32) in the professional development dimension. Since 53.8% of those participants earned an associate degree or diploma in

nursing, it may point to their eagerness to further their education to the baccalaureate degree. Table 7 provides the mean and variability for NLRN performance based on the type of residency and how well they performed the item within the six different dimensions.

Table 7

NLRN Performance Based on Residency Type and How Well the NLRN Performed the Item within the Different Dimensions

	Residency A			Residency C		
Subscale Scores How Well	*M*	*SD*	*n*	*M*	*SD*	*n*
Leadership	2.85	.58	7	3.21	.57	13
Critical Care	3.04	.23	7	2.98	.68	13
Teaching/Collaboration	2.78	.33	7	2.86	.58	13
Planning/Evaluation	3.14	.17	7	3.10	.55	13
IPR/Communication	3.29	.62	7	3.32	.46	13
Professional Development	3.24	.44	7	3.52	.32	13

Reliability Testing

Reliability testing provides a means for assessing the quality and accuracy of the instrument, thus reducing the risk of measurement error (Kimberlin & Winterstein, 2008; Polit & Beck, 2014). Each of the subscales within the SDNP was subjected to reliability testing by evaluating the internal consistency of each subscale. Internal consistency was measured to ensure each of the items within the six subscales measured what it intended to measure (Polit & Beck, 2014). Internal consistency was evaluated using Cronbach's alpha, which ranges from an index of .00 to +1.00 (Polit & Beck, 2014). The closer the

reliability is to +1.00, the more reliable the item is in measuring its intent (Polit & Beck, 2014).

Internal consistency was calculated and analyzed based on the individual items within each of the five subscales when asking the questions how often and how well. The sixth subscale, professional development, was only subjected to reliability testing based on the question how well. Internal consistency as measured by alpha coefficients, namely Cronbach's alpha, ranged from .62 to .80 for the five subscale scores when asking the question *how often*. Internal consistency ranged from .67 to .89 for the six subscale scores when asking the question how well? It is interesting to note, the lowest measurement, .62, was found for items relating to the question how often in the subscale of interpersonal relations/communication and the highest measurement, .89, for items relating to the question how well was also calculated in the same subscale. Since a total score for the entire survey was not calculated, reliability was not measured based on a total score.

Previous studies did not delineate this information based on the two questions; they only report the internal consistency for each of the six subscales. Schwirian (1978) reported an internal consistency ranging from .844 to .978. McCloskey and McCain (1988a) reported reliability ranging from .75 to .98, whereas Vanetzian and Higgins (1990) reported alpha coefficients of .644 in the critical care subscale to .899 in the interpersonal relations/communication subscale. These scores are similar to the scores found in this study; however, the lowest scores in Vanetzian and Higgins' (1990) study were found in the subscale critical care. In order to gain a better understanding of the reliability measurements for each subscale, they are discussed separately as they relate to the individual questions how often and how well.

Leadership

The five items that relate to the subscale leadership were subjected to reliability testing. For the question relating to how often the NLRN performed each item, Cronbach's alpha was calculated at .80. Item-total reliability demonstrated deletion of Item 25 HO would increase the reliability to .82. Table 8 presents the item-total statistics for the leadership subscale with the query how often. For the question relating to how well the NLRN performed each item, Cronbach's alpha was calculated at .81. Item-total reliability demonstrated deletion of Item 3 HW would increase the reliability to .85. Table 9 presents the item-total statistics for the leadership subscale with the query how well.

Table 8

Leadership Subscale Item-Total Statistics for the Question How Often

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 3 HO	14.06	4.60	0.88	0.86	0.65
Item 23 HO	13.56	6.66	0.72	0.66	0.74
Item 25 HO	14.25	5.80	0.48	0.70	0.82
Item 26 HO	13.38	7.58	0.52	0.83	0.80
Item 41 HO	13.75	6.47	0.51	0.71	0.79

Note. Deletion of Item 25 HO increased Cronbach's alpha to .82.

Table 9

Leadership Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 3 HW	12.06	6.06	0.31	0.68	0.84
Item 23 HW	12.24	4.57	0.69	0.56	0.74
Item 25 HW	12.47	4.39	0.75	0.71	0.71
Item 26 HW	12.00	5.00	0.54	0.77	0.79
Item 41 HW	11.71	5.10	0.72	0.55	0.74

Note. Deletion of item 3 HW increased Cronbach's alpha to .85.

Critical Care

The seven items that relate to the subscale critical care were subjected to reliability testing. For the question relating to how often the NLRN performed each item, Cronbach's alpha was calculated at .72. Item-total reliability demonstrated deletion of Item 40 HO would increase the reliability to .73. Table 10 presents the item-total statistics for the critical care subscale with the query how often. For the question relating to how well the NLRN performed each item, Cronbach's alpha was calculated at .80. Item-total reliability demonstrated deletion of any items would decrease the reliability. Table 11 presents the item-total statistics for the critical care subscale for the query how well.

Table 10

Critical Care Subscale Item-Total Statistics for the Question How Often

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 11 HO	19.60	10.26	0.39	0.45	0.70
Item 18 HO	20.00	8.71	0.48	0.49	0.68
Item 19 HO	20.00	9.43	0.48	0.73	0.68
Item 27 HO	19.93	8.64	0.67	0.59	0.64
Item 31 HO	20.07	9.21	0.39	0.59	0.70
Item 37 HO	20.53	8.12	0.45	0.64	0.69
Item 40 HO	19.87	10.70	0.24	0.62	0.73

Note. Deletion of Item 40 HO increased Cronbach's alpha to .73.

Table 11

Critical Care Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 11 HW	17.33	8.24	0.47	0.73	0.79
Item 18 HW	17.20	8.60	0.64	0.84	0.75
Item 19 HW	17.80	10.03	0.42	0.61	0.79
Item 27 HW	17.53	9.70	0.40	0.59	0.79
Item 30 HW	17.40	9.83	0.60	0.69	0.76
Item 37 HW	17.73	9.21	0.54	0.51	0.77
Item 40 HW	17.40	8.83	0.73	0.61	0.73

Note. Deletion of any items would decrease Cronbach's alpha.

Teaching/Collaboration

The 11 items that relate to the subscale teaching/collaboration were subjected to reliability testing. For the question relating to how often the NLRN performed each item, Cronbach's alpha was calculated at .71. Item-total reliability demonstrated deletion of either Item 5 HO or 38 HO would increase the reliability to .74. Table 12 presents the item-total statistics for the teaching/collaboration subscale with the query how often. For the question relating to how well the NLRN performed each item, Cronbach's alpha was calculated at .70. Item-total reliability demonstrated deletion of either Item 12 HW or 32 HW would increase the reliability to .74. Table 13 presents the item-total statistics for the teaching/collaboration subscale for the query how well.

Table 12

Teaching/Collaboration Subscale Item-Total Statistics for the Question How Often

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1 HO	31.31	16.50	0.56	0.76	0.68
Item 4 HO	31.81	14.70	0.46	0.94	0.67
Item 5 HO	32.50	18.13	-0.07	0.87	0.74
Item 12 HO	31.75	15.27	0.42	0.71	0.68
Item 14 HO	32.69	15.30	0.41	0.77	0.68
Item 28 HO	31.38	16.52	0.45	0.95	0.69
Item 29 HO	31.94	15.40	0.36	0.84	0.69
Item 31 HO	31.88	14.78	0.39	0.94	0.68
Item 32 HO	32.06	13.93	0.52	0.97	0.66
Item 38 HO	32.50	15.33	0.17	0.81	0.74
Item 39 HO	32.06	14.06	0.57	0.90	0.65

Note. Deletion of Item 5 HO would increase the reliability to .74. Deletion of Item 38 HO would increase reliability to .74.

Table 13

Teaching/Collaboration Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1 HW	27.13	13.23	0.36	0.77	0.67
Item 4 HW	27.33	13.38	0.30	0.66	0.68
Item 5 HW	28.03	14.02	0.21	0.56	0.69
Item 12 HW	27.40	15.36	-0.07	0.79	0.73
Item 14 HW	27.77	11.32	0.61	0.69	0.62
Item 28 HW	27.10	13.15	0.44	0.89	0.66
Item 29 HW	27.30	12.49	0.56	0.52	0.64
Item 31 HW	27.03	11.73	0.62	0.82	0.63
Item 32 HW	27.63	14.45	0.04	0.73	0.73
Item 38 HW	27.63	12.59	0.36	0.79	0.67
Item 39 HW	27.30	12.71	0.41	0.79	0.66

Note. Deletion of Item 12 HW would increase the reliability to .73. Deletion of Item 32 HW would increase the reliability to .73.

Planning/Evaluation

The seven items that relate to the subscale planning/evaluation were subjected to reliability testing. For the question relating to how often the NLRN performed each item, Cronbach's alpha was calculated at .72. Item-total reliability demonstrated deletion of either Item 2 HO would increase the reliability to .79. Table 14 presents the item-total statistics for the planning/evaluation subscale with the query how often. For the question relating to how well the NLRN performed each item, Cronbach's alpha was calculated at .67. Item-total reliability demonstrated deletion of either Item 36 HW would increase the reliability to .71. Table 15 presents the item-total statistics for the planning/evaluation subscale for the query how well.

Table 14

Planning/Evaluation Subscale Item-Total Statistics for the Question How Often

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 2 HO	22.50	4.40	-0.19	0.44	0.79
Item 6 HO	22.56	2.66	0.73	0.80	0.60
Item 7 HO	22.56	4.00	0.06	0.26	0.76
Item 9 HO	22.69	2.50	0.73	0.77	0.60
Item 10 HO	22.88	2.65	0.58	0.67	0.65
Item 13 HO	22.56	3.33	0.52	0.76	0.68
Item 36 HO	22.50	3.33	0.64	0.66	0.66

Note. Deletion of Item 2 HO would increase reliability to .79.

Table 15

Planning/Evaluation Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 2 HW	17.88	5.08	0.36	0.62	0.63
Item 6 HW	18.21	4.69	0.51	0.48	0.59
Item 7 HW	17.94	4.72	0.44	0.50	0.61
Item 9 HW	18.09	5.16	0.40	0.51	0.62
Item 10 HW	18.15	4.65	0.57	0.47	0.57
Item 13 HW	17.85	5.71	0.29	0.40	0.65
Item 36 HW	17.71	5.88	0.09	0.31	0.71

Note. Deletion of Item 36 HW would increase reliability to .71.

Interpersonal Relations/Communication

The 12 items that relate to the subscale interpersonal relations/communication were subjected to reliability testing. For the question relating to how often the NLRN

performed each item, Cronbach's alpha was calculated at .62. Item-total reliability demonstrated Item 15 shows a negative correlation of -.27; deletion of this item would increase the reliability to .70. Table 16 presents the item-total statistics for the interpersonal relations/communication subscale with the query how often. For the question relating to how well the NLRN performed each item, Cronbach's alpha was calculated at .89. Evaluating item-total reliability demonstrated there would not be any change in reliability if any of the items were deleted. Cronbach's alpha for the items within this subscale ranged from .87 to .89. Table 17 presents the item-total statistics for the interpersonal relations/communication subscale for the query how well.

