

2022

Systematic Literature Review of Residency Program for Transition to Intensive Care

Sonja Marguerite Thornton
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Sonja Thornton

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

Review Committee

Dr. Francisca Farrar, Committee Chairperson, Nursing Faculty
Dr. Mary Catherine Garner, Committee Member, Nursing Faculty
Dr. Barbara Barrett, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Systematic Literature Review of Residency Programs for Transition to Intensive Care

by

Sonja Thornton

MS, Ohio University, 2006

BS, Bowling Green State University, 2000

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2022

Abstract

The purpose of the systematic literature review project is to present the benefits of a nurse residency program (NRP) to assist new graduate nurses (NGNs) in transition to intensive care nursing. A theory-to-practice gap in knowledge and experience results in the need to support these nurses during their transition to professional practice. This project focused on compiling a systematic review of existing literature to provide evidence and insights into the optimal structure and process of transitioning new graduate nurses to intensive care nursing practice. The American Association of Critical Care Nurses synergy conceptual model and Patricia Benner's novice to expert theory guided the literature review. Using the Walden University Library, the evidence was obtained from electronic databases, including Pub Med, Medline, EBSCO Host, CINAHL, Cochrane Library, Psych Info, ProQuest, and Google Scholar. The inclusion criteria incorporated literature published in English in the 5-year time frame between 2017-2021. Key terms used during the search included *new graduate nurses*, *transition to practice*, *nurse residency program*, *critical care*, *ICU*, and *new nurse*. The John Hopkins Evidence-Based Practice Model was used to evaluate 10 articles meeting the predefined criteria. Evidence consistently supported that NRPs provide a supportive orientation program assisting in facilitating a successful transition to intensive care nursing. Intensive care-focused NRPs promote positive social change by improving NGNs self-confidence and nursing skills, resulting in a positive impact on patient health and quality of care due to increased nurse retention and improved patient outcomes.

Systematic Literature Review of Residency Programs for Transition to Intensive Care

by

Sonja Thornton

MS, Ohio University, 2006

BS, Bowling Green State University 2000

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2022

Dedication

Dedicated in memory of my mother: Sharon Meadows who was always so proud and excited about her daughter becoming a Dr. Nurse.

Dedicated to my father Frank Steele and sister Rachel Davis for their unwavering support and reminders during my journey.

Acknowledgments

I would like to acknowledge my chair Dr. Francisca Farrar, committee member Dr. Catherine Garner, and URR Dr. Barbara Barrett for their support and patience throughout the program.

I acknowledge my husband Brian Thornton and children, Kristin, Kendra, and Katlin Fick who have encouraged and provided support and encouragement throughout this journey.

Table of Contents

Section 1: Nature of the Project	1
Introduction.....	1
Problem Statement	3
Purpose Statement.....	4
Nature of the Doctoral Project	4
Summary	6
Section 2: Background and Context	7
Introduction.....	7
Concepts, Models, and Theories	8
Relevance to Nursing Practice	10
Local Background and Context	11
Role of the DNP Student.....	13
Summary	14
Section 3: Collection and Analysis of Evidence.....	15
Introduction.....	15
Practice-Focused Question(s)	15
Sources of Evidence.....	16
Analysis and Synthesis	16
Section 4: Findings and Recommendations	18
Introduction.....	18
Findings and Implications.....	18

Recommendations.....	26
Strengths and Limitations of the Project.....	26
Section 5: Dissemination Plan	28
Analysis of Self.....	28
Summary	30
References.....	31
Appendix A: References for John Hopkins Evidence Tool.....	43
Appendix B: Prisma 2009 Flow Diagram.....	51

Section 1: Nature of the Project

Introduction

A theory-to-practice gap and consequent safety risk exist for critical care new graduate nurses (NGNs), resulting in an urgent need to support these new nurses during their first year of practice. NGNs enter the hospital work environment with a gap in critical thinking and time management skills (Houston et al., 2018) and a knowledge and experience gap that exists between nursing students and competent nurses (Urban & Barnes, 2020). Prelicensure nursing education does not typically provide courses focused on critical care; instead, NGNs are being prepared for generalist practice (Innes & Calleja, 2018). Critical care NGNs are likely to encounter additional challenges as they transition to their nursing roles in critical care due to learning to care for critically ill patients (Hussein et al., 2019). NGNs who enter critical care settings where specialized knowledge is needed can experience pronounced stress (Innes & Calleja 2018). Transitioning to the RN role can leave graduate nurses feeling stressed, and many have difficulty adjusting to the reality shock of caring for multiple patients with highly complex cases (Van Camp & Chappy, 2017). Support for critical care NGNs can be provided through their preceptor's managers, other educators, and a structured orientation program (Innes & Calleja, 2018).

Additionally, many NGNs are not prepared for the fast pace and high acuity needed for some health care environments, specifically a critical care unit (Twibell et al., 2017). The challenges of the critical care environment include caring for dying patients,

prioritizing patient needs, and identifying potential patient harm. A nurse residency program (NRP) can provide a much-needed resource for critical care NGNs during the first year of practice (Ackerson & Stiles, 2018). The literature identifies a nationwide critical care nursing shortage due to various contributing factors such as retirements outpacing new entrants to the field, increased demand for health care from the aging and chronic disease population, and inadequate workforce support (American Associations of Nurses [ANA] 2022).

NGNs in critical care have a perceived knowledge skills deficit (Elias & Day, 2020). The American Association of Critical-Care Nurses (AACN) guidelines include that specialty nursing practice develops over time (AACN 2019). Due to the advanced nursing skills, competencies, and collaborative communication amongst disciplines, AACN (2019) has suggested that specific and sufficient individualized orientation is needed. The goal of an NRP is to promote public safety by supporting NGNs during their critical entry period and progression into practice. These outcomes include increased competency, decreased work stress, and improved job satisfaction (Silvestre et al., 2017). The terms transition to practice (TTP) and NRP are often used interchangeably; NRP is being used for this writing.

Nurses who are new to critical care but are not NGNs will benefit from the same education and support an NRP offers; however, only NGNs will be discussed in this writing. The systematic literature review project aims to provide insights into the optimal structure and process of transitioning NGNs to the intensive care nursing practice.

Walden University defines positive social change as a deliberate process of creating and applying ideas, strategies, and actions to promote individuals, communities, organizations, institutions, cultures, and societies (Walden University, 2021). NGNs often experience transition shock, described as feelings of disorientation, discouragement, and exhaustion (Vanderspank-Wright et al., 2020). An NRP promotes positive social change by applying ideas, strategies, and actions to promote the worth, dignity, and development of an NGN.

Problem Statement

A review of nurse attrition indicates that NGNs account for most staff replacements at the rural acute care hospital targeted in this project. Seasoned nurses are scarce in this rural setting, leading to hiring NGNs to fill vacant positions. The number of NGNs recruited to work at this rural facility throughout the past year was 119. Many of the NGNs have transitioned to the critical care units. The facility's annual RN turnover rate is 21.5%, with a first-year RN turnover rate of 32.4%; the turnover goal is 15% or less. The practice-focused question of "Can a systematic literature review provide insights into the optimal structure and process of transitioning new graduate nurses to the intensive care nurse practice?" was developed to guide the literature review.

Administrators were concerned that nurses, particularly NGNs, needed additional support and resources to successfully transition to practice as critical care nurses. Many of the NGNs have started their professional practice during the COVID 19 pandemic in the previous 2 years. The pandemic decreased or canceled the hospital's clinical interaction with patients, leading to many clinical skills learned by simulation. Many

critical care NGNs have limited to no experience caring for critical care patients other than COVID-19 patients, leading to a need for support and education when caring for non-COVID patients. An intensive care NRP will assist the NGN transitioning to practice by providing social support, education, and acceptance.

Purpose Statement

This literature review project aims to present the optimal structure and process of transitioning new graduate nurses to the intensive care nursing practice. A persistent nursing shortage requires and encourages NGNs to enter a critical care area upon graduation (Hussein et al., 2019). Transition into critical care areas may be more complicated due to the specialized knowledge needed (Innes & Calleja, 2018). As such, this doctoral project addressed the practice-focused question of “can a systematic literature review provide insights into the optimal structure and process of transitioning new graduate nurses in the intensive care nursing practice”? A project that involved evaluating the evidence addresses the practice question by documenting NRP successes and failures.

Nature of the Doctoral Project

The literature review project was conducted to obtain evidence-based practice (EBP) information that will show the best practices for NGNs transitioning to intensive care nursing with an NRP program. Evidence was collected through an exhaustive search of peer-reviewed literature with critical terms and a defined time frame of the preceding 5 years, from 2017 to 2022. The Johns Hopkins Evidence-Based Practice Model (JHEBPM; Dang & Dearholt, 2018) was used to identify, organize, and select articles for

inclusion/exclusion in the literature review project. A literature review is a systematic examination of the scholarly literature about a specific topic (Machi & McEvoy 2018). It critically analyzes, evaluates, and synthesizes research findings, theories and practices by scholars and researchers related to the area of focus (Efrat-Efron & Ravid 2018).

