The Effect of Nurse Residency Structure on Novice Navy Nurse Transition to Practice

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Abstract

Background and purpose. Nurse Residency Programs (NRPs) have been shown to enhance transition experiences of new graduate nurses by influencing competence, confidence, job satisfaction, and intent to stay. NRPs administered across Navy Medicine treatment facilities currently have different operating procedures and program lengths, and it is currently unknown how variations in these programs affect transition experiences and outcomes of novice nurses. The purpose of this study was to determine how varying structural aspects of Navy NRPs affect the transition experiences, competence, perceived quality of care, and intent to stay of novice nurse participants.

Methods. A cross-sectional, correlational design, utilizing a web-based survey mode was used. The sample included all Navy Nurse Corps Officers who hold the ranks of Ensign and Lieutenant Junior Grade and completed a NRP in the last two years. The 120-item survey took approximately 60 minutes to complete and was designed to collect data on the following: (1) individual characteristics (2) organizational factors as measured by the Practice Environment Scale of the Nurse Work Index [PES-NWI]) (3) NRP structural characteristics (4) transition experience as measured by the Casey-Fink graduate Nurse Experience Survey [CFGNES], (5) nurse competence as measured by the Nurse Competence Questionnaire [NCQ], (6) intent to stay, and (7) perception of quality of care provided. Analysis was conducted using linear and logistic regression models. The level of significance was set at $p < 0.05$.

Findings. Transition experience was positively affected by the race of the individual, specifically African American, the accession source for commissioning into the Navy (Nurse Candidate Program and the Medical Enlisted Commissioning Program), and the practice environment. Significant structural aspects of the NRP attended which positively affected transition experiences were: fewer number of preceptors assigned to each nurse resident and the hospital type in which the NRP was completed. The practice environment was a predictor of positive transition outcomes (competence, organizational commitment, and perceived quality of care). However fewer preceptors predicted lower organizational commitment.

Discussion. This study demonstrated both direct and mediated effects of NRP structure variation on outcomes indicative of a successful transition in novice Navy Nurses, specifically competence, perceived quality of care provided, and organizational commitment.

Conclusions. This study highlights items that may be important to a successful Naval nurse transition to practice and positive transition outcomes. The practice environment, as demonstrated in this study, plays a significant role in transition to practice. Many sites may have a highly structured and long-standing Nurse Residency Program, but without a healthy practice environment, the transition experience may still be affected. Likewise, facilities with healthy practice environments often are supportive of training initiatives, such as NRPs. Clinical leadership that creates a healthy work environment has a greater influence of new nurse transition than the structure of the NRP.

Dedication

This dissertation is dedicated to my mother, Patricia Moyer See, who pushed me to be all that I am today. She was there when I took my first breath, and I was there when she took her last during the first semester when I first began this PhD journey. Mom, I miss you and wish you could be here to see me at the finish line. I would trade it all in a minute for one more hug or to share one more laugh with you. We will rejoice in Paradise some day.

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List of Abbreviations

AACN	American Association of Colleges of Nursing
ACGME	Accreditation Council for Graduate Medical Education
ANA	American Nurses Association
BUMED	Bureau of Navy Medicine
CCNE	Commission of Collegiate Nursing Education
CFGNES	Casey-Fink Graduate Nurse Experience Survey
DA	Direct Accession
DHA	Defense Health Agency
ENS	Ensign (O-1)
IOM	Institutes of Medicine
IRB	Institutional Review Board
LTJG	Lieutenant (junior grade) (O-2)
MECP	Medical Enlisted Commissioning Program
MTF	Military Treatment Facility
NCP	Nurse Candidate Program
NCQ	Nursing Competence Questionnaire
NCSBN	National Council of State Boards of Nursing
NNCO	Navy Nurse Corps Officer
NROTC	Naval Reserve Officer Training Corps
NRP	Nurse Residency Program
OCS	Organizational Commitment Scale

ODS	Officer Development School
PES-NWI	Practice Environment Scale of the Nurse Work Index
PTAP	Practice Transition Accreditation Program
QOC	Quality of Care
QSEN	Quality and Safety Education for Nurses
STA-21	Seaman-to-Admiral 21
TJC	The Joint Commission
TTP	Transition-To-Practice
UHC	University HealthSystems Consortium
VHA	Veteran's Health Administration

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Chapter 1: Introduction

Problem Scope

Eighty-nine percent of newly licensed RNs in the United States work in the hospital setting (National Council of State Boards of Nursing, 2009). In a civilian hospital, 10% of the staff is made up of new graduate nurses (Berkow, et. al., 2008). In a military hospital, over 50% of the staff are new graduate nurses (West, Patrician, & Loan, 2012). This means on inpatient nursing units in the Navy, there are more novice nurses than those with experience, which represents a concern for patient safety.

Like their civilian counterparts, new Navy nurses must learn the intricacies of patient care and being competent in the application of newly acquired knowledge and skills. However, new Navy nurses must additionally integrate into the Navy culture as commissioned Navy Nurse Corps Officers. This involves assuming greater leadership responsibilities in a limited amount of time. To address the difficulties that these new nurse graduates encounter as they transition into the workplace, Nurse Residency Programs (NRPs) have been implemented across the country and worldwide (Kramer, et. al., 2012; Bratt, 2013). In 2001, the Navy Nurse Corps implemented its inaugural NRP (Blanzola, 2004).

NRPs are planned, comprehensive periods of time during which new nursing graduates can acquire the knowledge and skills to deliver safe, quality care that meets defined standards of practice (Institutes of Medicine, 2010). There is abundant evidence to suggest NRPs are successful in supporting new

graduate nurses in their first year of employment (Newhouse, et. al., 2007; Halfer, et. al., 2008; Beecroft, et. al., 2006; Ulrich, et. al., 2010; Kowalski, et. al., 2010; Altier & Kresk, 2006; Krugman, et. al., 2007; Williams, et. al., 2007; Goode, et. al., 2009; Setter, et. al., 2010). NRPs have been influential in enhancing the transition experience as measured by enhanced critical thinking, nurse satisfaction, control over practice, autonomy, communication, collaboration, teamwork, confidence, clinical competency, and decreased burnout (Clylke, 2012; Goode, 2009; Kowalski, 2010; Krugman, 2006; Olson-Stitki, 2012; Casey-Fink, 2004; Blanzola, 2004). Additionally, the presence of NRPs have been associated with positive transition outcomes, such as recruitment, retention, promotion, continued education, program cost, and return on investment (ROI) (Altier, 2006; Beecroft, 2001; Beyea, 2010; Bratt, 2009 & 2010; Bullock, 2011). However, the exact composition of NRPs, to include contributions of their components and structure on these outcomes, have not been clearly defined or rigorously studied (Zizzo & Xu, 2009; Anderson, 2012).

The Institutes of Medicine (2010) specifically recommends that all health care organizations that offer NRPs evaluate their effectiveness in improving the retention of nurses, expanding competencies, and improving patient outcomes. Before the impact NRPs have on patient outcomes can be ascertained, it is essential to understand the structural differences among NRPs (Barnett, Minnick, & Norman, 2014).

Without a standardized NRPs in operation to compare, it is difficult to isolate the effects of NRPs as an intervention on nurse outcomes (Krause, 2010;

Anderson, 2012) as well as patient outcomes. While civilian NRPs are between six and 12-months in duration (Barnett, Minnick, & Norman, 2014), Navy NRPs range from eight weeks to 26 weeks (Navy Nurse Corps, 2014), nearly half of the civilian benchmark. In order to establish best practice for standardization, an investigation into how variation in NRP structure affects novice nurse transition to practice in the Navy is needed with follow on research investigating the transition to practice link to patient outcomes.

Specific Aims

The broad goal of this program of research is to provide a scientific foundation for improving patient outcomes through the development of interventions that better the transition experience of novice Navy nurses and the quality of nursing care provided. The purpose of this study was to examine the effect of NRP structure on the transition experiences of novice Navy nurses and to understand how variations in NRP structure may affect the difference in outcomes of a healthy transition in novice Navy nurses.

The *specific aims* for this study were:

1. To examine the effects of Navy NRP structure on the nursing transition experience of novice Navy nurses, controlling for individual and environmental factors.
2. Based on Specific Aim #1, to determine the direct and mediated effects of NRP structure variation on outcomes indicative of a successful transition in novice Navy nurses: mastery and well-being.

Research Questions

A correlational, cross-sectional design was used to address the following

research questions:

1. To what extent do individual and environmental conditions affect the relationship between NRP structure and the transition experience of novice Navy nurses?
2. To what extent does the structure of an NRP influence the transition experience of novice Navy nurses?
3. To what extent do transition experiences contribute to differences in transition outcomes among novice Navy nurses who have attended NRPs of varied structures?

The conceptual framework was adapted from *Transitions Theory* (Meleis, et. al., 2000). The study sample included Navy nurses who completed an NRP in the Navy within the last two years. The dependent variables were (1) transition experience and (2) outcomes of a healthy transition: mastery and well-being. Each structural component of NRPs was studied as an independent variable and was evaluated at the individual nurse level. Individual and environmental characteristics were included as covariates that may explain differences in transition experiences and outcomes. Analysis was conducted with linear and logistic regression to determine the impact of NRP structure on transition experience and outcomes in novice Navy nurses.

Importance of Research that Focuses on Navy NRPs

Prior research indicates that the presence of NRPs positively affect the transition experience of new nurse graduates and is associated with healthy transition outcomes. However, these studies have not examined the effects of

structural variation of NRPs or examined the contributions individual nurse or environmental characteristics have on the transition experience and outcomes that are indicative of healthy transitions. Decisions about facilitating a positive transition experience with regards to the amount of time and type of resources invested in an NRP needs to be evidence-based to meet the needs of nurses and patients they care for.

Importance for Nursing

Results from this research will assist nursing leadership in developing policy and interventions that will support transitions from nursing student to Registered Nurse, and more specifically, from civilian to a Navy Nurse Corps Officer. Nursing policy makers need to attend to the consistency of NRP requirement and resources if they desire to garner continued support for NRPs (Barnett, Minnick, & Norman, 2014). The value of NRPs in helping ready new graduates for practice has important implications for stakeholders at all levels of the organization.

In addition to multiple civilian regulatory bodies, such as the Joint Commission and the National Council of State Boards of Nursing, the Defense Health Agency has called for standardization, improving clinical and business processes across the Military Health System by reducing unwanted variation. In times of fiscal restraint, hospital administrators need to know what structural aspects of a NRP are the most beneficial to produce long-term returns on investment for nurses, patients, and the hospital organization (Rush, et. al., 2015).

Chapter 2: Background

Regulatory Standards for Nurse Residency Programs

Nurse Residency Programs (NRP) are planned, comprehensive periods of time during which nursing graduates can acquire the knowledge and skills to deliver safe, quality care that meets defined standards of practice (IOM, 2010). The need for and implementation of NRP can be traced back to the late 1970s (Kramer, 1974). Over the years, the complexity of patient disease processes and associated nursing care along with the measured effects nurses have on patient safety and outcomes have contributed to the need for a new transition to practice model (Aiken, Clarke, Sloane,Sochalski, & Silber, 2002; Agency for Healthcare Research and Quality, 2004; Myers et al., 2010; Harrison & Ledbetter, 2014). Recently, there has been a call for not only development of NRPs but the need for standardization in NRPs. The following is a brief overview of these regulatory expectations.

The Joint Commission

In 2002, the Joint Commission recommended the establishment of standardized post-graduate NRPs. The Joint Commission proposed that NRPs be the nursing equivalent of graduate medical education, which is funded in substantial part through the Medicare program and is standardized by discipline under the purview of the Accreditation Council for Graduate Medical Education (TJC, 2002). This was the first call to regulate NRPs. Having one accrediting body, as the accrediting agency for medical residencies is key to standardization of NRPs.

Institutes of Medicine

The recommendation for NRPs has also been endorsed in the 2009 Carnegie Study (Benner, Sutphen, Leonard, & Day, 2009) and most recently by the Institutes of Medicine's Future of Nursing report in 2010. The Institutes of Medicine specifically recommended that all health care organizations that offer NRPs evaluate their effectiveness in improving the retention of nurses, expanding competencies, and improving patient outcomes (IOM, 2010). Before the impact on patient outcomes can be ascertained, it is essential to understand if there are differences in and among NRPs (Barnett, Minnick, & Norman, 2014). Without a standardized NRP in operation, it is difficult to isolate the effects of NRPs as an intervention on the suggested outcomes (Krause, 2010).

National Council of State Boards of Nursing

The National Council of State Boards of Nursing serves to promote uniformity in relationship to the regulation of nursing practice. The National Council of State Boards of Nursing has recommended to state nursing boards the adoption of their Transition-to-Practice regulatory model, requiring new graduate nurses to provide their board of nursing with evidence of completing all the requirements of this standardized transition program in order to maintain their license after their first year in practice (NCSBN, 2011). The time period for the Transition-to-Practice is six months, though it is expected that the new graduate have ongoing support for an additional six months. The National Council of State Boards of Nursing is now conducting a longitudinal, multi-institutional and randomized study that investigates the effects the Transition-to-Practice model

has on patient safety and quality outcomes (NCSBN, 2014).

Some states are beginning to outline specific guidance to employers in their Nurse Practice Acts, such as requiring direct continued supervision for a period of six months for new graduates, prohibiting them from holding a position as a charge nurse during that time, or restricting practice from independent settings, such as home health for a period of 12-18 months (Texas Board of Nursing, 2006). New nurses seeking licensure in Kentucky must complete a supervised patient care experience with a licensed nurse for 120 hours, receiving a six-month temporary license to complete an NRP, and pass the licensure exam (Kentucky Board of Nursing, 2010). New graduates ideally need to be assigned to areas where there is less complex decision making during the first 12 months of practice, allowing for opportunity to transition to the new role (Phillips, 2014). Specialty areas are reserved for when graduates have a chance to consolidate their practice (Duchscher 2009; Dyess & Sherman, 2009).

American Nurses Credentialing Center

The American Nurses Credentialing Center, a subsidiary of the American Nurses Association, recently released their Practice Transition Accreditation Program™, which establishes standards for organizations offering NRPs that are at least 6 months in length to Registered Nurses with less than 12 months of experience. As this is a relatively new program, there is no data available with regards to who has been accredited. This represents yet another venue for organizations to implement standardized NRPs (ANCC, 2014).

University HealthSystems Consortium

The University HealthSystems Consortium is an alliance of the nation's leading nonprofit academic medical centers and their affiliated hospitals. The American Association of Colleges of Nursing works to establish quality standards for nursing. The UHC/AACN Residency Program was spearheaded by senior nursing executives with the goal of transitioning the novice learner from new graduate to more competent provider. Currently, 92 practice sites in 30 states offer the NRP, which is a year in length. The faculty and staff of the UHC institutions who developed the curriculum review it annually for updates and revisions (AACN, 2014).

Commission on Collegiate Nursing Education

The Commission on Collegiate Nursing Education (CCNE) falls under the American Association of Colleges of Nursing and is tasked with ensuring the quality and integrity of baccalaureate and graduate education programs. The Commission on Collegiate Nursing Education is formally recognized by the U.S. Department of Education as a national nursing-accrediting agency and serves the public interest by assessing and identifying programs that engage in effective educational practices (CCNE, 2014).

Representatives from the University HealthSystems Consortium, the American Association of Colleges of Nursing, and the Commission on Collegiate Nursing Education created a set of standards for the accreditation of post-baccalaureate nursing residencies (CCNE, 2008). Accreditation is a central requirement for reimbursement by the Centers for Medicare and Medicaid

Services of costs associated with the 1-year long residency and serves as a mechanism for assuring participating hospitals' differentiation from other, less rigorous offerings, which have emerged following the development of the UHC/AACN program (AACN, 2013). If the CCNE is the accrediting agency, then there should be only one standardized NRP, the *CCNE Standards for Post-Baccalaureate NRPs.*

Veterans Health Administration

As of July 2014, there were two Veterans Health Administration NRPs that are Commission on Collegiate Nursing Education accredited (AACN, 2014). The Veterans Health Administration has implemented its own NRP, the RN Transition-to-Practice Program, a comprehensive 12-month standardized curriculum designed to assist the post-graduate nurse in the transition from entry-level, advanced beginner nurse to competent professional RN (VHA, 2014). Availability of the RN Transition to Practice program varies by Veterans Health Administration facility, and accreditation through the CCNE is optional by site (VHA, 2011).

United States Navy Nurse Corps

Similar to the Veterans Health Administration, the United States Navy Nurse Corps has adopted the CCNE *Standards for Post-Baccalaureate NRPs,* allowing for the same content to be delivered to all facilities; however, none of them are accredited. This provides flexibility for each facility to implement the standardized program content using different structures, which will be discussed later.

Civilian Nurse Residency Program Variation

While these nursing organizations have all made great strides in developing standardized curriculum and establishing an accreditation process to ensure hospitals offering NRPs to their nurses are providing quality training that are standardized in accordance with the regulations outlined by the accrediting agency, each of these curricula differ from each other in terminology, theory, content, and structure, which does not meet the call from the Joint Commission over a decade a go to establish NRPs that are standardized.

To complicate matters, there are isolated, non-accredited, homegrown NRPs created at various hospitals and academic centers (Barnett, Minnick, & Norman, 2014). These programs also vary in terminology, theoretical framework, content, and structure and do not reflect any of the guidelines set for by the regulatory agencies that offer accreditation. With these variations, the NRP as an intervention may be the most unstable variable, introducing measurement and statistical error, and making determining the effectiveness of NRPs on new graduate nurses and assessing the outcomes of a successful transition from school to professional practice as a Registered Nurse extremely difficult (Anderson, et. al., 2012).

Differing Terminology

There is a lack of clarity or consistency in regulation, and thus research, with regards to terminology that describes programs that facilitate the transition from student to Registered Nurse (Laux, 2011). The term “transition program” or “transition-to-practice program” is used to describe the period between

graduation, beginning employment, and passing the licensure examination. They include internships, preceptorships, residencies, and post-orientation programs (McDonald & Ward-Smith, 2012).

Internships and preceptorships are often used interchangeably to represent specific education and training beyond orientation for a particular unit. They are between three and six months in duration and are the most commonly used form of orientation (Salt, 2008). Externships are precepted time during the final year of education, prior to graduation (McDonald & Ward-Smith, 2012). NRPs are similar to internships, but they are extended to one year and are not unit specific. Moreover, they are designed to meet the specific needs of new graduate nurses, regardless of where they are employed in the organization (Hansen, 2011).

Variations in Guiding Theoretical Frameworks

Research studies that focuses on NRPs as an intervention often do not have a clear description of the applied theoretical framework that is applied and tested, to include the relationship between the NRP intervention and the variables being used to measure program outcomes. There are multiple theories of transition that describe the way new graduate nurse enter the workforce and transition toward their professional zenith. Different hallmarks of transitioning to various stages in the transition process are defined using these theories. The most commonly utilized frameworks in research examining the impact of NRPs are Benner's (1982) Novice to Expert Skill Acquisition Model; Kramer's (1974) reality shock theory; Kolb's (1984) Experiential Learning Cycle; and various

adaptations of these theories to include Duchscher (2009)'s Stages of Transition model and Schoessler's Developmental Transition Model (2006).

A recent study utilized the Systems Research Organizational Model to examine effects of healthy unit work environments and NRPs on retention rates of new graduate nurses (Brewer, 2008; Kramer, 2012), but the model, which is based on Donabedian's Structure-Process-Outcomes theory (1966), is not derived from transition theory. Meleis' (2000) theory of transition provides a holistic understanding of transition, to include the conditions that influence the transition experience and how they relate to transition outcomes.

Content Variations

The Quality and Safety Education for Nurses (QSEN) project incorporates six foundational competencies for pre-licensure nurses that are incorporated in many NRP program curricula: patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics (QSEN, 2010; Hansen, 2011). The National Council of State Boards of Nursing curricula consist of five modules that are based on the same six QSEN competencies (NCSBN, 2010). The Commission of Collegiate Nursing Education standards focuses content to meet competence in three domains: leadership, patient outcomes, and professional role development (CCNE, 2008). ANCC Practice Transition Accreditation Program ™ content focuses on domains of leadership, organizational enculturation, development and design, practice-based learning, nursing professional development, and quality outcomes (ANCC, 2014). In addition to differences in content between accredited NRPs, there are

various facility-based, non-accredited programs that are developed with facility or organizational-specific missions or objectives in mind, and their content may be different as well.

Structural Variations

Program length. There are significant structural variations between NRPs. The most obvious structural difference is the program lengths, ranging from six months to 12 months. In order to identify the extent of treatment fidelity across programs, Barnett, Minnick, & Norman (2014) conducted a descriptive study of NRPs throughout the United States. A third of the NRPs were less than or equal to 12 weeks in duration and a majority (40%) of hospitals reported an NRP length of 52 weeks (Barnett, Minnick, & Norman, 2014). Military facilities were not included in this study. However, Navy NRPs range from eight to 26 weeks (Navy Nurse Corps, 2014), nearly half of the length of civilian NRP benchmark.