Table 16

IPR/Communication Subscale Item-Total Statistics for the Question How Often

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 8 HO	41.63	5.05	0.55	0.00	0.52
Item 15 HO	41.63	7.98	-0.27	0.00	0.70
Item 16 HO	41.63	7.05	0.12	0.00	0.62
Item 17 HO	41.88	6.92	0.11	0.00	0.63
Item 20 HO	41.50	7.20	0.15	0.00	0.62
Item 21 HO	41.56	6.13	0.72	0.00	0.54
Item 22 HO	41.50	7.20	0.15	0.00	0.62
Item 24 HO	41.63	5.05	0.55	0.00	0.52
Item 33 HO	41.63	6.92	0.18	0.00	0.61
Item 34 HO	41.56	7.60	-0.13	0.00	0.65
Item 35 HO	42.00	4.13	0.81	0.00	0.42
Item 42 HO	41.69	6.63	0.28	0.00	0.60

Table 17

IPR/Communication Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 8 HW	35.88	32.74	0.62	0.00	0.88
Item 15 HW	36.00	30.38	0.67	0.00	0.88
Item 16 HW	35.29	34.85	0.36	0.00	0.89
Item 17 HW	35.94	29.68	0.78	0.00	0.87
Item 20 HW	35.65	33.74	0.54	0.00	0.88
Item 21 HW	35.65	33.74	0.54	0.00	0.88
Item 22 HW	35.47	33.64	0.44	0.00	0.89
Item 24 HW	35.82	30.53	0.69	0.00	0.88
Item 33 HW	35.71	30.60	0.71	0.00	0.87
Item 34 HW	35.59	33.01	0.53	0.00	0.88
Item 35 HW	35.82	31.28	0.55	0.00	0.88
Item 4 2HW	35.53	30.89	0.71	0.00	0.87

Professional Development

The 10 items that relate to the subscale professional development were subjected to reliability testing. This subscale did not query the NLRN in how often he or she performed the task; it only queried the NLRN on how well he or she performed the items within this subscale. Reliability testing demonstrated a Cronbach's alpha of .78. In evaluating item-total reliability, deletion of item 48 HW would increase the reliability to .80. Cronbach's alpha for the items within this subscale ranged from .73 to .80. Table 18 presents the item-total statistics for the professional development subscale for the query how well the NLRN performed the task.

Table 18

Professional Development Subscale Item-Total Statistics for the Question How Well

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 43 HW	30.62	11.55	0.41	0.50	0.76
Item 44 HW	30.71	10.71	0.66	0.75	0.73
Item 45 HW	30.38	11.65	0.55	0.61	0.75
Item 46 HW	30.52	11.26	0.49	0.76	0.75
Item 47 HW	30.48	11.06	0.69	0.89	0.73
Item 48 HW	31.10	11.79	0.19	0.34	0.80
Item 49 HW	30.48	10.26	0.67	0.89	0.73
Item 50 HW	31.05	11.35	0.29	0.52	0.78
Item 51 HW	30.76	11.99	0.26	0.61	0.78
Item 52 HW	30.76	11.19	0.54	0.78	0.75

Hypothesis Testing

The continuous dependent variables, the six subscale scores of the SDNP, were subjected to normality testing using the Shapiro-Wilk test and Q-Q plots. Three subscale variables, leadership, planning/evaluation, and interpersonal relations/communications, for the query how often demonstrated Shapiro-Wilk statistics of .811 (p = .003*),* .778 (p= .001), and .520 (p = .000) respectively (see Table 19). These levels of significance require the rejection of the null hypothesis for a normal distribution (Mertler & Vannatta, 2010). These results demonstrated that data for these three subscale scores are not normally distributed. Evaluation of the scores via histogram demonstrated the distribution curve for these three subscale scores was skewed to the left, which indicates most participants rated themselves as performing these items occasionally or frequently (see Figures 1-3).

Table 19

Shapiro-Wilk Test of Normality for all Subscale Scores for the Query How Often

Subscale Variable	Statistic	df	Significance
Leadership, How Often	.81	17	.003
Critical Care, How Often	.90	17	.076
Teaching/Collaboration, How Often	.97	17	.855
Planning/Evaluation, How Often	.78	17	.001
IPR/Communications, How Often	.52	17	.000

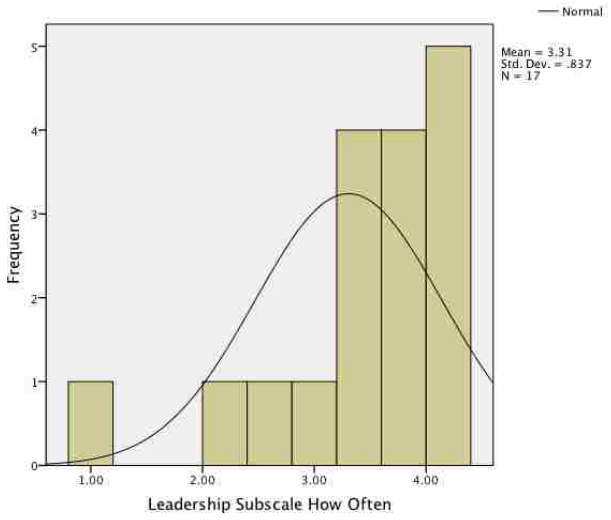

Figure 1. Leadership Subscale for the Query How Often

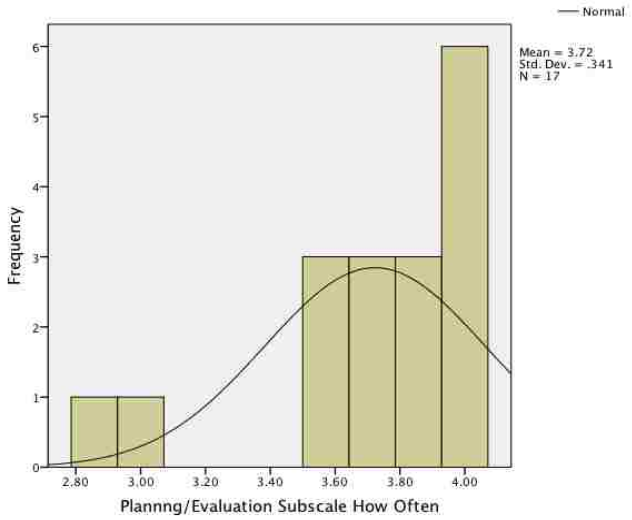

Figure 2. Planning/Evaluation Subscale for the Query How Often

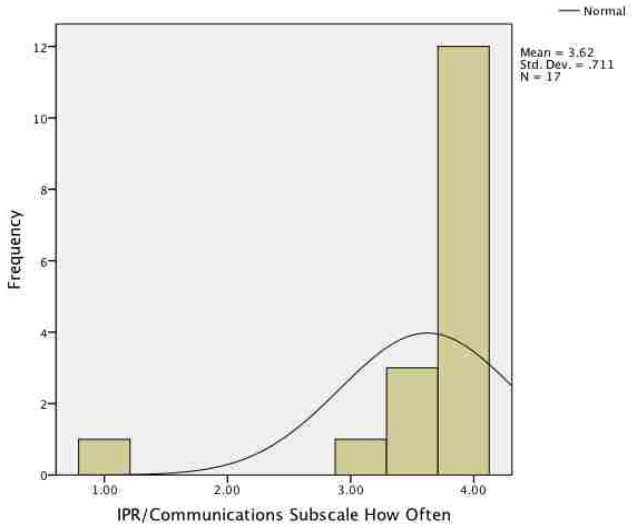

Figure 3. IPR/Communications Subscale for Query How Often

The Q-Q plots provide a graphical depiction of the aforementioned scores to determine whether or not they come from a normal distribution (University of Virginia Library, 2015). As demonstrated in Figures 4-6, each of these graphs demonstrates the scores are curved, which further substantiate that the data set is skewed (University of Virginia Library, 2015).

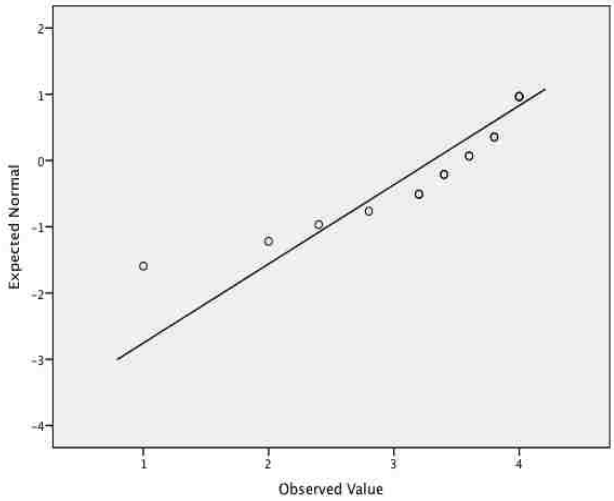

Figure 4. Normal Q-Q Plot for Leadership Subscale for the Query How Often

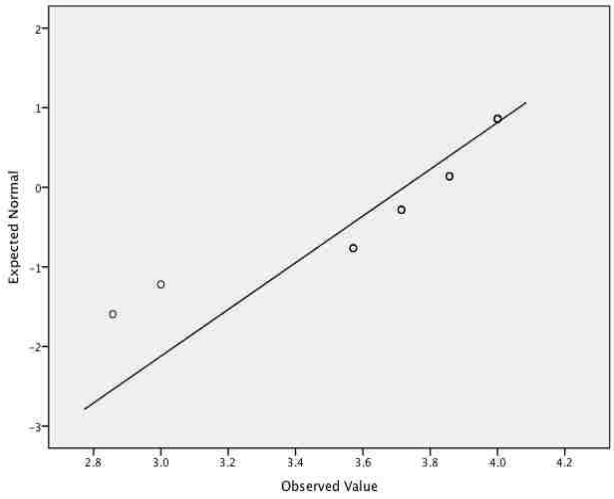

Figure 5. Normal Q-Q Plot for Planning/Evaluation Subscale for the Query How Often

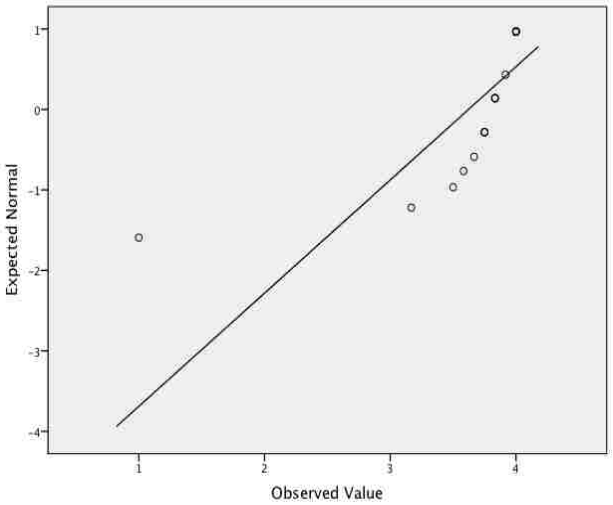

Figure 6. Normal Q-Q Plot for IPR/Communications Subscale for the Query How Often

In evaluating the remaining two subscale scores for the query how often, the Shapiro-Wilk statistic revealed $p = .076$ for the critical care subscale and $p = .855$ for the teaching/collaboration subscale. It is concluded these two subscale scores are normally distributed; thus the null hypothesis for normal distribution is accepted (see Figures 7 and 8).