Originally, the doctoral project was to design an updated structured orientation program for NGNs entering the intensive care units directly upon graduation from nursing school. The planning phase for the orientation program was in progress and close to implementation. The newly hired director verbalized a lack of confidence in the orientation planning and halted the orientation planning. The project was planned to be developed as an educational orientation program to assist NGNs in transitioning to critical care nursing practice. Literature reviews highlight the evolutionary and cumulative nature of knowledge sharing (Efrat Efron & Ravid, 2018), which assists stakeholders in understanding the benefits of an NRP.

Most NGNs find initial positions in acute care hospitals (Bureau of Labor Statistics, 2017). According to Gregg (2020), developing and using effective hospital orientation programs is vital for a successful transition to address the noted knowledge gap from a student to a professional nurse. Critical care environments are fast-paced and advanced (Hussein et al., 2019). The evidence from a literature review provided evidence-based information to increase the stakeholder's knowledge of an NRP. The stakeholders include NGNs, educators, preceptors, nursing professional development specialists, directors, chief nursing officers, families, and patients. Critical care NGNs benefit from an NRP through increased retention, competence, and confidence (Rush et

al., 2019). Walsh (2018) stated that NRPs contribute to positive social change by improving self-confidence, nursing skills, nurse retention, and improved patient outcomes, resulting in a positive impact on patient health and quality of care.

Summary

I conducted a literature review and will present evidence-based information from the review to stakeholders at the facility regarding best practices for a critical care NGN NRP. The practice-focused question of “Can a systematic literature review provide insights into the optimal structure and process of transitioning new graduate nurses to the intensive care nursing practice?” was developed to guide the literature review. The resulting literature review addresses the gap in practice by providing current EBP guidelines supporting a best practice for NGNs’ transition to critical care/ICU nursing. The successful transition of NGNs contributes to improving social change by improved self-confidence, nursing skills, nurse retention, and improved quality outcomes resulting in a positive impact on patient health and quality of care (Walsh, 2018). Section 2 explores the background and nature of the doctoral project, conceptual models, nursing theories guiding an NRP, and the role of the DNP student.

Section 2: Background and Context

Introduction

This literature review project aims to present the benefits a NRP has to offer regarding assisting NGNs transitioning to intensive care nursing. Programs that guide and present best practices have theoretical foundations, and conceptual models that guide the program. The background and context section review the program's theoretical foundations and conceptual models. Relevance of the theoretical foundations and conceptual models are discussed in relation to the facility's nursing practice.

Kramer (1974) first described the "reality shock" experienced by new graduates starting their career. Kramer also discussed the widening gap between an NGNs comfort level, confidence, and skills. Further, Kramer noted seven significant challenges an NGN faces when trying to work through the transition: delegation, prioritization, decision-making, collaboration, conflict resolution, and the ability to give and accept constructive feedback.

Continuing what Kramer began, and prompted by NGN attrition, Benner (1982) developed a model and theory to understand skill acquisition and transition to practice, the novice to expert model (Murray et al., 2019) Benner asserted that knowledge is embedded in expertise and develops with experience (Benner, 1982; Murray et al., 2019). Benner's novice to expert model reviews the acquisition and progression of NGN's skills. Benner labeled the stages as novice, advanced beginner, competent, proficient, and expert. Novices are beginners who have no experience with the situations in which they are expected to perform a task. Advanced beginners have experienced limited exposure to

clinical situations and use their time and energy to remember the rules and guidelines but tend to miss patient cues of deterioration (Murray et al., 2019). Thus, NGNs rely on rules, lacking the ability to understand which task is the primary priority. As Benner described in her novice-to expert theory, novice and advanced beginners will look to policy and rule-based structure to guide practice instead of advanced assessment skills linked to clinical judgment and established clinical pattern recognition (Benner 1982).

Critical care orientation programs need to create and develop an essential entry list of special skills needed to transition to practice in a critical care environment (Innes & Calleja, 2019). Benner's model supports educators in developing individualized targeted teaching interventions based on NGNs learning needs. An NRP needs to recognize Benner's elements of advanced beginners and capitalize on their skills, knowledge and abilities as NGNs. Critical care educators within an NRP can develop individualized, targeted teaching for NGNs to overcome the obstacles they encounter transitioning to professional practice.

Concepts, Models, and Theories

The AACN (2020) presents a conceptual model of transition orientation, which includes knowledge application (demonstration of competency), self-efficacy, practice implementation, and evaluation. AACN's synergy model debuted in 1994 (AACN, 2020) and is a conceptual framework that aligns patient's needs with nurse competencies. The core concept of the synergy model is that the needs of the patient and families influence and drive the competencies of nurses. When this synergy occurs, positive patient

outcomes occur by optimizing nursing competencies and education, positively impacting patient-related outcomes such as satisfaction engagement and patient safety.

Further, the AACN supports using the Essentials for Critical Care Orientation (ECCO) electronic learning modules as an entire course or module for critical care nurses (AACN, 2020). ECCO education allows NGNs to learn the most current EBP nursing knowledge and practice related to their learning needs. AACN recommends assessing the advanced beginner/novice nurse's needs and determining what skills and competencies are needed immediately to ensure safe patient care. The NGN skill assessment begins with essential skills and knowledge needed for safe patient care and gradually progresses to increasingly complicated skills. ECCO enables learners to complete virtual learning to assigned modules pertinent to the nurse's orientation needs. ECCO assists in evaluating assessment data, determining patient's priorities with critical illness, anticipating potential complications and preventions, and implementing interventions among common conditions experienced by critical care patients.

The JHEBPM (Dang & Dearholt, 2018) was chosen to guide this literature review project. The JHEBPM is an EBP model designed to meet the needs of practice nurses using a three-step process called PET: P is for practice question, E for evidence, and T for translation. The PET process provides a systematic approach to solving patient practice questions, translating the best evidence into practice. The first step is to identify the practice problem, issue, or concern. The second step in the process is evidence which involves summarizing and synthesizing both internal and external sources of evidence. The third step is translating or creating and implementing an action plan to evaluate the

outcome and disseminate findings. Additional information regarding JHEBPM will be shared in Section 3.

Relevance to Nursing Practice

An expected nursing shortage has intensified as baby boomers retire and increased health care needs arise (AACN, 2019). The Bureau of Labor Statistics Employment Projections (2017) projected the need for an additional 203,700 new RNs yearly through 2026 to fill newly created positions and replace retiring nurses (AACN, 2019). There are persistent nursing shortages with a lack of experienced RNs filling the vacancies with NGNs (Hussein et al., 2019). NGNs transitioning into an intensive care environment often experience amplified feelings of stress due to a lack of knowledge to care for complex patients (Hussein et al., 2019). Additional challenges include the need for rapid assessment and intervention skills and critical thinking to anticipate patients deteriorating clinical conditions. During the critical care NGNs transition, they may experience discouragement and exhaustion (Hussein et al., 2019), especially as they learn the needed skills and behaviors (Innes & Calleja, 2018). NGNs wrestle with feeling overwhelmed navigating work-based relationships and organizing work (Urban & Barnes, 2020).

Nursing leaders willing to support and guide the NGN into practice can help alleviate some stress and anxieties. NGNs often feel overwhelmed, exhausted, and anxious when not provided support, contributing to attrition (Hussein et al., 2019). Though NGNs entered the hospital work environment with a gap in critical thinking and a lack of time management skills (Wendler et al., 2019). Pre licensure nursing education

does not typically provide courses focused on critical care as students are being prepared for general practice; therefore, NGNs who enter critical care settings where specialized knowledge is needed experience pronounced stress (Powers et al., 2019). Nursing professional development (NPD) can support the NGNs through the first year with an NRP providing critical care education, time, stress, and anxiety management. Improved patient care, clinical decision-making ability, quality of nurse performance, job satisfaction, engagement, communication, and peer support are improved when an NGN attends an NRP (Fowler et al., 2018). Intensive care nursing requires more skill and knowledge than an advanced beginner or NGN acquires in nursing school, and critical care-focused NRPs assist the critical care NGN in learning the advanced skills. There is a lack of research on NGNs transitioning to practice in this specialty area (Powers et al., 2019). Completing this systematic literature review project documents the need for current research regarding a critical care NRP.

Local Background and Context

The rural facility is experiencing a high turnover of first-year RN employees. The 18-bed critical care unit, especially the night shift, is staffed primarily by new graduates and travel nurses. Recently the experienced critical care nurses have been transferring to other nursing units due to the challenges related to staffing or pursuing travel nursing for the increased income.

