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What effects do nurse residency programs have on the transition of newly licensed nurses into the practice environment during the first year of practice?

Jennifer A. Ochs

What effects do nurse residency programs have on the transition of newly licensed nurses into the practice environment during the first year of practice?

By Jennifer A. Ochs, RN-BSN

A Master's Evidence Based Nursing Education Project submitted to Cardinal Stritch University Ruth S. Coleman College of Nursing in partial fulfillment of the requirements for the degree

Master of Science in Nursing

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Cardinal Stritch University

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CARDINAL STRITCH UNIVERSITY

Ruth S. Coleman College of Nursing

EVIDENCE BASED NURSING EDUCATION PROJECT

APPROVAL FORM

April 8. 2014

We hereby recommend that the evidence based nursing education integrated review prepared by

Jennifer A. Ochs

Entitled: What effects do nurse residency programs have on the transition of newly licensed nurses into the practice environment during the first year of practice?

be accepted as fulfilling this part of the requirements for the Degree of Master of Science in Nursing.

Project reader's signatures:

First Reader.

Barb Haag-Heitman Barb Haag Heitman RN, PhD

Accepted:

CON Dean Signature

Abstract

Purpose: The purpose of this review is to compare current research on nurse residency programs and determine to what degree they assist the positive transition of new graduate nurses during the first year of practice.

Design: An integrative literature review was conducted of research studies on nurse residency programs in acute care settings. Kramer's Reality Shock Theory guided this review.

Methods: Research published in the U.S. between 2007-2013, was obtained from electronic data searches using the key works "new graduate nurses", "novice nurse", "reality shock", and "nurse residency programs." Outcomes were compared and synthesized into major themes.

Findings: Major themes include an increase in competency, satisfaction, peer support, confidence, commitment to the profession, and retention of nurses who completed yearlong residency programs. Organizational cost savings was also found.

Conclusions/Relevance: The findings support previous research recommendations that the ideal length of nurse residency programs is one year; and the essential program components include preceptors or mentors and didactic education. This study findings show advance evidence of the important effects that nurse residency programs have on new graduate nurses' transition into practice, including a reduction in reality shock.

Keywords: new graduate nurses, novice nurse, reality shock, and nurse residency programs.

Dedication

They may forget your name but they will never forget how you made them feel.

-Maya Angelou

This work is dedicated to my daughter, Naomi who was my motivation to succeed not only in my own higher learning, but in the higher education of the nurses to come. To my son Alziah who led me into the nursing profession which changed my life forever. I would also like to dedicate this to all the nurse educators who spend their days providing the knowledge and support needed to their students. My goal was to write this in hopes of continuously improving our nurse residency and orientation programs to best meet the needs of our future nurses.

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Finally I would like to express my deepest thanks to my best friend Susan Janquart. We have been friends for many years and have endured many good times and bad. We struggled through undergraduate nursing school, EMT classes, family and life obstacles, and I am so thankful that we had the opportunity to complete our Master's degree together. Over the past three years we have shared hopes, fears, tears, anger, secrets, and most of all snacks. I stand firm that I could not have made it to the end without your continued support and listening ear.

Introduction

The need for retention of new graduates in the workforce is increasing in response to the upcoming United States national nursing shortage that may reach 500,000 by the year 2025 (Kowalski, 2010). New graduate registered nurses make up approximately ten percent of the acute care workforce (Trepanier et al, 2012). Nursing schools cannot fully prepare the graduates for the transition into acute care settings (Eigsti, 2009). Traditional approaches to new graduate transition also challenges as healthcare organizations who express concerns regarding inexperienced nurses in the workforce including, practice errors, and poor retention rates (Chandler, 2012). Newly licensed graduate nurses often experience difficulty adjusting to roles in acute care settings and often feel unsupported by orientation and training (Kramer, 2012). To address these concerns nurse residency programs are being implemented nationwide to support this transition. The University Health System Consortium (UHC)/American Association of colleges of Nursing (AACN) Residency Program is one of the first and most studied programs, formed out of the desire of chief nursing officers for a better educated workforce in their clinical settings (AACN, 2012). New residency programs also support the transition from the novice new graduate to a more competent and professional nurse.

Support of newly licensed nurses throughout the first year of practice is important to the retention, confidence, and independence of new graduates (Chandler, 2012). Lack of a supportive transition into practice may hinder the new nurses' progression through the phases of reality shock during their first year of practice following orientation (Kramer, 2012). The Institute of Medicine (IOM) future of nursing report calls for the universal implementation of nurse residency programs for nurses who completed a pre-licensure or advanced practice degree program or when they are transitioning into new clinical practice areas (IOM, 2010). Successful

transition from new graduate nurse to professional nurse is vital to the professional development of the individual nurse along the novice to expert continuum (Haag-Heitman, 2012) and the nursing profession.

Currently there is a lack of standardization related to the development and implementation of nurse residency programs in hospitals across the country. Nurse residency programs are not mandatory and there is much variability in the teaching methods, content and program lengths reported in the literature. The AACN recommends a 12-month residency program with the use of observation, didactic, and preceptor (AACN, 2012). Outcomes measurement is also inconsistent with some organizations reporting the use of Benner's novice to expert framework as an outcome measurement with no formal tool or exemplar use identified that accurately measures this progression. The literature also suggests that new graduate nurses leave their first position due to lack of preparedness and support during the transitions to practice; however personal and other factors are often not explored or reported.

Nurse residency programs are not yet a standardized approach to graduate nurses' transition to practice, despite positive outcomes from the implementation of nurse residency programs reported in the literature over the past decade. Barriers to the universal implementation reported include cost and resources needed for implementation (Trepanier et al, 2012). This review focuses on the identification of the essential components of nurse residency programs and associated outcomes. The research question asks, what effects do nurse residency programs have on the transition of newly licensed nurses into the practice environment during the first year of practice?

Background

A partnership between the UHC and the AACN established a national post-baccalaureate graduate nurse residency program in 2000. The UHC is an alliance of approximately 90% of the nation's non-profit academic medical centers and their affiliated hospitals. The first residency program was forced as a result of input from the chief nursing officers of the UHC hospitals. The AACN members consist of baccalaureate- and higher degree nursing education programs. Through their collaborative efforts, the first research was conducted to determine what organizational support was already in place for new graduates (UHC, 2014). From this research, the first nurse residency programs were designed to support the new graduate nurse to: use effective decision-making skills, provide clinical nursing leadership, incorporate research-based evidence into practice, strengthen professional commitment to nursing, and formulate an individual development plan. Benner's Novice to expert model, based on Dreyfus' Model of Skill Acquisition is the conceptual framework behind nurse residency programs (UHC, 2014). The UHC/AACN designed residency programs have demonstrated after a one-year residency program, the new licensed nurses had transitioned into professional nurses fully capable of providing safe, quality care (Goode et al, 2009).

In 2008, the Commission on Collegiate Nursing Education (CCNE), an autonomous arm of the AACN, announced the development of a formal accreditation process for post-baccalaureate nurse residency programs. The accreditation aim is to foster continuing program improvement and increase public recognition of nurse residency programs nationwide (AACN, 2012). The purpose of nurse residency programs is to offer extended clinical and didactic education to assist in the transition to professional nurse (Eigsti, 2009).

According to Benner's novice to expert theory, new graduate nurse transitions from the novice stage to the advanced beginner during the first year of practice and typically remain in the advanced beginner role for the first 1-2 years of practice (Benner, 1984). The transition from student to novice professional nurse has been described by new graduates as traumatic, confusing, and shocking (Kramer, 2012). In 2005, Martin & Wilson, (2011) reported that 57 percent of new graduate nurses left their first nursing position listing working conditions and lack of support as their primary reasons. Bowles & Candela, (2005) reported 30 percent of new graduates in the state of Nevada left their first position by the end of the first year, and 57 percent by the second year. Ulrich et al, (2010) report that in 2007, turnover rates of newly licensed nurses at 12-months post-hire peaked as high as 75 percent.

According to Kramer, newly licensed nurses need socialization and support provided by a preceptor who has had additional mentoring training. New graduates also need a blended variety of learning strategies including observation, didactic, and hands on training to address uncertainties. Over the years NRPs focused on seven areas of concern during the new graduates' transition and include: practice, delegation, collaboration, self-confidence, decision-making, prioritization, and conflict resolution (Kramer, 2012).

Factors that reflect the need for NRPs include increasing patient acuity, the complexity of acute care settings, and a noted high turnover rate of new graduate nurses within the first year of practice (Kowalski & Cross, 2010). The UHC/AACN, (2012) and the IOM, (2012) currently recommend the implementation of nurse residency programs as a standard for orientation in replacement of traditional orientation programs for post graduate nurses. The IOM advocates development of NRPs and recommends financial public and professional support for their development and implementation (IOM, 2010). The UHC and AACN have had a task force

working with the Commission on Collegiate Nursing Education (CCNE) to develop standards for nurse residency programs and report that residency programs are a success in the transition from graduate nurse into professional practicing nurse (Goode et al, 2009). The AACN recommends a yearlong residency program consisting of clinical observation, hands-on clinical training, didactic teaching, and the use of a preceptor (AACN, 2012). Preceptors are widely used in the healthcare settings and provide clinical and social support and professional guidance for new graduate nurses.

Not all residency programs follow the UHC/AACN guidelines. During the past several years, reports on other nurse residency programs appeared in the literature that is variable in length and approach. This report is a review of the most recent research on nurse residency programs.

Research Question

The research question for this integrated literature review is: What effects do nurse residency programs have on the transition of newly licensed nurses into the practice environment during the first year of practice? For the purpose of this review, a new graduate nurse is defined as a registered nurse who graduated from an accredited school of nursing, passed the National Council Licensure Examination (NCLEX) exam, and has less than one year of clinical nursing experience.

Search Terms and Methods

An electronic search of the literature was conducted using various combinations of key words ‘new graduate nurses’, ‘novice nurse’, ‘advanced beginner nurse,’ reality shock’, and ‘nurse residency programs’. The purpose of the search was to identify recent research that

addresses the research question and then critique, and synthesize the search findings. The search was limited to literature published between 2007-2013.