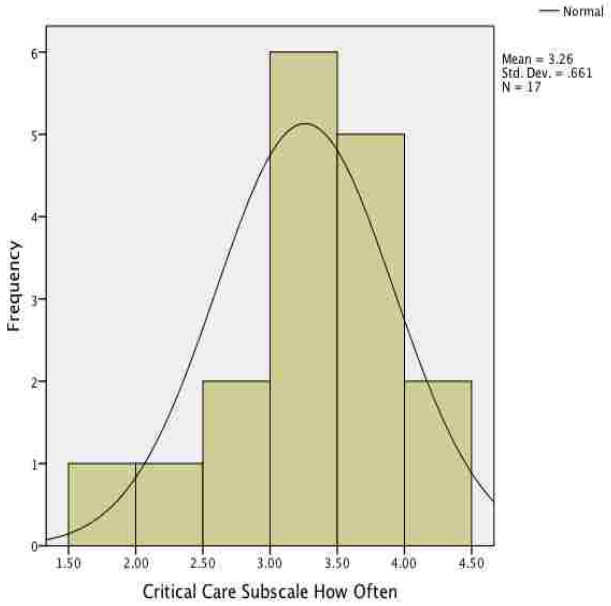

Figure 7. Critical Care Subscale for the Query How Often

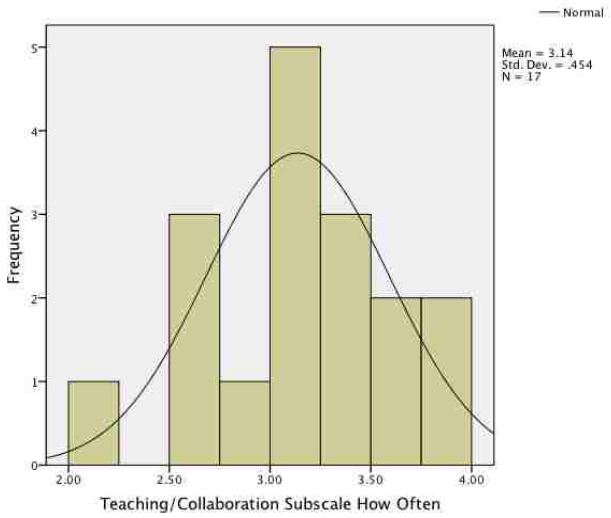

Figure 8. Teaching/Collaboration Subscale for the Query How Often

Evaluation of the Q-Q plots for the critical care and teaching/collaboration subscales shows the plots fall closer to the line (Mertler & Vannatta, 2010). It is interesting to note the critical care subscale does show a slight curve, which is expected since $p = .076$ (see Figure 9).

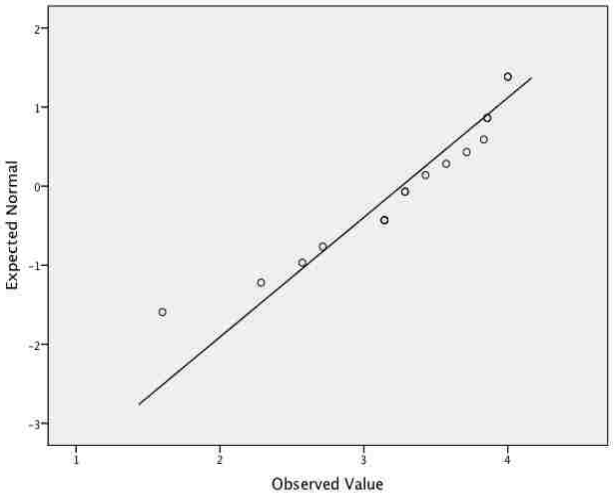

Figure 9. Normal Q-Q Plot for Critical Care Subscale for the Query How Often

The plots for the teaching/collaboration subscale demonstrate a normal distribution, thus verifying this subscale follows a normal distribution (see Figure 10).

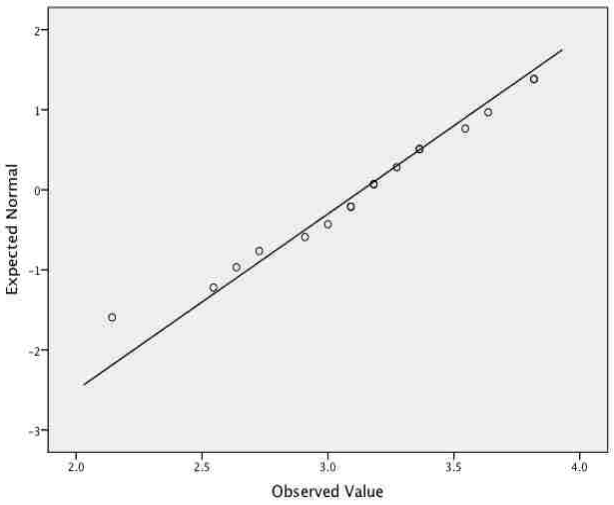

Figure 10. Normal Q-Q Plot for Teaching/Collaboration Subscale for the Query How Often

When analyzing the variables of all the subscale scores for the query how well, for normalcy, the Shapiro-Wilk statistic for all of the subscale scores reveals $p>.05$ (see Table 20). The null hypothesis in this case is that there is a normal distribution. It is concluded the data are normally distributed; therefore, the null hypothesis is true (Mertler & Vannatta, 2010).

Table 20

Shapiro-Wilk Test of Normality for all Subscale Scores for the Query How Well

Subscale Variable	Statistic	df	Significance
Leadership Dimension, How Well	.96	21	.450
Critical Care, How Well	.98	21	.875
Teaching/Collaboration, How Well	.92	21	.078
Planning/Evaluation, How Well	.94	21	.173
IPR/Communications, How Well	.94	21	.257
Professional Development, How Well	.96	21	.556

When evaluating all of the subscale scores for the query how well, the distribution curves are slightly positively skewed for the subscales of leadership, critical care, teaching/collaboration, and planning/evaluation (see Figures 11-16). These positively skewed results indicate there are a greater number of scores with a lower value (Mertler & Vannatta, 2010). This indicates a larger number of respondents rated themselves lower when queried how well they performed the items within the individual subscales. It is interesting to note the distribution for the interpersonal relations/communications subscale reveals two peaked areas. One group of respondents rated themselves lower than another group of respondents (see Figure 15). The distribution for the professional development subscale for the query how well demonstrates two peaks as well. This again reveals some respondents did not rate themselves as high as other respondents.