The facility's annual RN turnover rate is 21.5%, with a first-year RN turnover rate of 32.4%; the turnover goal is 15% or less. The national RN turnover in critical care nursing is 18.7% and is considered average among specialty nurses. Considering the

average age of nurses and the anticipated wave of retirements about to occur, these openings will further change the turnover rate for some specialty areas (NSI Solutions, 2021).

Currently, no educational programs are established for intensive care NGNs at this rural facility. Previously, the NGNs hired into critical care began orientation in a medical-surgical unit, gradually advanced through the different levels of care over 3 months, and then began orientation in the critical care unit. Once the NGN was practicing in critical care, learning advanced and complex skills was not as challenging due to the rotations. The new graduate intensive care nurse was previously permitted 6 months of orientation to accommodate the differing parts of the planned orientation program.

Additionally, throughout the 6 months, critical care, telemetry, Advanced Cardiac Life support (ACLS), Trauma Nursing Core Curriculum (TNCC), Continuous Renal Replacement Therapy (CRRT), and additional classes/skills were completed. ECCO was approved in the budget: however, a new critical care director was hired who deemed the orientation program too lengthy and the ECCO program not beneficial. The director decreased orientation length from 6 months to 4 months, then 3 months to 10 weeks and is currently back to 12 weeks of orientation. The ECCO program was not allowed to go live, and all certification classes were included in the 12-week orientation period. With the classes included in the 12-week timeframe, the critical care NGN is on the floor 20-24 hours per week prior to practicing independently.

Experienced preceptors are limited in the critical care unit to provide orientation and support for the NGNs. A few RNs have been critical care nurses for 6 to 12 months

and are currently precepting intensive care NGNs, in the ICU. Additionally, the critical care unit has multiple travel nurses who often are the only experienced RNs, especially during the night shift. Once the critical care NGN orientation is completed, many NGNs work the night shift with no managers, educators, lead preceptors, or additional support staff. This systematic literature review project can address the gap in practice regarding intensive care NGNs need for ongoing support and education for advanced skills and critical thinking offered through an NRP.

Role of the DNP Student

My professional context and relationship to the doctoral project are related to a clinic nurse specialist (CNS) in NPD within this rural facility. However, while I am employed by this rural facility, this project was not conducted during working hours. My role in this doctoral project was to complete the literature review project and present to stakeholders the importance and benefits of an NRP for intensive care NGNs. Critical care NGNs need to learn complex skills, critical thinking, and time management during the first year of practice. The stakeholders understand conceptual, practical strategies for guiding intensive care NGNs through the first year of transition to practice. The literature review project addresses the gap in practice of NGNs entering an intensive care unit lacking the advanced skills and knowledge needed to care for critically ill patients. During the literature review project, I worked with multiple critical care managers and directors, whose needs and opinions changed frequently. Select administrators have struggled to see the value in addressing the transition to practice gaps such as advanced skills, critical thinking, additional training, and education and the relationship between

educational services and the critical care department became strained. My EBP informed perception remains that an intensive care NRP will benefit multiple stakeholders such as administrators, clinical nurse managers, clinical nurse preceptors, bedside preceptors, critical care NGNs, educators, families, and patients.

Summary

NGNs develop expertise over time and are affected tremendously in the first year of nursing practice. During the transition over the first year, education and support will assist NGNs in increasing confidence, critical thinking skills, time management, and improving patient care. There is a noted and perceived gap in practice related to education and support provided to the intensive care NGN transition to practice. The literature review project provides support and evidence to stakeholders at the rural facility of the need and positive impacts of intensive care orientated NRP. There is a lack of studies focusing on the transition of NGNs into intensive care; however, the available research strongly supports the use of NRPs to develop confidence and competence in this population (Innes & Calleja, 2018).

Section 3: Collection and Analysis of Evidence

Introduction

A systematic literature review project was undertaken to search for available evidence supporting the impact of NRP on NGNs new to intensive care nursing. The practice-focused question of “Can a systematic literature review provide insights into the optimal structure and process of transitioning new graduate nurses to the intensive care nursing practice?” was designed to guide the literature review. The evidence was reviewed and appraised for the quality of evidence utilizing JHEBPM.

Practice-Focused Question(s)

In the seminal report, *The Future of Nursing: Leading Change, Advancing Health*, The Institute of Medicine (IOM; 2010) called on health care organizations, state boards of nursing, government agencies, and other groups to support the transition of new nurses into practice through the implementation of NRPs (Adams et al., 2015). New graduates must build up their foundational skills to deliver the safest care (IOM, 2010; Walsh, 2018). This strategy is included in the Future of Nursing 2010 guidelines to address the reality shock experienced by NGNs, decrease inexperienced staff stress, and improve nursing retention (IOM, 2010). The practice-focused question was created to assess the best evidence for guidance regarding content, knowledge, and methods to support NGNs throughout the critical first year of practice. "Will a systematic literature review provide insights into the optimal structure and process of new graduate nurse transition to the intensive care nursing practice?" was the practice question developed in the literature review project regarding critical care NRPs.

Sources of Evidence

Using the Walden University library and other search engines, the sources of evidence were obtained from multiple electronic databases, among them; PubMed, Medline, EBSCO Host, CINAHL, Cochrane Library, Pysch Info, ProQuest, and Google Scholar. The key terms used during the search included *new graduate nurses, transition to practice, nurse residency program, critical care, intensive care unit, ICU, and new nurse*. The inclusion criteria were limited to the English language, peer review, and time limitation of the previous 5 years of 2017-2022. Each article was evaluated utilizing the JHEBPM. The JHEBPM is explicitly designed to meet the requirements of the practicing nurse and uses a three-step process called PET: practice questions, evidence, and translation. The goal of the model is to ensure that the latest research findings and best practices are quickly and appropriately integrated into patient care. Each article in the review was evaluated using The John Hopkins Evidence Level and Quality Guide. The assessment resulted in an assignment of an evidence level of *one* through *five*. Once the evidence level was assigned, a quality rating of *high, exemplary, or low-quality* was assigned.

Analysis and Synthesis

The JHEBPM was used to record, track, organize, and analyze the articles selected for the systematic literature review. An individual evidence summary tool developed by The John Hopkins University was used to list the articles, with my assigned level of evidence and quality.

Systematic reviews are designed to provide an exhaustive, specific summary of current evidence relevant to a research question. The articles were read and summarized using specific terms, inclusion, and exclusion criteria. Identification of gaps, relevance, and variations in practice regarding a critical care NGN were based on the research question.

Summary

The comprehensive literature review was completed with predefined key terms, time limits, and qualifiers. The literature was evaluated using the JHEBPM evidence level and quality guide resulting in an assignment of one through five and a high, exemplary, or low-quality rating. The resulting articles were graded using the JHEBPM to determine articles relevant to the practice focus question of “Can a systematic literature review provide insights into the optimal structure and process of transitioning new graduate nurse to the intensive care nursing practice?”

In Section 4, findings from the comprehensive literature search concerning the gap in practice and the practice-focused question will be reviewed. Implications from the findings regarding social change, individuals, communities, and systems will also be discussed. Recommendations based on the systematic literature review findings address the gap in practices noted.

Section 4: Findings and Recommendations

Introduction

The purpose of this literature review project is to provide insights into the optimal structure and process of transitioning NGNs to the intensive care nursing practice. A theory-to-practice gap and consequent safety risk exist for critical care NGNs who are not sufficiently supported, resulting in an urgent need to provide support to these new nurses during their first year of practice.

Seventeen articles met the inclusion criteria for the literature review project by predefined criteria. Fifteen articles reviewed various aspects of an NRP or the struggles of NGN experiences during the first year of practice. Ten of the selected articles were qualitative research articles, six were quantitative, and one was mixed-method research. The overarching theme of all articles was that an NRP positively influences NGN transition, improves retention rates, improves learning, socialization, and confidence.

Findings and Implications

Preceptors

The importance of preceptors during the NGNs transition to practice was a reoccurring theme throughout the literature review. The new nurse's transition into practice is supported and developed by preceptors who assist in seeking answers to clinical and ethical questions posed during orientation (Fowler et al., 2018). Structured orientation programs with trained preceptors are the most successful means of preparing NGN for clinical practice (Powers et al., 2019). Formal and informal support people are needed, with preceptors providing proper support and peers providing informal support

(Degrande et al., 2018). Structured orientation programs with trained preceptors successfully prepare NGNs for clinical practice (Powers et al., 2019). Preceptors are vital in prioritizing and directing, guiding the NGN to see the patient holistically and consider multiple, individual-level factors (Wendler et al., 2019). A preceptor is the most crucial aspect of a successful transition to independent practice because preceptors provide "on-the-job" learning (Walsh 2018). The first 2 to 3 months for an NGN transitioning to a professional role is incredibly stressful (Herron 2018). The transition to practice improves when NGNs are paired with a strong, trusted preceptor who emphasizes skills, clinical reasoning, time management, and patient safety (Herron, 2018; Hussein et al., 2019).