The first strategy involved a computerized search using EBSCO host with the following databases; MEDLINE, PUBMED, and Cumulative Index of Nursing and Allied Health Literature (CINAHL). This process yielded 185 articles that met the search criteria. Additionally a Google scholar web search specifically for nurse residency programs yielded an additional three articles. Determination to include in this review also included reading the article abstract. This eliminated 123 articles being not relevant to the research question. The remaining 62 articles were placed onto quantitative or qualitative evidence tables depending on the study design. The articles were then reviewed for the strength of the evidence using the criteria from Burns & Grove, 2005 for the quantitative studies and from Cesario, Moren, & Santo-Danato, 2002 were used for the qualitative studies. Each rating category was scored between0-3 points for the degree of meeting the required criteria (zero= poor, 2= fair and 3=good). After calculating the scores a rating for each article was determined: QI = a poorly constructed article that met less than half the criteria required; QII = a fair level of study that met half or more of the criteria; and QIII= a high rating of the study article that assured it was well constructed. Thirty articles received a poor level score and were eliminated. The remaining 28 articles were evaluated for inclusions and exclusions as listed below, resulting in ten articles. Tens studies met the inclusion criteria and are included in the review.

Inclusions and Exclusions

Inclusion criteria included: studies published 2007-2013 in the United States; full text articles that were peer reviewed and had references available; studying new graduate nurses and residency programs in acute care settings. The review included nurse residency programs of

varying lengths. Exclusions included studies conducted outside the United States, literature reviews, and program evaluations. Studies published before 2007 were also excluded.

Four studies were published in *Nursing Economics*, two in the *Journal for Nurses in Staff Development,* and one each in the *Journal of Emergency Nursing,* the *Journal of Nursing Management,* the *Western Journal of Nursing Research,* and the *International Journal for Human Caring.*

Grading Methodology

Each of the 10 research reports underwent a review, and components of each placed into a qualitative or quantitative evidence table as appropriate. The quantitative evidence table contains the following 12 categories: research purpose, research problem, review of the literature, conceptual framework, research questions, study terms and variables, research design, sample, data collection, data analysis, results or findings, and discussion.

The qualitative evidence table contains the following 10 categories: descriptive, vividness of written report (article), method considerations, procedural rigor, ethical rigor, conformability, analytical precision, theoretical connection, phenomenon recognition, knowledge relevance, and applicability of the study. Mixed methods studies were placed on the table best corresponding to the main research method used within the study.

The quantitative studies underwent a further review to rate the quality of the study using scoring criteria adapted from Burns & Grove, 2005. The qualitative review uses scoring criteria adapted from Cesario et al, 2002. A copy of this criterion can be found in are in Appendix A.

According to the qualitative research evidence rating scale designed by Cesario, S., Morin, K., & Santo-Donato, A., (2002) three of the articles, Kramer et al, (2012); Eigsti, (2009); and Martin & Wilson, (2011), scored as good, high quality article, while two, Glynn & Silva,

(2013); and Chandler, (2012) scored as fair quality articles. According to the quantitative research scoring criteria adapted from Burns, N., & Grove, S.K. (2005), four studies, Kowalski & Cross, (2010), Friedman et al, (2013), Trepanier et al, (2012), and Goode et al, (2009) scores as high level, well-constructed studies, while Halfer et al, (2008) scored as a fair level study.

Terms and Definitions

Dr. Patricia Benner's research over the past three decades provides evidence based developmental framework for nursing skill acquisition along a novice to expert continuum. Benner's framework consists of five levels of nursing skill development: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). Nurses develop skill and understanding over time through education and experience. For the purpose of this literature review, only novice and advanced beginner are addressed as these are the first two stages of development and specific to the new graduate nurse.

A novice nurse is defined as new graduate of a registered nurse program. Novice nurses rely on policies and procedures along with organizational standards to guide their work.

> Haag- Heitman, (1999) report the novice nurse is a new graduate of a RN program and is on orientation. This nurse is obtaining knowledge and experience in clinical and technical skills. Under the guidance of a preceptor, the nurse collects objective data according to guidelines and rules obtained from nursing education and in orientation. The novice nurse seeks assistance in making clinical decisions. (p. 161)

Upon completion of formal orientation new nursing graduates enter the stage of advanced beginner.

> Haag-Heitman, (1999) report Nurses at the Advanced Beginner stage are guided by policies, procedures, and standards. They are building a knowledge base

> through practice and are most comfortable in a task environment. They describe a clinical situation from the viewpoint of what they need to do, rather than relating the context of the situation or how the patient responds. Advanced beginners practice from a theoretical knowledge base while they recognize and provide for routine patient needs. (p.161)

Other characteristics of advanced beginners include seeing clinical situations from the viewpoint of what they need to do, rather than relating the context of the situation or how the patient responds. Early stage advanced beginners also still practice from a theoretical knowledge base while they recognize and provide for routine patient needs, they work from previous learned knowledge. Early stage advanced beginners continue to seek guidance and support from a preceptor or trusted co-worker, begin associating themselves as part of a team, and begin incorporating patient and family education into practice (Haag-Heitman, 1999).

Theoretical Framework

Kramer's (1974) reality shock theory helps frame this review. Kramer defines four stages of reality shock. The honeymoon phase is the first stage and begins once the new graduate nurse has completed his/her nursing degree and enters the professional world of nursing. The new graduates are typically happy to be done with nursing school and excited to start their first job. In this stage, the new graduate perceives the work environment and new colleagues in a positive light. The focus of the honeymoon stage is learning the unit routines, being introduced to new people, and developing new skills to provide excellent nursing care to those entrusted to them (Kramer, 1974).

The Shock Phase follows as the second phase. This stage typically begins six months to one year after completing an orientation program. During the Shock Phase, the nurse begins to

encounter discrepancies and inconsistencies in the work environment. The nurse may also begin to discover concerns with the practices of other nurses. Examples of these discrepancies and inconsistencies may include: discovering their preceptor does not always follow policies;, - realizing they do not have the tools and/or equipment to do their job at times;,- experiencing communication breakdowns between members of the team;,- identifying poor professional behaviors in their fellow nurses; and feeling humiliated by a physician, bullied by a nurse, or embarrassed by a colleague.

The Recovery Phase is the third stage and during this time, the nurse begins to see the balance between what works well and what needs improvement. During the Recovery Phase, it is important that the graduate nurse learns to balance the needs of the individual patient and the needs of the setting. Kramer (1974) found that role conflict was a major problem for new graduates during the first 18 months in their job. This conflict resolves when the new nurse is able to see ways that he/she can influence the work environment. The nurse realizes every nurse defines their own practice and it is their job to be the nurse who they want to be (Kramer, 1974).

In the final Resolution Phase, the nurse has the opportunity to define the nurse they want to be. There is some caution in this stage as this is when the nurse may consider adopting values and beliefs that are less than ideal in order to fit in with their co-workers. During the Resolution Phase the nurse must determine whether he/she will be able to recover from the shock phase and move forward as a nurse. The nurse may otherwise realize that recovery and resolution is not possible and may choose to leave the area of nursing, or may leave the field of nursing altogether (Kramer, 1974).

According to Kramer (2012), the nurse is in the honeymoon phase after orientation completion up to six months post orientation. Upon successful completion of the probationary

period and orientation program, the nurse advances to functioning independently and is now managing a patient load. Anywhere between four and six months post orientation reality shock sets in the nurses stress load increases, he/she may feel scared, overwhelmed, and/or alone. This is a very stressful transition and the nurse may feel incompetent, be fearful to admit to mistakes, fearful to ask questions, or question a physician, and have difficulties prioritizing patients and/or delegating appropriate tasks. From six to eight months post orientation the nurse begins the recovery stage and by eight to twelve month the nurse has either recovered from the reality shock and has successfully transitioned into a professional nurse, or has chosen to exit the nursing profession.

An author modified version of Kramer's Reality Shock theory is presented in Figure 1 below. The phases of reality shock are illustrated according to the months post hire of the new graduate. Modifications were made to adapt to Kramer's Reality Shock process, by the author, through the first 12 months post hire of a new graduate nurse. The stages and responses will fluctuate with each nurse dependent of what type of orientation program they receive. A new graduate that receives a standard orientation as opposed to a nurse residency program may begin feeling uncertainty and lose confidence within the first few months post hire and develop shock and despair sooner if not supported by the organization and peers during the orientation process. Kramer et al, (2012) reports those new graduates that enter reality shock within the first few months tend to leave the nursing profession.

Yearlong nurse residency program that provide a preceptor or mentor for support may assist the new nurse in the phases of shock and despair. According to this model, nurse residency program that are shorter than one year in length would not be sufficient to support and assist the new nurse through the reality shock and into the recovery and resolution phase.

Kramer, (1974) also reports that the progression through reality shock may be dependent on the new nurse's prior experience. According to Kramer, new nurses who have had prior acute hospital setting experience may transition through reality shock at a much faster progression than those who have had no prior healthcare experience. Kramer also suggests those who have prior healthcare experience have likely transitioned through a form of reality shock and are capable of transitioning to the recovery and resolution phase more quickly.