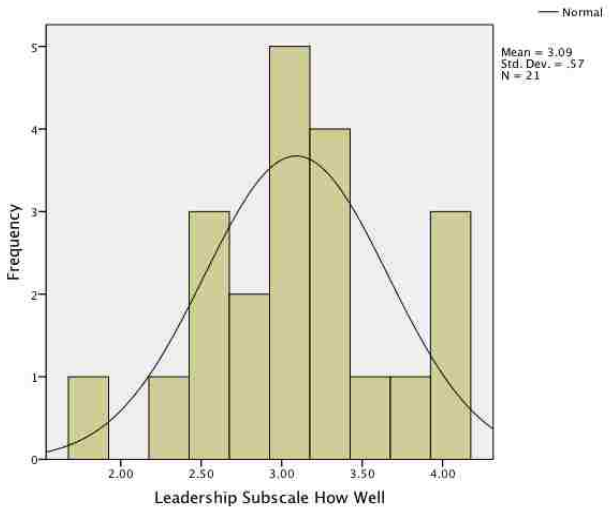

Figure 11. Leadership Subscale for the Query How Well

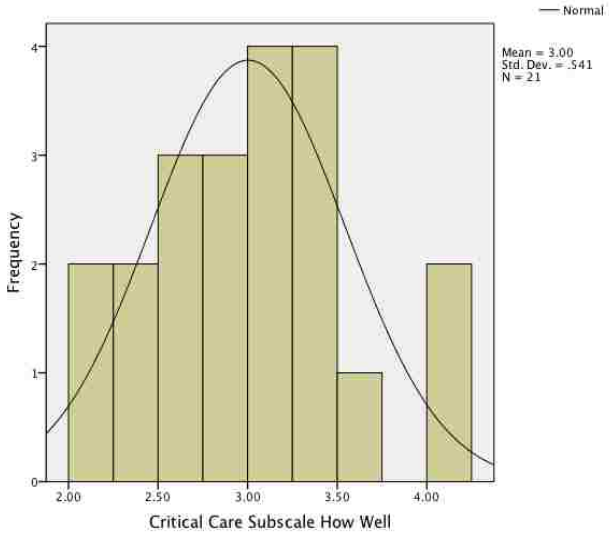

Figure 12. Critical Care Subscale for the Query How Well

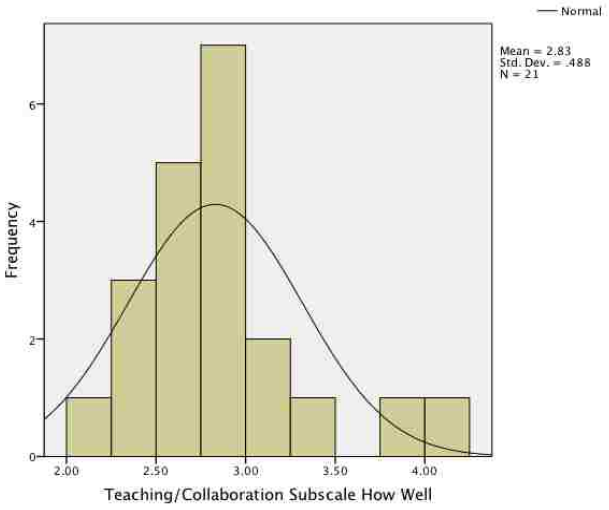

Figure 13. Teaching/Collaboration Subscale for the Query How Well

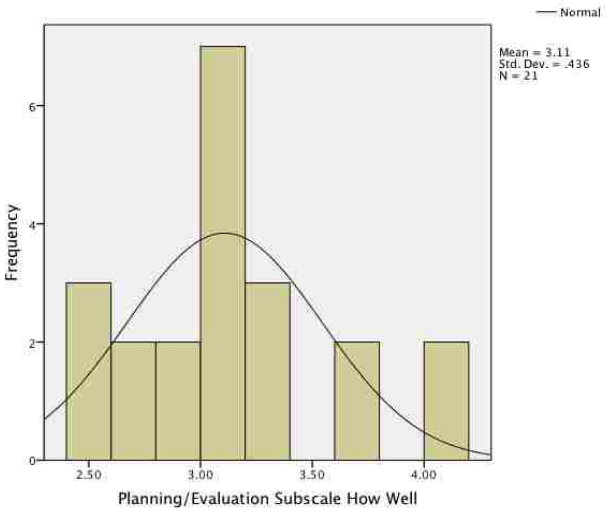

Figure 14. Planning/Evaluation Subscale for the Query How Well

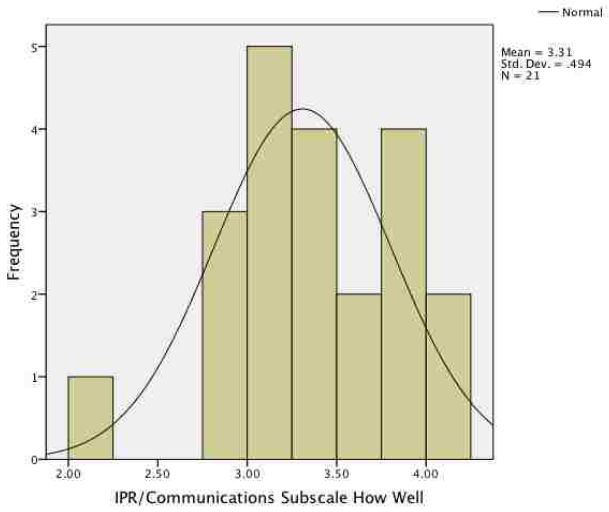

Figure 15. IPR/Communications Subscale for the Query How Well

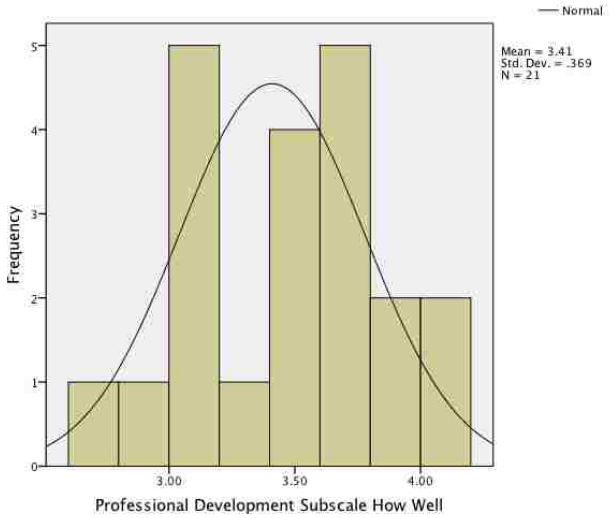

Figure 16. Professional Development Subscale for the Query How Well

Examination of the Q-Q plots for all of the subscale scores for the query how well reveal the distribution of plots is near the line (see Figures 17-22). These data indicate the distribution is normal for these subscale scores (Mertler & Vannatta, 2010). Although the Q-Q plot for the interpersonal relations/communications subscale is normal, there are two slight curves (see Figure 21). One curves to the left of the line, and the other one curves to the right of the line. This pattern demonstrates some respondents rated themselves

lower than other respondents, and some respondents rated themselves higher than other respondents.

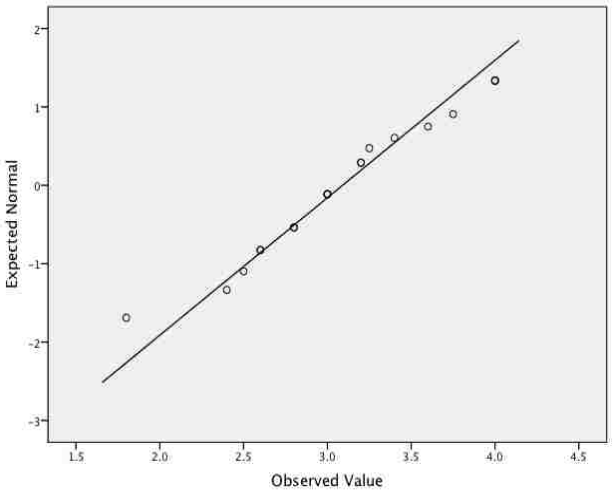

Figure 17. Normal Q-Q Plot of Leadership Subscale for the Query How Well

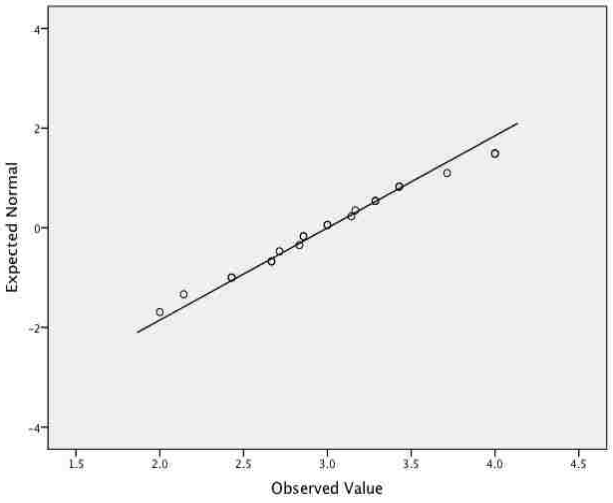

Figure 18. Normal Q-Q Plot of Critical Care Subscale for the Query How Well

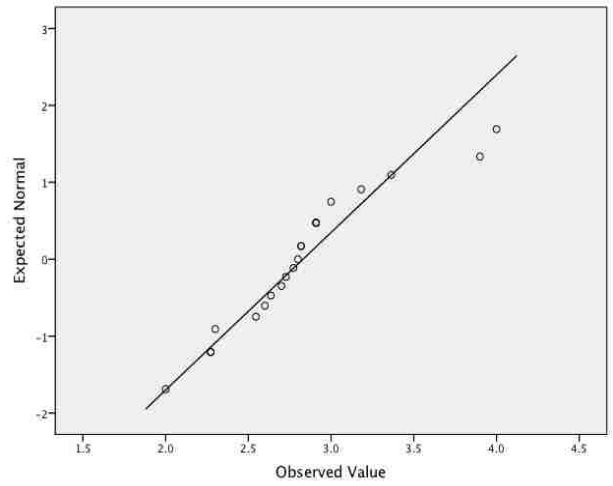

Figure 19. Normal Q-Q Plot of Teaching/Collaboration Subscale for the Query How Well

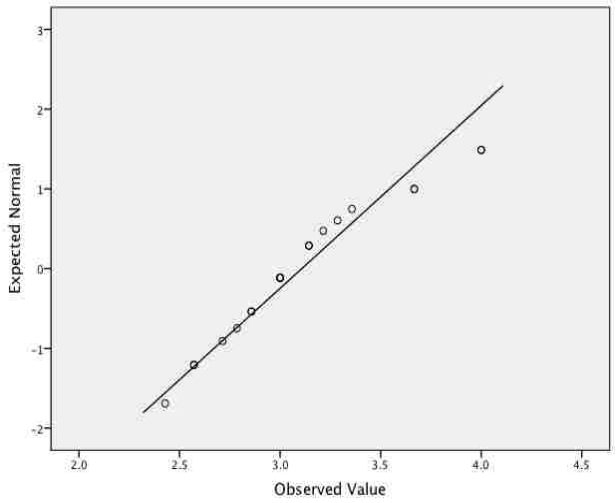

Figure 20. Normal Q-Q Plot of Planning/Evaluation Subscale for the Query How Well

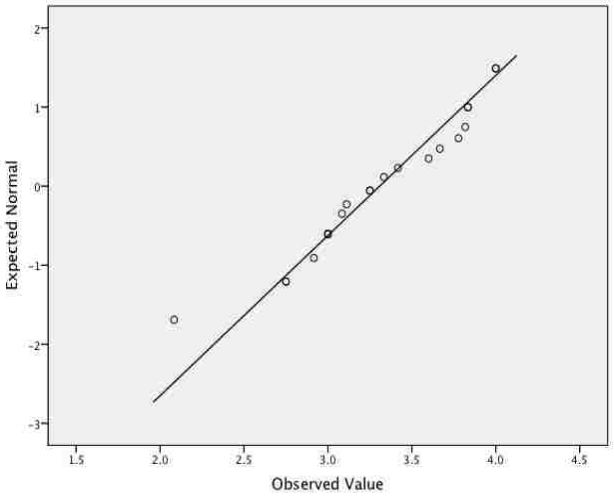

Figure 21. Normal Q-Q Plot of IPR/Communications Subscale for the Query How Well

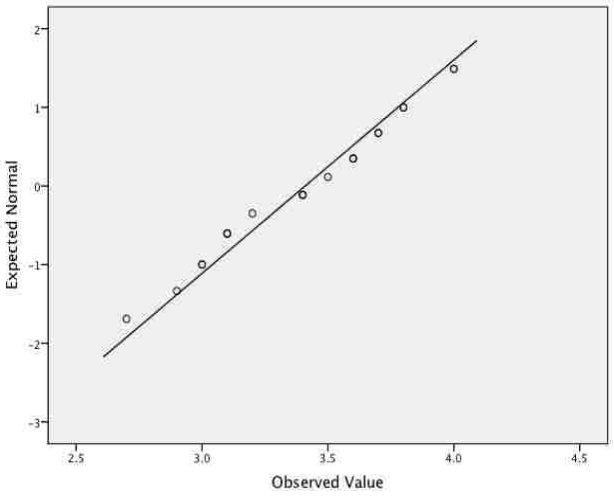

Figure 22. Normal Q-Q Plot of Professional Development Subscale for the Query How Well

Since three of the tests for normality indicate the subscale data sets for the query how often are not normally distributed and the sample size is small, nonparametric tests were used to answer the research question based on the query how often. Nonparametric tests are considered useful when the sample size is very small or when the distribution is non-normal (Polit & Beck, 2017). Furthermore, the central limit theorem cannot be

referred to with a small sample size because the theoretical distribution of sample means does not necessarily follow the normal distribution (Polit & Beck, 2017). Therefore, estimating probability values from a parametric test could prove to be wrong (Polit & Beck, 2017).

The normality tests for the subscale data sets for the query how well are normally distributed. Since the sample size is small, Polit and Beck (2017) would suggest the use of nonparametric testing rather than parametric testing. Small sample sizes increase the likelihood of distorted probability values when using parametric testing (Polit & Beck, 2017). Therefore, nonparametric testing was utilized to test for differences between the two residency groups.

Statistical Results of the Research Question

One research question guided this study: is there a difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum? The study was based on the Six Dimension Scale of Nursing Performance, which asked respondents to answer questions based on two queries. First, the respondent was asked to answer the items based on how often they performed that particular item within each subscale. Secondly, the respondent was asked to answer items based on how well they performed the same particular item within each subscale.

Although the intent was to evaluate the difference between three different nurse residency programs, this could not occur. Even though the survey was sent to the largest

number of potential participants in Residency B, only one survey was submitted. After discussion with the statistician, it was decided to only analyze the responses from those respondents who participated in either Residency A or C. Even though Residency B was not evaluated, the data analysis provided important information for all NLRN transition to practice experiences. Analysis of the data based on the two groups provided conclusions as to whether the hypothesis was accepted or rejected.

Research question based on the query how often. Is there a difference in NLRN performance at one-year post hire after participation in one of three settings: (A) in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, (B) one that offers a formalized curriculum that does not extend throughout the entire year, or (C) one that does not provide a formalized curriculum?