The lack of consistent preceptors during the orientation period increases anxiety for the NGN (Degrande et al., 2018). Feedback from NGNs of having minimal (one to two) preceptors throughout the orientation allowed the NGN to build confidence and acquire skills. When the NGNs were assigned one to two preceptors, they were able to focus on learning in a structured manner without multiple opinions, habits, and skills' variations from various preceptors. More than one to two preceptors were identified as challenging and confusing to NGNs, potentially affecting the NGNs confidence and competence levels (Innes & Calleja, 2018). Preceptor consistency helps balance relationships among disciplines, promotes socialization, fosters trust, and promotes skill development. When paired with a compatible preceptor, NGNs felt less alone and protected from lateral incivility and bullying (Chant & Westendorg, 2019).

Critical care nursing benefits from NGN/preceptor models. Adult ICU nursing practice requires in-depth knowledge of advanced assessment and technologies in

managing life-threatening complex nursing situations (AACN, 2019). Critical care preceptors must remain especially vigilant regarding ensuring patient safety while promoting NGN clinical reasoning due to the ever-changing patient conditions (Powers et al., 2019).

Preceptor Education

Preceptors must be adequately trained. Formal preceptor education and support are essential for increased success with an NRP (Innes & Calleja, 2018). Conversely, research showed that poorly prepared preceptors provided little structured orientation to the clinical environment, proved untrusting regarding NGN clinical skills, and often tried to complete the work themselves (Innes & Calleja, 2018).

Team/Teamwork/Support/Environment

The ability to function effectively as a team is crucial in critical care, where professionals from multiple disciplines are assembled in ad hoc teams for the short-term management of crises (Dirks, 2019). Team and teamwork reflect a supportive environment; Doughty et al. (2018) note that support structures are essential to transition to professional practice for NGNs (Urban & Barnes, 2020). NGNs value teamwork as a technique to provide exemplary patient care and a means to obtain immediate help when needed (Urban & Barnes, 2020). Effective teamwork increases confidence and professional competence, leading to success for the team (Degrande et al., 2018; Hermens, 2017). A culture of clinical support creates learning environments that improve confidence levels and high standards of care provided by NGNs (Hussein et al., 2019). Good teamwork makes a problematic shift more manageable. NGNs are eager to apply

assessment and newly-learned skills; however, this is not always supported in the practice environment (Fowler et al., 2017; Dougherty et al., 2018). NGNs who develop a working relationship with senior staff were more likely to be valued and potentially receive more support; additionally, NGNs asserted, in one study, that senior staff should be more approachable and available after hours (Hussein et al., 2019). Clinical support and skill development are essential to providing safe and competent patient care; experienced teams and team support can provide the necessary support (Hussein et al., 2019).

Urban and Barnes (2020) note NGNs relationships with coworkers are essential as patient care requires working together to achieve common goals. NGN relationships may be positive and supportive or negative and add additional layers to their work-related stress. NGNs may worry about asking questions, stating in one study that some peers comment negatively on their status as NGN; statements made by peers included, "oh, you are a new nurse, I will do this." (Dougherty et al., 2018). When senior staff recognizes NGNs capabilities by not placing them in clinical situations where they are unfamiliar, practice transition is enhanced (Hussein et al., 2019). NGNs experience a sense of relief, security, and belief that others care about what is happening to them when a coworker notices they need help and provides it or gives the NGN a patient assignment consistent with their abilities (Urban & Barnes, 2020).

Additionally, relationships and support from clinical supervisors can transform NGNs' learning experiences by building confidence, helping the NGN feel appreciated, and promoting a sense of their belonging within the team (Hussein et al., 2019). When NGNs ask questions and receive answers, effective support does not make the NGN feel

weak; instead, the questions/answers promote professional development and confidence. Good clinical support is related to learning how to deliver optimal patient care. (Fowler et al., 2017).

The NGN may experience complex situations at work and go to a superior for help, sometimes receiving indifference, rejection, or hostility (Urban & Barnes, 2020). Power and knowledge differentials exist between experienced nurses and NGNs, and the NGN may feel that they were looked down upon and treated differently than a peer with experience (Urban & Barnes, 2020). Staff members who recognize development, growth, and learning with the NGNs during the transition period note that the work environment characteristics positively influence the NGN transition. (Hussein et al., 2019). Following graduation, the transition to practice for NGNs is enhanced when nursing students are socialized into environments where they feel part of the professional team (Bourgault, 2021). A team invested in NGNs success facilitates positive learning experiences, and the transitions to a professional workplace are enhanced (Fowler et al., 2018).

Retention/Turnover

The transition from the student role to a practicing nurse can be stressful and overwhelming, leading to 35% – 60% percent of nurses leaving their employment within 1 year (VanCamp & Chappy, 2017). Increased job dissatisfaction directly affects the NGNs intent to leave the facility (DeGrande et al., 2018). NGN attrition can also be caused by changing clinical environments, steep learning curves, high patient acuity, and low nursing skill mix exacerbated by staff shortages (Hussein et al., 2019).

The average cost of turnover for a bedside RN is estimated between \$37,000.00 and \$58,000.00, with first-year turnover outpacing other categories. (NSI Nursing Solutions, 2021). The costs are incurred from overtime payment to existing staff, hiring temporary staff, closing beds, new employee training, and orientation (Ackerson & Stiles 2018). NSI Solutions (2021) notes that turnover costs rise due to staff replacement and recruitment of critical care nurses is above the average recruitment time of 97-126 days. The longer recruitment time leads to hiring travel nurses; due to COVID, travel nurse rates jumped over 200% with elevated premiums. Hospitals are paying 62.5% more for travel RNs than they did at the start of 2020. For every 20 travel RN positions eliminated, a hospital can save on average \$3,080,400.00.

Clinical Practice/Critical Thinking/Clinical Reasoning Development

Classroom time is essential as a part of an NRP; the classroom or didactic workshops promote the ability of the NGN to bring clinical practice and theory together (Doughtry et al., 2018). Clinical reasoning should be emphasized during an NRP (Hermen 2017); clinical reason can be part of the didactic sessions.

Hussein et al. (2019) noted that clinical support, both formal and informal, and by teaching or coaching, facilitates learning and assists NGN with reflective practice. NGNs reflecting on learning during clinical support sessions held separately from the clinical setting in a safe group fosters skill and professional development. It is difficult for nursing schools to prepare new nursing graduates with the capacity needed to practice in acute care settings immediately upon graduation (Goode et al., 2016).

The areas include adult learning, development of expertise from novice to expert, stages of precepting, facilitation of critical thinking and the evaluation of novice ICU nurse performance, conflict resolution communication skills, and critical feedback. Additionally, NGNs who choose to work in demanding ICU environments benefit from productive relationships with vigilant preceptors who can help develop their critical thinking capability.

Powers et al. (2019) noted that clinical reasoning assists the experienced nurse in judging clinical situations to determine the need to intervene when a patient is deteriorating. In critical care, subtle changes in patient conditions, recognized intuitively by the experienced nurse, are often missed by the NGN. As NGNs gain experience and their clinical reasoning develops, their ability to detect and act upon patient deterioration to provide safe patient care.

Communication

A significant source of low confidence and high anxiety with NGNs is communication with providers (Herman 2017). Providers are not always respectful when communicating with NGNs. When NGNs struggle with communication, it makes providing quality patient care difficult. NGNs also report feeling challenged by poor communication among their peers and colleagues, including horizontal violence. Their difficulties with communication and the ability to feel confident to advocate for themselves are complicated (Levine 2020).

Length of Program

The Future of Nursing IOM 2010 recommends that NRP be at least 1 year in length, focusing on a specific population or clinical area of specialization for NGNs to achieve a complete transition to independent practice (Walsh 2018). The need for the IOM's recommendation of a 1-year NRP is supported by research on the reality shock that an NGN experiences in the first year of practice. Cochran (2017) notes that reality shock (the difference in the expected versus reality) occurs in the fourth month after hire increases to the highest level at 6 months. Reality shock decreases to the lowest level at 12 months. In a state of stress for 5 to 8 months, NGNs can benefit from an NRP of a 6-month minimum, with 12 months being optimal (Cochran 2017). A year-long program requires a substantial commitment from nurse residents and has financial implications for the facility; however, the year allows the NGNs to transition through learning didactic sessions, simulations, and building upon clinical experiences (Walsh 2018). NGNs reported fewer challenges organizing and prioritizing their workday and improved communication with physicians, patients, and other healthcare workers around the 6-month mark with the support obtained from an NRP (Wilson et al., 2018). The amount of encouragement and feedback for the NGN showed the highest satisfaction at the beginning of the program but dropped significantly after 6 months (Wilson et al., 2018).