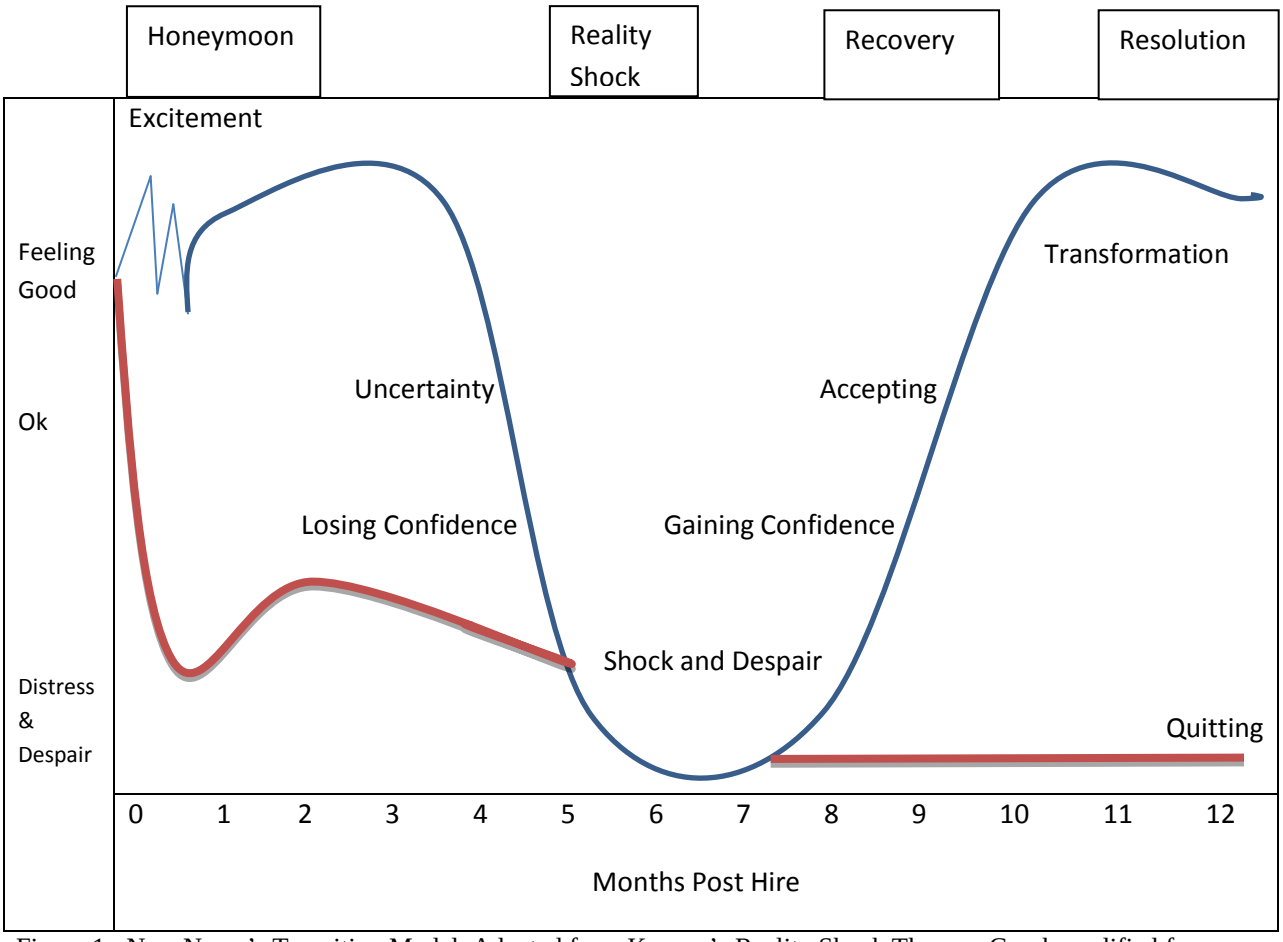

Figure 1: New Nurse's Transition Model. Adapted from Kramer's Reality Shock Theory. Graph modified from original source (PR-Weekend, 2010)

Synthesis of the Literature

This section presents a collaborative summary of the research approaches followed by the common themes across the studies.

Summary of the Literature Used

Of ten research reports included in this review, four are qualitative and six are quantitative. All studies were conducted with a focus on new graduate nurses in acute care hospital settings. Trepanier et al, (2012) is a cost benefit analysis of a nurse residency program. Friedman et al, (2013) examined retention, and Kowalski & Cross, (2010); and Goode et al, (2009), examined self-efficacy post nurse residency programs, along with associated outcomes of confidence, the ability to recognize and prioritize work, and communication with team members, patients, and families. Egisti, (2009), examined satisfaction and retention, Halfer, (2008) examined competency, proficiency, confidence, and satisfaction. Kramer et al, (2012), examined competency, confidence, the very healthy work environment, and commitment to the profession. Martin & Wilson, (2011), Glynn & Silva, (2013), and Chandler, (2012), studied the lived experience of the new nurse during the first year of employment.

Research Questions

Four of the ten studies reported their specific research questions; Eigsti's, (2009), Friedman et al, (2013), and Kowalski & Cross, (2010) posed questions relating to the retention of new graduates post completion of residency program. Kramer et al, (2012) and Kowalski & Cross, (2010) focused on specific questions targeting transition and integration of new graduates into professional nursing practice. Eigisti, (2009) examined satisfaction of education received during the nurse residency program. The remaining six studies, Halfer et al, (2008), Trepanier et al, (2012), Goode et al, (2009), Glynn & Silva, (2013), Chandler, (2012), and Martin & Wilson, (2011), did not report specific research questions. This absence of a consistent research focus influences the ability to draw specific conclusions about the findings.

Study Theoretical or Conceptual Frameworks

The most common frameworks used were Benner's novice to expert, followed by Kramer's Reality Shock Theory and Merton's three stage theory of professional socialization. Four of the ten studies, Eigsti, (2009), Friedman et al, (2013); Trepanier et al, (2012) and Glynn & Silva, (2013), solely used Benner's framework. Kramer et al, (2012), used Kramer's Reality Shock framework along with Merton's three stage theory of professional socialization, Martin & Wilson, (2011) used both the Benner and Kramer framework, and Chandler, (2012) used an appreciative inquiry approach framework (Hammond, 1998). Two authors did not report use of a framework, Halfer, (2008) and Kowalski & Cross, (2010). Goode et al, (2009) uses an unidentified framework. Lack of a consistent framework also hindered the findings and recommendation of this review.

Research Tools and Measurements

Each 10 studies used different methods of data collection and analysis. Three studies used some of the validated data collection tools but in different combinations (Goode et al; Kowalski & Cross; and Halfer). Goode et al, (2009), used Gerber Control Over Nursing Practice Scale, McCloskey Mueller RN Job Satisfaction Scale, Program Evaluation Scale, Pagana's Clinical Stress Questionnaire, and the Casey Fink Graduate Nurse Experience Survey. Kowalski & Cross, (2010) also used the Casey Fink Survey. Halfer, (2008) used a Likert scale to analyze job satisfaction. Tools used by each study offer claim and value to the various findings, however with the exception of the use of the Casey Fink Survey in two studies, no other studies use the same tool or measurement evaluation. Three studies used general interview guides, developed by the authors as data collection tools Chandler, (2012), Kramer et al, (2012), and Martin & Wilson, (2011). Eigsti, (2009) developed a quantitative questionnaire. Glynn &

Silva, (2013), uses open ended questions. The lack of consistent use of measurement tools on the effects of nurse residency programs also influenced the overall findings in this review.

Program Design/Duration

The nurse residency programs included in this study were of various designs and duration. The Critical Care Nurse Internship Program (CCNIP) in Eigsti, (2009), is 832 hours of clinical observation, clinical time, and didactic teaching. Participants in the Martin & Wilson, (2011), were involved in a two week transition program during their unit orientation. Glynn & Silva, (2013) examined participants in a program that involved begin scheduled with a primary preceptor for six months and also included weekly one hour cohort meetings with a focus on nurse residents discussing clinical concerns, issues, and staff relations with the instructor of the nurse residency program. Kramer, et al, (2012) participants from 40 hospitals were involved in NRP's of varying lengths that ranged from six months to one year. Chandler, (2012) did not identify what type of program participants were involved in.

Two of the ten studies, Goode et al, (2009); and Friedman et al, (2013), evaluate yearlong nurse residency programs. The Kowalski & Cross, (2010) study used a program divided into two phases. Phase one lasts three months and consists of two week orientation and 12 weeks working side-by-side with a preceptor. In phase two, the new graduate continues to work with a preceptor for an unstated amount of time. Trepanier et al, (2010) examined effects of an 18 week residency program consisting of didactic instruction, case studies, clinical immersion, structured mentoring, and debriefing. The inconsistencies of the programs duration does not allow for specific conclusions regarding the findings

Sample Size

Sample sizes also varied widely with a range of eight to 655 participants. The sample for the Halfer et al, (2008) study consisted of 84 new graduates, Trepanier et al, (2012) consisted of 524 new nurse participants from 15 community based hospitals. Goode et al, (2009), had a sample size of 655 nurse resident participants. Fifty-five participants, 32 BSN and 23 ADN new graduate nurses participated in the Kowalski & Cross, (2010) study. The sample from Friedman et al, (2010) consisted of 77 new graduate nurses, and 34 nurse interns completing the CCNIP from Eigsti, (2009). Glynn & Silva, (2013) studied eight new graduate nurses, two had their ADN, five had their BSN, and one had a bachelor's degree in another field.

Five participants previously worked as clinical nursing assistants, and one previously worked as a paramedic. Participants in Chandler, (2012), consisted of thirty-six nurses, 20% associate degree nurses and 80% baccalaureate prepared, Martin & Wilson, (2011), had seven participants that participated in an intensive transitions program. Kramer et al, (2012), consisted of 330 NLRNs, 401 experienced nurses, 138 nurse managers participating on 174 VHWE units, and 38 hospital/unit nurse educators. During the time of the interviews 71% of the 330NLRNs were between 9 and 12 months post hire and well into the Integration stage of professional socialization. The remaining 29% were evenly divided between those who had 6 to 8 months of experience and those who had between 13 and 15 months.