H_0: There is no significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

H_a: There is a significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

To test the null hypothesis, the nonparametric independent samples Mann-Whitney U test with $\alpha = .05$ as the criterion for significance was performed between the

type of nurse residency the NLRN participated in and self-reported performance on how often the NLRN performed the item within the five subscales of the SDNP. This nonparametric test is the equivalent of the parametric independent group's *t*-test (Polit & Beck, 2017). A point-biserial correlation was performed to examine the relationship between the subscale scores and the type of nurse residency in which the NLRN participated (Polit & Beck, 2017). Correlations allow for the examination of the magnitude and direction of a relationship between two variables (Polit & Beck, 2017). The point biserial correlation evaluates the relationship between the dichotomous variable, nurse residency type, and the scale variables from the SDNP subscale scores (Polit & Beck, 2017).

The results of the Mann-Whitney U test revealed no significance, $p>.05$, between the two different residency programs and the five subscale scores to the query how often. As a result of this analysis, it is necessary to retain the null hypothesis and infer there is no difference between the type of residency and how often the NLRN performs the items within the different subscales. Table 21 presents a review of these results.

Table 21

Mann-Whitney Results Based on the Query How Often

Subscale Query, How Often?	Mann-Whitney U	Z	*p*
Leadership	22.500	-.802	.423
Critical Care	25.000	-1.035	.301
Teaching/Collaboration	40.500	-.127	.899
Planning/Evaluation	11.000	-1.915	.056
IPR/Communications	30.000	-.306	.759

Note. Grouping Variable: Residency Type.

The results of the point-biserial correlation, using listwise deletion, did not reveal a significant correlation between the type of residency and how often the NLRN performed the items within the individual subscale scores. However, as indicated in Table 22, the type of residency program the NLRN participated in demonstrated negative correlations in all five measured subscales. The type of residency program impacts how often NLRNs perform the items within each of the five subscales. Both the critical care and planning/evaluation subscales demonstrated the highest negative correlations (r = -.422 and r = -.423 respectively) compared to the other three subscale scores. Based on these findings, it is necessary to retain the null hypothesis, and it is appropriate to infer that there is not a significant relationship between the type of nurse residency and performance within the five subscale scores based on the query how often. Table 22 presents the results from the point-biserial correlation analysis for the query how often.

Table 22

Point-Biserial Correlations Between Nurse Residency Type and Subscale Scores Based on the Query How Often

Subscale Query, How Often	*r*	*P*
Leadership	-.242	.367
Critical Care	-.422	.103
Teaching/Collaboration	-.361	.170
Planning/Evaluation	-.423	.103
IPR/Communications	-.245	.361

Research question based on the query how well. Is there a difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a

formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum?

H_0: There is no significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

H_a: There is a significant difference in NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum.

To test the null hypothesis, the nonparametric independent samples Mann-Whitney U test with $\alpha = .05$ as the criterion for significance was performed to evaluate if there was a difference in the subscale scores for the query how well and the type of nurse residency in which the NLRN participated (Polit & Beck, 2017). A point-biserial correlation was performed to examine the relationship between the subscale scores and the type of nurse residency in which the NLRN participated (Polit & Beck, 2017).

The results of the Mann-Whitney U test revealed there was no significance, $p>.05$, between the two different residency programs and the six subscale scores to the query how well. As a result of this analysis, it is necessary to retain the null hypothesis and infer there is no difference between the type of residency and how well the NLRN

performs the items within the different subscales. Table 23 presents a review of these results.

Table 23

Mann-Whitney Results Based on the Query How Well

Subscale Query, How Well	Mann-Whitney U	Z	*P*
Leadership	31.500	-1.120	.263
Critical Care	40.500	-.397	.691
Teaching/Collaboration	42.000	-.278	.781
Planning/Evaluation	33.000	-.996	.319
IPR/Communications	43.500	-.159	.874
Professional Development	28.500	-1.355	.175

Note. Grouping Variable: Residency Type.

The results of the point-biserial correlation for the query how well did not reveal any significant correlations between the type of nurse residency and performance on the six subscales. However, the results revealed positive correlations between the leadership, teaching/collaboration, interpersonal relations/communications, and professional development subscale scores (r = .294, r = .081, r = .023, and r = .356 respectively). Negative correlations were within the critical care (r = -.052) and planning/evaluation (r= -.050) subscale scores. Although not significant, the negative correlations do suggest that the type of residency the NLRN participated in affects how well the NLRN performs in the areas of critical care and planning/evaluation subscales. Based on these findings, it is necessary to retain the null hypothesis, and it is appropriate to infer no significant relationship exists between the type of nurse residency and performance within the six subscale scores based on the query how well. Table 24 presents a review of these results.

Table 24

Point-Biserial Correlations Between Nurse Residency Type and Subscale Scores Based on the Query How Well

Subscale Query, How Well?	*r*	*P*
Leadership	.294	.209
Critical Care	-.052	.827
Teaching/Collaboration	.081	.735
Planning/Evaluation	-.050	.834
IPR/Communications	.023	.922
Professional Development	.356	.124

Chapter Summary

This study analyzed the performance of newly licensed RNs 11-15 months post hire at their first place of employment using the Six Dimension Scale of Nursing Performance survey. Based on the queries of how often and how well the NLRN performed the items within the individual subscales, the results of the Mann-Whitney U test revealed there was not a statistically significant difference between the type of nurse residency the NLRN participated in and their self-reported performance on the individual subscale scores of the SDNP. Examination of the relationship between nurse residency type and NLRN performance within the subscales scores of the SDNP revealed negative correlations for all the subscale scores related to the query how often. However, negative correlations were only observed in the critical care and planning/evaluation subscale scores when evaluating for the query how well. A discussion of the results is presented in Chapter Five.

Chapter Five

Discussion and Summary

The ensuing discussion reflects upon the findings of this study and their relationship to Benner's novice-to-expert model. It will also relate those findings to conclusions reported by other researchers. Furthermore, it will discuss the implications of this research in relation to nursing education, nursing practice, nursing research, and public policy. Lastly, it will examine the limitations encountered in this study and offer recommendations for future studies.

This quantitative descriptive study sought to evaluate the difference between three different types of nurse residency programs and NLRN performance at one-year post hire on the six subscales of the Six Dimension Scale of Nursing Performance. Post positivism was the philosophical underpinning of this study. Post positivism looks toward probable truths rather than absolute truths by trying to find the degree of likelihood of a phenomenon (Creswell, 2014; Polit & Beck, 2017). The study was based on the conceptual framework of Benner's (1984) novice-to-expert model. As nurses progress from novice to expert practice, they experience a paradigm shift within their thinking where they build upon past experiences to shape their future practice (Benner, 1984; Carlson, Crawford, & Contrades, 1989). Newly licensed RNs have limited experiences within their knowledge repository to help them make expert decisions (Benner, 1984). They need both the time and the opportunity to build that knowledge base and evolve their practice (Benner, 1984; Carlson et al., 1989). As nurses gain knowledge through

experience over a period of time, they begin to sort knowledge based on different situations (Carlson et al., 1989). Their decision making changes; they focus on perceptions rather than procedures (Carlson et al., 1989). Nurse residency programs offer NLRNs the time to gain these invaluable experiences, providing them with the opportunities to progress on that novice-to-expert continuum.

Summary of the Findings

Although the findings did not demonstrate a statistical difference between the different nurse residency programs and NLRN performance one-year post hire, they describe the relationship between the variables (Polit & Beck, 2017) and provide important information for planning effective transition to practice experiences for NLRNs. The demographic characteristics described are gender, age, employment length, initial pre-licensure degree earned, and type of residency program in which the NLRN participated. A correlational analysis of the data provided information on the relationship between two nurse residency programs and NLRN performance in regards to how often the NLRN performs the task and how well the NLRN performs the task within the subscales of the SDNP.

Demographic Characteristics

Demographic characteristics were collected and analyzed solely to describe the sample. They were not considered variables for the purpose of this study.

Gender. The first characteristic that was examined was gender. The data continues to demonstrate those entering the nursing workforce are predominantly females. Although more males entered the nursing workforce in the years between 2013 and 2015, the data from this study did not correlate with that information (NCSBN,

2017). With the small number of participants, these data may not be indicative of the trend and may not be reflective of the number of males entering the professional nursing workforce.

Age. The average age of the study participants was younger than the average age of the national workforce of 48.8 years as reported by Budden et al. (2016). The majority of the participants were 30 years or younger. Again, with such a small sample, this information may not be reflective of national trends.

Employment Length. Study participants' employment length was evaluated to ensure they fell within the specified range for inclusion in the study. The majority of participants were employed 12 months.

Initial Pre-Licensure Degree Earned. The majority of respondents in this study earned a Bachelor of Science degree in nursing. According to the findings by Budden et al. (2016), nurses less than 45 years of age tended to earn a baccalaureate degree for their initial education. All of the respondents in this study were less than 45 years of age, and the majority of them earned their baccalaureate degree. Although the sample size is small, this finding corroborates the study findings by Budden et al. (2016).

Type of Nurse Residency. The initial intent for this study was to examine three different types of nurse residency as identified in the study as A, B, or C. Because of the lack of participation in Nurse Residency B, the data were only analyzed based on Nurse Residency A or C. The majority of the study respondents participated in Nurse Residency C, which is described as one without a prescribed formalized curriculum plan. Since there is not a prescribed formalized curriculum plan for nurse residency programs (Berkow et al., 2009; Rush et al., 2013; Spector et al., 2015), this is a reasonable finding.

Furthermore, there are no data to refute the assertion by Spector et al. (2015) that common components within nurse residency programs still do not exist.

Findings to the Research Question

The one research question guiding this study was based on self-reported performance analysis by NLRNs who had a minimum of 11 months of experience post hire at their initial place of employment to a maximum of 14 months of experience post hire. The respondents rated themselves based on two different queries to each question within six different subscales: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development. The question investigated whether there was a difference between NLRN performance at one-year post hire after participation in a nurse residency program that offers a formalized curriculum that extends throughout the entire year, one that offers a formalized curriculum that does not extend throughout the entire year, or one that does not provide a formalized curriculum. Study participants rated themselves on how often they performed each item and how well they performed the item.

Research findings based on the query how often. The research question examined whether there was a significant difference between the type of nurse residency program the NLRN participated in and self-reported performance on the five subscale scores that evaluated the query how often. Results of the nonparametric Mann-Whitney U test revealed the type of nurse residency program in which the NLRN participated was not statistically significant to how often the NLRN performed the item within the subscale dimensions themselves. This finding is not surprising because of Benner's assertion that nursing expertise comes not only with the number of years of experience

but also the experiences themselves (Benner, 1984). NLRNs need the opportunity to apply their knowledge into real world situations. This information leads to the assumption the experiences themselves are what truly matter, rather than number of opportunities. It may not matter how often the NLRN performs certain tasks but rather on the experience they gain while performing that specific task. This finding suggests nurse residency programs need to ensure NLRNs have the necessary opportunities to perform certain tasks but not dictate how often they perform that task.

Although the results did not indicate statistically significant findings, it is important to note the planning/evaluation subscale scores did demonstrate they were more significant ($p = .056$) than the other subscale scores. The planning/evaluation dimension consisted of questions that related to behaviors such as care coordination, identification of anticipated changes, development of patient specific care, inclusion of priority care, and evaluation of nursing care (Schwirian, 1978). These findings support Benner's model that more opportunities must exist for NLRNs to plan and evaluate patient care and nurse residency programs must incorporate these opportunities within their curricula.