Allocated time. How the time of the NRP is divided to meet the content of the program also differs. Time spent providing direct patient care, participating in NRP-related activities, and unstructured professional-related activities are inconsistent between NRP's (Barnett, Minnick, & Norman, 2014; Harrison, 2014). The work hours per day or shifts worked while in the program also vary. In some NRPs, nurses work eight-hour shifts, while others work 12-hour shifts to match that of their preceptor, and some are a combination both shifts to meet weekly work hour requirements and incorporate class time (Harrison, 2014). Some programs involve nurses rotating to other areas in the hospital for a variety of

clinical experiences, while others are fixed, where nurses report to their assigned unit and that is their sole source of clinical experience (Parker, 2014).

Supernumerary time. Among hospitals with NRPs, almost all are optional for new nurses (Pittman, 2013). NRPs in the Navy are mandatory. Supernumerary time allocated for new graduates to become immersed in their new role without workload pressures is a standard NRP component (Adlam, et. al. 2009). However, the work hours of new graduates enrolled in the NRPs remain included in productivity data, which causes a push to get them as productive as possible in the shortest amount of time (Bevelacqua, 2012). This may explain why many hospitals have adopted NRP structures that are less than the recommended 12 months. The variation of NRP structures makes it difficult to determine independent contributions of NRPs to the new graduate's transition experience (Rush, 2013; Parker, 2014).

Outcomes Measured

While having a variety of NRPs allow for facilities to better meet their local needs, the overarching theme in the literature is that NRPs should be more consistent, efficient, and transparent, with more research needed using more objective and reliable outcome measures for nurses, patients, and the organization (Edwards, et al., 2011; Anderson, 2012; Rush, 2013; Parker, 2014). With regard to transparency, even in NRPs that are less than a year, project directors indicate that often support continues after the completion of the program (Spector, 2010). Another difference that makes comparison difficult across programs is the variation in constructs used for evaluation and the

instruments used to measure those constructs (Anderson, 2012).

There is abundant evidence to suggest NRPs are successful in supporting new graduate nurses in their first year of employment (Newhouse, et. al., 2007; Halfer, et. al., 2008; Beecroft, et. al., 2006; Ulrich, et. al., 2010; Kowalski, et. al., 2010; Altier & Kresk, 2006; Krugman, et. al., 2007; Williams, et. al., 2007; Goode, et. al., 2009; Setter, et. al., 2010). The presence of NRPs have been linked to positive outcomes associated with recruitment, retention, promotion, continued education, program cost, and return on investment (ROI) (Altier, 2006; Beecroft, 2001; Beyea, 2010; Bratt, 2009 & 2010; Bullock, 2011). Additionally, NRPs have been influential in enhancing the transition experience as measured by enhanced critical thinking, nurse satisfaction, control over practice, autonomy, communication, collaboration, teamwork, confidence, clinical competency, and decreased burnout (Clylke, 2012; Goode, 2009; Kowalski, 2010; Krugman, 2006; Olson-Stitki, 2012; Casey-Fink, 2004; Blanzola, 2004). However, the exact composition of NRPs, to include contributions of their components and structure, in relation to these outcomes have not been clearly defined or rigorously studied (Zizzo & Xu, 2009; Anderson, 2012).

Navy Nursing: A Unique Population

As of March 2014, the Navy Nurse Corps is comprised of 2,932 active duty (employed full time as a nurse in the Navy), 1,255 reservists (are employed part-time in the Navy), and 1,783 federal, civilian RN (not active duty or reservists). Together, they are a unified and highly respected team of health care professionals, known for their unwavering focus on delivering outstanding

patient and family-centered care for active duty forces, their families, and the retired community. The clinical expertise and leadership of Navy nurses ensures a fit and ready fighting force vital to the success of Navy and Marine Corps operational missions at sea and on the ground. Navy nurses also play a key role in medical stability operations, deployment of hospital ships, large-deck amphibious vessels, and Humanitarian Assistance/Disaster Relief efforts around the globe. Navy Nurses are central to the provision of outstanding care and optimal patient outcomes for beneficiaries and wounded warriors here at home, serving in various clinical and leadership roles within our military treatment facilities and ambulatory care clinics.

Among the active duty Navy Nurse Corps Officer population, there are 420 nurses who hold the rank of Ensign (ENS), which is the lowest Officer rank (O-1) and currently comprises 14% of the entire active duty Navy Nurse Corps population. Classified as novices, nurses who hold the rank of ENS have less than two years of BSN prepared nursing experience, and some of them report to their first assignment so soon after completing nursing school that they have not had the opportunity to attain a license to practice as a Registered Nurse. Yet, these nurses are the predominant source of nursing care for the inpatient hospital units. These junior nurses are the bedrock of bedside clinical care in Navy hospitals, and they will become the senior Nurse Corps leaders of tomorrow.

Educational Preparation and Source of Commission

A BSN degree is the entry requirement to be a commissioned (granted

service acceptance) as an active duty Navy Nurse. While Navy Nurses all hold the same degree, there are a variety of routes (called accession sources) available for individuals to become a commissioned officer. To truly understand the transition process of the novice Navy Nurse, it is important to discuss how they enter Naval service.

Direct Accession. Direct Accession nurses enter directly from the civilian sector into the Navy with their BSN. These nurses are required to have a current state nursing license in good standing and commit from three to five years of active service. Some Direct Accession nurses have had previous Associate's Degree (prior to completing a BSN) or previous BSN prepared RN experience. These individuals receive no previous military training and report to Officer Development School, prior to their first assignment as a nurse. Officer Development School is a 5-week program designed to provide Navy nurses with training necessary to prepare them to function in their role as a newly commissioned Naval Officer. It provides a basic introduction into fundamental aspects of Naval leadership.

Nurse Candidate Program. The target population for the Nurse Candidate Program is nursing students who are enrolled in an accredited BSN program. These individuals commit to active duty service obligations 12–24 months prior to graduation. The students are accepted into the program no earlier than the beginning of their junior year in college and may or may not have received military training in their BSN studies. Some are attached to a Navy Reserve Officer Training Corps unit while they are in school, and depending on if

they did not received training on military science in their undergraduate studies, they attend Officer Development School.

Medical Enlisted Commissioning Program. The Medical Enlisted Commissioning Program is an avenue for entry in which individuals earn a BSN while remaining enlisted. While they are able to maintain their current pay and applicable allowances as an enlisted Sailor, candidates are required to pay for their education. It is permissible to use their GI Bill and any scholarships for which they qualify. These candidates come from varied experiences, not necessarily medical, as in the Hospital Corpsmen rating. Upon commissioning as an Ensign, these individuals incur an eight-year active-duty obligation. Medical Enlisted Commissioning Program accessioned nurses attend Officer Development School.

Seaman-to-Admiral 21. The Seaman-to-Admiral 21 program is another route, similar to the Medical Enlisted Commissioning Program, in which enlisted members earn a BSN. Sailors maintain current rate pay and applicable allowances while in the program. Unlike the Medical Enlisted Commissioning Program, it pays an additional $10,000 to aid in the expense of tuition, books and fees. The Seaman-to-Admiral 21 (STA-21) program requires candidates to participate in the university or college's Naval Reserve Officer Training Corps program. Participation is limited to those schools with affiliated NROTC programs. Thus, STA-21 Navy Nurses do not attend Officer Development School.

Navy Reserve Officer Training Corps. The last option to become a commissioned Navy Nurse Corps Officer is the Navy Reserve Officer Training Corps (NROTC). These individuals are mostly civilian with no prior enlisted experience, but they receive extensive military science training while enrolled in a BSN program at a college or university that has a NROTC program. They do not attend Officer Development School. A summary of accession sources is provided in Appendix A.

Navy Nurse Transitions

Transitioning from the role of nursing student to professional nurse is a complex, multifaceted experience. The first 12 - 24 months of nursing practice are critical to the overall success of graduate nurses (Kramer, 1974 & 2012; Benner, 1984). In addition to learning the intricacies of patient care and becoming competent in the knowledge and skills needed to deliver safe, quality care that meets standards of practice set forth by a healthcare organization, like Navy Medicine, the novice Navy nurse must transition from a civilian (or prior enlisted) individual and integrate into the Navy culture as a commissioned Naval Officer with a tremendous amount of leadership responsibility. While continuous transition is imbedded in the culture of Navy nursing and Navy Medicine as a whole, it is important to describe typical transitions experienced by the novice Navy Nurse, as these transitions have a potential to be affected by the work environment, and have an impact on competency, quality of care provided to patients, and intent of the Navy nurse to leave the Navy.

Navy nurses are typically assigned to be at a medical treatment facility

(hospital, clinic, etc.), for three years at a time. Figure 1 provides a graphical representation of transitions throughout the first three years of a new Navy nurse's career, from graduating nursing school through to the completion of the first tour. Developing leadership and clinical expertise begins immediately upon arrival at Officer Development School and then continues at the first duty assignment, where the novice Navy nurse is initially placed on a general inpatient nursing ward (i.e. Medical/Surgical, Postpartum, Pediatrics, etc.). Navy nurses complete an NRP either concurrently with their first nursing unit assignment or before beginning their initial unit assignment (this will be discussed later in detail).

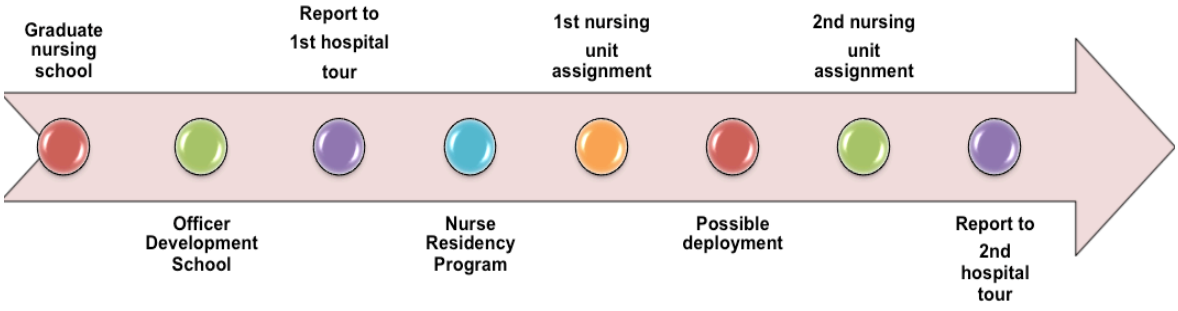
During this time on their first assignment, the novice Navy nurse begins mastering leadership capabilities by taking on responsibilities of the nursing unit charge nurse role. This usually occurs after only six to eight months of being on their first assigned nursing unit. This highlights the time compression that is seen when comparing Navy NRPs to NRPs in the civilian sector. Navy nurses are expected to assume clinical leadership roles before most civilian nurses are expected to finish their NRP.

It is important that all Navy nurses have core medical and surgical competence in anticipation of disaster and combat nursing roles. After 12 to 18 months of experience on the first assigned nursing unit, the Navy nurse is reassigned to a second nursing unit, which are predominantly specialty nursing areas (i.e. critical care, emergency room, labor & delivery, etc.). Again, the Navy nurse will begin to attain clinical competence and hone leadership capabilities,

taking on responsibilities of the charge nurse role in the second assignment.

New Navy nurses are also charged with being ready to deploy anytime, anywhere, in the most austere conditions. Figure 1 depicts the potential for a deployment between unit assignments, but new Navy nurses have deployed anywhere from 6 months after reporting to their first duty station to 6 months before their initial three-year tour is complete. A driving force for the multiple transitions during the first three years of the novice Navy nurse's service is to ensure these nurses are afforded as much experience and that they gain the maximum amount of knowledge from the first assignment. After three years, the same nurse will then transfer to a different duty station, which most likely will be a hospital overseas. Overseas hospitals and those assignments while deployed demand clinical know-how and leadership skills because resources are limited.

Figure 1. Depiction of typical transitions of the new Navy Nurse Corps Officer



Nurse Residency Programs in the Navy

The Navy Nurse Corps was an early adopter of NRPs, a year before The Joint Commission's guidance (The Joint Commission, 2002). To ensure a smooth transition for novice Navy Nurses into this challenging clinical role and military environment, the Navy Nurse Corps developed an NRP in 2001

(Blanzola, et. al., 2004) and in 2002 instituted NRPs at the other two medical centers. Navy NRPs provide an avenue for new nurses to gain competence, confidence, and comfort through didactic learning. They integrate evidence-based practice concepts via a designated preceptor in each clinical rotation site and a list of expected objectives to be achieved for competency-based learning.

There is but one publication that examines the outcomes of NRPs in the Navy, and the study is based on data collected in 2001 when the first program was implemented (Blanzola, et. al., 2004). While civilian NRPs are between six and 12-months in duration, Navy NRPs range from 8 weeks to 26 weeks, nearly half of the civilian benchmark. Berkow, et al. (2008) report that 10% of a typical civilian hospital is staffed by new graduates. This percentage is significant because 89.2% of newly licensed RN work in hospitals (NCSBN, 2009). In the Navy, the percentage of new graduate Navy nurses staffed at large Naval medical centers is close to 60% (Krause, 2010). Also, after their first tour of service (usually three years), these new nurse graduates are often sent overseas or to smaller, sometimes isolated hospitals and clinics with limited resources.

Within the Navy Medicine organization, there are three medical centers that are located within the continental U.S., and 17 mid-level hospitals located both inside and outside of the U.S. The large medical centers provide the greatest number of medical specialties and associated physician residency programs, while mid-level hospitals have a more limited selection of medical specialties and may only have a family medicine residency (Krause, 2010). Because of their wealth of resources and training opportunities, the majority of

new Navy nurses report to one of the three medical centers. Mid-level hospitals have NRPs in place but do not have a full time manager position devoted to daily oversight of the program due to the smaller amount of new Navy nurses who are assigned, compared to those at the larger medical centers, where there are full time manager positions held. The manager or leader of an NRP is an emerging role, and more research is needed with regards to the effect the role has on program outcomes (Varner, et. al., 2014).

Content

Ten years after starting their inaugural NRP, the Navy Nurse Corps adopted the Commission on Collegiate Nursing Education's (CCNE) *Standards for Accreditation of Post-BSN Nurse Residency Programs* in 2011, implementing NRPs at all installations across Navy Medicine. By ensuring all Navy NRPs follow the same guidelines, content was standardized but the structure was not.

Structural Variations

Similar to the civilian sector, NRPs in the Navy have structural variations across programs. In addition to program length, Navy NRPs vary by the amount of classroom hours per month dedicated to classroom training or grand rounds implementation. Clinical hours, or the time spent in the clinical setting, differ as well. These variations came about as a result of each Naval medical center or hospital constructing their own NRP over the years, taking structural components from already established programs and the evidence based in the literature, melding them and adding additional insight, formulating individual programs.

Aside from the limited amount of time dedicated for NRPs in the Navy, when compared to civilian standards, Navy NRPs are unique because military nurses' entry into the hospital setting is governed by outside forces that do not exist in the civilian sector.

NRPs in the civilian sector are scheduled on a set time pattern (e.g., once a quarter or twice per year), allowing for cohorts to be established. In the Navy, the actual time when the individual is actually processed and commissioned officially as a Navy nurse is a driving force behind when he or she will report to the hospital. Some Navy nurses attend Officer Development School and some do not (based on their accession source previously described); thus, some individuals report to their initial duty assignments together as a cohort from their ODS class, while some report as individuals after graduating from nursing school. Navy NRPs have rolling start dates, so there is a constant transition of Navy nurses entering and completing the program. The effect of being in a cohort has not been addressed in the NRP literature.

There are also variations in the design of Navy NRPs. For example, the rotating NRP design may involve nurses rotating to a medical/surgical unit, to a pediatric unit, and a post-partum unit, incorporating time in a specialty area of their choice. Another Navy NRP site incorporates a fixed design, requiring nurses to report to their first unit of assignment without rotating to multiple areas. Other sites incorporate a mixed design, requiring nurses to rotate to the Medical/Surgical unit for the first couple weeks and then report to the unit they will be assigned for the duration of the NRP. Additionally, work hours vary by site

from 8-hour workdays to a mix of 8 and 12-hour workdays per week. Some Navy NRPs mandate only day shifts, while some incorporate nights to provide preceptor continuity. Most NRPs have simulation capabilities and incorporate them into their programs. Based on current operating procedure guides, a comparison of the NRPs in the Navy by their different structural aspects are provided in Table 1, with the “other” category representing the mid-level hospitals, which seem to vary the most, particularly because they do not have a full-time NRP manager to provide consistency and direction (Navy Nurse Corps, 2014).

Table 1. Comparison of Nurse Residency Program components by hospital type

NRP	Classroom hours/ month	Clinical hours/ month	Design	Work hours/ day	Shifts worked	Simulation	Duration (weeks)	Cohort size
Site A	16	144	Rotate	8	Days	Yes	8	Varies
Site B	12-20	140	Fixed	8 -12	Days	Yes	16	Varies
Site C	0-16	144-156	Mixed	8 -12	Days	Yes	24-26	Varies
OTHER	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies

Theoretical Framework

The Transitions Theory (Meleis, et. al., 2000; Schumacher & Meleis, 1994; Chick & Meleis, 1986) proposes that transitions do not occur in isolation but in the context of other transitions. During transition, the individual's patterns of behavior change in relation to abilities, identity, role, and relationships. The conceptual framework for this study was adapted from the Transitions Theory framework (Appendix B), which portrays a linear progression through the transition process to patterns of response. The theoretical framework consists of the following concepts: (1) nature of transitions, (2) transition conditions, (3) nursing therapeutic, and (4) patterns of response. A summary depicting the linkage between Transition Theory concepts, study variables, and measures are provided in Appendix C. The following section defines these concepts, discusses how they have been used in research regarding transition to practice and Navy nursing, and how they were operationalized in this study.

Nature of Transitions

There are three types, or natures, of transition: developmental, situational, and health-illness (Chick & Meleis, 1986). This study focused on *situational transitions*, the type of transition commonly occurring in various educational and professional roles (Schumaker & Meleis, 1994). Becoming a Navy nurse involves not only a transition from school to the role of Registered Nurse, but from civilian to Naval Officer.

Transition Conditions

Individual characteristics. Personal and environmental factors that affect the transition process are called *transition conditions* (Chick & Meleis, 1996). The personal or *individual characteristics* of novice Navy nurses, such as experience, age, or source of accession into the Navy can facilitate or hinder progress toward achieving a healthy transition. With experience, comes expectations, and nurses undergoing transition may or may not know what to expect or their expectations may or may not be realistic.

Individual characteristics can contribute to the quality of transition experience and may result in poor transition outcomes. The effects of NRPs on the transition from student to new graduate Registered Nurse cannot be effectively considered by looking at the nurse as an isolated unit. Variables such as age, experience, and level of education have been linked to anticipated turnover or intent to leave and organizational commitment in studies of nurses (Hayes, Bonner, & Pryor, 2010; Ma, Lee, Yang, & Chang, 2009; Wagner, 2010;

Krause, 2010). Research is needed to determine the degree individual characteristics explain these outcomes in the presence of NRP interventions.

Environmental characteristics. In addition to individual characteristics, another transition condition important to examine is *environmental characteristics*. The transition experience should also be explored and considered in terms of the nurse's perceived relationship in the organization as a mediating factor of successful transition outcomes. The nursing practice environment is the environmental characteristic that can either facilitate or constrain professional nursing practice (Lake, 2007), yet it is not often accounted for in NRP studies. Studies consistently display positive results relating the work environment to nurse job satisfaction, burnout, intention to leave, and perceived quality of care (Aiken, et. al., 2008 & 2012; Clark, 2006; Hinno, 2011; Kutney-Lee, 2009; Laschinger 2008; Lucero, 2009; McHugh, 2012; Patrician, 2010). While military nurses were included in some of these studies, new nurses were not the primary focus.

Healthy work environments, indicative in hospitals that have achieved magnet status, affect new graduate transition into practice (Kramer, Brewer, et. al., 2011). These hospitals are known to support education and training initiatives, like NRPs. Supportive work environments are seen to have contributed positively to the new graduate nurse's transition journey (Kramer, 2013; Bratt, 2011; Zinsmeister & Schafer, 2009). New graduate nurses expect greater support for education, clinically competent peers, autonomy, control over practice, supportive leadership, and job satisfaction than their more experienced

counterparts (Kramer, 2013). To determine the true impact of NRPs, especially when distinguishing between what content or structure is the most effective, the work environment needs to be a construct accounted for. Without that crucial part, it is not sound to assume that the NRP intervention is the sole reason for better transition experiences or outcomes.

Nursing Therapeutic

Nurse Residency Program structure. An intervention aimed to facilitate the experience of healthy transitions through the provision of sufficient time for the gradual assumption of new responsibilities, implementation of new skills, and the promotion of perceived well-being is a *nursing therapeutic* (Schumaker & Meleis, 1994). NRPs are nursing therapeutics, facilitating the experience of healthy transitions in the novice nurse. In this study, the structure of NRPs specifically will be investigated as aspects of the nursing therapeutic.