Limitations and Gaps

The following is a summary of the limitations and gaps in the reviewed literature. These include the use of a small sample size in six of the ten articles, Eigsti, (2009), Chandler, (2012), Glynn & Silva, (2013), Kowalski & Cross, (2010), and King et al, (2009), and Martin & Wilson, (2011). In Kramer et al, (2012), a lack of research noted to explore the significance between the phases of Kramer's reality shock, and the stage at which those who left the program. Other

Limitations and gaps include no formal measurements of novice or advanced beginner such as staging in Trepanier et al, (2012), Eigsti, (2009); Glynn & Silva, (2013), Martin & Wilson, (2011), and Friedman et al, (2013), who identified Benner as a framework. The studies that included the use of a preceptor, Kowalski & Cross, (2010); Friedman et al, (2013); and Goode et al, (2009), do not indicate the training of the preceptor. This literature review looks at the benefits of nurse residency programs in the transition from new graduate nurse to professional nurse, and in two out of the five articles, Goode et al,(2009); and Kowalski & Cross, (2010) improvements in confidence, self-efficacy, nursing practice, critical thinking, and overall performance increased.

Study Findings and Themes

A summary of the studies according to the categories of program length, program type, use of preceptor or mentor, program components and program outcomes is provided in Table 1 below:

Studies	**Program Length**	**Program Type**	**Use of Preceptor or Mentor**	**Program Components**	**Program Outcomes**
Goode et al, (2009),	1-year	Nurse Residency Program	Not identified	Not Identified	Competency/ Proficiency, Satisfaction
Friedman et al, (2013)	1-Year	Internship	Not identified	Hands-on Clinical Training	Retention
Eigsti, (2009),	1-year	Internship	Not identified	Didactic, Clinical Observation, & Hands-on Clinical Training	Competency/ Proficiency, Satisfaction
Glynn & Silva, (2013)	6 months	Internship	Yes	Didactic	Competency/ Proficiency, Confidence, Satisfaction

Trepanier et al, (2010)	22 weeks	Nurse Residency Program	Yes	Didactic, Clinical Observation, & Hands-on Clinical Training	Retention
Kowalski & Cross, (2010)	Phase 1- 3 months Phase 2- varies	Nurse Residency Program	Yes	Hands-on Clinical Tarining	Competency/ Proficiency, Satisfaction
Martin & Wilson, (2011)	2 week course	Transition Program	Not Identified	Interactive Classroom activities, and Hands-on Clinical Training	Commitment to the nursing profession
Halfer, (2008),	Unspecified	Nurse residency Program	Not Identified	Not Identified	Competency/ Proficiency, Confidence, Satisfaction
Kramer et al, (2012)	Unspecified	Nurse Residency Program	Not Identified	Didactic, Hands-on Training	Competency/ Proficiency, Confidence, Commitment to the Profession
Chandler, (2012)	Unspecified	Transition Program	Not Identified	Not Identified	Peer Support

Table 1: Summary of Studies

Outcome Themes

Outcomes that were reported by more than one study were grouped together resulting in 8 themes. The themes include –increasing competency/proficiency, satisfaction, essential role of peer support, confidence, adaption to the profession, and retention and cost. Each theme is discussed separately below.

Increasing Competency/Proficiency

Three studies, Eigsti, (2009); Glynn &Silva, (2013); and Kramer et al, (2012), all with various residency programs report new graduates feeling more proficient in knowledge and skill post nurse residency program participation. Two other studies (Goode and Kowlaski & Cross),

reported nursing residency programs improved proficiency in practice, Goode et al, (2009); and Kowalski & Cross, (2010). Kowlaski & Cross clinical competency reported the mean at three weeks was 78.1 and the mean at eight months was 111.1 out of a possible 124; indicating a significant positive trend across time ($P<0.001$). Goode et al, (2009) reported a statistically significant increase in organization and prioritization from hire to one year; $p<0.05$, upon hire $p=0.03$, at six months $p=0.03$, at one year $p=0.04$. The study also showed a significant increase in job satisfaction; at hire $p=0.03$, at six months $p=0.04$, and at one year $p=0.04$.

Satisfaction

Six studies reported satisfaction as an outcome. Eigsti, (2009) examined the graduate nurses' level of satisfaction with a critical internship program. Twenty-six recent graduates from Bachelor of Science in nursing (BSN), Associate Degree in nursing (ADN), or diploma schools of nursing were chosen to participate in the critical care nurse internship program (CCNIP). The CCNIP consists of 832 hours in addition to 72 hours of agency orientation. CCNIP is divided into three categories; 672 hours, or eighty-two percent of clinical time, 64 hours, or seven percent of clinical observation, and 96 hours, or eleven percent of didactic time in the classroom. Findings show 20 of the 26 participants remained working in critical care areas one year post program completion, the respondents' overall impressions of the education received in the CCNIP resulted in a mean score of 5.62 ($SD=0.571$), and one hundred percent of interns stated they would recommend the CCNIP. Eigsti, (2009) satisfaction scores between nurse interns in the residency program were tabulated using an independent *t*- test. Scores were considered significantly significant for a two-tailed at $p=0.05$, with a Power of 0.60 and effect size of 1.40.

A decrease in job satisfaction at six months post orientation completion followed by a rebound in job satisfaction at one year post program completion was reported by Goode, et al, (2009);

P<0.05	Hire	6 month	1 year
Satisfaction	0.03	0.04	0.04

In Kowalski & Cross, (2010) Four areas of professional transition were measured using the quantitative Casey-Fink Nurse Experience Survey at 3 months (n = 37) and at 12 months (n = 14). These sub-scales were support, patient safety, communication/leadership and professional satisfaction. An increase in the mean score of the subscales increased at the 12 month report. This rebound in job satisfaction found in both studies follows the pattern of Kramer's reality shock theory which states that the shock phase is typically noted at the six month mark post orientation completion and from six months to one year the nurse moves on to the recovery and resolution stage (Kramer, 1974). Other studies, Halfer, (2008); Glynn & Silva, (2013); and Kramer et al, (2012), report satisfaction in the transition from new graduate nurse to professional nurse. Halfer et al, (2008) report job satisfaction was significantly higher post-internship as compared to pre-internship nurses (p=0.046). Improved satisfaction was also reflected in a lower turnover rate (12% vs. 20%0 that was sustained during the two year study period. Glynn & Silva, (2013), and Kramer et al (2013) report improvement in job satisfaction; however do not report statistical data. Conclusions in six of the ten studies report an increase in job satisfaction, generalizations cannot be made due to the inconsistencies of satisfaction measurement tools.

Essential Role of Peer Support

Only one study focused qualitative aspects of the preceptor as a significant source of social support and reference for professional identity. However three studies used preceptors as a standard approach. Chandler, (2012) examined the first year of practice; focusing on the transition from graduate nurse into professional nurse. Thirty-six nurses participated and included, 20% associate degree nurses and 80% baccalaureate prepared nurses. Each participant was asked five questions regarding their relationship with their preceptor during the first year of practice and found three themes: “They were there for me”, “There are no stupid questions”, and “Nurturing the seeds” (p. 105). Participants reported feeling comfortable leaving orientation knowing someone will check in with them and offer them support when needed. Participants also felt supported when they are able to freely ask questions without negative consequences. Chandler, (2012), did not identify if participants completed a residency program, however did report findings that indicate new graduates require a proactive and supportive staff that will be patient and allow the new graduate extra time to become proficient in the acquisition of new knowledge and the integration of new skills.

Confidence

Glynn & Silva, (2013) and Kramer et al, (2012) focused on components and strategies of the residency program and the new graduates’ integration into the professional nursing role. Glynn & Silva, (2013), qualitatively examined the experiences of eight new graduate nurses who took part in an internship program six months in length. The orientation program was centered on three major areas: the acquisition of new knowledge and skills in a specialty area, becoming more proficient, and assistance with role transition and found new graduates listed satisfaction with assistance of their role transition. Findings indicate that the participants felt more confident and comfortable in the role of emergency department nurse and felt prepared for independence

inherent in the role. Kramer et al, (2012) report preceptor feedback during the transition stage increased, sustained, or restored self-confidence of new graduate nurses, no statistical data reported.

Adaption into the Profession

Martin and Wilson, (2011) examine the lived experience of seven new graduates during their first year of nursing. Participants received a two week intensive transitions program, designed to ease new graduates into nursing practice. There were two themes that emerged, the first, adapting to the culture of nursing describes the process through which the new graduate is integrated into the culture of the hospital, unit, and shift. These findings illustrate the lived experiences of participant's journey through the phases of reality shock (Kramer, 1974). Findings also show negative outcomes may lead to the new graduate leaving the shift, unit, hospital, or nursing profession. The second finding demonstrated development of skill acquisition is based on Benner's (1984) framework through experiences that include, caring and supportive learning relationships; leading to a successful transition at the advanced beginner stage.

Kramer et al, (2012) examined the very healthy work environments (VHWE) and the components and strategies of NRPs effective in newly licensed registered nurse (NLRN) integration into the professional practice nurse role. Findings include the recommendation of a two-stage NRP focusing on transition and integration using Merton's theory and cost-effectiveness due to stress reduction and increased retention. Also recommend is the incorporation of the seven management skills; delegation, collaborative nurse-physician relationships, feedback to promote self-confidence, autonomous decision making, prioritization, constructive conflict resolution, and getting my work done/utilizing the nursing care delivery

system into professional nursing curricula during the academic stage of professional socialization.

Retention/Cost

Trepanier et al, (2010); and Friedman et al, (2013), examined the return on investment for nurse residency programs. Both studies noted an increase of retention in areas that have nurse residency programs versus those that have a general standardize orientation program. A reported net cost savings between $10 and $50 savings per patient day in a hospital that has implemented a nurse residency program. Findings indicate a new graduate residency program was associated with a decrease in the 12-month turnover rate from 36.08% to 6.41% ($p<0.05$) and reduction in contract labor usage from $19,099 to $5,490 per average daily census ($p<0.05$). Friedman, et al, (2013) reported an average yearly net cost savings of $597,778 related to the hospitals nurse residency program. The study shows a statistically significant change in retention between those who received a standard orientation versus those who went through a nurse residency program; $p<0.05$, at nine months retention notes $p=0.043$.