Intensive care unit NGNs benefit from an NRP by increased retention, competence, and confidence (Rush et al., 2019). Walsh (2018) stated that NRPs contribute positive social change by improving self-confidence, nursing skills, nurse

retention, and improved patient outcomes, resulting in a positive impact on patient health and quality of care.

Recommendations

The literature consistently showed that NRPs benefit NGNs, intensive care NGNs have a steeper learning curve due to advanced technology and clinical reasoning skills not taught in nursing school. Based on the literature, I recommend creating an intensive care NGN NRP. Additionally, the literature was strong in promoting preceptor/NGN relationships. The more positive and supportive the relationship is between the NGN and the preceptor, increased positive outcomes occurred. I recommend preceptor education and training to assist in supporting the preceptors of NGNs to learn how to successfully assist an intensive care unit NGN transition to practicing nurse successfully.

Clear and straight forward communication with all participants of intensive care NGNs regarding expectations is also recommended. Intensive care NGNs often feel anxiety and stress especially when the expectations are unclear. Communication that is frequent and straightforward will assist in alleviating these concerns. Additionally, instruction on how to communicate efficiently with challenging people including peers and physicians will assist the intensive care unit NGN in being able to navigate and be successful in communicating with difficult people.

Strengths and Limitations of the Project

There are multiple articles and studies regarding NRPs in general; however, few studies have been done specifically on NRPs explicitly for intensive care NGNs. Additional studies involving intensive care NRPs would help all stakeholders better

understand NRPs beneficial effects for NGNs entering intensive care nursing upon graduation. The research studies I used were limited to English; articles in other languages may have provided additional information and insights not noted in the selected articles. Furthermore, most research I identified was qualitative; correlation with quantitative research is necessary to support the information revealed/obtained from the qualitative studies. The sample size of most of the research studies included small sample sizes with varied locations across the United States, Australia, New Zealand, and Canada. The articles may not represent most NGNs transitioning to practice as professional nurses in the United States.

Section 5: Dissemination Plan

A copy of the literature review project outlining the most recent EBP, and benefits of a NRP for intensive care unit NGNs will be presented to key stakeholders, including the Director of Critical Care and Trauma program, Director of Nursing Education, Director of Nursing Program Development, and the Chief Nursing Officer, for review. The information could also be shared with senior administration if nursing administration approves. If the stakeholders and nursing administration express interest in an intensive care NRP, the literature review project can be used as a reference. The challenge is to bring the key stakeholders on board to develop and implement an NRP during pandemic hardship, financial hardship, and nursing shortages considering the financial obligations of an NRP.

Analysis of Self

At the start of my project, the need for an intensive care residency program had been stated by critical care nursing staff, preceptors, managers, and the director of critical care. Budgetary support was requested and approved to purchase the ECCO virtual classroom, and focus groups were held with new hires, preceptors, managers, and directors. I was hopeful to see an NRP created for critical care NGNs, as the project was starting on a positive note. Shortly after the focus groups and approval for ECCO, new managers and directors who had begun employment within the facility after the study was underway, did not share the vision for a critical care NRP or even a structured critical care orientation. The support, enthusiasm, and hope I had received from their predecessor was abruptly halted. The change in mindset and thinking caused much

frustration, delays, and frequent disapproval of the critical care director and manager. Progress moving forward regarding implementing a structured critical care orientation program utilizing the ACCNs ECCO program, and working toward a critical care NRP, were suspended. The disappointment and frustration I felt were overwhelming as I could not understand their rationale. The director of critical care and the different managers declined to discuss their thought processes and held private meetings regarding orientation and education without including the critical care educator or education department, which I was the CNS. As a student, the rejection would not have been as disappointing; however, as the unit's department educator/CNS, the lack of involvement was problematic. The events caused much deep self-reflection on what could have been handled differently and how to redirect the project to meet the critical care NGNs needs. As a result, the project was delayed significantly; I learned how to navigate significant obstacles and think "outside the box" for another method to garner interest and show the benefits of a critical care NRP. The result of the obstacles was to complete this literature review project on critical care NRPs to present to new stakeholders as they on boarded to our facility.

Writing at a doctoral level has been a struggle, even after taking the writing essentials classes and multiple webinars. I have professionally and personally grown to understand critical feedback better, utilizing the information and suggestions provided to improve the project, my writing, and my time management skills. The multiple revisions and suggestions have assisted me in furthering my academic writing skills and understanding of academic writing.

My excitement and enthusiasm are returning recently, especially as I see NGNs hired in this facility as critical care nurses full of excitement and willingness to learn. Additionally, a new ICU director, manager, and lead clinical preceptor were hired and are supportive of education, certification, and structured orientation plan that includes plans for a critical care NRP or other structured orientation implementation.

Summary

A theory-to-practice gap and consequent safety risk exist for critical care NGNs resulting in an urgent need to provide support to these new nurses during their first year of practice. Intensive care NGNs are likely to encounter additional challenges as they transition to their nursing roles in the intensive care unit. Support for intensive care unit NGNs can be provided through preceptor's, managers, educators, and a structured orientation program like an NRP. Evidence from this systematic literature review project consistently identified that an NRP would provide the needed support for the ICU NGNs. The evidence provided in this literature review project delineates suggestions, and interventions that have been noted to have a positive effect on intensive care NGNs.

References

- Ackerson, K. & Stiles, K.A. (2018). Value of nurse residency programs in retaining new graduate nurses and their potential effect on the nursing shortage. *Journal of Continuing Education in Nursing* 49(6), 282. <https://doi.org/10.3928/00220124-20180517-09>
- Adams, J. M., Alexander, G. A., Chisari, R. G., Banister, G., Mcauley, M. E., Whitney, K. B., & Erickson, J. I. (2015). Strengthening new graduate nurse residency programs in critical care: Recommendations from nurse residents and organizational stakeholders. *Journal of Continuing Education in Nursing* (46), 41-48. <https://doi.org/10.3928/00220124-20151217-01>
- American Association of Critical-Care Nurses. (n.d.). *Essentials of critical care orientation*. <https://www.aacn.org/education/online-courses/essentials-of-critical-care-orientation>
- American Association of Critical Care Nursing. (n.d.). *AACN standards-synergy model*. <https://aacn.org/nursing-excellence/aacnstandards>
- American Association of Critical Care Nurses. (2006). Doctor of Nursing Practice Essentials. <https://www.aacnnursing.org/DNP/DNP-Essentials>
- Asber, S. R. (2019). Retention outcomes of new graduate nurse residency programs: An integrative review. *Journal of Nursing Administration*, 49(9), 430-435. <https://doi.org/10.1097/NNA.0000000000000780>

- Baldwin, K., Sleutel, M., Urban, R. Wells, J., Behan, D., Walsh, J., & Newcomb, P. (2020). An exploration of new graduate nurses transition to specialty practice. *Journal for Nurses in Professional Development* 37(2), 93-100.
- Barnett, J.S., Minnick, A.F., & Norman, L.D. (2014). A description of U.S. Post-graduation nurse residency programs. *Nursing Outlook*, 62, 174-184.
- Benner, P., (1982) *From Novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley.
- Blevins, S.H. (2016). Nurse residency programs: Supporting nurse graduates. *MEDSURG Nursing*, 25(5), 367-368.
- Bortolotto, S.J. (2015). Developing a comprehensive critical care orientation program for graduate nurses. *Journal Nurse's Professional Development*, 31, 203-210, <https://doi.org/10.1097/NND.0000000000000139>
- Bureau of Labor Statistics. (2017). *Occupational outlook handbook 2016-17 edition: Registered Nurses*. US Department of Labor <https://www.bls.gov/ooh/healthcare/registered>
- Cain, C., Miller, J., & Wilkin, J. (Eds.). (2019). *AACN scope and standards for progressive and critical care nursing practice*. American Association of Critical Care Nurses. <https://www.aacn.org/nursing-excellence/aacn-standards>
- Chant, K., & Westendorf, D. (2019). Nurse residency programs: Key components for sustainability. *Journal for Nursing in Professional Development* 35(4), 185-192.
- Cochran, C. (2017). Effectiveness and best practice of nurse residency programs: A literature review. *MedSURG Nursing*, 26(1), 53-63.