Pattern of Response

Process indicators. According to the Transitions Theory, there are two types of patterns of response that indicate a healthy transition has occurred, *process and outcome indicators*. Process indicators reflect the experience or process that moves people in the direction of health or vulnerability during transition. Process indicators are exemplified by developing confidence and feeling connected to leadership. This study identifies the transition experience as the process indicator. Many studies measure only the transition experience or do not connect the findings from other studies that use indirect measures to quantify transition (Rush, 2013). This makes evidence, which supports NRPs perhaps

not as meaningful to administrators, educators, and other consumers of transition to practice research, as the confidence and self-efficacy of novice nurses (process indicators of transition) are not as tangible as competence and retention, which are considered in the Transitions Theory as transition outcome indicators that are achieved by way of the process indicators, or transition experience (Meleis, et. al., 2000).

Outcome indicators. Factors that indicate a healthy or positive transition occurred are called *outcome indicators*. Transition is complete when the individual demonstrates *mastery* of new skills and behavior that meets the needs of the new situation and demonstrates an integration of a new identity (Meleis, et. al., 2000). By the time a new sense of stability is achieved near the completion of a transition, the level of mastery will indicate the extent which they have achieved a positive transition outcome (Schumacher & Meleis, 1994). *Mastery* has several components, including competence, high quality of care, and efficient work performance (Schumaker & Meleis, 1994).

Competence. Mastery is represented in this study by competence and perceived quality of care. Competence has been defined as the ability to perform tasks with desirable outcomes under varied circumstances (Benner, 1981), as well as how nurses measure mastery, in terms of functional adequacy and the capacity to integrate knowledge, skills, attitudes and values in specific contextual situations of practice (Meretoja and Leino-Kilpi, 2003). Age, length of work experience (Meretoja et al., 2004a,b; O'Leary, 2012), work environment, and NRPs are related to competence development of new nurses (Salonen et al.,

2007; Bratt & Felzer, 2011).

Quality of care. As previously stated, another component of mastery, according to the Transitions Theory is high quality of care. Quality of care is defined by the National Quality Forum as the measure of the ability of a nurse, doctor, hospital or health plan to provide services for individuals and populations that increase the likelihood of desired health outcomes and are consistent with current professional knowledge (National Quality Forum, 2011). Quality of care relates to the Institutes of Medicine recommendation of investigating NRPs in terms of their impact on patient outcomes. Measuring the performance of nursing care continues to be an important yet challenging part of clinical research and quality improvement (Hughes, 2008).

There is limited research that addresses NRPs role in the quality of care provided by the new nurse graduate. One study illustrated how new graduate nurses at both four and eight-months post-hire both had great concern about getting work done, delegation and prioritization, lack of self-confidence, and fear of harming patients. However, new graduates at eight-months post-hire felt strongly that patients did not receive needed care compared to new graduates at four-months (Kramer, 2013). In another study, newly licensed nurses participating in a transition program with specialty content reported significantly fewer errors than nurses with no transition program (NCSBN, 2009). Studies have demonstrated a relationship between NRPs and organizational commitment, and increased safety (Anderson, 2009; Fink, 2008; Romyn, 2009; Bratt & Feltzer, 2011 & 2012). While NRP have been evaluated with regards to

are well researched for their impact on the transition experience of novice nurses, their the direct impact the NRP has on quality of nursing care is unknown. Quality of care, as component of mastery, will be measured for this study.

Organizational commitment. Another outcome indicator indicative of a healthy transition is *well-being*. Well-being reflects positive integration with broader social networks, new relationships, and commitment to the organization (Schumaker & Meleis, 1994). A lack of well-being reflects a poor transition and is demonstrated in lack of cohesiveness, increased absenteeism and turnover, and decreased retention.

It is difficult to precisely describe retention in the Navy because so many variables affect the Navy nurse's intention to stay or leave, and few studies have empirically assessed retention in the Navy Nurse Corps (Krause, 2010). The military has greater control over the retention rate of its nurses, compared to the civilian healthcare system due to the fact that the military nursing milieu does not afford the opportunity to resign immediately, due to service commitments of anywhere from three to eight years. If a Navy nurse was to resign after the obligated commitment time were served, he or she must initiate the process one year in advance in order to have adequate time for the request to be processed and granted. Furthermore, the Department of Defense has policies that can affect the retention of all military members, which gives authority to the President of the Unites States to suspend promotions, retirements, and separations from the military (called a "stop loss") during times of war, deployments, or national

emergencies.

From a civilian management perspective, potential benefits of some level of turnover includes reductions in salaries and benefits for newly hired nurses, savings from bonuses not paid to outgoing nurses, new knowledge and innovation from replacement nurses and elimination of poor performers (Buchan, 2010). However, productivity is affected by turnover due to staff instability (Jones, 2008; North & Hughes, 2006). Turnover is not determined by the cost per individual. It includes separation costs by the staff member leaving, the money necessary to recruit and train new personnel until they reach the same functioning capability as the nurse who they are replacing (Buchanan, 2010; Jones, 2004). Additionally, the loss of corporate knowledge and experience may not be seen for years later, such as when recruitment goals are not met, which impacts the number of Lieutenants (O-3) (mid-level managers). Prior enlisted Navy nurses often reach military retirement eligibility within six to ten years of practice and can represent a loss of significant clinical leadership and practice skills.

Going beyond the economic impact of increased attrition, there have been considerable relationships recognized between retention and quality of care. The rate of medication errors, patient falls, and other adverse events improve when there is less turnover (Lee, et. al, 2009; Obrien-Pallas, et. al, 2010; Jones, 2008; Castle, et. al., 2007). Turnover can also adversely affect learning and training, which can impact quality of care provided (Bae, et. al., 2010).

There is a difference in retention rates by accession source (Zangaros,

2005): Reviewing retention rates after five years by accession source, Medical Enlisted Commissioning Program (MECP) was at 94%, followed by Direct Accession and Nurse Candidate Program both at 64%, and Naval Reserve Officer Training Corps (NROTC) at 54%. MECP retention rate is so high because their obligation to serve is longer and they are eligible to retire sooner because of their previous time in the enlisted ranks. Other factors that influence retention in the Navy are age, race, whether they served at a medical center, or if they received an accession bonus upon entering the Navy. The following findings are from a study by Krause (2010): The older a Navy nurse is at commissioning, the more likely they are to retain. Black and other minority nurses are more likely to retain than white. Nurses who come into the Navy via Direct Accession and obtained a bonus are less likely to retain than those who do not receive a bonus, and there are no significant differences in retention between those who toured at a medical center versus a medium or smaller hospital.

The transition theory is useful to identify how complex and multifaceted the transition process is. Unsuccessful transitions result in new graduates leaving the workplace and the nursing profession altogether (Rush, 2013; Romyn, 2009; Pine & Tart, 2007; Goode, 2009). Retention is the most studied outcome of healthy transition outcomes among novice nurses, followed by job satisfaction, which has been associated with retention. In the civilian sector, 30% of nurses leave their job after the first year (Bowles & Candela, 2005), 26-57% of licensed RN leave their job within two years of starting it (Brewer, et. al., 2012; Bowles & Candela, 2005) and 43% leave within three years (Brewer, et. al.,

2012). There is a six-month decline in job satisfaction, organizational commitment, and clinical decision-making in after new graduates have started their first job as a nurse (Altier & Krsek, 2006; Ducheser, 2008; Krugman, 2006; Casey-Fink, 2004; Goode, 2009; Bratt, 2013). NRP are associated with increased retention, decreased vacancy, and increased cost savings (Beecroft, 2007; Kowalski, 2010; Trepanier, 2012; Halfer, 2007; Pine & Tart, 2007; Williams, 2007). Because well-being is an indicator of a successful transition, and is reflective of organizational commitment, this study will operationalize well-being as the novice Navy nurse's commitment to the Navy Nurse Corps organization.

Significance

While many studies have investigated the presence of NRPs and the relation to graduate nurse transition experience or their perceived outcomes of a healthy transition, this study was the first to examine the effects the NRP structure as an intervention to facilitate positive transition experiences and healthy transition outcomes. Furthermore, this study was designed to control for individual and environmental characteristics that may influence how the NRP as an intervention may affect the transition experience and outcomes of a healthy transition.

This study also focuses on novice Navy nurses, a vastly understudied population. Navy nurses may experience up to eight transitions in their professional role in their first three years of service. They assume roles of greater responsibility in a lesser amount of time than their civilian counterparts,

yet the amount of time spent in a formalized NRP in the Navy is less than half of the benchmark of the civilian sector. The most difficult role adjustment time period for new graduate nurses is between 6 and 12 months after hire (Casey-Fink, 2004; Goode, 2009; Bratt, 2013) and Navy nurses have completed their NRP prior to this crucial moment in the transition process from student to licensed Registered Nurse and civilian to Naval Officer. However, the Navy nurse population may be different from the civilian population in that they may transition faster or with more ease as they adapt to the culture of continuous transition. Military culture, unit cohesion, and other factors (such as a contracted service period) may represent important but less understood transition influences.

The proposed research project contributes to the body of knowledge in 3 ways. The Institutes of Medicine requests NRPs be evaluated for effectiveness in improving outcomes by examining the effects of NRP variation on transition experiences of new nurse graduates and the outcomes of NRPs as an intervention. Decisions about facilitating a positive transition experience with regards to the time and resources invested in an NRP needs to be evidence-based to meet the needs of nurses and patients they care for. Nursing policy makers need to attend to the consistency of NRP requirements and resources if they wish to garner continued support for NRPs (Barnett, Minnick, & Norman, 2014).

Chapter 3: Methods

The purpose of this study was to examine whether the structure of an NRP attended affects the transition experiences and outcomes of novice Navy nurses. As described in Chapter 2, the conceptual framework for this study was adapted from the Transitions Theory, and that adaption is described in detail here. The proposed quantitative, cross-sectional, correlational study used a web-based survey methodology to collect data from novice Navy nurses who completed a Navy NRP in the last two years. Linear and logistic regression analysis methods were used to address the specific aims of the study.

Research Design

A cross-sectional, correlational design was used for this study. This method was chosen to achieve a snapshot of variables to see what effect, if any, individual, environmental, and NRP structure, has on transition experience, mastery, and well-being as described in the theoretical framework. A brief overview of methods and measures according to the aims of this study is outlined in Table 2**.**

Sample and Setting

The population was active duty Navy nurses who have less than two years of nursing experience in the Navy and have completed an NRP in the Navy. This encompasses the entire Ensign rank, which as of March 2014 was comprised of 420 nurses, roughly 14% of the entire active duty Navy Nurse Corps population and half of the Lieutenant (junior grade) rank, which consists of 227 nurses, or an additional 7.5% of the entire Nurse Corps

Table 2. Methods and measures according to study aims

Specific Aims	Variable	Analysis Method
1. To examine the effects of Navy Nurse Residency Program structure on the nursing transition experience of novice Navy nurses, controlling for individual and environmental factors.	DV: Transition experience IV: NRP structure CV: Individual characteristics CV: Environmental characteristics	Linear regression
2. To determine the direct and mediated effects of NRP structure variation on outcomes indicative of a successful transition in novice Navy nurses, specifically mastery and well-being.	DV: Mastery - competence IV: Significant variables from Aim 1	Linear regression
	DV: Mastery - quality of care IV: Significant variables from Aim 1	Binary Logistic regression
	DV: Well-being - organizational commitment IV: Significant variables from Aim 1	Binary Logistic regression

DV: Dependent variable; IV: Independent variable; CV: Coviariate

population (Navy Nurse Corps, 2014).

Out of those Navy nurses who have less than two years of nursing experience in the Navy, the study focused on the ones who had completed an NRP in the Navy. According to the guidance from previous Navy Nurse Corps strategic plans, everyone should have attended an NRP in the Navy by the time the survey was provided. According to operating policies for individual NRPs, the shortest NRP is eight weeks; therefore, eligible Navy nurses need to have at least eight weeks of nursing experience in the Navy at their first duty assignment. This study included those who are assigned to

inpatient nursing units in all hospitals throughout the world, not just the medical centers, and is included as a variable in the study. Although NRPs vary more at non-medical centers, information about these individuals can contribute to the body of knowledge as a whole with regard to transition process of the novice Navy nurse.

The population frame was all of the Navy nurses who had completed an NRP within the last two years, at the time of the study. The sampling frame was the Navy Nurse Corps e-mail group, which included all Navy nurses who hold the rank of Ensign and Lieutenant (junior grade). Participants were selected if they met inclusion criteria. They were excluded from the analysis if they had not fully completed the Casey-Fink Graduate Nurse Experience survey, which measured the dependent variable of the highest aim for the study.

A power analysis was conducted under the supervision of a statistician, Dr. Guofen Yan, using linear regression for the continuous outcomes. In order to detect the correlation of 0.25, with 80% power at a 2-sided significance level of 0.05, the total number of participants was calculated to be a minimum of 120 respondents to have completed the Casey-Fink Graduate Nurse Experience survey. In order to detect the correlation of 0.30, with 80% power at a 2-sided significance level of 0.05, the total number of participants required was 82. The total number of subjects required was 59 to detect the correlation of 0.35, with 80% power at a 2-sided significance level of 0.05. Cohen's criteria (Cohen, 1992) uses 0.2 to equal a small correlation, 0.5 to equal a medium correlation, and 0.8 a large correlation. One hundred respondents would detect an effect

size of 0.3, or small-to-medium effect. Therefore, the sample size ranging from 59 to 120 subjects was considered acceptable to have 80% power with a correlation coefficient ranging from 0.25 to 0.35 at a 2-sided significance level of 0.05.

For binary outcomes, logistic regression was used with an effect size expressed as odds ratio, assuming the reference proportion of 10%. The total number of subjects needed was calculated as ranging from 82 to 116 to have 80% power to detect the odds ratio of from 4 to 5, at a 2-sided significance level of 0.05. In most situations, the odds ratio is smaller than 4 (usually 1.5 to 2.5); thus, using 100 subjects would have lower power (<80%) to detect some common effect sizes (such as 1.5 to 2.5).

Measures

For a description of concepts and measures, see Appendices B - D.

Specific aim #1

To examine the effects of Navy NRP structure on the nursing transition experience of novice Navy nurses, controlling for individual and environmental factors.

Dependent Variable: Transition experience. The process indicator for transition was operationalized as the novice Navy nurse's transition experience. The transition experience was measured using the Casey-Fink Graduate Nurse Experience Survey (CFGNES) (Casey, et. al., 2004). This instrument was developed, piloted, and revised to measure the new nurse graduate's experience upon entry into the workplace, then through the transition into the role of the

professional nurse (Casey, Fink, Krugman, & Propst, 2004). The instrument was piloted on 12 graduate nurses and tested for content validity using an expert panel of nurse directors and educators in both academic and private hospital settings. It is the only instrument to date that is intended to measure the transition experiences of new graduate nurses, and it was utilized in this study to measure new Navy nurse's transition experience.

The CFGNES is a 24-item, 4-point scale (1 = strongly disagree; 2 = disagree; 3 = agree; 4 =strongly agree), consisting of five subscales: organizing/prioritizing, communication/leadership, support, stress, and professional satisfaction (Casey, et. al. 2004). Higher scores represent optimal transition experiences. The CFGNES has a Cronbach alpha of 0.89; validity testing was done using an expert panel of educators and nursing directors (Casey-Fink, 2004). The items were subjected to exploratory factor analysis and accounted for 46% of the variation in total scores. The CFGNES is comprised of 5 dimensions: support (α = 0.90), patient safety (α = 0.79), stress (α = 0.71), communication/ leadership (α = 0.75), and professional satisfaction (α = 0.83).

Covariates.

***Individual Characteristics*.** There are nine items about the individual Navy nurse's baseline characteristics: Age, gender, race, marital status, children, accession source, months of nursing experience, years of military experience, and whether the individual had taken the NCLEX-RN licensure exam prior to reporting to the first assignment.

***Environmental Characteristics*.** The name of the hospital and the type

of nursing unit were used to compare aspects of the environment. The environment was operationalized as a composite measure of the subscales of the Practice Environment Scale-Nursing Work Index (PES-NWI). The PES-NWI is widely used in both military and civilian research and is frequently referred to in the literature as the best measure of the nursing work environment.

This instrument consists of 31 items in five subscales: nurse participation in hospital affairs (9 items); nursing foundations for quality of care (10 items); nurse manager ability, leadership, and support of nurses (5 items); staffing and resource adequacy (4 items); and collegial nurse-physician relations (3 items). Respondents are asked to rate their level of agreement that each of the 31 organizational traits is present in their current job on a 4-point Likert-type scale, ranging from 1 (strongly disagree) to 4 (strongly agree).

The possible mean score of each of the five subscales ranges from 1 to 4; higher scores indicate the presence of a more favorable nursing practice environment. The composite PES-NWI score is calculated by summing the subscale scores and dividing them by the total number of subscales. Additional information on the PES-NWI has been cited in Lake (2002). Reliability and validity of the PES-NWI has been established. Reliability and validity of the PES-NWI and its subscales were established in civilian samples (Lake, 2002). Lake reported internal consistency reliabilities of $\alpha = 0.71– 0.84$ for the subscales, with the subscale structure supported by factor analysis.

Independent Variable: Nurse Residency Program structure. The nursing therapeutic variable was operationalized by measuring characteristics of

the Nurse Residency Program structure, including program length, design (whether they rotate or are fixed in one place), classroom hours, clinical hours; shifts worked; work schedule (days or nights); whether or not the use of simulation training had been incorporated into their NRP, number of preceptors, and number of other new Navy nurses in the individual's cohort.

Data analysis. In consultation with a statistician, appropriate missing values analysis, transformations, and assumption-testing prior to the analysis as necessary were conducted. Statistical analysis was performed with IBM Statistical Package for Social Sciences (SPSS) for Windows, Version 23 (Armonk, NY: IBM Corp). Preliminary analyses were conducted to evaluate violations of normality and multicollinearity assumptions. For research aim #1, linear regression was used to explore the impact of NRP structure on a positive transition experience, controlling for individual and environmental characteristics (Appendix D). The level of significance for all equations was set at $p < 0.05$.

Specific aim #2

Using the significant Navy NRP structural items along with individual and environmental factors identified as affecting a positive transition experience (from specific aim #1) to determine the direct and mediated effects of NRP structure variation on outcomes indicative of a successful transition in novice Navy nurses: mastery and well-being.

Dependent variables.

Competence. As explained in the theoretical framework, a component of mastery is competence, which was measured using the Nurse Competence

Questionnaire. The Nurse Competence Questionnaire measures overall competency in nursing versus one facet or component of competency, and was chosen because its use is not restricted to a sub-specialty or population of nurses, and the number of items are 18, easing response burden (Watson, 2002). This instrument was developed for student nurses, but the questions ask about aspects of clinical competence. The responses indicate whether or not they "always," "usually", "occasionally," or "never" achieve this with scores of 4, 3, 2, and 1 respectively. It has an analytic scoring mechanism, meaning a score on the scale indicates the level of competence which nurses asses they have reached, with all items below that score achieved in contrast to items above that score that are not achieved. It is sensitive to changes in self-assessment of clinical competence. The overall internal consistency reliability rating was $\alpha = 0.89$.

Quality of care. Another component of mastery is quality of care. Nurse reported quality of care is a useful proxy indicator of hospital performance or the actual quality of care provided (McHugh, et. al., 2012). Perceived quality of care was measured by a single item question based on research by Patrician (2010) and McHugh (2012). "Overall, how would you rate the quality of care you provide on your unit?" Responses range from 1 (poor) to 4 (excellent). This method has been used in nursing as well as physicians and other disciplines. These scores were compared in a correlation to responses to the question, "Overall, how would you rate the quality of care provided by your unit?"

Organizational commitment. Another outcome of a healthy transition is

well-being, which is demonstrated through organizational commitment. It was measured using the Organizational Commitment Scale (OCS) (Mowday, Steers, & Porter, 1979). The 15-item instrument consists of a 7-point Likert scale with the following anchors: strongly agree, moderately agree, slightly agree, neither agree nor disagree, slightly disagree, moderately disagree, strongly disagree. Results are then summed and divided by 15 to arrive at a summary indicator of employee commitment. Several items were negatively phrased and reverse scored in an effort to reduce response bias. It was intended that the scale items, when taken together, would provide a fairly consistent indicator of employee commitment levels for most working populations. Numerous studies have employed this instrument with reported alpha coefficients ranging from .82 to .90 (Mowday et al., 1979).

Data analysis. For aim #2, significant Navy NRP structural items along with individual and environmental factors identified as affecting a positive transition experience, identified in Aim #1, were included as predictors in a logistic regression to explore the impact of these on high levels of competence, perceived quality care, and organizational commitment.

Data Collection

The web-based survey was made available to all Navy Nurse Corps Officers (O-1 and O-2), who completed a Nurse Residency Program (NRP) in the last two years. The order of the survey included questions about the transition experience first, followed by collection of data regarding the structural aspects of the NRP they attended. Next, participants reported on competence, quality of

care, organizational commitment, and their practice environment. Demographic data were collected at the end of the instruments. A copy of the survey is provided in Appendix J.

