TOPIC: **INCREASING STUDENT AWARENESS OF NURSE RESIDENCY PROGRAMS' EFFECTS ON NEW-GRADUATE CONFIDENCE AND RETENTION RATES**

SUBMITTED BY: **San Diego State University Student NursesAssociation**
San Diego, CA

AUTHORS: **Cameron Harris, Jizelle Picones, Karly Lorenzen**

WHEREAS, The growing nursing shortage has become a crisis leading to increased burnout, decreased patient care quality, and higher rates of errors (Haddad, et al., 2020, p.3); and

WHEREAS, The nursing shortage continues to grow as hospitals battle with low retention rates of newly graduated nurses (Van Camp & Chappy, 2017, p.128); and

WHEREAS, Newly graduated nurses are leaving their first positions because they are feeling unprepared for clinical situations and unsupported as they transition to independent patient care (Sundin & Wealot, 2018, p.1); and

WHEREAS, The surplus of newly graduated nurses leaving their positions within the first year of employment costs hospitals significant amounts of money yearly, further pushing the seams of an already tight budget (Miller, 2017, p.2); and

WHEREAS, Hospitals are addressing these issues through the implementation of nurse residency programs for newly graduated nurses (Mullings-Carter, 2018, p.3); and

WHEREAS, With the implementation of nurse residency programs, retention rates are notably higher (Asber, 2019, p.432); and

WHEREAS, Newly graduated nurses who participate in residency programs report feeling more prepared and have increased confidence in their decision making regarding patient care (Mullings-Carter, 2018, p.35); and

WHEREAS, With increased retention rates through nurse residency programs, hospital budgets are not being stretched to the extent they once were (Eckerson, 2018, p.86); therefore be it

RESOLVED, That the NSNA promote and advocate the importance of participating in nurse residency programs on account of their positive effects on new-graduate skills, confidence, and retention rates; and be it further

RESOLVED, That the NSNA invite professional nursing organization representatives experts to speak at sessions at the NSNA Annual Convention and Midyear Conference, webinars, and membership meetings if feasible; and be it further

RESOLVED, That the NSNA publish an article in Imprint on the benefits of nurse residency programs for newly graduated nurses if feasible; and be it further

RESOLVED, That the NSNA send a copy of this resolution to American Nurses Association, National Nurses United, American Association of Colleges of Nursing, American Organization of Nursing Leadership, National League for Nursing, American Academy of Nursing, Sigma

Theta Tau, Alliance of Nurses for Healthy Environments, American Association of Critical Care Nursing, Association of Women's Health, Obstetrics and Neonatal Nurses, American Psychiatric Nurses Association, Society of Pediatric Nurses, and all others deemed appropriate by the NSNA Board of Directors.

TOPIC: **INCREASING STUDENT AWARENESS OF NURSE RESIDENCY PROGRAMS' EFFECTS ON NEW-GRADUATE CONFIDENCE AND RETENTION RATES**

SUBMITTED BY: **San Diego State University Student Nurses Association**
                          San Diego, CA

AUTHORS: **Cameron Harris, Jizelle Picones, Karly Lorenzen**

ABSTRACT: The nursing shortage across the US has continued to grow year after year, and is further compounded by low retention rates of new graduate nurses. Within the first year of employment, new graduate nurses are struggling to transition due to not feeling supported nor equipped to independently conduct patient care. Low-retention rates cost hospitals significant amounts yearly, thus they have begun establishing nurse residency programs to combat these issues through multi-modal education and preceptorship.

Estimated Cost of Implementation – 2022 NSNA Resolution

TOPIC: **INCREASING STUDENT AWARENESS OF NURSE RESIDENCY PROGRAMS'**
                       EFFECTS ON NEW-GRADUATE CONFIDENCE AND RETENTION RATES

Guest speakers for NSNA Convention from professional nursing organizations	$2000
NSNA promoting the benefits of nurse residency programs at events and in Imprint	$0.00
Send a copy of the resolution to affiliated organizations	$0.00
Total cost	$2000

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https://doi.org/10.1016/j.aorn.2017.06.003

Nursing Shortage

Lisa M. Haddad; Pavan Annamaraju; Tammy J. Toney-Butler.

Author Information

Last Update: December 14, 2020.

Definition/Introduction

Nurses are a critical part of healthcare and make up the largest section of the health profession. According to the World Health Statistics Report, there are approximately 29 million nurses and midwives globally, with 3.9 million of those individuals in the United States. Estimates of upwards of one million additional nurses will be needed by 2020.[1][2]

According to The American Nurses Association (ANA), more registered nurse jobs will be available through 2022 than any other profession in the United States. According to an article in the Nursing Times, The US Bureau of Labor Statistics projects that 11 million additional nurses are needed to avoid a further shortage. Employment opportunities for nurses are projected to grow at a faster rate (15%) than all other occupations from 2016 through 2026.