- Calleja, P., Adonteng-Kissi, B., & Romero, B. (2019). Transition support for new graduate nurses to rural and remote practice: A scoping review. *Nurse Education Today* (76) 8. 8–20. <https://doi.org/10.1016/j.nedt.2019.01.022>
- Church, C. D., Zhaomin, He., & Yarbrough, S. (2018). Factors influencing organizational commitment and turnover in nurse residents. *Journal of Continuing Education in Nursing*, 49(10), 482–488. <https://doi.org/10.3928/00220124-20180918-09>
- Cosme, S., Yarbrough, C., O'Brien, M., & Chappell, K. (2018). Using the magnet® criteria to document new graduate nurses' transition to practice. *Journal for Nurses in Professional Development*, 24(1), 20 -25.
- Dang, D., & Dearholt, S. (2018). *The Johns Hopkins Nursing Evidence-Based Practice* (3rd ed). Sigma Theta Tau International.
- Degrande, H., Liu, F., Greene, P., & Stankus, J. (2018). The experiences of new graduate nurses hired and retained in adult intensive care units. *Intensive & Critical Care Nursing*, 49, 72.
- Dirks, J. (2019). Effective strategies for teaching teamwork. *Critical Care Nurse*, 39(4), 40-47.
- Doughty, L., Mckillop, A., Dixon, R., & Sinnema, C. (2018). Educating new graduate nurses in their first year of practice: The perspective and experiences of the new graduate nurses and the director of nursing. *Nurse Education in Practice*, 30, 101-105. <https://doi:10.1016/j.nepr.2018.03.006>

- Eckerson, C. (2018). The impact of nurse residency programs in the United States on improving retention and satisfaction of new nurse hires An evidence-based literature review. *Nurse Education Today*, 71. 84-90.
<https://doi.org/10.1016/j.nedt.2018.09.003>.
- Edwards, D., Hawker, C., Carrier, J., & Ress, C. (2015). A systematic review of the effectiveness of strategies and interventions to improve the transition from student to newly qualified nurse. *Journal of Nursing Studies*, 52(7), 1254-1268.
<https://doi.org/10.1016/j.ijnurstu.2015.03.007>
- Elias, C.E., Day, T. (2020). Experiences of newly qualified nurses in critical care program: a qualitative systematic review. *Journal of Intensive Care Society* 21(4) 334-343. <https://doi:10.1177/1751143720926794>
- Efron, S. E., & Ravid, R. (2019). *Writing the literature review: A practical guide* (NY). The Guilford Press.
- Fowler, S. B., Lind, S. C., Johnson, P. R., & Lewis, J. (2018). Qualitative description of new graduate nurses' experiences in a nurse residency program. *Journal for Nurses in Professional Development*, 34(6), 319–324.
<https://doi.org/10.1097/NND.0000000000000496>
- Goode, C., Reid P., & Sullivan Havens, D. (2016). Residency for transition into practice: An essential requirement for new graduates from basic RN programs. *Journal of Nursing Administration*, 46, 82-86.
<https://doi.org/10.1097/NNA.0000000000000300>

- Gregg, J. C. (2020). Perceptions of nurse managers and nurse preceptors: Are new graduate nurses displaying competency according to the new graduate nurse performance survey? *Journal for Nurses in Professional Development*, 36(2), 88-93. <https://doi:10.1097/NND.0000000000000615>
- Haggerty, C., Holloway, K., & Wilson, D. (2013). How to grow our own: An evaluation of preceptorship in New Zealand graduate nurse programmes. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 43(2), 162-71.
- Herron, E. K. (2018). New graduate nurses' preparation for recognition and prevention of failure to rescue: A qualitative study. *Journal of Clinical Nursing* 27, E390-E40. <https://doi:10.1111/jocn.14016>
- Hickerson, K. A., Taylor, L. A., & Terhaar, M. F. (2016). The preparation-practice gap: An integrative literature review. *The Journal of Continuing Education in Nursing* 47(1), 17-24. <https://doi:10.2928/00220124-20151230-06>
- Hofler, L., & Thomas, K. (2016). Transition of new graduate nurses to the workforce. *North Carolina Medical Journal*, 77(2), 133–136.
- Hussein, R., Salamonson, Y., Evertt, B. Hu, W., Ramjan, L. (2019). Good clinical support transforms the experience of new graduates and promotes quality care a qualitative study. *Journal of Nursing Management* 27. 1809-1817. <https://doi:10.1111/jonm.12880>
- Hussein, R., Everett, B., Ramjan, L.M., Hu, W., & Salamonsons, Y. (2017). New graduate nurses' experiences in a clinical specialty: A follow up study of

newcomer perceptions of transitional support. *BMC Nursing*, 16(1), 42.

<https://doi.org/10.1186/s12912-017-0236-0>.

Innes, T., & Calleja, P. (2018). Transition support for new graduate and novice nurses in critical care settings: An integrative review of the literature. *Nurse Education in Practice*, 30, 62–72. <https://doi.org/10.1016/j.nepr.2018.03.001>

Institute of Medicine (IOM) (2010). *The future of nursing. Leading change-advancing health*. Washington, DC. The National Academies Press.

Kaddoura, M. (2013). The effect of preceptor behavior on the critical thinking skills of new graduate nurses in the intensive care unit. *The Journal of Continuing Education in Nursing*, 44(11), 488-495. <https://dx.doi.org/10.3928/00220124-20130816-21>

Kramer, M., Brewer, B., & Maguire, P. (2011). Impact of healthy work environments on new graduate nurses's environmental reality shock. *Western Journal of Nursing Research* 35(3), 348-383.

Kramer, M. (1974). *Reality shock: Why nurses leave nursing*. St. Louis, MO: C.V. Mosby Company

Laschinger, H. K., Cummings, G., Leiter, M., Wong, C., Macphee, M., Ritchie, J., Woff, A., Regan, S., Rheaume-Bruning, A., Jeffs, L., Young-Ritchie, C., Grinspun, D., Gurnham, M., Foster, B., Huckstep, S., Ruffolo, M., Shaminan, J., Burkoski, B., Wood, K., & Read, E. (2016). Starting out: A time-lagged study of new graduate nurses' transition to practice. *International Journal of Nursing Studies*, 57, 82-95. <https://doi:10.1016/j.ijnurstu.2016.01.005>

- Letourneau, R. M., & Fater, K. H. (2015). Nurse residency programs: An integrative review of the literature. *Nursing Education Perspectives, 36*(2), 96–101. <https://doi.org/10.5480/13-122>.
- Levine, M. E. (2020). When new nurses talk, nursing organizations listen. *Nursing, 50*(1), 53-57. <https://doi:10.1097/01.NURSE.0000604720.20331.54>
- Lima, S., Newall, F., Jordan, H. L., Hamilton, B., & Kinney, S. (2016). Development of competence in the first year of graduate nursing practice: a longitudinal study. *Journal of Advanced Nursing, 72*(4), 878–888. <https://doi.org/10.1111/jan.12874>
- Lyman, B., Gunn, M. M., & Mendon, C. R. (2020). New graduate registered nurses' experiences with psychological safety. *Journal of Nursing Management*. <https://doi:10.1111/jonm.13006>
- Machi, L. A., & McEvoy, B. T. (2018). The literature review: Six steps to success. Corwin.
- McBee P, Lentz L, & Williams R. (2001). In our unit. Quick reference helps new nurses survive after orientation. *Critical Care Nurse, 21*(2), 112–107.
- McCalla-Graham, J., & De Gagne, J.C. (2015). The lived experience of new graduate nurses working in an acute care setting. *The Journal of Continuing Education in Nursing, 46*(3), 122-128. <https://dx.doi.org/10.3928/00220124-20150220-17>
- McKillop, A., Doughty, L., Atherfold, C., & Shaw, K. (2016). Reaching their potential: Perceived impact of a collaborative academic–clinical partnership programme for early career nurses in New Zealand. *Nurse Education Today, 36*, 145–151. <https://doi.org/10.1016/j.nedt.2015.09.005>

- Mellor, P. D., & Gregoric, C. (2019) New graduate registered nurses and the spectrum of comfort in clinical practice. *Journal of Continuing Education in Nursing, 50*(12), 563-571. <https://doi:10.3928/00220124-20191115-08>
- Melnyk, M.B. & Fineout-Overhold, E. (2015). *Evidence-based practice in nursing & healthcare a guide to best practice* (3rd ed.) Wolters Kluwer.
- Murray, M., Sundin, D., & Cope, V. (2019). Benner's model and Duchscher's theory: Providing the framework for understanding new graduate nurses' transition to practice. *Nurse Education in Practice, 34*, 199-203.
<https://doi:10.1016/j.nepr.2018.12.003>
- Murray, M., Sundin, D., & Cope, V. (2019). New graduate nurses' clinical safety by the numbers. *Journal of Nursing Management, 27*(7), 1384-1390.
<https://doi:10.1111/jonm.12819>
- National Council of State Boards of Nursing. Transition to practice.
<https://www.ncsbn.org/transition-to-practice.html>.
- Nursing Solutions. (2021, February). 2021 NSI National Health Care Retention & RN Staffing Report. www.nsinursingsolutions.com.
https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf
- Ortiz, J. (2016). New graduate nurses' experiences about lack of professional confidence. *Nurse Education in Practice, 19*, 19–24.
<https://doi.org/10.1016/j.nepr.2016.04.001>