Recruitment and Retention

One month prior to the start of the survey and during the survey administration dates, an advertisement regarding the study was included in the Monthly Navy Nurse Corps newsletter. Senior Nurse Executives at each of the facilities were sent an e-mail about the study and were encouraged to promote completion of the survey at their facilities. This is outlined in the timeline (Appendix E). A cover letter that describes the study along with information regarding the purpose of the study, research ethics, and instructions for completing the questionnaire online was sent to nurses with an e-mail about the survey, which contained a link to the survey. The Dillman method (2007) emphasizes the frequency of prompting and suggests that e-mail outs be spaced at two-week intervals. The survey ran for one month, so reminders were sent out at weekly intervals after the survey start date and again the last week of the survey. Navy regulations state that incentives cannot be provided for surveys, thus no financial or other compensation was offered.

Permission to conduct the survey was approved by the Navy Survey Office (Appendix F). Once the Navy survey approval manager granted a control number, the protocol was uploaded on IRB.net for Navy Institutional Review Board approval through Naval Medical Center Portsmouth, Virginia, who signed off on the survey as the required survey sponsor. An Educational Partnership

Agreement was current and on file; a copy is included in Appendix G. The protocol met expedited review requirements and was approved; a copy is included in Appendix H. The study was also approved by the University of Virginia Social and Behavioral Sciences Institutional Review Board (SBS-IRB); a copy is included in Appendix I.

All precautions to prevent deductive disclosure of participants' identity were followed. For example, the original data set was copied only once, and all data files were password protected. Paper printouts were retrieved immediately upon output and any unneeded output was shredded. Additionally, a detailed security plan outlined protocol for securely storing and statistical processing the data.

Since this study involved surveys delivered and received online, the Navy regulations required that web surveys only be conducted on private sites, unless approval was obtained from the Office of Management and Budget (OMB). The survey was delivered using the survey platform maxsurvey.gov, which used a token-based access control, where a precise list of respondents were pre-defined and provided with a unique link to access the survey.

An invitation was sent to potential participants with an electronic link to the web-based survey platform. Individuals were sent a password imbedded in their e-mail link to log in, so that surveys could be tracked and duplications from survey respondents could be prevented. Also, the password access allowed respondents to save their data and finish the survey at a later session. This was not Common Access Card (CAC), an encrypted military identification card,

mandated to log in. Most participants can only access items requiring a CAC at work, where there is an encrypted card reader. The survey was designed to attain data on nurse perceptions, such as the work environment, competence, and quality of care provided. It was important that nurses feel comfortable providing their feedback. At work in an open environment, such as a nursing station, is not conducive to attaining responses of this nature. By not requiring Common Access Card (CAC) use, participants could complete the survey at home or on their portable device, which allowed for the provision of more honest answers, as it is more private and convenient.

Potential limitations

Because this was a cross-sectional design, the study cannot make claims about cause and effect or generalizability to a theoretical population as if it were a randomized control trial. Cross-sectional studies are sometimes carried out to investigate associations between risk factors and the outcome of interest. They are limited by the one time collection of data and cannot infer causality because there is no indication of sequence of events. However, the sampling plan was robust and represented all Navy nurses who have completed an NRP in the last two years. The results from this study is not be generalizable to the civilian population. The environment may have a greater influence on transition experiences of Navy nurses than that of the civilian sector. In attempt to provide a way to compare the Navy environment to that of the civilian sector, this study utilizes common metrics that have been used both civilian and military studies.

As with most survey modes, nonresponse and response bias is a common

problem in survey research and could have affected the representativeness of responders. Techniques to minimize nonresponse include weekly e-mail prompting. While the level of nonresponse was a concern, a greater one was that of response bias, meaning the responders are more likely to participate when they have certain characteristics.

Potential risks

Sources of materials included surveys administered to and data collected from an online site that is approved by Navy Information Assurance and Information Technology security regulations. Informed consent was attained as respondents acknowledged reading the informed consent information for the survey and actively acknowledged that they voluntarily participated in the survey in order to open the survey. All protected data collected from these sources were coded with unique identifiers. Identifying information was not saved. The survey was identified with the Report Control Symbol, which indicated that the study had Navy approval and license to administer the survey. The Report Control Symbol was included in the Privacy Act statement of all versions of the survey along with the expiration date.

There were questions in the data set that may have made the novice nurse feel embarrassed or uneasy, for instance, if someone were to find he/she rated herself as lacking confidence or competence. Likelihood of identification was very low. The original data were kept in a locked, fireproof safe off site from a military facility. The electronic data were kept on a secure server. In the unlikely instance that the investigator learned the identity of participants, this

information was kept confidential. There were no alternative treatments and procedures being undertaken in the proposed research. Description of individual participants was generalized to protect the individuals, the facilities, and the security of military operations. The study protected subjects' anonymity and confidentiality. All responses were de-identified and no personal identifying information (PII) was collected.

Inclusion of Women, Minorities, and Children

There was a greater amount of female nurses than male in the Navy. All Navy nurses, both male and female, and of all racial and ethnic backgrounds were included in this study. All data were analyzed, regardless of gender or ethnicity. Because the primary population to be studied was active duty Navy Nurse Corps Officers, this study excluded children.

Importance of Knowledge to be Gained

This study served to discover what factors inhibit or facilitate the transition experiences and outcomes of a successful transition for the novice Navy nurse. Findings can help determine resources to be dedicated toward targeting factors, such as NRP structure or methods to support healthy work environments as well as developing a better understanding of individuals going through transitions and the development of interventions to better support their specific needs. Evidence will be utilized in improvements in nursing professional development and thus the nursing care provided to Navy beneficiaries.

Chapter 4: Results

Data were analyzed using IBM SPSS Statistics for Windows, Version 23 (Armonk, NY: IBM Corp). Frequencies and percentages were calculated for categorical variables. Means and standard deviations were calculated for continuous variables. Preliminary analyses were conducted to ensure there were no violations of the assumptions for regression analyses, including linearity and multicollinearity. Continuous data were examined for normality of distribution and were found to be normal.

Table 3 provides a description of the sample of Navy Nurse Corps Officer participants. The total sample size consisted of 127 participants, which met minimum power analysis requirements. They were mostly white females, between the ages of 20-40 years. The majority of nurses had between seven and 23 months of experience as a registered nurse with most of their experience gained at their current Naval hospital they were assigned to and mostly worked on Medical/ Surgical wards. More than half of the nurses (55%) had been working on their current unit less than a year. Over 80% had passed their NCLEX-RN licensing examination prior to reporting to their first hospital assignment.

The participants' active duty experience ranged between seven months to over 10 years. Those who reported having over 10 years of active duty experience in the Navy made up 32.3% of respondents, which corresponds with the 23.7% accessioned via the Medical Enlisted Commissioning Program (MECP) and the 9.7% accessioned via the Seaman-to-Admiral - 21 (STA-21)

program, both are enlisted to officer commissioning sources. Naval Reserve Officer Training Corps (NROTC) accounted for 29% of the commissions, followed by the Nurse Candidate Program (26.9%) and Direct Accession (10.8%).

Transition Experience and Nurse Residency Structure

Independent t-tests and correlations were conducted to determine if the means of individual transition experience scores were significantly different or related by many of the individual and environmental variables explored in order to control for their influence in the regression models. A description of the various Nurse Residency structures included in the sample is in Table 4.

Location of NRP by hospital group

Nurses were asked to report the name of the hospital in which they completed their Nurse Residency. The sample included mainly three Medical Center groups: Medical Center A (n =29), Medical Center B (n = 19), and Medical Center C (n =29), as well as a group consisting of nurses from non-Medical Centers (n = 22). A summary of transition scores is provided in Table 5.

An analysis of variance test was conducted to see if there were differences in mean transition composite scores by hospital group. There was a significant difference in transition scores between groups ($p = 0.012$). Nurses in the Medical Center A group had significantly lower scores, or worse transition experiences (2.72 ± 0.27) compared to Medical Center B (2.98 ± 0.31; $p = 0.04$) and the Medical Center C group (2.94 ± 0.26; $p = 0.048$). There were no significant differences in transition scores between Medical Center A and the non-Medical Center group or between Medical Center B and Medical Center C

groups. Because of the significant difference in transition scores, Medical Center group was added into the regression model for Specific Aim #1.

To determine if the weeks of the program varied according to hospital group, an analysis of variance was performed. There were no significant differences in the number of reported weeks spent completing the Nurse Residency at Medical Center A and that of all other non-Medical Center hospitals. However, there were significant differences noted in duration of the Nurse Residency Program between the non-Medical Center group and Medical Center A groups and Medical Center B and Medical Center C groups. These differences are outlined in Table 6.

Preceptors

For continuous variables (duration of Nurse Residency in weeks, hours spent in classroom, hours spent in clinical time, as well as number of preceptors throughout the program and cohort size), correlations were conducted to determine relationships between those items and mean transition scores. There was a significant inverse relationship between the number of preceptors that nurses had during their program and their transition scores ($R = -0.22$; $p = 0.027$). Transition experience was better for those who had fewer preceptors. The correlation was low and the shared variance was 4.9%. There were no significant relationships between the duration in weeks of Nurse Residency Programs and transition scores. Cohort size, the number of clinical hours, nor the numbers of classroom instruction hours were related to transition scores.

Work hours

With regard to the design of the Nurse Residency Programs, an analysis of variance was used to determine if there were any differences in transition scores according to whether or not nurses rotated to various units, stayed on the same unit, or experienced a mix of both rotating and staying some time on the same unit during their program. There were no significant differences between these groups.

Nurses reported experiencing three types of work hours during their Nurse Residency: 8-hour shifts (n = 30), 12-hour shifts (n = 33), and a mix of both 8 and 12-hour shifts equally (n = 35). Transition experience was better for those who worked 12-hour shifts (2.97 ± 0.23) than those who worked 8-hour shifts (2.75 ± 0.33; $p = 0.01$). There was no significant difference in transition scores between those who worked solely 8-hour shifts and those who worked both shifts equally. Similarly, there were no significant differences in transition scores between those who worked only 12-hour shifts and those who worked both 8 and 12-hour shifts equally. Because of the significance of work hours, this variable was included in the regression model for Specific Aim #1.

Another structural aspect of Nurse Residency Programs investigated was the type of shift worked. There were no nurses who reported working only night shifts during their Nurse Residency. The transition scores of those nurses who worked only day shift were not significantly different than those of nurses who worked both day and night shifts equally. Therefore the type of shift worked was not included in the regression.

Simulation

An independent t-test was used to analyze the difference in transition scores between those nurses who reported having simulation in their program and those who did not. Transition experience was better for those who had simulation in their NRP (2.88 ± 0.27) than those who did not (2.79 ± 0.33; p = 0.048). Simulation was added as a variable in the regression model.

Transition Experience and Independent Characteristics

Independent, demographic characteristics were analyzed for significance with regards to their relationship to or difference in mean transition scores. For this study, they were considered covariates. For continuous variables (age, years of total RN experience, years of RN experience at the current hospital, years of RN experience on the current unit, and years of active duty experience), correlations were conducted to determine relationships between those items and mean transition scores. There were no significant relationships between these variables and mean transition scores. These items were not included in the regression model.

Other categorical items were tested to determine significant differences in transition scores by category. There was no significant difference in mean transition scores between males and females. There were also no significant differences in mean transition scores between those who were single, married, or divorced. Finally, there were no significant differences in mean transition scores between those who had children and those who did not. Therefore, these items were not included in the analysis.

Race

Nurses were asked which race and/ or ethnicity best describes them. There was not an adequate sample size to detect a difference in transition scores between those who were American Indian (n = 1) and those who were not (n = 92). There were no significant differences in transition scores between those who were Asian (n = 13) and those who were not (n = 80). Likewise, there were no significant differences in transition scores between those who were Hispanic (n = 8) compared to those who were not (n = 85). There were no significant differences in transition scores between those who identify with being Hawaiian or Other Pacific Islander (n = 3) and those who do not (n = 30). There were also no significant differences between those who were white (n = 66) and those who were not white (n = 27). Finally, there was a significant difference in transition scores between those who identified themselves as African American (n = 4) and those who did not (n = 89). Transition experience was better for African Americans (3.05 ± 0.36) than those who were not (2.84 ± 0.30; $p = 0.031$). This variable was included into the regression model.

Commissioning source

Another analysis of variance was conducted to determine differences in transition scores by the nurses' commissioning source (direct accession, NROTC, MECP, STA-21, or NCP). Transition experience varied significantly by commissioning source ($p = 0.03$). Specifically, transition experience was better for those commissioned via the Medical Enlisted Commissioning Program (MECP) (2.97 ± 0.28) than those who received a commission through the Nurse

Candidate Program (2.71 ± 0.34); $p = 0.048$). Commissioning source was added to the regression model for analysis.

The last individual characteristic evaluated for significance to place into the regression model was whether or not the nurse successfully passed the NCLEX-RN licensure examination prior to reporting to the Naval hospital he or she works at. There were no significant differences in transition scores between those who did not pass their NCLEX (n = 11) and those who did (n = 82). This variable was therefore not included in the regression model for Specific Aim #1.

Transition Experience and the Practice Environment

The work environment was measured by the Practice Environment Scale and was analyzed to see if significance would allow it to be placed in the overall regression model. A description of mean Practice Environment Scale scores is provided in Table 7. There was a significant positive relationship between mean practice environment scores and mean transition scores ($R = 0.56$; $p < 0.001$). The healthier the work environment, the better the transition experience. The correlation was moderate and the shared variance was 22%. This finding supports the transitions theory, which says that the environment contributes to the transition experience. The practice environment was placed in the regression model as a covariate.

Specific Aim #1

To examine the effects of Navy Nurse Residency Program structure on the nursing transition experience of novice Navy Nurse Corps Officers, controlling for individual and environmental factors, the first regression model

analyzed the significance of predictors of a positive transition experience. Significant individual characteristics placed into the model as covariates were whether or not the individual nurse was African American and if the nurse was accessioned via the Medical Enlisted Commissioning Program or the Nurse Candidate Program. The composite for the Practice Environment Scale was added as a covariate to control for environmental characteristics. Finally, the significant structural components of Nurse Residency Programs were added to the regression model: whether they worked 8-hour or 12-hour shifts, if simulation capabilities were utilized, the number of preceptors, and attending the program at a non-Medical Center, Medical Center A, B, or C.

Individual characteristics

Race

Table 8 provides a summary of the model with findings. The overall regression model was significant (R = 0.697; p <0.001). African American nurses, compared to nurses of all other races and ethnicities, had transition scores that were 0.167 points higher (p = 0.038), meaning transition experiences were better for African Americans than all other races.

Commissioning source

Whether or not a nurse was commissioned via the Nurse Candidate Program was a significant predictor of transition. Nurse Candidate Program accessioned nurses scored 0.184 points lower than all other nurses (p = 0.008), meaning nurses who went through this commissioning program had worse transition experiences Together, these individual characteristics, race and

commissioning source, were controlled for in the model and together explained 15.3% of the variance in composite transition scores.

Practice environment

The other covariate included in the model was the environment, as measured by the Practice Environment Scale. As Practice Environment scores increased by one point, transition scores increased by 0.322 points (p <0.001). Healthier practice environments were correlated with better transition experiences. The practice environment explained an additional 14.8% of the variance in transition scores. Collectively, individual and environmental characteristics alone explained 30.1% of the variance in transition scores.

NRP structure

Location of NRP by hospital group

After controlling for individual characteristics and environment, there were significant differences in transition scores by the Medical Center in which nurses completed their Nurse Residency Program as well as the number of preceptors that nurses were assigned to during the program. Compared to nurses who completed Nurse Residency Programs at all other hospitals, nurses at Medical Center B had transition scores 0.213 points higher (p=0.05), meaning they had the best transition experience. Nurses who completed their Nurse Residency at Medical Center C had transition scores 0.192 points higher than all other hospitals (p = 0.04), meaning they had the second best transition experience.

Preceptors

As the total number of preceptors assigned during the program increased, the transition scores decreased by 0.036 points (p = 0.016). So, after controlling for individual and environmental characteristics, the number of preceptors throughout the NRP continued to be an important influence in the transition experience of Navy nurses. Transition experience remained better for those who had fewer preceptors.

The remaining elements of Nurse Residency Program structure included in the model (shifts worked during the program and simulation capabilities) did not significantly contribute to predicting transition scores. These structural elements of Nurse Residencies uniquely explained 18.5% of the variance in transition scores. The overall model collectively explained 46.8% of the variance in transition scores.

Specific Aim #2

Mastery as Measured by Competence

Individual and environmental characteristics as well as Nurse Residency Program structural components that were significant from the regression model used to answer specific aim #1 (Medical Center, number of preceptors, as well as African American demographic, Nurse Candidate Program accession source, and the practice environment) were added in a regression model to determine the direct and mediated effects of Nurse Residency Structure variation on mastery, an outcome indicative of a successful transition in Navy nurses, as exemplified by perceived competence. The Nurse Competence scale was used to measure mastery in the model.

Table 9 provides a summary of the model. The overall model was not significant (R = 0.295); p = 0.464). However, a significant predictor of mastery scores was the practice environment. For every one point increase in practice environment scores, competence scores increased by 0.269 points (p = 0.05). Healthy practice environments are associated with mastery as measured by increased competence.

Mastery as Measured by Quality of Care

Individual and environmental characteristics as well as Nurse Residency Program structural components that were significant from the regression model used to answer specific aim #1 (Medical Center, number of preceptors, as well as African American demographic, Nurse Candidate Program accession source, and the practice environment) were added in a regression model to determine the direct and mediated effects of Nurse Residency Structure variation on mastery, an outcome indicative of a successful transition in Navy nurses, as exemplified by nurse perceived quality of care. Table 10 provides a summary of the model.

There was a moderate correlation between how nurses rated the quality of care that they provided themselves (3.70 ± 0.50) versus the overall quality of care they perceived their unit provided (3.46 ± 0.62) (R = 0.58; p = <0.001). However, neither items received a rating of poor quality of care provided. The median for the quality of care provided by the nurse was 4.00, meaning most respondents reported an excellent or good. Therefore, the quality of care provided by the nurse data were split into two categories. High quality of care

was ≥ 4.00 and low quality of care was classified with a score of <4.00. This was the outcome variable for the logistic regression aimed to determine if the direct and mediated effects of Nurse Residency Program structure variation on mastery, this time exemplified by quality of care ratings.

Individual characteristics

The overall model was significant and explained 26.0% of the variance between low and high quality of care provided by the nurses. African American race was entered in the first block and explained 10.7% of the variance between groups. Being commissioned via the Nurse Candidate Program was entered into the second block and explained 0.3% more of the variance.

Practice environment

Practice environment was the only significant variable in the overall model (*p* = 0.048*)*. The addition of the practice environment in block three explained an additional 13% of the variance. As practice environment ratings increased by one point, the odds of being in the high quality of care group were 1.279 times greater. Healthy practice environments are associated with mastery as measured by nurse perceived quality of care.

NRP structure

Where the nurse completed the NRP was not a significant predictor of high quality of care but explained collectively an additional 2% of the variance. Finally, while not significant individually, the number of preceptors assigned to nurses explained another 2% of the variance. The overall model accurately

classified 96.4% of the individuals in the high quality of care group but only 26.3% in the low quality of care group.

Well-being as Measured by Organizational Commitment

Individual and environmental characteristics as well as Nurse Residency Program structural components that were significant from the regression model used to answer specific aim #1 (Medical Center, number of preceptors, as well as African American demographic, Nurse Candidate Program accession source, and the practice environment) were added in a regression model to determine the direct and mediated effects of Nurse Residency Structure variation on well-being, an outcome indicative of a successful transition in Navy nurses, as exemplified by organizational commitment. Table 11 provides a summary of the model.

Organizational commitment scores were dichotomized into high and low categories. The overall mean of organizational commitment scores was 5.04 (1.06) of 7.00 points (n = 101). The median was 5.066, used to dichotomize organizational commitment into low (n = 50) and high categories (n = 51). The overall model was significant and explained 37.7% of the variance between low and high well-being as manifested by organizational commitment scores.

Individual characteristics

African American race was entered into the first block and did not explain any variance between low and high organizational commitment scores. In the second block, the Nurse Candidate Program variable explained only 0.04% of the variance.

Practice environment

The practice environment, again, was a significant individual variable in the overall model. As practice environment scores increased by 1 point, the odds of being in the high organizational commitment group were 1.28 times more likely. The practice environment uniquely explained an additional 22.3% of the variance. Healthy practice environments were associated with well-being as exemplified by organizational commitment.

NRP structure

Whether or not a nurse completed a Nurse Residency at Medical Center B was not significant individually but helped explain 3.5% of the variance. However, completing a Nurse Residency at Medical Center C was a significant individual variable in the overall model. Nurses who completed a Nurse Residency at Medical Center C were 75.4% less likely to be in the high organizational commitment group. This variable contributed to explaining 6.4% more of the variance.

A final structural component of Nurse Residency Programs that was added to the model was the number of preceptors nurses reported to have throughout the program they attended. This was also a significant individual variable in the overall model. As the number of preceptors increased by one, nurses were twice as likely to be in the high organizational commitment group. This time, having more preceptors in a NRP actually was a benefit, increasing organizational commitment. The model accurately classified 78% of the

individuals in the high organizational commitment group and 68% in the low group.