Issues of Concern

The nursing profession continues to face shortages due to a lack of potential educators, high turnover, and inequitable workforce distribution. The causes related to the nursing shortage are numerous and issues of concern.[3][4][5][6][7][8] Some potential reasons are explored below.

Aging Population

On the whole, the population is aging, with the baby boom generation entering the age of increased need for health services. Currently, the United States has the highest number of Americans over the age of 65 than any other time in history. In 2029, the last of the baby boomer generation will reach retirement age, resulting in a 73% increase in Americans 65 years of age and older, 41 million in 2011 compared to 71 million in 2019.

As the population ages, the need for health services increases. The reality is that older persons do not typically have one morbidity that they are dealing with, but more often have many diagnoses and comorbidities that require them to seek treatment. The population is surviving longer, as a whole, causing an increased use of health services as well. Many disease processes that were once terminal are now survivable for the long-term. Treating these long-term illnesses can strain the workforce.

Aging Work Force

Like the populations they serve, the nursing workforce is also aging. There are currently approximately one million registered nurses older than 50 years, meaning one-third of the workforce could be at retirement age in the next 10 to 15 years. This number includes nurse faculty, and that presents its own unique problem, training more nurses with fewer resources. Nursing faculty are experiencing a shortage, which leads to enrollment limitations, limiting the number of nurses that a nursing school can generate. Decreased and limited faculty can cause fewer students, and the overall quality of the program and classes can decline.

Nurse Burnout

Nursing shortages lead to errors, higher morbidity, and mortality rates. In hospitals with high patient-to-nurse ratios, nurses experience burnout, dissatisfaction, and the patients experienced higher mortality and failure-to-rescue rates than facilities with lower patient-to-nurse ratios. Some states have begun to pass legislation to limit patient-to-nurse ratios. Despite this, when staffing is short, ratios go up to meet the need.

Nursing, Allied Health, and Interprofessional Team Interventions

Technology

The introduction of the Electronic Medical Record (EMR) and other technological advances can also affect nurses staying in the profession. While some specialties such as nursing informatics are booming, that adds to the shortage problem by removing nurses from direct patient care areas. Some seasoned nurses struggle with the technology and remove themselves from the profession at an earlier rate.

Empowerment

Organizations must be creative in meeting the needs of nurses while providing the best and safest care to the patients. An environment that empowers and motivates nurses is necessary to rejuvenate and sustain the nursing workforce. Empowerment in autonomy in staffing ratio decisions considering high volume and acuity levels will lead to less burnout and a strong desire to leave the workforce. Many organizations have endorsed and sought after the Magnet Certification to provide superior nursing processes and a high level of safety, quality, and patient satisfaction.[12]

Review Questions

- Access free multiple choice questions on this topic.

- Comment on this article.

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The Effectiveness of Nurse Residency Programs on Retention: A Systematic Review

CrossMark

JENNIFER VAN CAMP, MSN, RN; SHARON CHAPPY, PhD, RN, CNOR

ABSTRACT

New graduates account for the highest numbers of nurses entering and exiting the profession. Turnover is costly, especially in specialty settings. Nurse residency programs are used to retain new graduates and assist with their transition to nursing practice. The purpose of this systematic review of the literature was to examine new graduate nurse residency programs, residents' perceived satisfaction, and retention rates, and to make recommendations for implementation in perioperative settings. Results indicate increased retention rates for new graduates participating in residency programs and that residency participants experienced greater satisfaction with their orientation than those not participating in residency programs. Residency participants also perceived the residency as beneficial. Because residency programs vary in curricula and length, effectively comparing outcomes is difficult. More longitudinal data are needed. Data on residency programs specific to perioperative nursing are lacking. Considering the aging perioperative nursing workforce, residency programs could address critical needs for succession planning. *AORN J 106 (August 2017) 128-144.* © AORN, Inc, 2017. http://dx.doi.org/10.1016/j.aorn.2017.06.003

Key words: *new graduate nurses, residency program, internship, perioperative residency, retention.*

Recognizing a preparation-practice gap and the high costs associated with new graduate nurse turnover, many health care organizations across the United States have implemented nurse residency programs (NRPs) to bridge the gap and reduce turnover costs. Additionally, many new graduate nurses actively seek out health care organizations that have NRPs for their first employment to ease the transition from student to novice nurse.[1] In a survey conducted by Pittman et al,[1] 36.9% of members of the American Organization of Nurse Executives who responded to a survey (N = 219 respondents) reported that their organizations implemented an NRP to transition new graduates into practice in the hopes of retaining graduate nurses for longer than one year. However, questions remain about the effectiveness of NRPs in retaining new graduate nurses and easing their transition into practice.