- Perron, T., Gascoyne, M. Kallakavumkal, T., Kelly, M., & Demagistris, N. (2019). Effectiveness of nurse residency programs. *Journal of Nursing Practice Applications & Reviews of Research*, 9(2), 48-52. <https://doi.2019.09.02.0908>
- Pillai, S., Manister, N. N., Coppolo, M. T., Ducey, M. S., & McManus-Penzero, J. (2018). Evaluation of a nurse residency program. *Journal for Nurses in Professional Development*, 34(6), E23–E28.
- Powers, K., Herron, E. K., & Pagel, J. (2019). Nurse preceptor role in new graduate nurses' transition to practice. *Dimensions of Critical Care Nursing*, 38(3), 131–136. <https://doi.org/10.1097/DCC.0000000000000354>
- "Projections of industry employment 2016-2026", Career Outlook, US Bureau of Labor Statistics, December 2017
- Read, E., & Laschinger, H. K. (2013). Correlates of new graduate nurses' experiences of workplace mistreatment. *Journal of Nursing Administration* 43(4), 221–228. <https://doi.org/10.1097/NNA.0b013e3182895a90>
- Rush, K., Janke, R., Duchscher, J., Phillips, R., Satvir, K. (2019). Best practices of formal new graduate transition programs: An integrative review. *International Journal of Nursing Studies* 94, 139-158. <https://doi.org/10.1016/j.ijnurstu.2019.02.010>
- Shinners, J. (2019). Will new graduate nurse residencies be a mandate of the future? *The Journal of Continuing Education in Nursing*, 50(8), 341–344. <https://doi.org/10.3928/00220124-20190717-02>

- Siela, D., Twibell, K. R., & Keller, V. (2008). The shortage of nurses and nursing faculty: what critical care nurses can do. *AACN Advanced Critical Care*, 19(1), 66–67.
<https://doi.org/10.1097/01.AACN.0000310753.39029.b9>
- Silvestre, J. H. (2017). A multisite study on a new graduate registered nurse transition to practice program: Return on investment. *Nursing Economic\$, 35(3)*, 110-118.
- Song, Y., & McCreary, L. L. (2020). New graduate nurses' self-assessed competencies: An integrative review. *Nurse Education in Practice*, 45.
<https://doi.org/10.1016/j.nepr.2020.102801>
- 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 Economic\$, 30(4)*, 207–214.
- Tyndall, D. E., Firnhaber, G. C., & Scott, E. S. (2018). The Impact of New Graduate Nurse Transition Programs on Competency Development and Patient Safety: An Integrative Review. *Advances in Nursing Science*, 41(4), E26-E52.
[doi:10.1097/ANS.0000000000000217](https://doi.org/10.1097/ANS.0000000000000217)
- Tyndall, D. E., Scott, E. S., Jones, L. R., & Cook, K. J. (2019). Changing New Graduate Nurse Profiles and Retention Recommendations for Nurse Leaders. *JONA: The Journal of Nursing Administration*, 49(2), 93–98.
<https://doi.org/10.1097/NNA.0000000000000716>
- Twibell, R., St. Pierre, J., Johnson, D., Davis, C., Kidd, M., & Rook G. (2017). Tripping over the welcome mat: Why new nurses don't stay and what the evidence says we can do about it. *Pelican News 73(2)*, 8-9.

- Urban, R. W., & Barnes, D. M. (2020). Transition to practice: The lived experience of new graduate nurses in early solo flight. *Journal for Nurses in Professional Development, 36*(2), 74-81. <https://doi.org/10.1097/NND.0000000000000608>
- Van Camp, J., Chappy, S., (2017). The effectiveness of nurse residency programs on retention: A systematic review. *AORN J. 103*(2), 128-143. <https://doi.org/10.1016/j.aorn.2017.06.003>.
- Vanderspank-Wright, B, Lalonde, M., Squires, J., Graham, I., Efstahiou, N., Devey Burry, D., Marcogliese, E. Skidmore, B. Vandyk, A. & Canadian Association of Critical Care nurses and the National Emergency Nurses Association (2020). Identifying describing and assessing interventions that support new graduate nurses transition into critical care nursing practice: a systematic review protocol. *Systematic Reviews 9*(1), 1-7. <https://doi.org/10.1186/s13643-020-01483-7>Walden University. (2020). Missions and Values. waldenu.edu.
<https://catalog.waldenu.edu/>
- Walsh, A. (2018). Nurse residency programs and the benefits for new graduate nurses. *Pediatric Nursing, 44*(6). 275-279.
- Walton, J. A., Lindsay, N., Hales, C., & Rook, H. (2018). Glimpses into the transition world: New graduate nurses' written reflections. *Nurse Education Today, 60*, 62-66. <https://doi.org/10.1016/j.nedt.2017.09.022>
- Wendler, A., Wendler, S. & Wendler, M. (2019). Innovation during orientation, how does rhetoric drive new graduate nurses' performance? *Journal for Nurses in Professional Development 14*(5). 268-274.

- Wildermuth, M. M., Weltin, A., & Simmons, A. (2019). Transition experiences of nurses as students and new graduate nurses in a collaborative nurse residency program. *Journal of Professional Nursing*. OI:10.1016/j.profnurs.2019.06.006
- Wilson, G. (2012). Redesigning OR orientation. *AORN Journal*, 95(4), 453–462.
<https://doi.org/10.1016/j.aorn.2012.01.022>
- Wolford, J., Hampton, D., Tharp-Barrie, K., & Goss, C. (2019). Establishing a nurse residency program to boost new graduate nurse retention. *Nursing Management*, 50(3). 44-49. <https://doi.org/10.1097/01.NUMA.0000553497.40156.4>

Johns Hopkins Nursing Evidence-Based Practice

Appendix G Individual Evidence Summary Tool

Date: 05/01/2020		EBP Question: Will a systematic literature review provide insights into the optimal structure and process of new graduate nurses transition into the intensive care unit?					
Article Number	Author and Date	Evidence Type	Sample, Sample Size, Setting or Not Applicable	Findings That Help Answer the EBP Question	Observable Measures	Limitations	Evidence Level, Quality
1	Adams et al. 2015	Qualitative	34 NGN 18 preceptors 5 CNS 5 nursing directors	Communication future expectations nursing expertise program impact	stakeholders input is beneficial in evaluation and improvements	does not represent smaller rural facilities	Level 3 Quality A/B
2	Ackerson & Stiles 2018	Qualitative Lit Review	NA	Turnover costs sources	cost of nurse turnover		Level 3 Quality A/B
3	Blevins 2016	NA commentary	NA	NRP decrease turnover	na	na	Level 5 Quality B
4	Bortolotto 2015	Quality Improvement	501 bed quaternary care academic medical center	Preceptor feedback crucial to success NGN transition Retention Rate	importance of feedback increased retention		Level 5 Quality A
5	Cochran 2017	Qualitative Lit Review	NA	Reality shock presence in NGN	Reporting of reality shock and length in ngn		Level 3 Quality A/B
6	Chant & Westendorf 2019	Qualitative systematic Lit Review	NA	preceptors consistency is important	NGN reports feelings of suport and protection		Level 3 Quality A/B
7	Degrande et al. 2018	Qualitative Hermeneutic phenomenology	Snowball sampling 7 males 4 females	Preceptor Importance	NGN reports of less anxiety better functioning	small sample	Level 3 Quality A/B

Attach a reference list with full citations of articles reviewed for this EBP question.

Johns Hopkins Nursing Evidence-Based Practice

Appendix G Individual Evidence Summary Tool

Date: 05/01/2020		EBP Question: Will a systematic literature review provide insights into the optimal structure and process of new graduate nurses transition into the intensive care unit?					
Article Number	Author and Date	Evidence Type	Sample, Sample Size, Setting or Not Applicable	Findings That Help Answer the EBP Question	Observable Measures	Limitations	Evidence Level, Quality
8	Doughtery et al. 2018	Qualitative	focus groups (2) total 16 NGN	teams Support structures	NGN reports of positive outcomes		Level 3 Quality A/B
9	Edwards et al. 2015	Quantitative systematic review	30 articles	NRP decrease stress and anxiety		search limited to english language	Level 2 Quality A/B
10	Fowler & Johnson 2018	Qualitative	90 nurse stories from journaling	Confidence team/teamwork Gratitude Change & art of nursing	NGN reports of positive outcomes		Level 3 Quality A/B
11	Goode et al. 2016	Qualitative Lit Review	NA	Length of NRP			Level 3 Quality A/B
12	Lima et al. 2015	Quantitative longitudinal design	47 NGN	Teams significantly influence competence development	Self assessed competency improved over 12 months		Level 3 Quality A/B
13	Herron 2017	Qualitative descriptive phenomenological	14 NGN	better prep continued support	positive patient outcomes	sample recruited from ngn of same school Researcher was instructor	Level 3 Quality A/B
14.	Baldwin et al. 2020	Qualitative	14 hospitals 33 to 26 NGN	time management prioritization skill communication teamwork individual and institutional strategies	orientation and onboarding assist in NGN transition		