Chapter 5: Conclusion

Discussion

The purpose of this study was to examine the effect of Nurse Residency Program structure on the transition experience of Navy Nurse Corps Officers and to understand how variations in Nurse Residency Program structure may affect the difference in outcomes of a healthy transition in novice Navy nurses.

Research Question #1

1. To what extent do individual and environmental conditions affect the relationship between NRP structure and the transition experience of novice Navy nurses?

Individual characteristics

This study noted that race, specifically African American compared to non-African Americans, was an individual characteristic that predicted successful transition in novice Navy nurses. In another study by Morrison (2013), Navy nurses who demonstrate ratings for perceived workplace stress above the sample group mean were in the racial minority group of African American). Yet, despite this stress, this group of individuals has high transition scores. In a study by Krause (2010), African American and other minority nurses were noted to be more likely to retain in the Navy Nurse Corps than whites. This study supports these findings.

Another individual characteristic that affected the relationship between Nurse Residency structure and the transition experience of novice Navy nurses was the source of commission. Those who were accessioned via the Medical

Enlisted Commissioning Program and Nurse Candidate Programs had higher transition scores. After placing the predictors in the model, only those who were accessioned via the Nurse Candidate Program explained a significant portion of the variance in transition scores.

To recap, the target population for the Nurse Candidate Program is nursing students who are already enrolled in an accredited BSN program. These individuals commit to active duty service obligations 12–24 months prior to graduation. Unlike the Medical Enlisted Commissioning Program accessions, the Nurse Candidates are not usually prior enlisted. The students are accepted into the program no earlier than the beginning of their junior year in college and may or may not have received military training in their BSN studies. Some are attached to a Navy Reserve Officer Training Corps unit while they are in school, and depending on if they did not received training on military science in their undergraduate studies, they attend Officer Development School.

Practice environment

The practice environment has been linked to job satisfaction, decreased burnout, intention to leave, and increased perceived quality of care. Some of these studies included military nurses but new nurses were not the focus. This study provided similar outcomes in the military novice nursing population. Results from this study reinforced the importance of controlling for the work environment in research that involves the effectiveness or impact of Nurse Residencies on transition to practice. The practice environment highly correlated to transition scores, which was expected, based on findings in the literature.

However, the practice environment explained a significant portion of variances in all portions of this study: transition scores, mastery (competence and quality of care) as well as well-being (organizational commitment).

Research Question #2

2. To what extent does the structure of an NRP influence the transition experience of novice Navy Nurses?

Without controlling for individual and environmental characteristics, transition scores were significantly different based on the hospital in which the nurse completed the Nurse Residency Program, the amount of hours worked per day (8-hour versus 12-hour shifts), whether or not program had simulation capabilities, and they were significantly related to the total number of preceptors throughout the program.

After controlling for individual and environmental characteristics, the location and the number of preceptors were the only significant structural predictors of transition scores. It is unknown what about the hospitals themselves that make them uniquely explain a significant portion of the variance in the transition scores. There are many structural variations that are significantly different between the hospitals, such as the amount of clinical hours, hours worked per day, shifts worked, duration of the programs, and the cohort size. Yet, none of these structural aspects were significantly related or different enough from overall transition scores to be placed into the regression model. Completing a NRP at Medical Center B or at Medical Center C contributed uniquely to the variance in transition scores.

Medical Center C is a joint command, which contains a combination of Army, Navy, and Air Force. Medical Center B has had the longest Nurse Residency Program in operation. Both have a full time director of the Nurse Residency Program, which could potentially be different from the non-Medical Center sites. Nurse Residency structures of Medical Center A and the non-Medical center sites were more similar than Medical Centers B and C except that Medical Center A also had a full time director of the Nurse Residency Program, while many non-Medical Centers did not. Future research is needed to explore the relationship of Nurse Resident hospital site to transition in the novice Navy nurse.

Findings from a study which examined new Navy nurse graduate's perceptions of preceptor continuity in a Nurse Residency program noted no difference in perception of clinical performance, role transition, satisfaction, or retention between nurse residents who had an assigned preceptor (n = 35) and those who did not have an assigned preceptor (n = 53). Furthermore, 48% of nurse residents reported neither single nor multiple preceptors influenced their intention to stay in nursing. In the same study, however, 84% of the new graduates believed having the same preceptor was beneficial to the individual nurse (Smith & Chalker, 2005). With regards to preceptors in this study, as the number of preceptors increased, the transition experience became worse. Perhaps having too many preceptors is chaotic or causes confusion or increased stress, which may have an impact on transition. Further research into this phenomenon is needed.

Research Question #3

3. To what extent do transition experiences contribute to differences in transition outcomes among novice Navy Nurses who have attended NRPs of varied structures?

There were no differences in competence or quality of care scores. However, significant predictors of transition scores were also significant in explaining the variance in organizational commitment scores. Transition experience may not necessarily contribute to the transition outcomes of mastery, but it contributes to the outcome of well-being.

Nurses who completed their residency program at Medical Center C had lower organizational commitment scores, indicative of decreased well-being. Medical Center C is a joint facility where active duty nurses from the Navy, Army, and Air Force also work. Unique challenges of integration exist in the joint environment. Further research is needed to explore the workplace stressors associated with assignment to a joint facility, such as this one (Morrison, 2014).

The number of preceptors again was a significant predictor of organizational commitment. There was a decline in transition experience as the number of preceptors increased. With regards to organizational commitment, as the total number of preceptors a nurse had throughout the NRP increased, organizational commitment scores decreased. While more preceptors may have provided more support, there may have been too much support. Having the new Navy nurse involved with too much socialization produces stress. Becoming acquainted with too many preceptors and the stress associated with the need to

meet expectations of multiple preceptors, and the associated lack of consistency. However, having multiple preceptors may promote socialization and enhance the sense of belonging necessary for organizational commitment.

Limitations

Findings from this study are not be generalizable to the private sector due to the strong military cultural influence. However, due to the jointness of some of the Navy medical facilities included in this study, results may be applicable to other services. The race groups were not totally equal in this study, but they were representative of the Navy Nurse population.

Data were self reported, which could provide bias, especially with reported competence and perceived quality of care provided. With regards to quality of care, a more robust instrument is recommended. No one in the sample rated their quality of care as poor in this study. Social desirability bias may be an influence as perceived quality of care was overall high. Perhaps a Likert scale with more ratings could help better deduce low versus high quality of care provided.

Finally, this study delivered a cross-sectional look at transition as experienced by nurses who had completed various NRPs within the last two years. This allowed for the structural aspects of different NRPs and nurse transition outcomes to be measured simultaneously. A repeated measures or a randomized control study may provide further insight into the direct impact of structural aspects of NRPs. This study served to form a foundation for more definitive studies.

Conclusion

This study demonstrated how individual and environmental characteristics affect the overall transition experience and the outcomes of successful transitions of novice Navy Nurses. Based on this evaluation of Nurse Residency Programs, individual and environmental characteristics may contribute equally or more to the novice nurse's experience than what the Nurse Residency Program contributes to the nurse's transition experience. Thus, both individual and environmental characteristics need to be considered when evaluating Nurse Residency Programs. Currently, when the Navy evaluates these nurse residency (or other professional development) programs, demographic data is often collected to describe the characteristics of those nurses who have completed the program; however, this data could be used to provide more information about the overall transition experience of those nurses who attended the program.

Findings from this study will be important to nurse administrators who are making decisions as to whether or not to implement a Nurse Residency Program, or what structural aspects to incorporate into a new program. It is paramount for nurse administrators and educators to be knowledgeable of how nurses transition to practice, what affects their transition, and how best to support those nurses to facilitate the best transition experience and outcomes indicative of a successful transition, such as competence, quality of care, and organizational commitment.

There are aspects of this research that should be given more attention by the Navy. First, future research is needed to explore why African American Navy nurses have a more successful transition to practice than those from other racial

and ethnic groups. Second, further exploration is needed into what is unique about Nurse Candidate accessioned nurses that may be contributing to a less than optimal transition experience. Not all Nurse Residency Programs are structurally alike, so it cannot be assumed that interventions meant to improve transition to practice, such as a Nurse Residency Program, will be administered the same at all facilities.

This study highlights items that may be important to a successful Naval nurse transition to practice and positive transition outcomes. However, even if all aspects of Navy NRPs were standardized with optimal structural characteristics, the differences in practice environments and individual nurses will impact outcomes differently. Therefore, the nurse transition experience and transition outcomes, such as competency, quality of care, and organizational commitment will inevitably remain different. NRP structure is not as influential as the practice environment or individual characteristics.

The practice environment, as demonstrated in this study, plays a significant role in transition to practice. Many sites may have a highly structured and long-standing Nurse Residency Program, but without a healthy practice environment, the transition experience may still be affected. Likewise, facilities with healthy practice environments often are supportive of training initiatives, such as NRPs. This may be the most significant finding of this study. Clinical leadership that creates a healthy work environment has a greater influence of new nurse transition than the structure of the NRP.

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Table 3. Individual characteristics of Navy Nurse Corps Officers.

Individual Characteristic	n (%)
Age (years) (N=93)	
20-25	38 (40.9)
26-30	18 (19.4)
31-35	18 (19.4)
36-40	11 (11.8)
>40	8 (8.6)
Registered Nurse (RN) experience (N=93)	
7-11 months	26 (28.0)
12-17 months	7 (7.5)
18-23 months	19(20.4)
2 years	9(9.7)
3 years	17 (18.3)
4 years	5 (5.4)
5 years	1 (1.1)
> 5 years	9 (9.7)
RN experience at current Naval hospital (N=91)	
1-3 months	1 (1.1)
4-6 months	10 (11.0)
7-11 months	27 (29.7)
12-17 months	13 (14.3)
18-23 months	18 (19.8)

2 years	12 (13.2)
3 years	9 (9.9)
> 3 years	1 (1.1)
Experience on current unit (N=93)	
1-3 months	5 (5.4)
4-6 months	20 (21.5)
7-11 months	25 (26.9)
12-17 months	18 (19.4)
18-23 months	16 (17.2)
2 years	5 (5.4)
3 years	3 (3.2)
> 3 years	1(1.1)
Experience on active duty in the Navy (N=93)	
7-11 months	19 (20.4)
12-17 months	4 (4.3)
18-23 months	14 (15.1)
2 years	11 (11.8)
3 years	9 (9.7)
4-6 years	2 (2.2)
7-10 years	4 (4.3)
> 10 years	30 (32.3)
Gender (N=93)	
Female	67 (72.0)

Male	26 (28.0)
Race/ Ethnicity (N=96)	
American Indian/ Alaska Native	1 (1.1)
Asian	13 (13.5)
Black/ African American	4 (4.2)
Hispanic/ Latino	8 (8.3)
Native Hawaiian/ Other Pacific Islander	3 (3.1)
White/ Caucasian	66 (68.8)
Other	1 (1.1)
Marital status (N=92)	
Single	38 (41.3)
Married	48 (52.2)
Divorced/ Separated	6 (6.5)
Children (N=92)	
No	56 (60.9)
Yes	36 (39.1)
Unit currently assigned (N=93)	
ER	7 (7.5)
ICU	3 (3.2)
Labor & Delivery	8 (8.6)
Maternal/ Child Ward	8 (8.6)
Medical/ Surgical	38 (40.9)
Mental Health	6 (6.5)

Oncology Ward	5 (5.4)
OR	1 (1.1)
PACU	3 (3.2)
Pediatric Ward	2 (2.2)
PICU	4 (4.3)
Telemetry/ Progressive Care Unit	5 (5.4)
Clinic/ Outpatient	3 (2.4)
Source of Commission (N=93)	
Direct Accession	10 (10.8)
NROTC	27 (29.0)
MECP	22 (23.7)
STA-21	9 (9.7)
NCP	25 (26.9)
NCLEX-RN Passed Before Reporting (N=89)	
No	11 (11.8)
Yes	82 (88.2)

Table 4. Structural aspects of Nurse Residency Programs attended.

Nurse Residency Program Structure	***n* (%)**
Hospital attended NRP (N = 99)	
Medical Center A	29 (29.3)
Medical Center B	19 (19.2)
Medical Center C	29 (29.3)
Medium Sized Hospitals	22 (21.1)
Length of program (weeks) (N=100)	
1-2	1 (1.0)
3-4	2 (2.0)
5-6	10 (10.0)
7-8	23 (23.0)
9-10	6 (6.0)
11-12	27 (27.0)
15-16	4 (4.0)
23-24	15 (15.0)
25-26	7 (7.0)
27-28	3 (3.0)
33-35	1 (1.0)
36-43	1 (1.0)

Program Design (N=100)	n (%)
Rotate	38 (38.4)
Fixed	25 (25.3)
Mixed	36 (36.4)
Hours/ day (N=98)	
8-hour shifts	30 (30.6)
12-hour shifts	33 (33.7)
Both 8 & 12-hour shifts	35 (35.7)
Shifts worked (N=100)	
Mostly days	55 (55.0)
Both days and nights equally	45 (45.0)
Simulation (N=100)	
No	31 (31.0)
Yes	69 (69.0)
Preceptors (N=100)	
0	2 (2.0)
1	8 (8.0)
2	19 (19.0)
3-4	30 (30.0)
5-6	18(18.0)
≥ 7	23 (23.0)

Cohort size (N=100)	n (%)
0	6 (6.0)
1-2	9 (9.0)
3-5	23 (23.0)
6-10	28 (28.0)
11-20	27 (27.0)
≥ 21	7 (7.0)
Classroom Instruction (hours/ week) (N=94) Mean (SD)	6.46 (5.51)
Clinical Practice (hours/ week) (N=96) Mean (SD)	34.40 (35.00)

Table 5. Casey-Fink Graduate Nurse Experience Survey mean scores reported by hospital type where Nurse Residency attended.

(n = 127)	**All Hospitals n = 127**	***Non-Medical Center n = 22***	***Medical Center A n =29***	***Medical Center B n=19***	***Medical Center C n = 29***		
Subscales	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	*F*	*p*
Support	3.09 (0.49)	3.03(0.53)	3.04(0.43)	3.27 (0.50)	3.19 (0.36)	1.59	0.199
Patient safety	2.35 (0.43)	2.28 (0.41)	2.22 (0.27)	2.38 (0.54)	2.40 (0.44)	1.10	0.355
Stress	2.70 (0.88)	2.81 (0.79)	2.38 (0.90)	2.79 (0.85)	2.83 (0.88)	2.22	0.092
Communication/ Leadership	2.96 (0.49)	2.81 (0.43)	2.78 (0.43)	3.24 (0.52)	3.07 (0.37)	4.99	0.003*
Professional satisfaction	3.11 (0.59)	2.95 (0.74)	3.20 (0.43)	3.23 (0.52)	3.19 (0.55)	0.64	0.591
Composite	2.84 (0.33)	2.77 (0.29)	2.72 (0.27)	2.98 (0.52)	2.94 (0.26)	3.85	0.012**

Scores: 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree.

* Bonferronni Post-Hoc Analysis:
Non-Medical Center vs. Medical Center B (p = 0.025)
Medical Center A vs. Medical Center B (p = 0.014)

** Bonferroni Post-Hoc Analysis:
Medical Center A vs. Medical Center B (p = 0.040)
Medical Center A vs. Medical Center C (p = 0.048)

Table 6. A comparison of Nurse Residency duration by type of hospital.

Hospital type	*n*	Range in Weeks	*p-value*
Non-Medical Center	22	7-10 weeks	1.00
Medical Center A	29	7-10 weeks	0.002
Medical Center B	19	11-14 weeks	<0.001
Medical Center C	29	≥ 21-24 weeks	0.004*

* *p*-value from ANOVA, between all groups

Table 7. Practice Environment Scale mean scores reported by hospital type where Nurse Residency attended

(*n* = 75)	***All Hospitals*** ***n = 75***	***Non-Medical Center*** ***n = 18***	***Medical Center A*** ***n=25***	***Medical Center B*** ***n = 13***	***Medical Center C*** ***n = 19***		
Subscales	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	*F*	*p*
Nurse participation in hospital affairs	2.91 (0.44)	2.81 (0.53)	2.93 (0.08)	2.95 (0.49)	2.85 (0.43)	0.443	0.723
Nursing foundations for quality of care	2.99 (0.39)	2.96 (0.40)	2.98 (0.34)	3.14 (0.36)	2.92 (0.45)	1.029	0.384
Nurse manager ability, leadership, and support of nurses	2.90 (0.58)	2.95 (0.54)	2.86 (0.60)	2.93 (0.67)	2.85 (0.67)	0.143	0.934
Staffing and resource adequacy	2.89 (0.53)	2.96 (0.46)	2.88 (0.58)	2.73 (0.59)	2.88 (0.63)	0.512	0.675
Collegial nurse-physician relations	3.02 (0.54)	2.90 (0.13)	2.98 (0.47)	3.26 (0.13)	3.04 (0.55)	1.579	0.2
Composite	2.93 (0.39)	2.94 (0.37)	2.94 (0.39)	3.07 (0.38)	2.77 (0.09)	1.707	0.173

Table 8. Regression of individual characteristics, environment, and Nurse Residency Program structure on mean transition experience scores.

Predictor	**Coefficient**	**SE**	***p* value**
Intercept	1.960	0.273	<0.001
Individual characteristics			
African American	0.167	0.092	0.038
Medical Enlisted Commissioning Program (MECP)	0.062	0.083	0.424
Nurse Candidate Program (NCP)	-0.184	-0.270	0.008
Environment			
Practice Environment	0.322	0.416	<0.001
Nurse Residency structure			
Medical Center A	-0.006	-0.009	0.940
Medical Center B	0.213	0.272	0.051
Medical Center C	0.192	0.281	0.042
Preceptors	-0.036	-0.151	0.016
8-hour shifts	0.058	0.092	0.467
12-hour shifts	0.066	0.103	0.439
Simulation	-0.006	-0.114	0.093

[a] $R^2 = 0.49$

Table 9. Regression of variables predicting transition experience on mean competency scores.

Predictor	**Coefficient**	**SE**	***p* value**
Intercept	2.909	0.419	<0.001
Individual characteristics			
African American	0.471	0.161	0.235
Nurse Candidate Program (NCP)	0.032	0.047	0.068
Environment			
Practice Environment	0.219	0.243	0.048
Nurse Residency structure			
Medical Center B	0.065	0.066	0.616
Medical Center C	0.059	0.075	0.585
Preceptors	-0.017	-0.039	0.062

[a] $R^2 = 0.087$

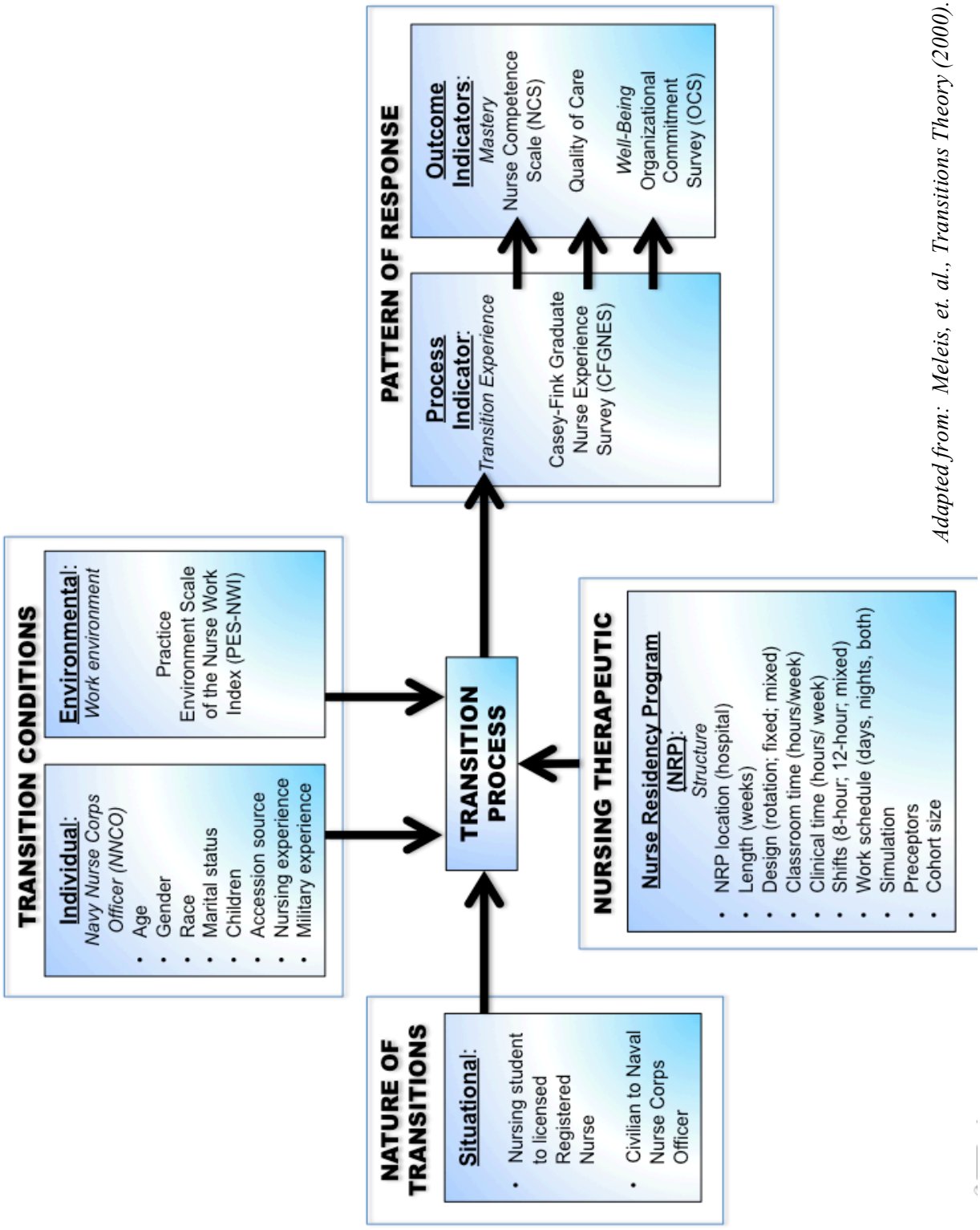
Table 10. Binary logistic regression analysis of transition experience predictors on high quality of care scores.