Study Recommendations and Conclusions

Findings from this integrated review support five recommendations for Nurse Residency Programs. First, the collective evidence demonstrates significant positive outcomes for both individual nurses and organizations and therefore nurse residency programs should not be considered optional for the profession. Nurse residency programs should be implemented in every acute care practice setting that employee new graduates. The essential evidenced based components of NRPs demonstrated in this review include:

- the ideal program length is 1 year

- the use of trained preceptor who understand the unique needs of the new graduate during orientation
- mentor support for up to 12 months post orientation
- integration of cohort based clinical training and didactic lessons during the year transition to enhance learning and professional role development

Recommendations for Further Research

This review was limited by the inconsistent use of standardized tools to measure outcomes of nurse residency programs in the studies, the wide variation in NRP program length and content as well as lack of a consistent theoretical approach. Recommendations include the measurement of clinical practice development along Benner's novice to expert nursing continuum using the clinical exemplars as done by Benner in her research. Replicating the research methods that incorporated the use of validated tools specific to research on nurse residency programs is also recommended. .

Recommendations for Nursing Education

Recommendations for nursing staff development, nurse educators in the acute care setting include the implementation of nurse residency programs for all acute care settings. Standardizing the program length to one year; use of blended educational strategies that include didactic, hands-on teaching strategies, and the use of trained preceptors are evidence based and essential components as a learning strategy. Together these strategies will best support the new nurse in transition. Adherence to all the AACN recommendations provides the structure approach and standardized processes to reliably support the transitions of new graduates and successfully support them through the phase of reality shock.

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Appendix A
NRS 552 Evidence Based Nursing Education Project
Instructions for Evaluating the Level of Evidence of Quantitative Research

The table below is provided to assist students to rate the level of evidence of quantitative research articles used for the integrative literature review. The procedure is as follows:

1. Review the quantitative research article and enter the information required on the Evidence Table Form (see syllabus).
2. Use the table below to rate the article on each of the 12 categories listed.
3. The criteria for each category are provided to assist with the rating for that category.
4. Rating is between 0 -3

0 = No evidence that criteria met = <25% of the criteria were met.
1 = Poor = meaning that 25%-49% of the criteria were met.
2 = Fair = meaning that 50%- 74% of the criteria were met.
3 = Good = meaning that 75%- 100% of the criteria were met.

5. Add the rating score for each of the 12 categories

Total possible score would be 36 points (100%)

6. The quality of evidence is based on the score above. Use the scale below to determine the Quality Rating:

QI– a poor level study less than half of the criteria were met
Score of less than 15 indicates that less than 50% of the total criteria were met.
QII = a fair level study half or more of the criteria were met
Score 15-21 indicates that 50%-74% of the total criteria were met
QIII = a high level well-constructed study
Score 22-30 points indicates that 75%-100% of the total criteria were met

Scoring Criteria adapted from Burns, N., & Grove, S.K. (2005). *The Practice of Nursing Research* (5th ed.). St. Louis: Elsevier and Rumrill, P., Fitzgerald, S., & Ware, M. (2000). Guidelines for evaluating research articles. *IOS Press*, 14, 257-263.

Table for Evaluating the Level of Evidence of Quantitative Research					
Category	**Criteria** **Source:**	**0** **No evidence**	**1** **Poor**	**2** **Fair**	**3** **Good**
1. The research purpose	• Title describes the study • Purpose is clear • Specifies the aim(s) of the study • Was the study feasible in terms of cost, researcher expertise; availability of subjects, facilities, equipment				
2. The research problem	• Relevant to nursing • Scope and impact of the problem is identified • Significance is identified • Background of the problem is identified				
3. Review of the literature	• Relevant to the study purpose • Relevant previous studies are identified • Uses current references • Organized with a logical progression • Clear and concise summary • Provides rationale and direction for the study				
4. Conceptual framework	• Clearly presented • Linked to study purpose • Framework related to the nursing body of knowledge • Defines the relationship between concepts • If testing a proposition it is linked to the hypotheses				
5. The research questions	• The questions are stated clearly • Questions or hypotheses are linked to the study purpose				
6. Study terms and variables	• Clear operational definitions • Relationships between variables identified • Relationship between the framework and variables is identified • Extraneous variables identified and controlled • Any materials used for the study are described				
7. Research design	• Explicitly identified • Interventions clearly described • Intervention(s) is(are) appropriate to the study • Explains how subjects are identified and assigned (as appropriate) to groups • Design is most appropriate to obtain needed data • Design linked to sampling method • Design allows for all the study questions/hypotheses to be addressed				

	• Threats to validity identified • Rights of human subjects protected • Any ethical considerations specified				
8. Sample	• Sampling method identified (random • Sampling criteria specified • Sample setting identified • Sample size adequate to be representative • Sample representative • If groups are used are they equivalent				
9. Data collection	• Data collection process described (step by step) • Inclusion/exclusion criteria for data collection are identified • Types of data are described • Instruments are described (if created for the study the creation process is describe) • Reliability and validity of instruments is reported • Any debriefing or follow up after the study is described				
10. Data Analysis	• Describe statistical method to be used • Descriptive statistics provided • Level of significance or alpha level stated • Statistics appropriate				
11. Results or Findings	• Clearly written and well organized • Findings related to stated framework • Findings are explained in terms of each question or hypotheses • Study limitations identified • Are the findings generalized appropriately? • Do the findings build on previous study				
12. Discussion	• Study description is sufficiently clear • Strengths and weaknesses of study identified • Conclusions fit the findings • Any biases identified • Implications of findings are specified for nursing • Suggestions made for future study			X	

NRS 552 Evidence Based Nursing Education Project
Instructions for Evaluating the Level of Evidence of Qualitative Research

The table below is provided to assist students to rate the level of evidence of qualitative research articles used for the integrative literature review. The procedure is as follows:

1. Review the qualitative research article and enter the information required on the Evidence Table Form (see syllabus).
2. Use the table below to rate the article on each of the 10 categories listed.
3. The criteria for each category are provided to assist with the rating for that category.
4. Rating is between 0 -3

0 = No evidence that criteria met = <25% of the criteria were met.
1 = Poor = meaning that 25%-49% of the criteria were met.
2 = Fair = meaning that 50%- 74% of the criteria were met.
3 = Good = meaning that 75%- 100% of the criteria were met.

5. Add the rating score for each of the ten categories
Total possible score would be 30 points (100%)
6. The quality of evidence is based on the score above. Use the scale below to determine the Quality Rating:

QI– a poor level study less than half of the criteria were met
Score of less than 15 indicates that less than 50% of the total criteria were met.
QII = a fair level study half or more of the criteria were met
Score 15-21 indicates that 50%-74% of the total criteria were met
QIII = a high level well-constructed study
Score 22-30 points indicates that 75%-100% of the total criteria were met

Scoring Criteria adapted from Cesario, S., Morin, K., & Santo-Donato, A. (2002). Evaluating the level of evidence of qualitative research. JOGNN, 31(6), 708-14.

Table for Evaluating the Level of Evidence of Qualitative Research					
Category	**Criteria** **Source:**	**0** **No**	**1** **Poor**	**2** **Fair**	**3** **Good**
1. Descriptive Vividness of written report (article)	• Essential descriptive info included? • Description of study is written clearly and credibly? • Adequate length of time spent in setting to allow vivid description? • Researcher validated findings with study participants?				
2. Method Considerations	• All elements of the study are presented accurately: phenomenon of interest, philosophical base, purpose, study question, literature review, method, data collection, data analysis conclusions?				
3. Procedural Rigor	• Researcher asked the right questions? • Researched described the steps taken to prevent misinterpretation by participants? • Were sufficient data gathered?				

	• Was the selection of participants appropriate?				
4. Ethical Rigor	• Informed consent was obtained? • Mechanisms were in place to protect participant's rights?				
5. Confirmability	• Description of the data process was adequate? • Researcher described the decision rules for arriving at rating? • Presentation of some of the raw data helped to clarify findings? • Could other researchers arrive at similar conclusions?				
6. Analytical Precision	• Did the set of themes, categories, or theoretical statements describe the whole picture? • Are the study conclusions based on the data gathered?				
7. Theoretical Connection	• Are the theoretical concepts adequately defined? • Are the relationships between concepts defined? • Is there a clear connection between the data and the (nursing) framework?				
8. Phenomenon recognition	• Would other researchers recognize or be familiar with the phenomenon?				
9. Knowledge Relevance	• Did the researcher examine the existing body of knowledge on				

	the topic? • Was the process studied relevant to nursing or nursing education?				
10. Applicability	• Are the findings relevant to nursing or nursing education? • Are the findings relevant to the discipline of nursing? • Can the findings contribute to nursing education				

Appendix B **Quantitative Research Evidence Table Form**			
Article Number	**1**	**2**	**3**
Reference in APA	Halfer, D., Graf, E., & Sullivan, C. (2008). The organizational impact of a new graduate pediatric nurse mentoring program. *Nursing Economics26*(4): 243-249.	Trepanier, S., Early, S., Ulrich, B., Cherry, B. (2012). New graduate nurse residency program: A cost benefit analysis based on turnover and contract labor usage. *Nursing Economics 30*(4):207-214.	Goode, C.J., Lynn, M.R., Bednash, G.D. (2009). Nurse residency programs: An essential requirement for nursing a new model of critical care orientation. *Nursing economics 27*(3):142-147.
Study Purpose	To compare the job satisfaction and retention rates of two cohorts of new graduate nurses: one before and one after the implementation of a Pediatric RN Internship Program.	To conduct a cost-benefit analysis of a nursing residency program utilizing turnover rate and contract labor usage.	Analysis of nurse residents who completed all the data collection instruments during the nurse residency program upon hire, 6 months, and 1 year.
Research Question	1) Does the Pediatric RN Internship Program improve nurse perceptions of the work experience and job satisfaction?	Not identified.	Not identified.