Johns Hopkins Nursing Evidence-Based Practice

Appendix G Individual Evidence Summary Tool

Date: 05/01/2020		EBP Question: Will a systematic literature review provide insights into the optimal structure and process of new graduate nurse transition into the intensive care unit?					
Article Number	Author and Date	Evidence Type	Sample, Sample Size, Setting or Not Applicable	Findings That Help Answer the EBP Question	Observable Measures	Limitations	Evidence Level, Quality
15	Hussien et al. 2019	qualitative exploratory design	25 NGN	clinical support facilitates learning conditions transforming "me"	support nurtures NGN confidence, growth satisfaction	interview brief conducted at shift change	Level 3 Quality A/B
16	Innes & Calleja 2018	qualitative integrative lit review	na	1-2 preceptors maximize learning and transition		review period of 10 years limited generalisability	Level 3 Quality A/B
17	Laschinger et al. 2016	Quantitative	3906 NGN from Canada	NGN uncertain about skills, abilities	increases psycap improves transition	self reported low survey response	Level 3 Quality A/B
18	McCalla & DeGrange 2015	Qualitative phenomenological	7 women 3 men NGN	school does not prepare for real world		small sample Limited geographical area	Level 3 Quality A/B
19	Ortiz 2016	descriptive qualitative	12 NGN	Preceptors & preceptor ed important in ngn transition	development of professional confidence	small sample size limited to geographical area	Level 3 Quality A/B
20	Powers et al. 2019	Quality Improvement	na	Importance of nurse preceptors		na	Level 5 Quality A/B
21	Walsh 2018	Program Evaluation	na	communication organization critical thinking stress management		na	Level 5 Quality A/B

Attach a reference list with full citations of articles reviewed for this EBP question.

Appendix G

Individual Evidence Summary Tool

Date: 05/01/2020		EBP Question: Will a systematic literature review provide insights into the optimal structure and process of new graduate nurse transition into the intensive care unit?					
Article Number	Author and Date	Evidence Type	Sample, Sample Size, Setting or Not Applicable	Findings That Help Answer the EBP Question	Observable Measures	Limitations	Evidence Level, Quality
22	Wendler et al. 2019	Quality Improvement	na	importance of preceptors			Level 5 Quality A/B
23	Wilson et al. 2018	quantitative Retrospective	519 NGN	communication organization		decreasing response of surveys No comparison	Level 2 Quality A/B
24	VanCamp & Chappy 2017	Qualitative Systematic Lit Review	na	Retention			Level 3 Quality A/B
25	Kaddoura 2013	Qualitative exploratory descriptive design	16 NGN from 2 different hospitals	preceptor play key role in development of critical thinking skills in NGN	enhancing preceptor ship increases NGN critical thinking skills	only discussed preceptor behavior on NGN in critical care	
26	Feddeh et al., 2020	quantitative descriptive cross sectional design	220 participants	NGN critical care nurses experience increased level of stresses	providing stress training and policies to guide NGN in critical care	convenience sample & truthfulness of self reporting	

- Ackerson, K., & Stiles, K. A. (2018). Value of Nurse Residency Programs in Retaining New Graduate Nurses and Their Potential Effect on the Nursing Shortage. *Journal of Continuing Education in Nursing* (Vol. 49, pp. 282).
- Adams, J. M., et al., (2015). Strengthening New Graduate Nurse Residency Programs in Critical Care: Recommendations from Nurse Residents and Organizational Stakeholders. *Journal of Continuing Education in Nursing* (46), 41-48. American Nurses Association. ANA. (n.d.). <https://www.nursingworld.org/ana/> Blevins, S.H. (2016).
- Blevins, S.H. (2016). Nurse residency programs: supporting nurse graduates. *MEDSURG Nursing* 25(2), 367-368.
- Bortolotto, S.J. (2015). Developing a comprehensive critical care orientation program for graduate nurses. *Journal Nurses' Professional Development* 31. 203-210.
- Chant, K., & Westendorf, D. (2019). Nurse residency programs: Key components for sustainability. *Journal for Nursing in Professional Development* 35(4), 185-192.
- Cochran, C. (2017). Effectiveness and best practice of nurse residency programs: A literature review. *MedSURG Nursing*, 26(1), 53-63.
- Degrande, H., Liu, F., Greene, P., & Stankus, J. (2018). The experiences of new graduate nurses hired and retained in adult intensive care units. *Intensive & Critical Care Nursing*, 49, 72.
- Doughty, L. et al. (2018). Educating new graduate nurses in their first year of practice: The perspective and experiences of the new graduate nurses and the director of nursing. *Nurse Education in Practice*, 30, 101-105.

- Edwards, D., Hawker, C., Carrier, J., & Ress, C. (2015). A systematic review of the effectiveness of strategies and interventions to improve the transition from student to newly qualified nurse. *Journal of Nursing Studies*, *52*(7), 1254-1268.
- Fowler, S. B., Lind, S. C., Johnson, P. R., & Lewis, J. (2018). Qualitative Description of New Graduate Nurses' Experiences in a Nurse Residency Program. *Journal for Nurses in Professional Development*, *34*(6), 319.
- Goode, C.J., Ponte, P., & Sullivan, Havens, D. (2016). Residency for transition into practice: An essential requirement for new graduates from basic R.N. programs. *Journal of Nursing Administration* *46* (2), 82-86.
- Herron, E. K. (2018). New graduate nurses' preparation for recognition and prevention of failure to rescue: A qualitative study. *Journal of Clinical Nursing* *27*, E390-E40).
- Huston C. L., Phillips B., Jeffries P., Toderro C., Rich J., Knecht P., ... Lewis M. P. (2018). The academic–practice gap: Strategies for an enduring problem. *Nursing Forum*, *53*(1), 27–34
- Hussein, R., Everett, B., Ramjan, L.M., Hu, W., & Salamonsons, Y. (2017). New graduate nurses' experiences in a clinical specialty: A follow up study of newcomer perceptions of transitional support. *BMC Nursing*, *16*(1), 42. <https://doi.org/10.1186/s12912-017-0236-0>.
- Innes, T. & Calleja, P. (2018). Transition support for new graduate and novice nurses in critical care settings: An integrative review of the literature. *Nurse Education in Practice* *30*. 62-72.
- Laschinger, H. K., Cummings, G., Leiter, M., Wong, C., Macphee, M., Ritchie, J., . . . Read, E. (2016). Starting Out: A time-lagged study of new graduate nurses'

transition to practice. *International Journal of Nursing Studies*, 57, 82-95.

<https://doi.org/10.1016/j.ijnurstu.2016.01.005>

Lima, S., Newall, F., Jordan, H., Hamilton, B., & Kinney, S. (2016). Development of competence in the first year of graduate nursing practice: a longitudinal study. *Journal of Advanced Nursing* 72(4), 878-888.

McCalla-Graham, J. & De, Gagne, J. (2015). The lived experience of new graduate nurses working in an acute care setting. *Journal of Continuing Education of Nursing* 46(3), 122-128.

Ortiz, J. (2016). New graduate nurses' experiences about lack of professional confidence. *Nurse Education in Practice* 19, 19-24.

<https://doi.org/10.1016/j.nepr.2016.04.001>.

Powers, K., Herron, E., & Pagel, J. (2019). Nurse preceptor role in new graduate nurses' transition to practice. *Dimensions of Critical Care Nurse* 38(3). 131-136.

Silvestre, J., Ulrich, B., Johnson, T., Spector, N., Blegen, M. (2017). *A multisite study on a new graduate registered nurse transition to practice program: return on investment* 35(3), 110-118.

Urban, R. W., & Barnes, D. M. (2020). Transition to practice: the lived experience of new graduate nurses in early solo flight. *Journal for Nurses in Professional Development*, 36(2), 74–81. <https://doi.org/10.1097/NND.000000000000060>

Van Camp, J., Chappy, S., (2017). The effectiveness of nurse residency programs on retention: A systematic review. *AORN J.* 103(2), 128-143. <https://doi.org/10.1016/j.aorn.2017.06.003>.

- Walsh, A. (2018). Nurse residency programs and the benefits for new graduate nurses. *Pediatric Nursing, 44*(6). 275-279.
- Wendler, A., Wendler, S. & Wendler, M. (2019). Innovation during orientation how does rhetoric drive new graduate nurses' performance? *Journal for Nurses in Professional Development 14*(5). 268-274.
- Wilson, T., Weathers, N., & Forneris, L. (2018). Evaluation of outcomes from an online nurse residency program. *The Journal of Nursing Administration (48)*10. 495-501.

Appendix B: Prisma 2009 Flow Diagram