BACKGROUND

Many new graduate nurses struggle with the transition from novice to competent nurse, and an estimated 35% to 60% of nurses leave their first place of employment within one year of hire.[1-3] 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. New graduate nurses may doubt their clinical knowledge and lack self-assurance in performing common nursing skills, critical thinking, organizing, prioritizing, and communicating effectively.[4] Interestingly, nurse executives and organizational leaders hiring new graduate nurses identify the same inadequacies that graduate nurses perceive,[5] with some executives judging that as few as 10% of new graduate hires are fully prepared to enter the nursing workforce.[6]

repeat pregnancies, and no referrals to Child Protective Services.

Implications for Nursing Practice

The model of a perinatal educator providing education in a formal setting shows promise in improving lives for both teenage mothers and their children. Formal research will be conducted to determine the overall impact of the program on mothers' self-esteem, infant birth weight, breast-feeding rates, and empowerment for teen participants.

Provision of Support to Graduate Nurses to Improve Retention

Courtney A. Sundin, MSN, RNC-OB, Baylor Scott & White Andrews Women's Hospital, Fort Worth, TX

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Keywords
Retention
Graduate nurse
Support
Internship

Professional Issues Poster Presentation

Purpose for the Program

To support new graduate nurses, with the goal of improving retention rates to increase return on investment related to the costs of training and orienting new staff. Since 2010, retention rates for first-year nurses have varied from 25% to 75%; therefore, a change was needed to support new nurse graduates and improve retention rates.

Proposed Change

With the implementation of a multifaceted, evidence-based internship program, the hospital strived to improve graduate nurse (GN) retention and to provide a comprehensive program to support nurses. Program components included a welcoming committee, monthly check-ins, simulation, additional education, mentoring, and chart reviews.

Implementation, Outcomes, and Evaluation

Through collaboration with charge nurses, preceptors, past graduate nurses, and nursing leaders, a new internship program was implemented that spanned nurses' first year. Surveys were sent to the newest groups of GNs after completing their first year as well as to previous GNs who did not participate in this program. Results of the survey indicated that 45% of previous GNs who did not complete the new program did not feel that their internship prepared them for clinical situations, 50% of GNs did not feel they were able to review progress and assess learning needs, and 33% of GNs did not feel supported after the end of their internship. The retention rate for nurses increased to 100% after implementing the updated program, and survey results showed that GNs felt more confident, supported, and prepared for clinical situations.

Implications for Nursing Practice

Evidence shows that more work is needed to prepare nurses for specialty units. Providing GNs with standard education and preceptorships is not enough. It is essential to develop a program that prepares and supports GNs' growth through the first year.

Engagement of the Next Generation of Nurses Through Obstetric Research

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Carolee Polek, RN, PhD, AOCNS, BMTCN, University of Delaware, Newark, DE

Keywords
Research
Nursing students
Baccalaureate

Professional Issues Poster Presentation

Purpose for the Program

The purpose of this program was to engage nursing students in the research process and to foster relationships between nursing students and practicing nurses. To improve patient outcomes, nurses must use research.

However, nurses in the hospital setting may have little experience with research use. In addition, the new generation of nurses may not engage in research after they start working.

Proposed Change

To pair nursing students with an obstetric staff nurse to assist with ongoing research projects. Nursing students in baccalaureate programs take a class in research, which includes examples of research, evidence-based practice (EBP), and education on how to critique literature, but they may not conduct research.

Implementation, Outcomes, and Evaluation

Four honors baccalaureate nursing students were paired with an obstetric staff nurse and assigned the task of supporting ongoing research projects. They completed Collaborative Institutional Training Initiative training and then conducted a literature search, made recommendations for data points, gathered data, summarized the results and implications, wrote an abstract, and submitted it to a local conference for

Abstract

Losing New Graduate Bedside Nurses: A Practice Improvement Initiative

by

Beverly Miller

MS, Walden University, 2014

BS, University of South Carolina, 2011

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2017

2

would increase NGNs' retention rates in the health care facility, hence improving quality of care offered. Section 1 presents the background, the problem, the purpose of the project, project objectives, the project-focused question, the significance of the project to the field of nursing, implications for social change, and the project's assumptions and limitations.

Background/Context

Nurse retention in the United States is a major concern to health care institutions and is attributed to the shortage of nursing workforce (El-Jardali, Merhi, Jamal, Dumit, & Mouro, 2009). Jones and Gates (2007) established that if no action is taken to remedy the low nursing retention rates, the nursing shortage will further increase. Other researchers argued that failure to retain a single nurse can cost the institution more than $60,000 (Jones & Gates, 2007). Additionally, poor retention rates lead to a high patient-to-nurse ratio. As a result, patients are likely to receive poor quality care, which is accompanied by increased health care costs that are channeled at training NGNs. Jones (2008) argued that poor retention is accompanied by various hidden costs used for advertising for new positions and hiring of NGNs. With the forecast of 587,000 new nursing jobs to be created by the end of 2016, the nursing shortage in the United States was expected to increase (Aiken, Cheung, & Olds, 2009). (Aiken et al. (2009) estimated that the nursing shortage may increase to 1 million by 2020.