	2) Are perceptions confounded by birth generation or shift schedules? 3) Is the pattern of longitudinal job satisfaction consistent over time after the implementation of a Pediatric RN Internship Program? 4)What is the impact of the Pediatric RN Internship Program on 1-year employment retention rates?		
Study Design	Descriptive design	Secondary analysis of HR and financial data.	Descriptive design
Sample Type, Size/Age Range/ Other	The sample consisted of 84 new graduate nurses. The pre-implementation group hired between September 2001 and August 2002 and 212 in the post-implementation group hired between September 2003 and August 2005.	The sample consisted of new graduate registered nurses from 15 community based hospitals, and one academic medical center which included a total of 524 nurses. 54% held a baccalaureate degree.	655 nurse residents, mean age was 25.6 years 75.9% Caucasian, 8.4% African American
Setting	A 270-hed, Midwestern, urban. Magnet-designated pediatric medical center.	Fifteen hospitals in California, Florida, Georgia, Nebraska, Missouri, Tennessee, and Texas. All were considered community-	The University Health System Consortium and the American Association of Colleges of Nursing is a 1-year residency program run by the

	The new graduate nurses worked in the following patient care units: inpatient medical and surgical services, neonatal and pediatric intensive care, and emergency services.	based, and one was an academic medical center.	acute care hospital.
Tools used	The job satisfaction tool was developed by the investigators and comprised demographic fill-in blanks, a Likert-type scale seeking degree of agreement for 21 statements, and ÎOMI open-ended questions.	Accounting and Human Resources (AHR) and Residency Company (RC) databases.	Casey-Fink Graduate Nurse Experience Survey, the Gerber Control Over nursing Practice Scale, the McCloskey Mueller RN Job satisfaction Scale, and a Program evaluation Scale developed by the research team. The first three tools have established reliability and validity.
Conceptual Model	Not identified	An adaptation of two models from the work of Beecroft and Benner. Beecroft et al. (2008) described new nurse turnover intent in terms of individual characteristics, work environment, and organizational factors. Benner (1984) further defines the development of nursing competency whereby a NGRN	Not identified however the “V” pattern findings possibly reflect Kramer’s reality shock theory.

		passes through five levels of proficiency	
Finding #1	1) Does the Pediatric RN Internship Program improve nurse perceptions of the work experience and job satisfaction? Job satisfaction was significantly higher in the post-internship nurses as compared to the pre-internship nurses (p=0.046).	The authors estimated the total cost benefit of the nursing residency program to be between $8.1M and $41.7M combining the impact of turnover and contract labor usage for a total of 15 hospitals that introduced a nursing residency program. This savings translated to between $10 and $50 savings per patient day.	Casey-Fink Graduate Nurse Experience Survey: Residents showed statistically significant increases over the three time periods in their overall confidence in their skills, their ability to organize and prioritize their work, being comfortable communicating with team members and patients and families and in providing clinical leadership on their units. Stress scores also declined during the program, which was considered a positive finding.
Finding #2	2) Are perceptions confounded by birth generation or shift schedules? No significance was found related to birth year generation. However, significance was obtained in three questions for nurses working the night shift schedule: ability to identify work resources (p=0.002), ability to manage the demands of the job (p=0.04), and having information to	Demonstrated a positive impact on contract labor dollars spent for nursing services.	Gerber Control Over nursing Practice Scale also showed significant increases at the end of the program when compared to the two earlier periods.

	perform the job effectively (p=0.04).		
Finding #3	3) Is the pattern of longitudinal job satisfaction consistent over time after the implementation of a Pediatric RN Internship Program? At the 3- month initial data collection nurses indicated more satisfaction than dissatisfaction. Questions that showed more disagreement than agreement included input used to address unit issues, physician respect for nurses, fair staffing decisions, work schedules, and awareness of and ability to participate in professional development opportunities. At 18 months two questions agreement did not change significantly over time: fair staffing decisions and work schedules. For some questions, statistically significant higher agreement	No findings #3.	McCloskey Mueller RN Job satisfaction Scale: Residents enter the program by rating themselves quite high in most areas of the control over practice scale and in all areas of the RN satisfaction scale, perhaps artificially so. By six months, these scores decreased, with many rebounding by the end of the 1-year residency. This “V” pattern suggests that the 6-month time frame is a difficult time for residents.

	did not occur until 18 months of employment. These questions include feeling accepted by co-workers, having their input used to address unit issues, feeling mistakes are treated as learning opportunities, feeling supported by the leadership team, feeling that physicians are respectful, having access to resources, feeling comfortable asking questions, having information to perform job, being aware of and able to participate in professional development opportunities, and feeling satisfied with the job.		
Findings #4	4) What is the impact of the Pediatric RN Internship Program on 1-year employment retention rates? Involuntary turnover increased during the study period due to a medical center initiative to recognize	No findings #4	No findings #4

	and sever the relationship with employees who did not fit with the organizational core values of teamwork, service excellence, and innovation.		
Limitations	Author: One limitation noted the number of respondents was the smallest at 18 months. Reviewer: Turnover rate was not identified in this study as the medical center terminated employees who did not represent core values. There are no findings reported on those who voluntarily left their positions.	Author: This study utilized secondary data analysis of healthcare corporation's community-hospital database and may not be applicable to other health care settings. It is possible that closure of positions may have impacted as well the level of turnover and contract labor dollars. Reviewer: Yes cost analysis is important to organizations in regards to nurse residency programs; however cost analysis is not supportive to nursing education in preparing NGRNs for safe patient care.	Author: The authors did not look at personal reasons which may have led to a high turnover rate. Reviewer: A conceptual model was not identified, whereas Kramer's reality shock model may have been beneficial to this study.
Reviewer comments:	This study would be difficult to replicate since some on the participants were terminated	This study would be difficult to replicate since it is unknown how many hospitals were used	The authors states in this residency program, the new graduate is considered an advanced beginner, however no

	due to a lack of representation of the medical centers core values. Also the length of the Pediatric Internship Program was not identified.	from the various states. There was also no state breakdown of turnover rate or percentage of contracted labor staff used. To benefit nursing education it would be best to repeat the study limiting the study to one state and/or one geographical location of a specified state. Well defined program that included didactic direct instruction, case studies, clinical experience, and structural mentoring. Contract labor costs were used in the analysis. Not all hospitals use outside contracted labor and therefore the results may be inconclusive. The length of the Nurse Residency Programs varied by state.	measurement was conducted. This study could be replicated in another setting. 1-year residency program.
Quality of Evidence Rating	20 QII = a fair level study	26 QIII = a high level well-constructed study	27 QIII = a high level well-constructed study

Quantitative Research Evidence Table			
Article Number	**4**	**5**	**6**
Reference in APA	Kowalski, S., & Cross, C.L. (2010) Preliminary outcomes of a local residency programme for new graduate registered nurses. *The Journal of Nursing Management, 18*:96-104.	Friedman, M.I., Delaney, M.M., Schmidt, K., Quinn, C., Macyk, I. (2013). Specialized new graduate RN pediatric orientation: A strategy for nursing retention and its financial impact. *Nursing Economics 31*(4): 162-170.	Eigsti, J.E. (2009). Graduate nurses' perceptions of a critical care nurse internship program (CCNIP). Journal for Nurses in Staff Development 25(4): 191-198.
Study Purpose	The purpose of this study was to present the preliminary outcomes of the 'Year Round Residency Program for New Graduates RNs' program.	The purpose of this study was to determine the effect of a specialized pediatric orientation program (PNFP) on retention of new RNs and the net cost of this orientation program.	To describe the components of Elkhart General Hospital's CCNIP and revealing graduate nurses' level of satisfaction with the education received while participating in the CCNIP. Also to determine the rate at which these practitioners were retained in a critical care environment after completion of the program and uncovering differences in satisfaction scores between the nurses continuing to work in critical care and those who are not.
Research Question	1. Does the level of	1. What is the difference in	1. What was the retention

	clinical competency and critical thinking ability improve in new graduate RNs during a residency program? 2. Does the stress level of new graduate RNs, as indicated by their perception of challenge and threat, decrease during a residency program? 3. Does the level of state or trait anxiety in new graduate RNs decrease during a residency program? 4. Do new graduate RNs experience positive professional transition during a residency program? 5. What percent of new graduate RNs remain employed during a 1-	retention for new graduate RNs pre and post-initiation of the pediatric nurse fellowship program (PNFP)? 2. What is the net cost savings that results from retaining pediatric critical care, emergency department, and hematology/oncology nurses post-initiation of the PNFP?	of nurse interns participating in the CCNIP? 2. How satisfied were nurse interns with the type and amount of education received while participating in the CCNIP? 3. Were there statistically significant differences in mean satisfaction scores with educational received in the CCNIP between nurses still working in a critical care unit and those who were not?

	year residency program?		
Study Design	Descriptive design	Retrospective descriptive evaluative design.	Retrospective descriptive design
Sample Type, Size/Age Range/ Other	55 participants, 32 BSN and 23 ADN new graduate nurses. The average age of participants was 31 years, 46 female, and 9 male.	Nonprobability convenience sample consisting of all new graduate RNs hired during March 2005 to August 2007 who received the standard orientation and those hired from September 2007 to March 2010 received the PNFP orientation. The sample consisted of 77 new graduate RNs. The range of ages of the total sample was 23 to 50 years with a mean of 30.1. Ages averaged 33.2 years for the standard orientation and 28.4 years for the PNFP orientation. One participant in the standard orientation was male and 27 female; three participants in the PNFP were male and 46 female.	Thirty-nine nurse interns completing the CCNIP from fall of 1998 through summer of 2005 were invited to participate. Thirty-seven questionnaires were mailed, 34 were returned (91.9% return rate). Of the 34 returned, 26 met study criteria.
Setting	Desert Springs Hospital Medical Center and Valley Hospital Medical Center in	Cohen Children's Medical Center (CCMC) in New York.	Elkhart General Hospital, Elkhart, Indiana. A 330-bed community hospital.