Results from the point-biserial correlation did not indicate a statistically significant correlation between the type of nurse residency program the NLRN participated in and how often a task was performed. However, the critical care and planning/evaluation domains both demonstrated stronger negative correlations than the other three domains. Respondents in Residency C also demonstrated the lowest mean scores in the critical care domain. This finding supports the need for participants in Residency C to have more opportunity to perform tasks related to caring for critically ill

patients. Although not statistically significant, participants in Residency C would benefit from more opportunities to perform tasks related to caring for critically ill patients and in planning and evaluating patient care. Although there was a negative correlation in the planning/evaluation domain for both residency programs, participants in Residency C demonstrated a lower mean in this area as well. Participants in Residency C would again benefit from more opportunities to perform tasks related to planning and evaluating patient care. These findings again support the novice-to-expert model that NLRNs need time and opportunity to gain experience (Benner, 1984).

Research findings based on the query how well. The research question examined whether there was a significant difference between the type of nurse residency program the NLRN participated in and self-reported performance on the six subscale scores that evaluated the query how well. Results of the Mann-Whitney U test revealed the type of nurse residency program in which the NLRN participated was not statistically significant to how well the NLRN performed the item within the subscale dimensions themselves. This finding was somewhat surprising because participants in Residency A had a formalized curriculum that extended throughout the year and the assumption would have been the NLRNs participating in this type of residency program would have more time and opportunity to perform the tasks evaluated on the SDNP survey. The question that now arises is what made the difference? What components are important?

Results from the point-biserial correlation did not support the null hypothesis either. There was not a significant correlation between the type of nurse residency and performance on the six subscales: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional

development. However, the negative correlations within the critical care and planning/evaluation domains demonstrate similar findings for the research question as it relates to how often they perform a specific task within either of these domains. Participants in Residency C may again need more time and opportunity to perform these tasks in order demonstrate better performance in these two domains. These findings suggest NLRNs need more opportunities in providing critical care to patients and in planning and evaluating patient care.

Both NLRN nurse residency groups demonstrated the lowest mean scores in the teaching/collaboration domain. The findings suggest all NLRNs need more opportunity to educate individuals, families, or groups. They also need more opportunity to work within an interdisciplinary environment to meet the needs of individuals and groups. Despite the fact that these findings were not statistically significant, they did provide important information about the experiential needs of NLRNs. The findings corroborate what the literature has noted; NLRNs need experiential opportunities to transition into the practice environment and progress on the novice-to-expert continuum. The findings do not support the need for one specific type of nurse residency program; rather they support the need to include specific components within the domains of critical care, planning/evaluation, and teaching/collaboration in transition to practice experiences.

Participants in Residency C demonstrated the highest mean and least variability in the professional development dimension. As noted previously, this group included a majority of NLRNs who earned either an associate of science degree, associate of applied science degree, or diploma in nursing.

Integration of the Findings with Previous Literature

Newly licensed RN performance continues to be multifaceted and not specific to a predefined skillset; rather it incorporates components in performing specific technical skills, making sound clinical judgments, leading and managing patient care situations, communicating and working within the healthcare team, and demonstrating professionalism (Berkow, Virkstis, Stewart, & Conway, 2009; Etheridge, 2007; Fink, Krugman, Casey, & Goode, 2008; Schwirian, 1978). In order to better understand the phenomenon of nursing performance as defined by the Six Dimension Scale of Nursing Performance, studies that utilized the SDNP were reviewed (Failla, Maher, & Duffy, 1999; Klein & Fowles, 2009; Roud, Giddings, & Koziol-McLain, , 2005; Vanetzian & Higgins, 1990) and compared to this study. A review of these studies revealed mixed results of self-reported performance using the SDNP.

Roud et al. (2005) reported significant increases in both the frequency (how often) and the quality (how well) of NLRN performance from seven weeks to seven months post entry into practice. The authors noted the most significant increase in the frequency of the leadership domain from scores at seven weeks compared to scores at seven months (Roud et al., 2005). Since this study did not evaluate performance at two different time intervals, this study's findings cannot speak to changes over time. The lack of data at two different intervals is noted as a limitation of this study and will be addressed in the limitations section. This study did, however, note a mean score difference of .45 between participants in Residency A ($M = 3.60$) and those in Residency C ($M = 3.15$). The findings by Roud et al. (2005) suggest both length of time and frequency increase competency within this domain. The question arises if NLRNs in Residency C had

enough time and opportunity to perform the tasks related to the leadership domain would there be a significant increase in their mean scores. This question will be discussed further as a recommendation for further study.

Vanetzian and Higgins (1990) also noted significantly higher performance scores in all the six subscales at one-year post graduation versus six months post graduation. The highest mean change occurred in the planning/evaluation subscale (Vanetzian & Higgins, 1990). Since this study cannot speak to changes over time, the two types of nurse residency programs were compared to this study. Although both groups of NLRNs reported very similar mean scores in the planning/evaluation subscale, NLRNs in Residency C's mean scores were slightly lower with greater variability. Their frequency scores showed they had ample opportunity to perform these tasks, yet NLRNs in Residency C had lower mean scores than those NLRNs in Residency A for the query how often. Although the comparison between the two nurse residency programs did not demonstrate a significant difference between the two, the scores in the planning/evaluation subscale showed the most difference between the two programs. They also demonstrated a negative correlation, which leads to the conclusion NLRNs in Residency C would benefit from more opportunity to perform the tasks in the planning/evaluation subscale. As noted by Vanetzian and Higgins (1990), opportunity over time to perform tasks within the planning/evaluation subscale increased scores; therefore, NLRNs in Residency C would benefit from having more time to perform tasks related to planning/evaluation. This information supports Benner's novice-to-expert model, which notes time and opportunity are needed to increase expertise (Benner, 1984)

and leads to the conclusion that NLRNs need a minimum of 12 months of time and opportunity in their transition to practice programs.

Failla et al. (1999) found interesting results when comparing graduate scores to six months post graduation scores within the planning/evaluation subscale. There was an inverse relationship of self-evaluation scores at six months post graduation (Failla et al., 1999). A similar inverse relationship was noted in this study; NLRNs in Residency C demonstrated lower scores than those in Residency A. This information leads one to believe the NLRNs in Residency C would benefit from more time and opportunity to perform items in the planning/evaluation subscale.

Klein and Fowles (2009) noted a significant inverse relationship between student age and the subscales scores in leadership, critical care, and teaching/collaboration. Roud et al. (2005) noted a mean change in the leadership domain as well. Although age was not compared to NLRNs' performance in this study, it is interesting to note NLRNs in Residency A had lower mean scores in the leadership subscale score for the query how well; however, their mean scores were higher when queried how often they performed the task. The question arises, why the difference and what are those differences?

Implications of the Findings

Although this study did not uncover significant differences in NLRN performance based on participation in a specific nurse residency program, the findings did reveal that NLRNs self-reported scores were lower in certain subscales. A discussion of these findings and their implications on nursing education, nursing practice, nursing research, and public policy ensues.

Implications for Nursing Education

The findings of this study are important to nursing education and provide opportunity for change within the academic arena, thus providing an easier transition to the practice environment. As noted in Chapter One, there is a need to address the preparation-practice gap that exists in pre-licensure RN programs (Benner, Sutphen, Leonard, & Day, 2010; Berkow et al., 2009). Evidence-based components for success in the transitional process are not well defined (Spector et al., 2015). Although no significant differences were found in this study, it is important to note that mean differences were lower for NLRNs who participated in Residency A and how well the NLRN performs in the leadership domain. Specifically, these tasks speak to delegation, guidance within the healthcare team, accepting responsibility for those under their direction, and remaining open to suggestions from those under their direction (Schwirian, 1978). Of interest is the fact those NLRNs in Residency A were educated at the baccalaureate level, whereas the majority of NLRNs in Residency C were educated at the associate degree or diploma level. This suggests baccalaureate-prepared nurses do not necessarily have a better skillset for performing leadership related tasks. Inclusion of leadership opportunities that build upon delegation and guidance would be beneficial to include in all pre-licensure nursing curricula.

The findings revealed participants in Residency C demonstrated lower scores in the planning/evaluation subscale; this information suggests it is important to ensure students are afforded opportunities to plan and evaluate patient care. Not only do they need the opportunity to plan individualized care, they need to be able to anticipate changes and prioritize care based on those changes; they also need to work with others

when planning care (Schwirian, 1978). Specifically, they need the time and opportunity to do so. This time and opportunity allow them to move from the novice to advanced beginner stage (Benner, 2004).

The findings also revealed participants in Residency C demonstrated lower scores than their counterparts in Residency A on the critical care subscale scores. All students need the opportunity to do technical procedures, use certain mechanical devices, and function competently when caring for a dying patient or one with an emergency situation (Schwirian, 1978). Nursing programs, especially those preparing those at the associate degree or diploma level, need to ensure students have the time and opportunity to perform skills related to the critical care domain. The inclusion of such preparation will address the preparation-practice gap and utilize evidence-based components necessary for a successful transition into the practice environment (Benner et al., 2010; Berkow et al., 2009 Spector et al., 2015).

Implications for Nursing Practice

The implications addressed in the section for nursing education can assist NLRNs as they enter the practice environment. However, it does not mean nursing programs must take on the entire task to better prepare NLRNs as they transition into practice. Nursing practice must recognize the need for transition to practice experiences that are more tailored toward the needs of the individual NLRN. Although no significant differences were noted, this study revealed NLRNs who participated in the two different types of nurse residency programs continue to need support in areas related to critical care, leadership, and planning/evaluation. Often budgetary constraints impact the time frame and the specific experiences nurse residents are afforded (Bratt & Felzer, 2011; Kowalski

& Cross, 2010; Spector et al., 2015). Nursing practice needs to ensure NLRNs have the time and the opportunity to become competent in the aforementioned areas.

Valdez (2008) and Welding (2011) noted NLRNs who experience failure within the practice environment, due to the inability to provide safe patient care, may increase NLRN turnover rates. Implementing effective nurse residency programs will lead to a more stable workforce that is able to succeed in the practice environment, thus improving retention.

Implications for Nursing Research

This study provides implications for nursing research. Previous studies have alluded to areas of strength and weakness that NLRNs possess; however, essential components in nurse residency programs were not fully delineated (Barnett et al., 2014; Spector et al., 2015). Even though they were not statistically significant, the findings in this study did demonstrate that NLRNs' self-reported scores were lower in certain subscales of the SDNP. Although limited, this study provides information toward defining the more specific components necessary for a successful NLRN transition to the practice environment.

Numerous benefits are associated with nurse residency programs, such as increased retention rates, support/satisfaction among NLRNs, and improved competency and critical thinking (Rush et al., 2013). The findings of this study provided information regarding NLRN areas of weakness, which, if strengthened, would improve competency and critical thinking. As noted previously, new nurses with limited support incur more errors and utilize negative practices (Spector et al., 2015). Utilizing the information provided in this study, such as increasing opportunities with more time to do so may

impact NLRNs critical care ability. This would in turn affect their critical thinking; as a result it would decrease the number of errors and increase the use of safe patient care practices. NLRNs would learn to plan and evaluate care more effectively, which in turn would increase patient safety. Their ability to lead more effectively would again lead to better patient safety practices, thus reducing errors.