Predictor	OR	95% CI	*p*-value
Individual characteristics			
African American	0.393	0.01-30.82	0.615
Nurse Candidate Program (NCP)	0.889	0.24-3.35	0.862
Environment			
Practice Environment	1.282	2.46-66.88	0.048
Nurse Residency structure			
Medical Center B	3.032	0.60-15.21	0.178
Medical Center C	0.391	0.91-1.67	0.205
Preceptors	1.595	0.97-2.62	0.055

Table 11. Binary logistic regression analysis of transition experience predictors on high organizational commitment scores.

Predictor	OR	95% CI	*p*-value
Individual characteristics			
African American	0.39	0.01-30.82	0.68
Nurse Candidate Program (NCP)	0.89	0.24-3.35	0.86
Environment			
Practice Environment	1.28	2.46-66.88	0.002
Nurse Residency structure			
Medical Center B	2.10	0.44-9.97	0.35
Medical Center C	0.25	0.07-0.96	0.04
Preceptors	1.60	0.87-0.971	0.05

ACCESSION SOURCE	EDUCATION	AGE	PROGRAM TIME	PAY	OBLIGATION
Direct Accession (DA)	-Managed by CNRC -GPA: 3.0 -Hold BSN/MSN from NLNAC or CCNE accredited program	Commission by age 42 -Entry grade credit eligible	N/A	Nurse Accession Bonus (NAB) eligible: $20K – 3 yr. ACS $30K – 4 yr. ACS -O1/ENS entry level -Eligible for entry grade credit	-3 yr or-4 yr ACS based on NAB amount -8 yr total service obligation Selected Reserve (SELRES) or Individual Ready Reserve (IRR)
Nurse Candidate Program (NCP)	-Managed by NMETC -GPA 3.0 -1 & 2 yr. scholarships; must have more than 6 months until graduation from BSN program -Enrolled or accepted in NLNAC or CCNE accredited program	Commission by age 42	24 months max -$1,000/mo. stipend	-$10,000 NAB ($5,000 at sign on & balance 6 months later) -No tuition fees	-4 yrs ACS for 1st yr. -5 yrs ACS for 2nd yr. -8 yr. total service obligation (SELRES or IRR) -Inactive enlisted reserve end strength (Officer Candidate Under Instruction 2nd Class or E-5) while in school; -Not longevity pay eligible
Medical Enlisted Commissioning Program (MECP)	-Managed by NMETC -GPA 2.5 -Open to all enlisted ratings -Enrolled/ accepted in NLNAC or CCNE accredited BSN program	Commission by age 42	36 months max	-Pay and allowances of enlisted pay grade -No tuition, books, or fees	-4 yrs active duty -8 yr total service obligation (SELRES or IRR) -Must complete 10 years of ACS to be retirement eligible as an officer
Naval Reserve Officers Training Corps (NROTC)	-Managed by Line (NSTC/NETC) -GPA 2.5 2, 3 & 4 yr Scholarships -Must attend NROTC affiliated universities with NLNAC or CCNE accreditation	Commission ENSIGN by age 27 -NROTC Midshipman while in school	48 months *5th year benefits only if required by program	-Full Tuition, books fees, & uniforms -Graduated subsistence $250/mo. (Fresh) $300/mo. (Soph) $350/mo. (Jr.) $400/mo. (Sr.) 2 summer cruises	-4 yrs ACS -8 yr total service obligation (SELRES or IRR)
Seaman to Admiral 21 (STA-21) Nurse Option	-Managed by Line (NSTC/NETC) -GPA 2.5 -Can not currently hold a bachelor's degree -Must attend NROTC affiliated universities with NLNAC or CCNE accreditation	Commission ENSIGN by age 42	36 months max -Attends NSI during program prior to enrollment at NROTC	-Pay & allowances at enlisted paygrade -Educational voucher paid for tuition/books/fees ($10K annual max)	-5 year ACS -8 yr total service obligation (SELRES or IRR) -Must complete 10 years of ACS to be retirement eligible as an officer



Adapted from: Meleis, et. al., Transitions Theory (2000).

Transitions Theory Concept	Nature of the Transition	Transition Conditions		Nursing Therapeutic	Pattern of Response	
		Individual	Environmental		Process Indicators	Outcome Indicators
Transition Theory Concept Definitions	Descriptions of the type, pattern, and properties of a transition	*Personal* conditions that facilitate or hinder progress toward achieving a healthy transition	*Environmental* conditions that facilitate or hinder progress toward achieving a healthy transition	*Intervention* aimed to facilitate the experience of healthy transitions through the provision of sufficient time for the gradual assumption of new responsibilities, implementation of new skills, and the promotion of perceived well-being	*Experience* or process that moves people in the direction of health or vulnerability during transition. Indicative of the development of understanding and confidence	Factors which indicate a healthy or positive transition has occurred *Mastery* – denotes achievement of skilled role performance and comfort with the behavior required in the new situation; *Well-being* – reflects positive integration with broader social networks, new relationships, and commitment to the organization
Study Variables	Situational	*Individual characteristics* of the novice Navy Nurse Corps Officer (NNCO)	*Environmental characteristics* perceived by novice NNCO	*Structure of the Nurse Residency Program attended*	The *transition experience* perceived by the NNCO	Mastery-*Competence* and perceived high *quality care* Well-being – *organizational commitment*
Study Measures	Transition from nursing student to NNCO	-Age -Gender -Race -Marital status -Children -Accession source -Nursing experience -Military experience -NCLEX-RN	-Hospital -Unit type *-Practice Environment Scale of the Nurse Work Index (PES-NWI)*	-Length -Design -Class time -Clinical time -Shifts -Work schedule -Simulation -Preceptors -Cohort size	*Casey-Fink Graduate Nurse Experience Survey (CFGNES)*	-Mastery: *>Nurse Competence Scale (NCS); >Quality of Care* -Well-being: *>Organizational Commitment Survey (OCS)*

APPENDIX D. OPERATIONALIZATION OF STUDY CONSTRUCTS

Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Co
1. *Individual* Characteristics of the Navy Nurse Corps Officer (NNCO) (Covariate)	Demographic form developed by the PI	a. Age (years)	Continuous	1	N/A	<5
		b. Nursing experience (months)	Continuous	3	N/A	
		c. Military experience (years)	Continuous	1	N/A	
		d. Gender Female Male	Categorical (2 levels)	1	N/A	
		e. Race Asian Black Hispanic White More than one race	Categorical (5 levels)	1	N/A	
		f. Marital status Single Married Divorced/ separated	Categorical (3 levels)	1	N/A	
		g. Children Yes No	Categorical (2 levels)	1	N/A	
		h. Accession source Direct NCP NROTC MECP STA-21	Categorical (5 levels)	1	N/A	
		i. NCLEX-RN prior to reporting Yes No	Categorical (2 levels)	1	N/A	*To*

APPENDIX D. OPERATIONALIZATION OF STUDY CONSTRUCTS

Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
2.*Environment* characteristics (Covariate)	Developed by PI	a. NRP location (hospital name)	Categorical	1	N/A	
		b. Type of unit assigned (list of 10 nursing unit specialties)	Categorical	1	N/A	
	Practice Environment Scale of the Nurse Work Index (PES-NWI) (Lake, 2002)	a. Nurse participation in hospital affairs	Continuous	9	0.83	20 minutes
		b. Nursing foundations for quality care	Continuous	10	0.80	
		c. Nurse manager ability, leadership, and support for new nurses	Continuous	5	0.84	
		d. Staffing and resource adequacy	Continuous	4	0.80	
		e. Collegial nurse-physician relationships	Continuous	3	0.71	
		f. Composite score	Continuous	All 31	0.82	*Total items = 33*
Composite score calculated as the mean of the subscale means. Potential score range for mean is 1-4. Higher scores indicate more agreement that the subscale items are present in the current job situation. Values above 2.5 indicate agreement, values below 2.5 indicate disagreement.						

APPENDIX D. OPERATIONALIZATION OF STUDY CONSTRUCTS

Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
3. Nursing Therapeutic: *NRP Structure* (Independent variable)	Developed by the PI	a. Length (weeks)	Continuous	1	N/A	5 minutes
		b. Design Rotation Fixed Mixed	Categorical (3 levels)	1	N/A	
		c. Classroom time (hours/ week)	Continuous	1	N/A	
		d. Clinical time (hours/ week)	Continuous	1	N/A	
		e. Shifts 8-hour 12-hour Mixed	Categorical (3 levels)	1	N/A	
		f. Work schedule Days Nights Both	Categorical (3 levels)	1	N/A	
		g. Simulation Yes No	Categorical (2 levels)	1	N/A	
		h. Preceptors (#)	Continuous	1	N/A	*Total items = 9*
		i. Cohort size (#)	Continuous	1	N/A	
Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
4. Process Indicator: *Transitional Experience* (Dependent Variable for Specific Aim #1)	Casey-Fink Graduate Nurse Experience Survey (CFGNES) (Casey, et. al., 2004)	a. Support	Continuous	9	0.09	15 minutes
		b. Patient safety	Continuous	5	0.79	
		c. Stress	Continuous	1	0.71	
		d. Communication/ Leadership	Continuous	6	0.75	
		e. Professional satisfaction	Continuous	3	0.83	
		f. Composite	Continuous	All 24	0.89	
		g. Job stress (causes)	Categorical	1	N/A	
		h. Job satisfaction (aspects)	Categorical	1	N/A	
		i. Transition	Categorical	4	N/A	
		j. Skills (top 3 uncomfortable performing)	Categorical	1	N/A	
		k. Comments	N/A	1	N/A	*Total items = 32*

APPENDIX D. OPERATIONALIZATION OF STUDY CONSTRUCTS

Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
Composite score calculated as the mean of the subscale means. Potential score range for mean is 1-4.						
5. Outcome indicator: *Mastery-Competence* (Dependent Variable for Specific Aim #2)	Nursing Competence Questionnaire (NCQ) (Watson, 2002)	a. Composite score	Continuous	18	0.89	10 minute
Composite score calculated as the mean of the subscale means. Potential score range for mean is 1-4. The level of difficulty increases from item 1 onwards. Participants are more likely to score above 1 on items in the scale as their own assessment of their competence increase.						
Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
6. Outcome indicator: *Mastery Quality of Care* (Dependent Variable for Specific Aim #2)	Quality of care rating (Patrician, 2010; Aiken, 2013)	a. Composite score	Continuous	1	*	<1 minute
*Reliability of nurses' report of quality assessed by calculating the intraclass correlation (ICC [1, *k*]) using a one-way ANOVA. ICC 0.61 (McHugh & Wikoski, 2012); ICC of 0.73 (Kutney-Lee, Lake, & Aiken, 2009).						
Concept	Instrument & Source	Variables/ Coding	Level of Measurement	Items	α	Completion Time
7. Outcome indicator: *Well-being Organizational Commitment* (Dependent Variable for Specific Aim #2)	Organizational Commitment Scale (OCS) (Mowday, Steers, & Porter, 1979)	a. Composite score	Continuous	15	0.90	10 minutes
Composite score calculated as the mean of the subscale means. Potential score range for mean is 1–7.						
Total items = 119 *Total completion time = 65 minutes*						

APPENDIX E. STUDY TIMELINE

Calendar Months:	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
PREPARATION PHASE												
Complete comprehensive examination.	12-19											
Determine what survey platform will be used.	X											
Complete proposed survey instrument.	X											
Test the proposed survey instrument for feasibility of administration.	X											
Draft approval letter from Director of the Navy Nurse Corps and submit for signature	X											
Draft Navy Survey approval application	X											
Finalize proposal	X	X										
Submit grant application to Tri Service Nursing Research Program (TSNRP)		X										
Complete proposal defense		22										
Complete the Navy Survey approval process		X	X									
Complete IRB process for Naval Medical Center Portsmouth.				X	X							
RECRUITMENT												
Send e-mail for Deputy Director of the Navy Nurse Corps to send to Senior Nurses about survey					X							
Send survey advertisement for submission to monthly Navy Nurse Corps newsletter					X							
Request time to speak about survey at quarterly Nurse Corps Video Teleconference (VTC)					X							
SURVEY IMPLEMENTATION												
Send link to survey, instructions, and point of contact for assistance via e-mail						X						
Send weekly e-mails with appreciation for completing survey and reminders to complete						X						
Survey run time - 1 month						X						
DATA ANALYSIS												
Load data into SPSS							X					
Clean data							X					
Conduct analyses							X					
WRITING												
Chapter 1: Introduction		X	X	X	X	X						
Chapter 2: Literature Review		X	X	X	X	X						
Chapter 3: Methods		X	X	X	X	X						
Chapter 4: Results								X				
Chapter 5: Discussion								X				
DISSERTATION DEFENSE												
Compile complete dissertation draft								X				
Finalize dissertation									X			
Advisor final review of dissertation									X			
Degree application to SON registrar										15		
Complete dissertation submitted to entire committee										15		
Apply for degree online in SIS											1	
Oral dissertation defense											1	
GSAS electronic submission deadline "Final/Approved version"												1
Graduation												X
Calendar Months:	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug

APPENDIX F. NAVY SURVEY APPROVAL

On Thu, Jan 15, 2015 at 1:34 PM, Patrissi, Geoffrey A CIV USN, NPRST-BUPERS-1 <geoffrey.a.patrissi@navy.mil> wrote:

LCDR,

See below.

The RCS number and expiration date need to be on the survey (privacy statement) and any advertisement/recruitment letters.

That lets respondents know it is official.

V/r

Geoff

Geoff,

Navy Nurse Corps Transitions Survey is assigned OPNAV RCS 6550-4 with an expiration date of 30 Jan 2017.

Note:
On the 5214 it is showing the survey instruction as the Requiring Directive, should be changed to reflect the memo.

V/r
Barbara Figueroa
DON Forms & Report Control Manager
Department of the Navy
Chief of Naval Operations Staff (DNS-15)
2000 Navy Pentagon
Room 4E563
Washington, DC 20350-2000
(703) 614-7585

CONTRACT CONTROL NO. C-4282

EDUCATION PARTNERSHIP AGREEMENT

FOR

CLINICAL RESEARCH FOR NURSING

BETWEEN

THE RECTOR AND VISITORS OF THE UNIVERSITY OF VIRGINIA (UVA)

AND THE

NAVAL MEDICAL CENTER PORTSMOUTH (NMCP)

AGREEMENT ADMINISTRATORS

FOR NMCP

Technology Transfer Office:	Cecile Del-Rosario, ORTA 620 John Paul Jones Circle, 14IVZZ Portsmouth, VA 23708-2197 PH: (757) 953-5939; FX: (757) 953-5298 Cecile.DelRosario@med.navy.mil
Legal Counsel:	Jose Rovira, Esq. 620 John Paul Jones Circle, 00SMZZ Portsmouth, VA 23708-2197 PH: (757) 953-5252; Jose.Rovira@med.navy.mil
Principal Investigator:	Craig Cunningham, CDR, NC, USN Department Head Nursing Research and Consultation Services 620 John Paul Jones Circle Portsmouth, VA 23708-2197

UVA

Faculty Contact:	Marianne Baernholdt, PhD, MPH, RN University of Virginia - School of Nursing 202 Jeanette Lancaster Way Charlottesville, VA 22903-3388 PH: (757) 870-4978 E-Mail: baernholdt@virginia.edu

ORIGINAL

Legal Counsel:	William G. Define Director of Tax Compliance and Operational Contracts 1001 North Emmet Street Charlottesville, VA 22903 PH: (434) 243-5592 E-Mail: wgd4c@virginia.edu
Student:	Holly Perez, LCDR, NC, USN 2701 Admiralty Court Chesapeake, VA 23323 PH: (401) 222-9885 E-Mail: hmp7mg@virginia.edu

Education Partnership Agreement

This Education Partnership Agreement is entered into by and between **THE RECTOR AND VISITORS OF THE UNIVERSITY OF VIRGINIA**, a university hereinafter referred to as **UVA** and located at **1001 North Emmet Street, Charlottesville, VA22903** and the United States of America, as represented by the Department of the Navy, **NAVAL MEDICAL CENTER PORTSMOUTH** and located at **620 John Paul Jones Circle, Portsmouth, VA 23708**, hereinafter referred to as **NMCP**.

a. Whereas, Congress in enacting Public Law 101-510 (5 November 1990) and Title 10 United States Code Section 2194, Education Partnerships for the purpose of encouraging and enhancing study in scientific disciplines at all levels of education; and

b. Whereas, Title 10 United States Code Section 2194, Education Partnerships, requires the Secretary of Defense to authorize each defense laboratory to enter into one or more Education Partnership Agreements with educational institutions in the United States, including local education agencies, colleges, universities and nonprofit institutions that are dedicated to improving science, mathematics and engineering education; and

c. Whereas, **NMCP** has a history of world-class research and development, and currently possesses a broad spectrum of skills, facilities, personnel, special equipment, information, computer software and know-how pertaining to clinical research; and

d. Whereas, **NMCP** and **UVA** desire to cooperate in developing a Program under which a Navy Duty Under Instruction (DUINS) program student enrolled in **UVA's** School of Nursing (Holly Perez) will be given academic credit for work on defense laboratory research projects pertaining to clinical research; and

e. Whereas, **UVA** desires to involve its faculty and students in utilizing the outstanding scientific, technological and clinical research resources of **NMCP**;

Now, Therefore, the Parties hereto agree as follows:

1.0 PURPOSE

The purpose of this Education Partnership Agreement is to aid in the education of an UVA nursing student, Holly Perez ("Student") by providing a mechanism by which such Student can undertake research projects and can benefit from the staff expertise, unique facilities and equipment related to clinical research available from **NMCP** through this Agreement. **NMCP's** contributions to this partnership will help to encourage Student interest in the clinical research applications of their individual disciplines; may benefit the laboratory in terms of advance training of future employees; and may benefit the country by exposing students to career opportunities in government research and development.

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2.0 REQUIREMENTS

2.1 Responsibilities of NMCP

2.1.1 **NMCP** will provide personnel, equipment, and facilities to establish a program to allow the selected **UVA** Student the opportunity to work at **NMCP** on research projects in nursing.

2.1.2 **NMCP** may suggest appropriate projects suitable for Student participation. It is understood that projects will normally be of an extent and sophistication commensurate with either senior level undergraduate or advanced degree work. The Parties agree that the clinical project contemplated for the Student under this Agreement will involve human subjects research under the direction of the **NMCP** Partnership Program Manager named in Section 5 of this Agreement acting as the principal investigator for **NMCP**, and the Student/**UVA** Partnership Program Manager acting as the principal investigator for **UVA**. The Parties agree that the protocol for any human subjects research conducted must be approved by the Institutional Review Boards (IRB) of both Parties.

2.1.3 **NMCP** will also be responsible for determining if any laboratory research and development project on which the **UVA** Student works or is involved with contains information which is proprietary or restricted for export or military critical technologies. **NMCP** and **UVA** agree that any projects conducted under this Agreement will not involve information which is proprietary or restricted for export or military critical technologies.

2.1.4 **NMCP** will provide the Student with appropriate guidance from staff scientists and engineers to ensure that projects meet the standards of **UVA** and **NMCP**. The Student's projects should be structured along the lines of typical laboratory work and therefore be representative of meaningful on-the-job experience.

2.1.5 In accordance with Federal policy, the **NMCP** director will place a priority on accepting students suggested by **UVA** who are women, members of minority groups, or other groups of individuals who are traditionally involved in science and engineering professions in disproportionately low numbers.

2.1.6 The level of effort to be expended by **NMCP** on any activity under this Agreement shall be within the discretion of **NMCP**, provided that **NMCP** acknowledges and agrees that it is ultimately responsible for human subjects research occurring at its facility.

2.2 Responsibilities of UVA

2.2.1 **UVA** has specifically designated the Faculty Contact identified on the cover page of this Agreement to serve as liaison with **NMCP** concerning the structure and conduct of this Partnership Program. The Faculty Contact shall also serve as the faculty advisor for the Student and the Partnership Program Manager for **UVA** under this Agreement. The **UVA** Faculty Contact will work with the Student and the **NMCP** staff in a cooperative effort to guide and monitor the Student's work at **NMCP**. The **UVA** Faculty Contact will have the final responsibility for determining the Student's course grade after consultation with the **NMCP** staff involved in the project.