	Las Vegas, NV		
Tools used	Preceptor Evaluations of Resident is an instrument developed by the hospitals' education staff to measure the progress of each resident, and address the first research question. It consists of 31 items and is divided into the following categories: 1) general clinical abilities, 2) interpersonal relations, 3) critical thinking, 4) competency outcomes, 5) employee role and 6) unit-specific skills. Pagana's Clinical Stress Questionnaire was used to address the second research question. It measures clinical stress, specifically using the subscale of threat (potential for harm) and challenge (potential for mastery, growth or gain). Spielberger's State-Trait Anxiety Instrument was used	The retention of both groups was measured using data retrieved from a report generated by the CCMC's Department of Human Resources Information Technology (HRIT). Retention was measured longitudinally at four points, 3, 6, 9, and 12 months after commencement of their respective programs. Financial impact was measured by comparing traveler/agency nurse cost, turnover rates, and retention rates among the new graduated hired between March 2005 and August 2007 and those hired between September 2007 and March 2010. Data was obtained from the human resource department, the office of the nurse executive, and the office of the chief nurse executive. The data collection tool used for this study was developed specifically for this study. The	CCNIP questionnaire using a 6-point Likert scale was used to determine satisfaction levels for the type and amount of education received. Raw data were input solely by the researcher, double-checked for accuracy, and analyzed using the Statistical Packages for the Social Sciences 13.0 for Windows. Demographic data were analyzed with frequencies; percent's, means, and ranges and were used to describe the participants. Comparisons between mean satisfaction scores for nurses continuing to work in critical care areas and those who were not were evaluated using the t test.

	to measure anxiety and address the third research question. State anxiety involves how respondents feel 'right now, at this moment.' Trait anxiety measures how respondents feel 'generally' and are thought to show less change over time. Casey-Fink Graduate Nurse Experience Survey measures five areas of the new nurse experience: 1) support, 2) patient safety, 3) stress, 4) communication/leadership, and 5) professional satisfaction. This survey was used to address the fourth research question.	tool's layout consisted of multiple columns labeled for various demographic variables as well as for retention at 3, 6, 9, and 12 months. The data collected was nominal.	
Conceptual Model	Although no framework was identified the authors looked at Kelly's (1998) six stages that new graduates go through: 1) vulnerability; 2) getting through the day; 3)	Benner's Novice to Expert (1984)framework was instrumental in the development and implementation of the PNFP	Benner (1984) Novice to Expert framework.

	coping with moral distress; 4) alienation from self; 5) coping with lost ideals; and 6) integration of new professional self-concept.		
Finding #1	Clinical competency levels consistently increased at each of the six measurement periods (at 3, 6, 8 weeks and 3, 6, 8 months). The results indicate a significant positive trend across time. Analysis of the critical thinking subscale reflected improvement in all items, however, only five out of the nine items showed statistically significant improvement. These items were: knowing one's limits, setting priorities, differentiating urgency, anticipating and implementing appropriate nursing interventions, and evaluating patient outcomes	Research Question #1 The length of employment of those who completed the PNFP was significantly higher than those completing the standard orientation. Retention rate of new graduate nurses before initiation of the PNFP was 82%, and increased to 94% post initiation. PICU retention rate increased from 69.4% to 86.7%, emergency department retention increased from 86.6% to 96.5%. Hematology/oncology unit had a sample size of four and was not representative.	Research Question #1 What was the retention of nurse interns participating in the CCNIP? Of the 26 respondents, 20 continued to work in critical care areas, the remaining six transferred to surgery. Of the 26 participants, 19 remained at Elkhart General Hospital, a 73.1% retention rate

	with adaptation of plan of care as necessary.		
Finding #2	Outcomes reflected that the residents' feelings of being threatened or challenged decreased from the beginning to the end of the program. The Pagana 'Threat' score significantly decreased; however, the 'Challenge' score did not show a significant change.	Research Question #2 The PNFP yielded a net cost savings of $597,778 Reduction of traveler/agency nurse expenditures resulted in a cost savings of $664,578 after initiation of the PNFP for the three tested units, while cost for administering the PNFP was $66,800.	Research Question #2 How satisfied were nurse interns with the type and amount of education received while participating in the CCNIP? Looking at the intern's satisfaction with the educational components of the CCNIP, satisfaction scores for the respondents' overall impressions of the education received in the CCNIP resulted in a mean score of 5.62 (SD=0.571). According to a 6-point Likert scale the majority of the interns choose very satisfied with the total amount of orientation. Didactic sessions scored the highest, with clinical time closely following.
Finding #3	Although the overall anxiety decreased, neither state anxiety nor trait anxiety showed a significant	No finding #3 as only two research questions presented	Research Question #3 Were there statistically significant differences in mean satisfaction scores with educational received in

	statistical decrease.		the CCNIP between nurses still working in a critical care unit and those who were not? Regarding the satisfaction scores between interns who remained working in critical care areas and those who did not, statistically significant differences in the mean satisfaction scores were not found between nurses still working in critical care environment and those who were not. One hundred percent of interns stated they would recommend the CCNIP to other graduate nurses while 92.3% stated they accepted nursing positions at Elkhart General Hospital because the CCNIP was available.
Finding #4	Four areas of professional transition were measured: support, patient safety, communication/leadership, and professional satisfaction. The first three areas indicated an increase in the mean score,	No finding #4 as only two research questions presented	No finding #4 as only three research questions presented

	whereas professional satisfaction remained the same.		
Finding #5	The first cohort consisted of 36 participants, eight left their employment during the first year, indicating a retention rate of 78% The second cohort consisted of 19 participants, the findings were published prior to the years end of the second cohort, however at time of report only one resident left the program indicating a retention rate of 96%	No finding #5 as only two research questions presented	No finding #5 as only three research questions presented
Limitations	Author: The study was limited by the small number of subjects who have completed the program and the lack of a control group. As outcome results are realized from the completion of the second-year cohort a more accurate assessment of the program can be made.	Author indicates: The use of the retrospective comparative descriptive design and convenience sampling limits the generalizability of the findings. Nothing was noted regarding reasons new graduate nurses left their positions. Reviewer: Nothing was noted regarding reasons new graduate	Satisfaction scores represent nurse interns from one CCNIP, and findings may not be pertinent to all nurse interns. Components of this program may not match components of other orientation programs, and findings may not be applicable. The small sample size increases the risk for a Type I error. A low sample size may create less credible results. The

	Reviewer: Nothing identified regarding the training or background of the participant's preceptors. Nothing identified regarding the participants overall anxiety, or how overall anxiety was measured. Without the completion of the second cohort this research is difficult to generalize.	nurses left their positions.	CCNIP was developed by a novice researcher and was not tested for reliability.
Reviewer comments:	1-year long program. It would be beneficial to know how many of those who left the program were ADN nurses and how many were BSN. Breaking down the findings into the ADN and BSN categories may further assist with the development of nurse residency programs.	The fellowship was a yearlong, 52 week program. In future studies determining why the new graduate nurses left their positions would be beneficial. This research could be duplicated, however a larger sample size would be recommended. An outline of the fellowship program design presented Used 1:1 preceptorship and senior associate fellow Used Benner's framework but not exemplar measurements as	Reasons were listed as to why the six who left Elkhart General Hospital which was beneficial, however there was noted listing retention or turnover rate prior to the initiation of CCNIP. It would also be beneficial to know the satisfaction of the education received in the orientation programs prior to the initiation of the CCNIP.

		Benner uses. Limited to pediatric orientation program.	
Quality of Evidence Rating	29 QIII = a high level well-constructed study	32 QIII = a high level well-constructed study	32 QIII = a high level well-constructed study

Qualitative Articles		
Article Number	7	8
Reference in APA	Glynn, P., & Silva, S. (2013). Meeting the needs of new graduates in the emergency department: A qualitative study evaluating a new graduate internship program. Journal of Emergency Nursing 39(3): 173-178.	Chandler, G.E. (2012). Succeeding in the first year of practice: Heed the wisdom of novice nurses. *Journal for Nurses in Staff Development 28*(3): 103-107.
Study Purpose & Phenomenon of Interest or Problem Identified	To explore the experiences of new graduate emergency nurses participating in a structured internship program.	To learn the processes necessary for a transition. To describe effective supports for new nurses to develop the knowledge, skills, and attitudes needed to progress through the first year of practice.
Research Questions	Not Identified	Not Identified
Philosophical bases or Framework Specified	Benner (1984) Novice to Expert. In this study the stages of novice and advanced beginner were used to describe the new graduate's transition from one stage to another.	Appreciative inquiry approach (Hammond, 1998). Appreciative Inquiry framework.
Research Methods/Design	Descriptive study/Qualitative analysis/ Phenomenological research.	Qualitative, descriptive design
Sampling & Sample Description	Eight new graduate nurses, 2 had their ADN, 5 had their BSN, and one had a bachelor's degree in another field.	Thirty-six nurses, 20% associate degree nurses and 80% baccalaureate prepared.

	Five participants previously worked as clinical nursing assistants, and one previously worked as a paramedic.	
Setting e.g. School, Clinic, & Country	200-bed community hospital in New England.	Seventy percent were from New England and 30% were from other parts of the United states.
Data Source/Methods (e.g. Interview, Documents, Observations, Participation)	Eleven open-ended questions were developed and each participant participated in a 30-45 minute audiotaped interview.	Data on new graduates' experience were collected in semi-structured interviews guided by five questions.
Method of Data Analysis	The participant answers were then categorized by question and the researcher's subjective interpretations of the meaningful statements were noted. The answers were then examined for possible themes/categories.	Verbatim transcripts were analyzed by inductive content analysis, which consisted of eight steps.
Validation of Study Provided (e.g. Trustworthiness, Neutrality, Applicability, Auditability)	Content analysis was conducted independently by the researchers. The questionnaire was piloted in the evaluation of a previous orientation program in the same hospital using an interview style similar to that used in this study.	The step-by-step analysis occurred after each interview.
Findings #1	Three major themes: (1) the acquisition of new knowledge	According to the participant responses, three themes arose.