Implications for Public Policy

Goode, Lynn, Krsek, and Bednash (2009) found healthcare organizations believe nurse residency programs are expensive, thus cost prohibitive. The implications of this study provide important information to support the need for nurse residency programs for newly licensed RNs. Barnett, Minnick, and Norman (2014) noted it is important to provide consistent information when gaining nursing policy support. The findings in this study support the need to offer consistent transitional components in all nurse residency programs. NLRNs need time and opportunity to develop competency in critical care, leadership, and in planning/evaluating nursing care. The inclusion of similar standards in nurse residency programs ensures credentialing requirements are met and maintained (ANCC, 2015; CCNE, 2015). One of the requirements to receive pass-through dollars from the CMS is that of national accreditation (Goode et al., 2009). The information in this study supports the need to include consistent components in all nurse residency programs. All NLRNs need the time and opportunity to build their skill sets in critical care, leadership, and in planning/evaluating patient care.

Limitations

Although the purpose of the study was supported by the literature, the findings of this study did not reveal significant differences in NLRN performance one-year post hire

after participation in three different nurse residency programs. There were several limitations to the study. Most notably, the small sample size decreased the effectiveness of the study, which impacted the ability to identify any significant strength between the variables (Polit & Beck, 2017). There were many factors that may have affected the ability to meet the projected sample size. Factors such as organization willingness, participants' willingness to answer the surveys, and multi-site studies were noted as limitations for this study.

Recruitment efforts involved contacting many organizations, and while there seemed an initial interest in the study, many organizations were unwilling to participate. One organization noted the lack of time because of other circumstances within the organization. Another organization was concerned with the number of surveys nurses were already submitting.

Once presented with the study and the importance of the work being conducted, NLRNs did not answer the surveys. As noted with Residency B, there were 120 potential participants contacted by the gatekeeper for this site; however, only one NLRN answered the survey. It is not known if the emails were received or opened by the NLRNs. One might speculate the NLRNs may be too overwhelmed with the number of surveys they are asked to submit or they do not trust the validity of requests for these surveys.

This study was intended to be a multi-site study. Once organizations were willing to participate, there were requirements for multiple IRB submissions. Each IRB submission had different requirements, and one organization required additional information prior to authorizing the study. A delay in access to potential participants

occurred because of these multiple IRB submission requirements. As Lewis et al. (2014) noted a smooth process for multisite IRB approval would benefit the research process.

Each of these limitations impacted the results of this study and provided unique roadblocks that will need to be addressed prior to further studies. Ultimately, the nursing profession needs to ensure researchers are afforded the ability to conduct important and relevant research in order to improve patient care outcomes and improve the transition to practice experience for all NLRNs. Future studies depend on the willingness of all potential participants to provide the necessary information.

Recommendations for Future Research

The need for future research to identify elements that provide effective transition to practice experiences for all NLRNs continues. The following recommendations are made. The need exists to identify which NLRN nurse residency components are necessary for the successful transition to practice for those nurses who earned a baccalaureate degree and for those nurses who earned an associate degree or a diploma in nursing. There may be different needs based on their pre-licensure preparation. A comparison of these two groups of NLRNs would provide important information to strengthen their transition to practice experiences. A qualitative study to investigate their opinions on essential components may provide researchers with specific themes to make the transition to practice experience more unique to their individual pre-licensure preparation.

It is important to identify the type of support NLRNs and nursing students need to increase their skill sets in the domains of critical care, leadership, and planning/evaluation. A comparative study between these two groups would provide

insight into the type of support either of these groups need, and it would further enhance their transition to the practice environment.

Further study is needed to identify factors that impede recruitment and participation in studies. These factors needed to be identified at both the organizational and the individual level. A qualitative study to understand phenomena that affect participation may provide insight into the lack of participation from both an organizational and an individual standpoint.

It is also important to identify factors that would provide a mechanism to decrease the number of IRB applications for a multi-site study. The ability to provide an approach that is acceptable to various institutions would afford researchers access to not only a larger group of participants but also to a more diverse group of potential participants (Polit & Beck, 2017). A phenomenological study using focused groups would provide beneficial information to identify components required by all institutional review boards.

Chapter Summary

This analysis provided insight into nurse residency programs and future needs related to those programs. By understanding what these NLRNs currently know about their performance, appropriate efforts can be made to support their experiences as they transition into practice. Newly licensed RNs need opportunities to develop competence within the practice environments. Nurse residency programs are a necessary component of the transition to practice experience. They not only facilitate acclimation to the practice environment, they provide the necessary support NLRNs need to become competent practitioners. Although the study findings did not demonstrate significant findings in regard to specific differences within different nurse residency programs, the

study did provide support for previously conducted studies. It was able to begin to identify essential components that facilitate a smooth transition from student to practicing RN. Ideally, the information gleaned from this research will positively impact nursing education, nursing practice, nursing research, and public policy. It may spark more research in the transition to practice experience and provide both nursing education and nursing practice with the tools they need to educate and transition nurses into a chaotic and unknown healthcare environment.

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Appendix A

NOVA Southeastern University IRB Approval

NOVA SOUTHEASTERN UNIVERSITY
Office of Grants and Contracts
Institutional Review Board

NSU

MEMORANDUM

To: Patricia P. Lawson
Health Professions Division – College of Nursing

From: Jo Ann Kleier, PhD, EdD, ARNP
Institutional Review Board
Signature

Date: February 11, 2016

Re: *The Transition to Practice Experience: The Impact on Newly Licensed RN Performance*

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

1) CONSENT: If recruitment procedures include consent forms these must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.

2) ADVERSE EVENTS/REACTIONS: The principal investigator is required to notify the IRB chair and me (954-262-5369 and 954-262-1978 respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: Protocol File
Office of Grants and Contracts (if study is funded)

3301 College Avenue • Fort Lauderdale, FL 33314-7796 • (954) 262-5369
Fax: (954) 262-3977 • Email: [illegible] • Web site: www.nova.edu/cwis/ogc

Appendix B

Template Site Approval Letter from Healthcare Organizations

[*Printed on official letterhead- if available]*

Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314-7796

Subject: Site Approval Letter

To whom it may concern:

This letter acknowledges that I have received and reviewed a request by *Patricia P. Lawson* to conduct a research project entitled "*The Transition to Practice Experience: The Impact on Newly Licensed RN Performance"* at [*site name*] and I approve of this research to be conducted at our facility.

When the researcher receives approval for his/her research project from the Nova Southeastern University's Institutional Review Board/NSU IRB, I agree to provide access for the approved research project. If we have any concerns or need additional information, we will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

[*name of senior administrator*]
[*position/title*]
[*phone/email*]

Appendix C

Template Site Approval Letter from Pre-Licensure Programs

[*Printed on official letterhead- if available]*

Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314-7796

Subject: Site Support Letter to Act as Gatekeeper for a Research Study

My response to this email acknowledges that I have received and reviewed a request by Patricia P. Lawson to assist in her research study by acting as the gatekeeper or identifying someone within the pre-licensure nursing program who will send an email to the 2015 graduating class to recruit participants for a research project entitled "*The Transition to Practice Experience: The Impact on Newly Licensed RN Performance".*

I support the request from Patricia P. Lawson for her research study. I will act as the gatekeeper for this study or I will identify someone within the RN pre-licensure program to act as gatekeeper for this study.

If we have any concerns or need additional information, we will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

[*name of senior administrator*]
[*position/title*]
[*phone/email*]

Appendix D

Letter of Introduction to Potential Participants

Dear Participant,

My name is Patricia Lawson and I am a doctoral student at Nova Southeastern University. I am currently conducting a research study as part of the requirement in completing my Doctor of Philosophy degree in Nursing Education within the College of Nursing. The purpose of this study is to gather information that will enhance the transition to practice experience for newly licensed registered nurses. The study will look at newly licensed registered nurses with a minimum of one-year experience within their current place of employment and identify important components that will improve the newly licensed RN's first work experience after completing a nurse residency program.

If you agree to participate, you will be asked to complete a survey via the link included in this email. This survey will help identify the strengths and weaknesses of newly licensed RNs and the type of experiences the newly licensed RN may need to practice independently within their specific work environment. The survey will take approximately 15 minutes to complete and is preceded by your intent to participate.

Risks/Benefits to the Participant: There may be minimal risk involved in participating in this study. There are no direct benefits to for agreeing to be in this study. Please understand that although you may not benefit directly from participation in this study, you have the opportunity to enhance knowledge necessary to select and pair mentors to beginning teachers and also the type of training needed by veteran teachers in order to meet the needs of beginning teachers. If you have any concerns about the risks/benefits of participating in this study, you can contact the investigators and/or the university's human research oversight board (the Institutional Review Board or IRB) at the numbers listed above.

Cost and Payments to the Participant: There is no cost for participation in this study. Participation is completely voluntary and no payment will be provided.

Confidentiality: Information obtained in this study is strictly confidential unless disclosure is required by law. All data will be secured in a locked filing cabinet. Your name will not be used in the reporting of information in publications or conference presentations.

Participant's Right to Withdraw from the Study: You have the right to refuse to participate in this study and the right to withdraw from the study at any time without penalty.

I have read this letter and I fully understand the contents of this document and

voluntarily consent to participate. All of my questions concerning this research have been answered. If I have any questions in the future about this study they will be answered by the investigator listed above or his/her staff.

I understand that the completion of this questionnaire implies my consent to participate in this study.

Sincerely,

Patricia P. Lawson, MSN, RN
Doctoral Candidate
Nova Southeastern University
College of Nursing

Appendix E

Permission to Use the Six-Dimension Scale of Nursing Performance

Patricia. I'm pleased that you have found my dear old Six-D Scale useful in your research. When I get back to my other computer I'll send you a copy of the form as I have used it. I'll Also send along the original article you will need for scoring and interpretation. You have my permission to update items as appropriate..especially in the critical care subscale.

Pms

Sent from my iPad
Patricia M. Schwirian, PhD, RN
Professor Emeritus
The Ohio State University College of Nursing
schwirian.1@osu.edu
Tele: (614) 488-2830
FAX: (614) 488-4740

On Oct 9, 2014, at 2:19 PM, "Patricia Lawson" <pl392@nova.edu> wrote:

Good Afternoon Dr. Schwirian,

I am a doctoral student at Nova Southeastern University College of Nursing and am in the process of writing my research proposal. My research interest lies in newly licensed RN performance following a transitional program within their healthcare organization. I hope to begin data collection by mid spring or early summer 2015.

In looking at survey instruments that apply to newly licensed RNs' performance, the Six-D Scale is very appropriate and provides valuable information regarding their performance. With your permission, I would like to use the Six Dimension Scale of Nursing Performance as the instrument for my study. I would be honored to use the Six-D Scale to further enhance the science of nursing education.

Sincerely,

Patricia P. Lawson, MSN, RN
Nova Southeastern University
College of Nursing

Appendix F

Original SIX DIMENSION SCALE OF NURSING PERFORMANCE

Patricia M. Schwirian, Ph.D., R.N.
The Ohio State University College of Nursing
1585 Neil Avenue - Columbus, OH 43210

Instructions: The following is a list of activities in which nurses engage with varying degrees of frequency and skill.