2.2.2 The Student, upon satisfactory completion of participation in the Program, may receive academic credit in the appropriate degree program, in accordance with established **UVA** policies.

2.2.2.1 The Student's involvement in the Program will be in the form of work which will serve as the basis for the Student's doctoral thesis. The Student's doctoral thesis will be the

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Faculty Contact described in paragraph 2.2.1. To obtain graduate academic credit for thesis or project work, established UVA policy must be followed.

2.2.2.2 Acknowledgment of NMCP participation in any report or thesis, or subsequent presentations or publications resulting from work performed under this Agreement shall not be made unless prior written approval from the Commander of the NMCP is obtained. By entering into the Agreement, NMCP does not directly or indirectly endorse any opinions or facts stated in any report, thesis, presentation, or publication made by the Student or any faculty of UVA. Neither the Student nor UVA shall in any way imply that this Agreement is an endorsement of any such opinions or facts presented in any fashion.

2.2.2.3 NMCP, UVA and the participating Student and Faculty Contact agree to confer and consult with each other prior to publication or other public disclosure of the results of work under this Agreement to ensure that no proprietary information or military critical technology is released. Furthermore, prior to submitting a report, thesis or manuscript for publication or before any public disclosure, each Party will offer the other Party an opportunity to review such proposed report, thesis, publication, or disclosure, to submit objections, and to file applications for letters patent (if necessary) in a timely manner, but in any case such review shall not delay release of publication for more than 45 days from submission.

2.3 Funding

Each Party will be responsible for its own funding.

3.0 WARRANTIES

3.1 Of NMCP

NMCP hereby warrants to UVA that the performance of the activities specified by this Agreement is consistent with the mission of NMCP, and that the official executing this Agreement has the requisite authority to do so.

3.2 Of UVA

UVA hereby warrants to NMCP that, as of the date hereof, it is an educational institution, under the definition of, and as required by 10 U.S.C. 2194, dedicated to improving science, mathematics, and engineering education; and that it has the requisite power and authority to enter into this Agreement and to perform according to the terms thereof.

4.0 CONDITIONS AND LIABILITIES

The following conditions and liabilities will apply to this program.

4.1 UVA students and faculty will abide by NMCP rules for security, safety, and general conduct while at NMCP.

4.2 UVA students and faculty participating in the Program will not be required to obtain security clearances. Project completion will not require access to classified information. Work on projects will not require UVA Student or Faculty Contact access to proprietary information in NMCP possession or information for which export is restricted.

4.3 **NMCP** Liabilities

NMCP's responsibility for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of **NMCP** while acting within the scope of his office or employment will be in conformance with the Federal Tort Claims Act (28 U.S.C. Section 2671 et seq.). Except as provided by the Federal Tort Claims Act, **NMCP** shall not be liable to **UVA** for any claims whatsoever, including loss of revenue or other indirect or consequential damages.

4.4 UVA Liability

UVA agrees that it will provide liability coverage under the Commonwealth's self insured program for the Student and the UVA PPM identified in Section 5 for activities performed pursuant to this Agreement.

UVA, as an authorized agency of the Commonwealth of Virginia, participates in the Commonwealth's self insured program, as provided in the Code of Virginia, which provides general liability coverage to its agencies, institutions, employees, and students to the extent students are authorized by **UVA** to participate in educational programs, for acts or omissions arising out of and in the course of their employment and authorization. Claims made against employees, agents or students of the Commonwealth of Virginia are subject to a maximum amount of $2 million per claim. Claims made against employees, agents or students arising out of a medical incident are subject to the limitation on recovery per occurrence specified in Section 8.01-581.15 of the Code of Virginia, as amended and superseded (currently $2m per claim). Nothing contained in this Agreement will be deemed an express or implied waiver of the sovereign immunity of **UVA** or the Commonwealth of Virginia.

4.5 Force Majeure

No Party shall be liable for the consequences of any unforeseeable *force majeure* event that (1) is beyond their reasonable control, (2) is not caused by the fault or negligence of such Party, (3) causes such Party to be unable to perform its obligations under this Agreement and (4) cannot be overcome by the exercise of due diligence. In the event of the occurrence of a *force majeure* event, the Party unable to perform shall promptly notify the other Party. It shall further pursue its best efforts to resume as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the *force majeure* event.

5.0 ADMINISTRATION

The administration of this Partnership Program and the coordination of the specific activities which comprise the Program will be the joint responsibility of the designated program managers from each institution.

CRAIG CUNNINGHAM, CDR, NC, USN will serve as the Partnership Program Manager (PPM) on behalf of **NMCP**. The **NMCP** PPM will work with the UVA PPM to identify specific activities to be undertaken at any given time. The **NMCP** PPM will ensure that Program activities meet the legal and administrative requirements of the United States Government and the Department of the Navy. If **CRAIG CUNNINGHAM, CDR, NC, USN** becomes unavailable for continued service as PPM, **NMCP** will designate a successor PPM.

MARIANNE BAERNHOLDT of **UVA**, will serve as PPM on behalf of **UVA**. The **UVA** PPM will coordinate Program activities with the **NMCP** PPM and ensure that they comply with the legal and

administrative requirements of UVA. If Marianne Baernholdt becomes unavailable for continued service as PPM, UVA will designate a successor PPM.

6.0 GENERAL PROVISIONS

6.1 Entire Agreement

This Agreement constitutes the entire agreement between the Parties concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter.

6.2 Severability

The illegality or invalidity of any provisions of this Agreement shall not impair, affect or invalidate the other provisions of this Agreement.

6.3 Headings

Titles and headings of the sections and subsections of this Agreement are for convenience of reference only and do not form a part of this Agreement and shall in no way affect the interpretation thereof.

6.4 Governing Laws

The Parties agree that the laws of the United States of America as applied by the Federal Courts shall govern this Agreement for all purposes.

6.5 Termination by Mutual Consent and Unilateral Termination

UVA and NMCP may elect to terminate this Agreement at any time by mutual consent. Either Party may unilaterally terminate this entire Agreement at any time by giving the other Party written notice not less than thirty (30) days prior to the desired termination date. In the event of mutual or unilateral termination, the Parties shall specify the disposition of all activities accomplished or in progress, arising from or performed under this Agreement, and they shall specify the disposal of all property in a manner consistent with this Agreement, and property disposal laws and regulations.

6.6 Independent Contractors

With respect to its relation to NMCP under this Agreement, UVA is an independent contractor and its employees and students will not, by virtue of this Agreement, be deemed employees of NMCP, and accordingly, will not be entitled to any benefits or privileges provided by NMCP to its employees. For avoidance of doubt, the term "Partnership" as used in this Agreement signifies an informal collaborative relationship, and does not establish a partnership for legal purposes.

6.7 FERPA

NMCP hereby acknowledges that the information that it may receive from UVA may be confidential student records protected from disclosure to unauthorized parties by the Family Educational Rights and Privacy Act, 20 U.S.C. 1232 g, 34 C.F.R Part 99 (FERPA). NMCP agrees to protect the confidentiality of FERPA-covered student records obtained from UVA and agrees not to disclose these records without the prior consent of the student.

For the Department of the Navy:

I, the undersigned, am duly authorized to bind the U.S. Navy to this Agreement and do so by affixing my signature hereto.

Entered into this 16th day of JAN (month) 2013 (year),

By: _____
Name: E. C. Wagner, RDML, DC, USN

Title: Commander

Navy Organization: Naval Medical Center Portsmouth

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7.0 PERIOD OF AGREEMENT

This Agreement will remain in effect for twenty-four (24) months unless terminated by the either Party by thirty (30) days' advance written notice to the other Party. At the conclusion of this term it may be extended by mutual written agreement of the Parties. Modifications can be made at any time by mutual agreement of the signatories or their successors.

8.0 SURVIVING PROVISIONS

The articles covering Conditions and Liabilities, General Provisions and Surviving Provisions shall survive the termination of this Agreement.

9.0 SIGNATURES

In WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their authorized representatives. Each party shall execute a copy of the Agreement, each of which shall be deemed an original and all of which together shall constitute one instrument.

For The Rector and Visitors of the University of Virginia:

I, the undersigned, am duly authorized to bind UVA to this Agreement and do so by affixing my signature hereto.

Entered into this 7 day of April (month) 2013 (year).

By: _____
Name: Stephen A. Kimata

Title: Assistant VP for Finance

APPENDIX H. INSTITUTIONAL REVIEW BOARD APROVAL: NMCP

6500
Ser 14IVZZ
26 Mar 2015

MEMORANDUM

From: Head, Clinical Investigation Department (CID)
To: Craig A. Cunningham, CDR, NC, USN, Nursing Research Department

Subj: APPROVAL OF CLINICAL INVESTIGATION STUDY NMCP.2015.0025, "THE EFFECT OF NURSE RESIDENCY STRUCTURE ON NOVICE NAVY NURSE TRANSITION TO PRACTICE"

Ref: (a) SECNAVINST 3900.39D
(b) SECNAVINST 5212.5C

Encl: (1) IRB Approved Protocol

Table 1. IRB Actions
Protocol Chronology

IRB approval date:	09 March 2015	**Assurance Numbers**
CO approval date:	24 March 2015	NMCP IRB2
CRADA/MOU approval date:	16 January 2013	DoD-N40003
Risk level:	Minimal	DON IRB#00018
Review cycle:	Annual	FWA #00006001
Protocol expiration date:	08 March 2016	OHRP IRB#00003883

1. Your research protocol was approved by the chair of the Institutional Review Board (IRB) 2 through the expedited review process on 09 March 2015. The annual review and expiration date for your protocol are set by the IRB approval date and are detailed in 2.b. Final approval was obtained from the Commander, Naval Medical Center Portsmouth, on 24 March 2015. Your research may begin on this date. A copy of the approved protocol is forwarded as enclosure (1).

2. Reporting requirements of reference (a) are as follows:

a. **ADVERSE EVENT REPORTS**. Federal law requires you to report any adverse event a subject experiences during the course of your study. Reporting an adverse event does not reflect negatively on you. It ensures that all side effects, problems, and mortality are appropriately reported to regulatory agencies. Unanticipated adverse events must be reported to the IRB per the SOP for the IRB, located on the CID webpage (https://intranet.mar.med.navy.mil/CID/ResearchApplicationForms.asp). Serious adverse events must be reported immediately by contacting CID or the IRB Chair.

Subj: APPROVAL OF CLINICAL INVESTIGATION STUDY NMCP.2015.0025, "THE EFFECT OF NURSE RESIDENCY STRUCTURE ON NOVICE NAVY NURSE TRANSITION TO PRACTICE"

b. **RISK LEVEL AND REVIEW PERIODICITY.** The IRB assigned your protocol a level of minimal risk. A continuing review (progress report) to the IRB is required annually for your study. By federal regulation your protocol will expire if it is not reviewed by the IRB within this period. CID will notify you in advance of the due date for your report and will send you the necessary forms to be completed and returned. All continuing reports must be received by CID 21 calendar days prior to the IRB review date. If your protocol expires, you will be notified to suspend all research activities and to submit a final report. Your next IRB continuing review is scheduled for 08 January 16.

c. **RESEARCH MONITOR.** There is no Research Monitor for this proposal.

d. **INFORMED CONSENT.** Signed informed consent is not required for this research. The IRB has approved a waiver of informed consent.

e. **CHANGES TO PROTOCOL.** You must submit to the IRB any changes (amendments) to your study prior to implementation. Examples of such changes include, but are not limited to: change in investigator, change in objectives, new funding requirements, and changes to your consent form. Amendments must be approved by both the IRB and the Commander prior to implementation.

f. **CLINICAL TRIALS REGISTRY.** If you will be conducting clinical trial research it is recommended that you register your study at http://clinicaltrials.gov or at another acceptable registry prior to collecting data. This is not a Navy requirement, but medical journals may refuse to publish your research if you have not done this.

g. **FINAL REPORT.** You may end your study by submitting a final report where you may request completion or closure without completion. For completion, you will need to report the status of your research and provide either a summary containing, objectives, results, and conclusions; or you may provide an abstract for presentation, a manuscript in preparation, or a published article. If you do not have sufficient data for completion, you may request closure without completion and will need to provide a summary of reasons supporting this request.

h. **TERMINATION**. Your protocol may be terminated by the IRB for a variety of reasons including, but not limited to, serious threats to subject safety or failure of investigator to comply with regulations or instructions from the IRB. If the IRB terminates your protocol, you will be required to provide a final report.

3. **MAINTENANCE OF RECORDS.** Your department must maintain research data records as required by reference (b).

4. **CHANGE OF PI**. CID must be notified 60 days in advance of your separation from the Command. In order to continue your protocol you must identify a new principal investigator or you

must close your protocol by supplying a final report. If a new principal investigator is assuming the responsibility for the study, he/she must be added to the protocol by amendment before your departure or research must be halted until this occurs. It is recommended that you contact CID early in this process to ensure a smooth transition.

5. **PUBLICATIONS AND PRESENTATIONS.** The research data generated as a result of this approved CIP study are the property of the Department of the Navy and may not be released from within the Department without prior written approval. All abstracts, presentations, manuscripts, and review articles must be approved by the command prior to submission for publication. Investigators at commands outside NMCP must obtain approval from those commands. At NMCP, approval request forms may be obtained from the CID web page or from the Deputy Command Publication Officer, Christine Ehlers. Investigators from other commands should contact their local Public Affairs Office.

6. **FUNDING**

a. Approval of your study does not automatically guarantee that funds are available. All requests for the purchase of supplies, equipment, etc. must be submitted to your Department Head, or in some cases, to CID for processing. Any item, such as reprints, that you order directly from a supplier is considered an unauthorized commitment for which you will be responsible. Plan ahead and contact Dr. Thomas Rieg, 757-953-5939 for further information.

b. Within allocated resources, travel funds for presentations may be available from CID. For instructions on travel permissions and funds you should refer to the CID web page, https://intranet.mar.med.navy.mil/CID/Travel/TravelRequestInformation.pdf . Please ensure that you complete the Defense Travel System (DTS) application prior to making contact with the CID travel assistant, Ms. Melvina Queen, 757-953-5939. A trip report must be completed and sent to DTS within 5 days of the completion of your travel.

T. S. RIEG

Copy to:
Protocol Record

APPENDIX I. INSTITUTIONAL REVIEW BOARD APPROVAL: UVA

In reply, please refer to: Project # 2015-0010-00

January 29, 2015

Holly Perez and Pamela DeGuzman
Nursing
2701 Admiralty Ct.
Chesapeake, VA 23323

Dear Holly Perez and Pamela DeGuzman:

Thank you for submitting your project entitled: "The Effect of Nurse Residency Structure on Novice Navy Nurse Transitions to Practice" for review by the Institutional Review Board for the Social & Behavioral Sciences. The Board reviewed your Protocol on January 29, 2015.

The first action that the Board takes with a new project is to decide whether the project is exempt from a more detailed review by the Board because the project may fall into one of the categories of research described as "exempt" in the Code of Federal Regulations. Since the Board, and not individual researchers, is authorized to classify a project as exempt, we requested that you submit the materials describing your project so that we could make this initial decision.

As a result of this request, we have reviewed your project and classified it as exempt from further review by the Board for a period of four years. This means that you may conduct the study as planned and you are not required to submit requests for continuation until the end of the fourth year.

This project # 2015-0010-00 has been exempted for the period January 29, 2015 to January 28, 2019. If the study continues beyond the approval period, you will need to submit a continuation request to the Board. If you make changes in the study, you will need to notify the Board of the changes.

Sincerely,

Tonya R. Moon, Ph.D.
Chair, Institutional Review Board for the Social and Behavioral Sciences

APPENDIX J. SURVEY

Welcome to the Navy Nurse Corps Transitions Survey.

PRIVACY ACT STATEMENT

You have been asked to take part in a confidential survey concerning the transition experiences of novice Navy Nurse Corps Officers. The survey is part of a Department of Defense Educational Partnership Agreement with Naval Medical Center Portsmouth, Virginia, and the University of Virginia. It is conducted by LCDR Holly M. Perez, NC, USN as part of her PhD dissertation at the University of Virginia in Charlottesville, Virginia. License to administer this survey is granted per OPNAVINST 5300.8C under OPNAV Report Control Symbol 6550-4, which expires 30 January 2017.

SUBJECT INFORMATION STATEMENT

PURPOSE/ROUTINE USES: The purpose of this survey is to examine whether the characteristics of a Nurse Residency Program (NRP) attended affect the transition experiences and outcomes of novice Navy Nurse Corps Officers (NNCO). For this survey, the term *novice* refers to any active duty NNCO who has completed an NRP in the last two years.

IMPORTANCE: Novice Navy nurses like you are the predominant source of nursing care for military beneficiaries and will become our senior Nurse Corps leaders of tomorrow. Navy NRPs, provide the ongoing support and education necessary for a smooth transition to the role of a Navy nurse through mentorship and a formal orientation, in conjunction with didactic and clinical experiences. Navy NRPs were developed to improve quality of patient care by providing necessary additional training and support for novice NNCOs. Because the quality, content, and structure of Navy NRPs vary among medical centers and hospitals, it is necessary to investigate how these differences affect the transition experiences and outcomes of novice NNCOs.

PARTICIPATION: Completion of this survey is entirely voluntary. Failure to answer any of the questions will not result in any penalties except the lack of representation of your opinions in the results of the survey. You may stop taking the survey at any time without penalty. There is no direct benefit to you from filling out this survey; however, your participation may help the Navy Nurse Corps refine strategies to assist novice NNCOs transition to the role of Navy nurse.

SURVEY STRUCTURE AND LENGTH: This survey uses a combination of established questionnaires related to transitions and nursing practice, questions about the Nurse Residency Program, and individual characteristics.

This survey will take approximately 60 minutes to complete. Depending on your responses, it may take you more or less time.

RISK: The only risk to you is the inappropriate disclosure of your responses. This risk is minimized by procedures that have been established to ensure that your responses will be protected and by not associating your name or other identifying information with your responses.

CONFIDENTIALITY: Your responses to this survey will be kept strictly confidential. This survey is anonymous. You can be assured that your responses will be confidential and safely protected.

QUESTIONS: If you have any questions about this survey, please contact the Principal Investigator, LCDR Holly Perez, via e-mail at hmp7mg@virginia.edu, or you may contact her at 401-222-9885.

PROTECTION OF HUMAN SUBJECTS: The procedure for this survey (Protocol Number NMCP.2015.0025) has been reviewed by the Institutional Review Board at Naval Medical Center Portsmouth, Virginia. For any questions about your rights as a human subject participating in this survey, call the Chair, Institutional Review Board or the Head, Clinical Investigation Department, Naval Medical Center Portsmouth at (757) 953-5939 or DSN 377-5939.

There are 120 questions in this survey.

SUBJECT INFORMATION AND PRIVACY STATEMENT

I have read the Subject Information and Privacy Statement above. I am an active duty Navy Nurse who has completed a NRP in the last two years, and I voluntarily agree to participate in this survey.

Please select one of the following options:

a) Yes, I am an active duty Navy Nurse who has completed a NRP in the last two years, and I voluntarily agree to participate in the survey.
b) No, I am not an active duty Navy Nurse who has completed a NRP in the last two years.
c) No, I am an active duty Navy Nurse who has completed a NRP in the last two years, but I do not wish to participate in the survey.

The Casey-Fink Graduate Nurse Experience Survey (revised)

Please take a moment to reflect back to the time when you attended the Navy Nurse Residency Program. Please answer each of the following questions by selecting the appropriate number.

		Strongly Disagree	Disagree	Agree	Strongly Agree
1	I felt confident communicating with physicians.	1 O	2 O	3 O	4 O
2	I felt comfortable knowing what to do for a dying patient.	1 O	2 O	3 O	4 O
3	I felt comfortable delegating tasks to Hospital Corpsmen.	1 O	2 O	3 O	4 O
4	I felt at ease asking for help from other RNs on the unit.	1 O	2 O	3 O	4 O
5	I was having difficulty prioritizing patient care needs	1 O	2 O	3 O	4 O
6	I felt my preceptor(s) provided encouragement and feedback about my work.	1 O	2 O	3 O	4 O
7	I felt staff was available to me during new situations and procedures.	1 O	2 O	3 O	4 O
8	I felt overwhelmed by my patient care responsibilities and workload.	1 O	2 O	3 O	4 O
9	I felt supported by the nurses on my unit.	1 O	2 O	3 O	4 O
10	I had opportunities to practice skills and procedures more than once.	1 O	2 O	3 O	4 O
11	I felt comfortable communicating with patients and their families.	1 O	2 O	3 O	4 O
12	I was able to complete my patient care assignment on time.	1 O	2 O	3 O	4 O
13	I felt the expectations of me as a new Navy Nurse Corps Officer were realistic.	1 O	2 O	3 O	4 O
14	I felt prepared to complete my job responsibilities.	1 O	2 O	3 O	4 O
15	I felt comfortable making suggestions for changes to the nursing plan of care.	1 O	2 O	3 O	4 O

	Strongly Disagree	Disagree	Agree	Strongly Agree
16 I was having difficulty organizing patient care needs.	1 O	2 O	3 O	4 O
17 I felt I may harm a patient due to my lack of knowledge and experience.	1 O	2 O	3 O	4 O
18 There were positive role models for me to observe on my unit.	1 O	2 O	3 O	4 O
19 My preceptor(s) helped me to develop confidence in my practice.	1 O	2 O	3 O	4 O
20 I was supported by my family/ friends.	1 O	2 O	3 O	4 O
21 I was satisfied with my chosen nursing specialty.	1 O	2 O	3 O	4 O
22 I felt my work was exciting and challenging.	1 O	2 O	3 O	4 O
23 I felt my manager or Division Officer provided encouragement and feedback about my work.	1 O	2 O	3 O	4 O
24 I experienced stress in my personal life.	1 O	2 O	3 O	4 O

25 If you chose agree or strongly agree to # 24, please indicate what was causing your stress.
You may select more than one choice.