	and skills in the specialty area, including the fine-tuning of basic assessment skills and the distinct ability to both prioritize patients and interventions; (2) becoming more proficient; and (3) assistance with role transition. The acquisition of new knowledge and skills in specialty area were identified. The acquisition of new knowledge and skills was seen as necessary to fill the gaps in previous education and clinical experience.	The first "They were there for me." The participants who felt most secure in leaving the structured orientation described staff nurses as proactive and supportive. The novice nurse described starting with basic patient assignment and gradually assigning another patient only when she and the preceptor believed they were ready. The participants who left their positions stated they felt unwelcomed, unsupported, and felt like an outsider. Those who left reported that they were on their own and staff offered no support, criticism, and even taunting by staff nurses.
Findings #2	Becoming more proficient encompassed the need to know what to do when and being able to handle a patient load. Being proficient meant being prepared for the unknown, being ready when things happen, and reacting, being competent, and providing safe nursing care.	The second theme "There are no stupid questions." Analysis of interview data revealed that a culture of inquiry consisted of a unit wherein information was easily shared, questions were expected, new ideas were sought, and evidence was a central aspect of daily practice. New graduates who worked in environments where they were expected to perform immediately, with little support, and minimal resources, did not

		stay. They felt that they were stupid for asking questions, and when they did ask a question it went unanswered.
Findings #3	New graduates listed satisfaction with assistance of their role transition. The participants felt more confident and comfortable in the role of emergency department nurse and felt prepared for independence inherent in the role.	The third theme was "Nurturing the seeds." When a new nurse was given the opportunity to observe a demonstration, had time to take the extra steps to learn a new procedure, and was taught how to locate the resources to compliment the learning, the new skill was integrated into practice. The nurses who left their positions prematurely reported working in an environment that was discouraging, competitive, and bullying.
Limitations? (By Authors; By Reviewer)	Authors: The small sample size makes generalizations to other new graduates in different types of institutions or geographical locations difficult. The length of time between the completion of the program and the interviews may have led to some difficulty in remembering program details (2-years). Another possible limitation was that the CNS who	The small sample size and the incomplete data regarding the geographical locations of the participants would make this impossible to generalize and/or duplicate. It would be beneficial to know what happened to the participants who left their positions, did they stay within the nursing field, or leave the nursing profession.

	coordinated and taught the program was involved in the study. Reviewer: Due to the self-reported data proficiency could not be tested. More information is needed regarding the questionnaire, how it was developed, and if it was altered from the first use.	
Reviewer Recommendations	This article focused on emergency department graduate nurses. For future research it would be beneficial to repeat this study in other department areas and compare the findings. The program was six months. The CNS designed the program. The program included 16 weeks of classroom instruction which occurred in conjunction with clinical experience in the emergency room. Eleven open-ended questions were developed and each participant participated in a 30-45 minute audiotaped interview. Most worked with the same	This article is very beneficial to nursing education. It shows how the novice nurses need guidance, support, and resources to successfully transition into the stage of advanced beginner. Those who did not receive the appropriate resources and guidance of a supportive orientation environment did not complete their novice stage and in turn left their position.

	preceptor and identified this role as the most influential in their development, which calls for preceptor development for those organizations without formal train for preceptors. The CNS assumed oversight for identification of clinical assignments and continued support post program.	
Quality of Evidence	21 QII = a fair level study	20 QII = a fair level study

Article Number	**9**	**10**
Reference in APA	Kramer, et al. (2012). Components and strategies of nurse residency programs effective in new graduate socialization. *Western Journal of Nursing Research* 35(5): 566-589.	Martin, K., & Wilson, C.B. (2011). Newly registered nurses' experience in the first year of practice: A Phenomenological study. *International Journal for Human Caring 15*(2):21-27.
Study Purpose & Phenomenon of Interest or Problem Identified	To assess the process effectiveness of Nurse Residency Programs (NRPs). The goal of this study was to elicit from NLRNs and experienced nurses practicing on clinical units with confirmed VHWE, the components and strategies of NRPs effective in NLRN integration into the professional practice nurse role. This is one of seven studies.	This study examined the lived experience of newly licensed registered nurses in their first year of practice in a hospital setting.
Research Questions	What NRP components and strategies do NLRNs and clinical nurses participating on clinical units with Very Healthy Work Environments (VHWE) identify as effective in NLRN transitioning and integrating into professional practice?	Not identified
Philosophical bases or Framework	Reality Shock (Kramer, 1974). Merton's three-stage theory of professional socialization-	Reality Shock (Kramer, 1974) Novice to expert (Benner, 1984)

Specified	knowing=Academic stage, becoming=Transition stage, and affirming/integrating=Integration stage. Seven management skills; delegation, collaborative nurse-physician (RNMD relationships, feedback to promote self-confidence, autonomous decision making, prioritization, constructive conflict resolution, and getting my work done/utilizing the nursing care delivery system.	
Research Methods/Design	Exploratory-Descriptive	Interpretative Phenomenological research
Sampling & Sample Description	330 NLRNs, 401 experienced nurses, 138 nurse managers participating on 174 VHWE units, and 38 hospital/unit nurse educators. During the time of the interviews 71% of the 330NLRNs were between 9 and 12 months post hire and well into the Integration stage of professional socialization. The remaining 29% were evenly divided between those who had 6 to 8 months of experience and those who had between 13 and 15 months. Over half of the experienced nurses interviewed had between 5 and 15 years of	A purposive convenience sample was chosen from newly licensed RNs who had been in practice in an acute care setting for at least 1 year. Seven participants participated in an intensive “transitions program” to ease new graduated into nursing practice.

	experience.	
Setting e.g. School, Clinic, & Country	40 Magnet hospitals were selected and six were dropped from the research program because the Essentials of Magnetism II unit response rates < 40%.	The seven participants began their nursing practice on various medical surgical and specialty units including orthopedics, neurology, cardiac, telemetry, intensive care, and pediatric oncology.
Data Source/Methods (e.g. Interview, Documents, Observations, Participation)	Individual and small group interviews were conducted with two to four NLRNs and experienced nurses on each of the selected VHWE units. Group or individual interviews were conducted with hospital/ unit educators. Participant observations of the NLRNs engaged in activities such as giving and receiving change-of-shift report, team huddles, and interdisciplinary patient rounds were made.	Semi-structured audiotaped individual interviews. "Tell me your experience as a new nurse during your first year of practice."
Method of Data Analysis	Meta-analysis-meta-synthesis procedures were used to analyze the content of participant observation notes and interview transcriptions.	Colaizzi's (1978) seven-step process for data analysis in phenomenological inquiry was chosen. Analysis included multiple readings of the transcript by both members of the research team. The researchers then began to group like concepts.
Validation of Study	An audit trail was established to	Trustworthiness criteria

Provided (e.g. Trustworthiness, Neutrality, Applicability, Auditability)	substantiate trustworthiness of the large volume of data. An analyses and syntheses of literature related to the seven issues of concern identified by NLRNs were completed by the last seven coauthors and withheld from the interviewers until all digital transcriptions had been analyzed.	(credibility, dependability, confirmability, and transferability) developed by Lincoln and Guba (1985) was utilized to address methodological rigor. Credibility was achieved through the use of peer debriefing and member checking. Dependability and confirmability were achieved through careful record keeping, reflective journaling by the researchers and member checking.
Findings #1	Recommends the development of a two-stage NRP. 1) Transition and 2) Integration using Merton's theory. Using seven management areas of concerns, the findings suggest NRPs need to have clearly differentiated goals, components, expected role performance, and rites of passage. The *Generation Pact* feedback system is an argument between the NLRN, her preceptor, and her clinical coach to provide	Theme #1 Adapting to the cultures of nursing. The stories of participants revealed two themes: Reality shock: The journey toward adaptation and Relationships: The significance to adaptation. Reality shock: the honeymoon phase is the new graduate's excitement about completing nursing school and obtaining a job. This phase is short lived and at the time of the interviews no strong recollection of this

	daily or at least very frequent feedback to each other on performance of various aspects of the professional practice role.	phase was seen in stories from participants. The shock phase exhibited by feelings of disillusionment was clearly evident in the stories of the participants. The resolution phase where the new graduate makes decisions about his/her future, which may include adapting to the current position, changing positions, returning to school, or leaving nursing altogether was noted in participant stories. For the new graduate, the journey toward adaptation occurs during clinical experiences as they move through the phases of reality shock. Adaptation is also either positively or negatively affected by the caring versus non-caring relationships present in the work setting.
Findings #2	Performance and cost-effectiveness due to stress reduction and increased retention have been demonstrated in the HWE/NRP program studies as well as in other studies.	Theme #2 Development of my professional responsibilities was revealed through three themes based on Benner's novice to expert theory and include surviving as a novice, excitement in becoming an advanced beginner, and success in achieving competent practice.

		The content of the stories of the participants suggest that a person's self-awareness, life experience, and personality type can greatly influence development of professional responsibilities.
Findings #3	The stability of the seven issues of high concern to the NLRNs over time suggest that discussion of these seven management area needs to be incorporated into professional nursing curricula during the academic stage of professional socialization.	NA
Limitations? (By Authors; By Reviewer)	Authors: Noted saturation after six studies. Reviewer: The research was collected over a period of five years, however it is not specified at what timeframe the participants were interviewed. The study is also limited to programs with NRPs in place for a minimum of three years. The study limited its hospital selections to only Magnet hospitals. Also, the geographical location of this study is not identified, so the study could not be generalized.	No limitations noted by the author. Reviewer: the small sample size makes generalizations difficult. Authors used Benner's framework but her methodology for measuring the developmental stages with exemplar.

Reviewer Recommendations	A variety of NRPs were included and no program type was studies for its associated affect. Future study on the development of the seven management areas as a framework for transition into the clinical setting. In future research it would be beneficial for nursing education to include organizations with NRPs in operation under three years. Including the newer NRPs could significantly change the findings and may find areas in need of enhancements foe the newer programs. If repeated it would be beneficial to nursing to limit the geographical location of the sample hospitals, and include Magnet and non-Magnet hospitals for a more complete study findings.	The transitions program was 2 weeks long. Further research is needed to explore the significance the significance between the phases of Kramer's Reality shock theory and new graduate nurse retention. It would be beneficial to determine at what state the new graduates begin to think about leaving a position or the nursing field.
Quality of Evidence	24 QIII = a high level well-constructed study	29 QIII = a high level well-constructed study