1. **IN COLUMN A:** please enter the number that best describes how often the nurse performs the activities in the performance of his/her current job.
2. **IN COLUMN B:** for those activities that the nurse does perform please enter the number that best describes how well he/she performs them.

PLEASE USE THE KEY AT THE TOP OF EACH COLUMN

COLUMN A How often does this nurse perform these activities in his/her current job?	**COLUMN B** How well does this nurse perform these activities in his/her current job?
1- Not expected in this job	1- Not very well
2- Never or seldom	2- Satisfactorily
3- Occasionally	3- Well
4- Frequently	4- Very Well

	Column A	**Column B**
1. Teach a patient's family members about the patient's needs.		
2. Coordinate the plan of nursing care with the medical plan of care.		
3. Give praise and recognition for achievement to those under his/her direction		
4. Teach preventive health measure to patients and their families.		
5. Identity and use community resources in developing a plan of care for a patient and his/her family.		

	Column A	Column B
6. Identify and include in nursing care plans anticipated changes in patient's conditions.		
7. Evaluate results of nursing care.		
8. Promote the inclusion of patient's decision and desires concerning his/her care.		
9. Develop a plan of nursing care for a patient.		
10. Initiate planning and evaluation of nursing care with others.		
11. Perform technical procedures: e.g. oral suctioning, tracheostomy care, IV therapy, catheter care, dressing changes.		
12. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background and sensory deprivation.		
13. Identify and include immediate patient needs in the plan of nursing care.		
14. Develop innovative methods and materials for teaching patients.		
15. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.		
16. Seek assistance when necessary.		
17. Help a patient communicate with others.		
18. Use mechanical devices: e.g., suction machine, Gomco, cardiac monitor, respirator		
19. Give emotional support to family of dying patient.		
20. Verbally communicate facts, ideas, and feelings to other health care team members.		
21. Promote the patients' rights to privacy.		
22. Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.		
23. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel.		
24. Explain nursing procedures to a patient prior to performing them.		

	Column A	Column B
25. Guide other health team members in planning for nursing care.		
26. Accept responsibility for the level of care under his/her direction.		
27. Perform appropriate measures in emergency situations.		
28. Promote the use of interdisciplinary resource persons.		
29. Use teaching aids and resource materials in teaching patients and their families.		
30. Perform nursing care required by critically ill patients.		
31. Encourage the family to participant in the care of the patient.		
32. Identify and use resources within the health care agency in developing a plan of care for a patient and his/her family.		
33. Use nursing procedures as opportunities for interaction with patients.		
34. Contribute to productive working relationships with other health team members.		
35. Help a patient meet his/her emotional needs.		
36. Contribute to the plan of nursing care for a patient.		
37. Recognize and meet the emotional needs of a dying patient.		
38. Communicate facts, ideas, and professional opinions in writing to patients and their families.		
39. Plan for the integration of patient needs with family needs.		
40. Function calmly and competently in emergency situations.		
41. Remain open to the suggestions of those under his/her direction and use them when appropriate.		
42. Use opportunities for patient teaching when they arise.		

The following PROFESSIONAL DEVELOPMENT behaviors should be evaluated in terms of quality only--i.e. COLUMN B.

	Column A	Column B
43. Use learning opportunities for ongoing personal and professional growth.		
44. Display self-direction.		
45. Accept responsibility for own actions.		
46. Assume new responsibilities within the limits of capabilities.		
47. Maintain high standards of performance.		
48. Demonstrate self-confidence.		
49. Display a generally positive attitude.		
50. Demonstrate a knowledge of the legal boundaries of nursing.		
51. Demonstrate knowledge in the ethics of nursing.		
52. Accept and use constructive criticism.		

****

Note: Further information regarding the development, use and scoring of the Six Dimension Scale of Nursing Performance can be found in: Schwirian, P.M. (1978). Evaluating the performance of nurses: A multi-dimensional approach. *Nursing Research, 27*, 347-351. Used with permission.

pms 7/22/91

Appendix G

Modified Six Dimension Scale of Nursing Performance
With Demographic Data

Demographic Data

Instructions: Please provide responses to the following questions:

1. Age:
2. Initial Pre-licensure Degree Obtained: *ADN /ASN BSN Diploma*
3. Graduation Date:
4. First Day of Employment:

Instructions: The following is a list of activities in which nurses engage with varying degrees of frequency and skill.

3. **IN COLUMN A:** please enter the number that best describes how often the nurse performs the activities in the performance of his/her current job.
4. **IN COLUMN B:** for those activities that the nurse does perform please enter the number that best describes how well he/she performs them.

PLEASE USE THE KEY AT THE TOP OF EACH COLUMN

COLUMN A How often does this nurse perform these activities in his/her current job?	**COLUMN B** How well does this nurse perform these activities in his/her current job?
5- Not expected in this job	5- Not very well
6- Never or seldom	6- Satisfactorily
7- Occasionally	7- Well
8- Frequently	8- Very Well

	Column A	Column B
1. Teach a patient's family members about the patient's needs.		
2. Coordinate the plan of nursing care with the medical plan of care.		
3. Give praise and recognition for achievement to those under his/her direction		
4. Teach preventive health measure to patients and their families.		
5. Identity and use community resources in developing a plan of care for a patient and his/her family.		
6. Identify and include in nursing care plans anticipated changes in patient's conditions.		
7. Evaluate results of nursing care.		
8. Promote the inclusion of patient's decision and desires concerning his/her care.		
9. Develop a plan of nursing care for a patient.		
10. Initiate planning and evaluation of nursing care with others.		
11. Perform technical procedures: e.g. oral suctioning, tracheostomy care, IV therapy, catheter care, dressing changes.		
12. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background and sensory deprivation.		
13. Identify and include immediate patient needs in the plan of nursing care.		
14. Develop innovative methods and materials for teaching patients.		
15. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.		
16. Seek assistance when necessary.		
17. Help a patient communicate with others.		
18. Use mechanical devices: e.g., suction machine, cardiac monitor, respirator		
19. Give emotional support to family of dying patient.		

	Column A	Column B
20. Verbally communicate facts, ideas, and feelings to other health care team members.		
21. Promote the patients' rights to privacy.		
22. Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.		
23. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel.		
24. Explain nursing procedures to a patient prior to performing them.		
25. Guide other health team members in planning for nursing care.		
26. Accept responsibility for the level of care under his/her direction.		
27. Perform appropriate measures in emergency situations.		
28. Promote the use of interdisciplinary resource persons.		
29. Use teaching aids and resource materials in teaching patients and their families.		
30. Perform nursing care required by critically ill patients.		
31. Encourage the family to participant in the care of the patient.		
32. Identify and use resources within the health care agency in developing a plan of care for a patient and his/her family.		
33. Use nursing procedures as opportunities for interaction with patients.		
34. Contribute to productive working relationships with other health team members.		
35. Help a patient meet his/her emotional needs.		
36. Contribute to the plan of nursing care for a patient.		
37. Recognize and meet the emotional needs of a dying patient.		
38. Communicate facts, ideas, and professional opinions in writing to patients and their families.		

	Column A	Column B
39. Plan for the integration of patient needs with family needs.		
40. Function calmly and competently in emergency situations.		
41. Remain open to the suggestions of those under his/her direction and use them when appropriate.		
42. Use opportunities for patient teaching when they arise.		

The following PROFESSIONAL DEVELOPMENT behaviors should be evaluated in terms of quality only--i.e. COLUMN B.

	Column A	Column B
43. Use learning opportunities for ongoing personal and professional growth.		
44. Display self-direction.		
45. Accept responsibility for own actions.		
46. Assume new responsibilities within the limits of capabilities.		
47. Maintain high standards of performance.		
48. Demonstrate self-confidence.		
49. Display a generally positive attitude.		
50. Demonstrate a knowledge of the legal boundaries of nursing.		
51. Demonstrate knowledge in the ethics of nursing.		
52. Accept and use constructive criticism.		

****

Note. Adapted from the Original Six-Dimension Scale of Nursing Performance by P. M. Schwirian. Adapted with permission.

Appendix H

Six Dimension Scale of Nursing Performance Grouped According to Subscale and Item Number

Subscale	Item Number	Survey Item
Leadership	3	Give praise and recognition for achievement to those under his/her direction.
	23	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel.
	25	Guide other health team members in planning for nursing care.
	26	Accept responsibility for the level of care under his/her direction.
	41	Remain open to the suggestions of those under his/her direction and use them when appropriate.

(Continues)

Critical Care	11	Perform technical procedures: e.g. oral suctioning, tracheostomy care, IV therapy, catheter care, dressing changes.
	18	Use mechanical devices: e.g., suction machine, cardiac monitor, respirator.
	19	Give emotional support to family of dying patient.
	27	Perform appropriate measures in emergency situations.
	30	Perform nursing care required by critically ill patients.
	37	Recognize and meet the emotional needs of a dying patient.
	40	Function calmly and competently in emergency situations.
Teaching/Collaboration	1	Teach a patient's family members about the patient's needs.
	4	Teach preventive health measure to patients and their families.

(Continues)

5	Identity and use community resources in developing a plan of care for a patient and his/her family.
12	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background and sensory deprivation.
14	Develop innovative methods and materials for teaching patients.
28	Promote the use of interdisciplinary resource persons.
29	Use teaching aids and resource materials in teaching patients and their families.
31	Encourage the family to participant in the care of the patient.
32	Identify and use resources within the health care agency in developing a plan of care for a patient and his/her family.

(Continues)

	38	Communicate facts, ideas, and professional opinions in writing to patients and their families.
	39	Plan for the integration of patient needs with family needs.
Planning/Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.
	6	Identify and include in nursing care plans anticipated changes in patient's conditions.
	7	Evaluate results of nursing care.
	9	Develop a plan of nursing care for a patient.
	10	Initiate planning and evaluation of nursing care with others.
	13	Identify and include immediate patient needs in the plan of nursing care.
	36	Contribute to the plan of nursing care for a patient.
IPR/Communication	8	Promote the inclusion of patient's decision and desires concerning his/her care.

(Continues)

15	Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.
16	Seek assistance when necessary.
17	Help a patient communicate with others.
20	Verbally communicate facts, ideas, and feelings to other health care team members.
21	Promote the patients' rights to privacy.
22	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.
24	Explain nursing procedures to a patient prior to performing them.
33	Use nursing procedures as opportunities for interaction with patients
34	Contribute to productive working relationships with other health team members.

(Continues)

	35	Help a patient meet his/her emotional needs.
	42	Use opportunities for patient teaching when they arise.
Professional Development	43	Use learning opportunities for ongoing personal and professional growth.
	44	Display self-direction.
	45	Accept responsibility for own actions.
	46	Assume new responsibilities within the limits of capabilities.
	47	Maintain high standards of performance.
	48	Demonstrate self-confidence.
	49	Display a generally positive attitude.
	50	Demonstrate a knowledge of the legal boundaries of nursing.
	51	Demonstrate knowledge in the ethics of nursing.
	52	Accept and use constructive criticism.

Note. Adapted from "Evaluating the Performance of Nurses: A Multidimensional Approach," by P. M. Schwirian, 1978, *Nursing Research, 27*(6), p. 349.