1) NCLEX
2) Finances
3) Child care
4) Living situation
5) Personal relationships
6) Job performance
7) Graduate school
8) Other

Continuing to reflect back to your experiences in the Navy Nurse Residency program you attended:

26 How satisfied were you with the following aspects of your job:

	Very Dissatisfied	Moderately Dissatisfied	Neither Satisfied or Dissatisfied	Moderately Satisfied	Very Satisfied
	1	2	3	4	5
a) Salary	O	O	O	O	O
b) Vacation	O	O	O	O	O
c) Benefits package	O	O	O	O	O
d) Hours that you work	O	O	O	O	O
e) Weekends off per month	O	O	O	O	O
f) Your amount of responsibility	O	O	O	O	O
g) Opportunities for career advancement	O	O	O	O	O
h) Amount of encouragement and feedback	O	O	O	O	O
i) Opportunity to work straight days	O	O	O	O	O

27 Please select any or all that apply:

What difficulties, if any, were you experiencing with the transition from the "student" role to the "Navy Nurse Corps Officer" role?:

a) Role expectations (e.g. autonomy, more responsibility, being a preceptor or in charge
b) Lack of confidence (e.g. Physician or patient communication skills, delegation, knowledge deficit, critical thinking
c) Workload (e.g. organizing, prioritizing, feeling overwhelmed, rations, patient acuity)
d) Fears (e.g. patient safety)
e) Orientation issues (e.g. unit familiarization, learning technology, relationship with multiple preceptors, information overload)

28 Please select any or all that apply:

What could have been done to help you feel more supported or integrated into the unit?:

a) Improved orientation (e.g. preceptor support and consistency, orientation extension, unit specific skills practice)
b) Increased support (manager, RN, educator feedback and support, mentorship)
c) Unit socialization (e.g. being introduced to staff and physicians, opportunities for staff socialization)

d) Improved work environment (e.g. gradual ratio changes, more assistance from unlicensed personnel, involvement in schedule and committee work)
e) This question does not apply to me. I felt supported and integrated into the unit.

These questions again ask you to reflect back to your experiences in the Navy Nurse Residency program that you attended:

29 Please select any or all that apply:
What aspects of your work environment were most satisfying?:
a) Peer support (e.g. belonging, team approach, helpful and friendly staff)
b) Patients and families (e.g. making a difference, positive feedback, patient satisfaction, patient interaction)
c) Ongoing learning (e.g. preceptors, unit role models, mentorship)
d) Professional nursing role (e.g. challenge, benefits, fast pace, critical thinking, empowerment)
e) Positive work environment (e.g. good ratios, available resources, great facility, up-to-date technology)

30 Please select any or all that apply:
What aspects of your work environment were least satisfying?:
a) Nursing work environment (e.g. unrealistic ratios, tough schedule, futility of care)
b) System (e.g. outdated facilities and equipment, small workspace, charting, paperwork)
c) Interpersonal relationships (e.g. gossip, lack of recognition, lack of teamwork, politics)
d) Orientation (inconsistent preceptors, lack of feedback)

31 List the top three (3) skills/ procedures you were *uncomfortable performing* independently at the completion of the Nurse Residency Program you attended.
Skill #1: _____
Please select one from the following options:
a) Arterial/ venous lines/ swan ganz (wedging, management, calibration, CVP, cardiac output)
b) Assessment skills
c) Bladder catheter insertion/ irrigation
d) Blood draw/ venipuncture
e) Blood product administration/ transfusion
f) Central line care (dressing change, blood draws, discontinuing)
g) Charting/ documentation
h) Chest tube care (placement, pleurovac)
i) Code/ Emergency response
j) Death/ Dying/ End-of-Life Care
k) Dobhoff/ NG care/ suctioning/ placement
l) ECG/ EKG/ Telemetry monitoring and interpretation
m) Intravenous (IV) medication administration/ pumps/ PCAs
n) Intravenous (IV) starts
o) Medication administration
p) MD communication
q) Patient/ family communication and teaching

r) Prioritization/ Time management
s) Trach care
t) Vent care/ management/ assisting with intubation/ extubation
u) Wound care/ dressing change/ wound vac

Skill #2: _____

Please select one from the following options:

a) Arterial/ venous lines/ swan ganz (wedging, management, calibration, CVP, cardiac output)
b) Assessment skills
c) Bladder catheter insertion/ irrigation
d) Blood draw/ venipuncture
e) Blood product administration/ transfusion
f) Central line care (dressing change, blood draws, discontinuing)
g) Charting/ documentation
h) Chest tube care (placement, pleurovac)
i) Code/ Emergency response
j) Death/ Dying/ End-of-Life Care
k) Dobhoff/ NG care/ suctioning/ placement
l) ECG/ EKG/ Telemetry monitoring and interpretation
m) Intravenous (IV) medication administration/ pumps/ PCAs
n) Intravenous (IV) starts
o) Medication administration
p) MD communication
q) Patient/ family communication and teaching
r) Prioritization/ Time management
s) Trach care
t) Vent care/ management/ assisting with intubation/ extubation
u) Wound care/ dressing change/ wound vac

Skill #3: _____

Please select one from the following options:

a) Arterial/ venous lines/ swan ganz (wedging, management, calibration, CVP, cardiac output)
b) Assessment skills
c) Bladder catheter insertion/ irrigation
d) Blood draw/ venipuncture
e) Blood product administration/ transfusion
f) Central line care (dressing change, blood draws, discontinuing)
g) Charting/ documentation
h) Chest tube care (placement, pleurovac)
i) Code/ Emergency response
j) Death/ Dying/ End-of-Life Care
k) Dobhoff/ NG care/ suctioning/ placement
l) ECG/ EKG/ Telemetry monitoring and interpretation
m) Intravenous (IV) medication administration/ pumps/ PCAs
n) Intravenous (IV) starts
o) Medication administration
p) MD communication
q) Patient/ family communication and teaching
r) Prioritization/ Time management

s) Trach care
t) Vent care/ management/ assisting with intubation/ extubation
u) Wound care/ dressing change/ wound vac

32 Please share any comments or concerns you have about the Nurse Residency Program you attended:

Source: Casey, K., Fink, R., Krugman, M, & Propst, J. (2004). The graduate nurse experience. *Journal of Nursing Administration, 34*(6), 303-311.

25% of the survey is complete!

The Nurse Competency Scale (revised)					
Now, think about how you see yourself in the **present tense**. The following questions apply to your views **now that you have completed the Navy Nurse Residency Program**. Please answer each of the following questions by selecting the appropriate number.					
		Never	Occasionally	Usually	Always
33	I give emotional support to clients in need.	1 O	2 O	3 O	4 O
34	I strive for optimal standards of care.	1 O	2 O	3 O	4 O
35	I recognize legal responsibilities in clinical practice.	1 O	2 O	3 O	4 O
36	I adopt an individualized approach in planning care.	1 O	2 O	3 O	4 O
37	I provide rationale for thoughts and behavior when questioned.	1 O	2 O	3 O	4 O
38	I communicate concise and appropriate client information as necessary to members of the healthcare team.	1 O	2 O	3 O	4 O
39	I demonstrate a working knowledge of equipment.	1 O	2 O	3 O	4 O
40	I consider psychosocial aspects of any illness or disability when planning care.	1 O	2 O	3 O	4 O
41	I demonstrate knowledge about the condition of clients assigned to me.	1 O	2 O	3 O	4 O
42	I establish clinical priorities in relation to total patient needs.	1 O	2 O	3 O	4 O
43	I use time and resources effectively and efficiently.	1 O	2 O	3 O	4 O
44	I revise care as necessary, based on accurate evaluation.	1 O	2 O	3 O	4 O
45	I anticipate teaching needs of clients.	1 O	2 O	3 O	4 O
46	I make accurate clinical judgments based on assessment data.	1 O	2 O	3 O	4 O
47	I apply resources in a creative manner to solve clinical problems.	1 O	2 O	3 O	4 O
48	I identify and use community resources in the delivery of care.	1 O	2 O	3 O	4 O
49	I use appropriate teaching methods and materials for different audiences.	1 O	2 O	3 O	4 O
50	I plan and implement health teaching for clients when necessary.	1 O	2 O	3 O	4 O

Source: Watson, R., Calman, L., Norman, I., Redfern, S., & Murrells, T. (2002). Assessing clinical competence in nursing students. *Journal of Clinical Nursing, 11*, 554-555.

Again, thinking about your *current practice*, please answer the following questions by selecting the appropriate number.

Quality of Care Provided

51	How would you describe the quality of nursing care *you provide* to patients on your unit?	Poor 1 O	Fair 2 O	Good 3 O	Excellent 4 O
52	How would you describe the quality of nursing care provided to patients on your unit?	Poor 1 O	Fair 2 O	Good 3 O	Excellent 4 O

Organizational Commitment Questionnaire (OCQ)

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are working, please indicate the degree of your agreement or disagreement with each statement.

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither disagree nor agree	Slightly agree	Moderately Agree	Strongly Agree
53	I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
54	I talk up this organization to my friends as a great organization to work for.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
55	I feel very little loyalty to this organization.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
56	I would accept almost any type of job assignment in order to keep working for this organization.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
57	I find that my values and the organization's values are very similar.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
58	I am proud to tell others that I am part of this organization.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
59	I could just as well be working for a different organization as long as the type of work was similar.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
60	This organization really inspires the very best in me in the way of job performance.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
61	It would take very little change in my present circumstances to cause me to leave this organization.	1 O	2 O	3 O	4 O	5 O	6 O	7 O

		Strongly Disagree	Moderately Disagree	Sllightly Disagree	Neither disagree nor agree	Slightly agree	Moderately Agree	Strongly Agree
62	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
63	There is not too much to be gained by sticking with this organization indefinitely.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
64	Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
65	I really care about the fate of this organization.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
66	For me, this is the best of all possible organizations for which to work.	1 O	2 O	3 O	4 O	5 O	6 O	7 O
67	Deciding to work for this organization was a definite mistake on my part.	1 O	2 O	3 O	4 O	5 O	6 O	7 O

Source: Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224-247.

50% complete!

Congratulations! You are over the halfway point in the survey. Your responses are immensely appreciated.

Nurse Residency Program Description

Take a moment and think back to the time you reported to your first assignment as a Navy nurse. The following questions apply to the Nurse Residency Program you attended.

68 Please select from the drop down list the name of the hospital that you completed your

Nurse Residency Program:

Please select one from the following options:

a) Captain James A. Lovell Federal Health Care Center
b) Naval Health Clinic Annapolis
c) Naval Health Clinic Charleston
d) Naval Health Clinic Cherry Point
e) Naval Health Clinic Corpus Christi
f) Naval Health Clinic Hawaii
g) Naval Health Clinic New England
h) Naval Health Clinic Patuxent River
i) Naval Hospital Beaufort
j) Naval Hospital Bremerton
k) Naval Hospital Camp Lejeune
l) Naval Hospital Camp Pendleton
m) Naval Hospital Guam
n) Naval Hospital Guantanamo Bay (GTMO), Cuba
o) Naval Hospital Jacksonville
p) Naval Hospital Lemoore
q) Naval Hospital Naples, Italy
r) Naval Hospital Oak Harbor
s) Naval Hospital Okinawa, Japan
t) Naval Hospital Pensacola
u) Naval Hospital Rota, Spain
v) Naval Hospital Sigonella, Itally
w) Naval Hospital Yokosuka, Japan
x) Naval Medical Center Portsmouth
y) Naval Medical Center San Diego
z) Walter Reed National Military Medical Center

Other (please list): _____

69 About how many weeks was the Nurse Residency Program you attended?

Please select one from the following options:

a) 1-2 weeks
b) 3-4 weeks (about a month)
c) 5-6 weeks
d) 7-8 weeks (about 2 months)
e) 9-10 weeks
f) 11-12 weeks (about 3 months)
g) 13-14 weeks
h) 15-16 weeks (about 4 months)
i) 17-18 weeks
j) 19-20 weeks (about 5 months)
k) 21-22 weeks

l) 23-24 weeks (about 6 months)
m) 25-26 weeks
n) 27-28 weeks (about 7 months)
o) 29-30 weeks
p) 31-32 weeks (about 8 months)
q) 33-35 weeks
r) 36-43 weeks (9-10 months)
s) 44-52 weeks (11-12 months)
t) over 12 months

70 During your Nurse Residency Program, about how many hours of a typical 40-hour week were dedicated to *classroom instruction*, to include grand rounds, presentations, and simulation lab?
Fill in the number of hours.

_____

71 About how many hours of a typical 40-hour work week during your Nurse Residency Program were dedicated to *clinical practice*, to include time caring for patients on a unit?
Fill in the number of hours.

_____

72 Describe the design of your program (select one):

a) **Rotate** – You did not stay on your permanently assigned unit the entire duration of the program. Instead, you spent most of your time rotating to different units for a variety of clinical experiences.

b) **Fixed** – You were assigned a unit and stayed there for the duration of the program. You did not rotate to any other units for additional clinical experience.

c) **Mixed** – You spent some time on your permanently assigned unit and some time on other units equally.

73 Describe your work hours during the Nurse Residency Program you attended (select one):

a) 8-hour shifts
b) 12-hour shifts
c) Both 8 and 12-hour shifts

74 Describe your work schedule during the Nurse Residency Program you attended (select one):

a) Day shift (0700-1500 or 0700-1900)
b) Night shift (2300-0700 or 1900-0700)
c) Both day and night shifts equally

75 Did your Nurse Residency Program provide you opportunities to learn in a simulated environment, such as that which may be available in a simulation lab?

a) No
b) Yes

76 About how many preceptors did you have throughout the Nurse Residency Program you attended?

a) None
b) 1
c) 2
d) 3-4
e) 5-6
f) 7 or more

77 About how many other Navy Nurses checked into the command around the same time you did and began the Nurse Residency Program with you? In other words, how many Navy Nurses were in the Nurse Residency Program at your hospital when you were attending?

a) No one else, just you
b) 1-2
c) 3-5
d) 6-10
e) 11-20
f) 21 or more

The Practice Environment Scale of the Nursing Work Index

For each item in this section, please indicate the extent to which you agree that the item is present in your current job. Indicate your degree of agreement by selecting the appropriate number.

		Strongly Disagree	Disagree	Agree	Strongly Agree
78	Adequate support services allow me to spend time with my patients.	1 O	2 O	3 O	4 O
79	Physicians and nurses have good working relationships	1 O	2 O	3 O	4 O
80	Supervisory staff is supportive of the nurses.	1 O	2 O	3 O	4 O
81	Active staff development or continuing education programs for nurses.	1 O	2 O	3 O	4 O
82	Career development/clinical ladder opportunity.	1 O	2 O	3 O	4 O
83	Opportunity for staff nurses to participate in policy decisions.	1 O	2 O	3 O	4 O
84	Supervisors use mistakes as learning opportunities, not criticism.	1 O	2 O	3 O	4 O
85	Enough time and opportunity to discuss patient care problems with other nurses	1 O	2 O	3 O	4 O
86	Enough registered nurses to provide quality patient care.	1 O	2 O	3 O	4 O
87	A nurse manager who is a good manager and leader.	1 O	2 O	3 O	4 O
88	A chief nursing officer who is highly visible and accessible to staff	1 O	2 O	3 O	4 O
89	Enough staff to get the work done	1 O	2 O	3 O	4 O
90	Praise and recognition for a job well done.	1 O	2 O	3 O	4 O
91	High standards of nursing care are expected by the administration	1 O	2 O	3 O	4 O
92	A chief nursing officer equal in power and authority to other top-level hospital executives	1 O	2 O	3 O	4 O

Continuing on, please indicate the extent to which you agree that the item is present in your current job. Indicate your degree of agreement by selecting the appropriate number.

		Strongly Disagree	Disagree	Agree	Strongly Agree
93	A lot of team work between nurses and physicians.	1 O	2 O	3 O	4 O
94	Opportunities for advancement.	1 O	2 O	3 O	4 O
95	A clear philosophy of nursing that pervades the patient care environment.	1 O	2 O	3 O	4 O
96	Working with nurses who are clinically competent.	1 O	2 O	3 O	4 O
97	A nurse manager who backs up the nursing staff in decision-making, even if the conflict is with a physician.	1 O	2 O	3 O	4 O
98	Administration that listens and responds to employee concerns.	1 O	2 O	3 O	4 O
99	An active quality assurance program.	1 O	2 O	3 O	4 O
100	Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).	1 O	2 O	3 O	4 O
101	Collaboration (joint practice) between nurses and physicians.	1 O	2 O	3 O	4 O
102	A preceptor program for newly hired RNs	1 O	2 O	3 O	4 O
103	Nursing care is based on a nursing, rather than a medical, model.	1 O	2 O	3 O	4 O
104	Staff nurses have the opportunity to serve on hospital and nursing committees.	1 O	2 O	3 O	4 O
105	Nursing administrators consult with staff on daily problems and procedures	1 O	2 O	3 O	4 O
106	Written, up-to-date nursing care plans for all patients.	1 O	2 O	3 O	4 O
107	Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.	1 O	2 O	3 O	4 O
108	Use of nursing diagnoses.	1 O	2 O	3 O	4 O

Source: Lake, E. T. (2002). Development of the Practice Environment Scale of the Nursing Work Index. *Research in Nursing & Health, 25*(3), 176-188.

Individual Characteristics

The following items are necessary to describe the novice Navy Nurse Corps Officer population, to include data about yourself, your life experiences, and your work experiences that make you similar or different from each other, from the civilian population, or from other military services.

109 How old are you?

Please choose one of the following:

a) 20-25 years
b) 26-30 years
c) 31-35 years
d) 36-40 years
e) Over 40 years

110 How long have you been licensed as *a Registered Nurse*?

Please choose one of the following:

a) < 1 month
b) 1-3 months
c) 4-6 months
d) 7-11 months
e) 12-18 months
f) 18-23 months
g) 2 years
h) 3 years
i) 4 years
j) 5 years
k) Greater than 5 years

111 How long have you been practicing as a Registered Nurse *at the current Naval hospital* you are assigned?

Please choose one of the following:

a) < 1 month
b) 1-3 months
c) 4-6 months
d) 7-11 months
e) 12-18 months
f) 18-23 months
g) 2 years
h) 3 years
i) Greater than 3 years

112 How long have you been practicing as a Registered Nurse *on the current unit* you are assigned?

Please choose one of the following:

a) < 1 month
b) 1-3 months
c) 4-6 months
d) 7-11 months
e) 12-18 months
f) 18-23 months

g) 2 years
h) 3 years
i) Greater than 3 years

113 How long have you been *on active duty in the Navy*?
Please choose one of the following:
a) < 3 month
b) 4-6 months
c) 7-11 months
d) 12-18 months
e) 18-23 months
f) 2 years
g) 3 years
h) 4-6 years
i) 7-10 years
j) Greater than 10 years

114 What is your gender?
a) Female
b) Male

115 Select which option(s) best describes you:
a) American Indian/ Alaska Native
b) Asian
c) Black/ African American
d) Hispanic/ Latino
e) Native Hawaiian/ Other Pacific Islander
f) White
g) Other

116 Select the option that best describes you:
a) Single
b) Married
c) Divorced or separated

117 Do you have children?
a) Yes
b) No

118 What type of unit are you presently assigned?
Please choose one of the following:
a) ER
b) ICU
c) Labor & Delivery
d) Maternal/child ward
e) Medical/ Surgical ward
f) Mental Health
g) Oncology ward
h) OR
i) PACU
j) Pediatric ward

k) PICU
l) Telemetry/ Progressive Care unit

119 Please select the source in which you were commissioned:
a) Direct accession
b) Naval Reserve Officers Training Corps (NROTC)
c) Medical Enlisted Commissioning Program (MECP)
d) Seaman-to-Admiral (STA-21)
e) Nurse Candidate Program (NCP)

120 Did you pass your licensing examination (NCLEX-RN) prior to reporting to your hospital assignment?
a) No
b) Yes

100% Complete!

This concludes the Navy Nurse Corps Transitions Survey.

Thank you for taking valuable time out of your day to complete the Navy Nurse Corps Transitions Survey.