Palmetto Health Richland Hospital is located in South Carolina, and it is a 649-bed regional community teaching medical center. The center has over 225,000 patients and more than 4,200 medical and dental staff and other employees. In addition, it

THE EFFECT OF NURSE RESIDENCY PROGRAM COMPLETION ON WORK

READINESS OF NEW GRADUATE NURSES TRANSITIONING INTO PROFESSIONAL

PRACTICE

by

Suzanne Mullings-Carter

A dissertation submitted to the Graduate Faculty in Nursing in partial fulfillment of the

requirements for the Degree of Doctor of Philosophy, The City University of New York

2018

needed to perform well in the workplace. Consequently, because work readiness is indicative of

potential job performance, it is a key concern for employers (Wolff, Pesut, & Regan, 2010) that

presents a number of challenges (Welding, 2011), including an inability to perform basic tasks or

connect classroom experiences to actual clinical practice.

Some healthcare organizations have implemented nurse residency programs (NRPs) to

facilitate a higher level of readiness for practice (Anderson, G., Hair, C., & Todero, C., 2012).

The NRPs provide structured on-the-job education, training, and mentoring to increase safety,

quality, and satisfaction, with the goal of increasing job retention (Welding, 2011). During

NRPs, experienced nurses who are trained as preceptors assist new nurses to acquire clinical

experience in specialty care units by teaching unit-specific skills, as well as, providing

information about the nursing process, protocols, care providers, and a unit's culture. New nurses

who work in emergency rooms, critical care, pediatrics, and labor and delivery also receive

specialty orientations as NRP participants (Kramer, et al., 2013). Typically, orientations for

acute or specialty nurses occur in three stages: general hospital orientation, general nursing

orientation, and a 4- to 12-week clinical preceptorship (Rush, et al., 2013). By the end of the

orientation period, new nurses are expected to demonstrate competence in basic unit-specific

skills.

NRPs complement and supplement traditional orientation programs by providing new

nurses with leadership skills, application of evidence-based practices, critical thinking skills,

confidence, professional development of competence, and a sense of belonging to improve

recruitment and retention. These attributes contribute to the reduction of turnover rates

(Edwards, Hawker, Carrier & Rees, 2011). NRPs also are intended to ease the transition from

the educational environment to professional practice (Pittman, Herrera, Bass, & Thompson,

for students, and organizational fiscal constraints. This study concluded that the issue surrounding the expectations of graduate RNs practice readiness among educators and the healthcare industry continues to be problematic and an area of concern. Likewise, Oermann et al. (2010) postulates that new graduate nurses are not prepared for the realities of clinical practice and do not possess the competencies required by current healthcare services.

Nursing competence is a standard required by the American Nurses Association and Joint Commission; a new graduate nurse cannot possess work readiness without it. A nurse with competence is ready to implement nursing knowledge, skills, and attitudes in the clinical practice setting. Beyond knowledge, new graduate nurses are increasingly expected to possess competence, colloquially referred to as "know-how" (Silva et al., 2014). In a qualitative research study of 40 NRP participants, Silva et al. found that the NRP expanded participants' abilities to understand and apply knowledge using deductive/inductive reasoning, thereby developing their professional know-how. Competences such as decision-making, communication, and teamwork were enhanced.

Rhodes et al. (2013) studied experienced nurses' satisfaction with the competence of newly licensed registered nurses before and after implementation of an NRP. Experienced nurses and preceptors reported an overall increase in satisfaction with new nurses' proficiency post-NRP. Since experienced nurses work closely with new graduate nurses as they transition into their new roles, they experience benefits when new nurses are better prepared (i.e., have higher levels of work readiness) (El Haddad et al., 2013; Rhodes et al., 2013).

Summary

Although numerous scholars have examined the benefits, attributes, and outcomes of NRPs, much remains to be understood about the work readiness of new graduate nurses.

THE JOURNAL OF NURSING ADMINISTRATION

Retention Outcomes of New Graduate Nurse Residency Programs

An Integrative Review

Samantha R. Asber, MSN, RN, CCRN

OBJECTIVE: The purpose of this integrative literature review is to examine the effects that nurse residency programs (NRPs) have on the retention of new graduates.

BACKGROUND: The Institute of Medicine recommends implementing NRPs and evaluating their effectiveness. Nursing leaders need to understand if an investment in a residency program is beneficial to their organization.

METHODS: A database search was performed for research from 2010 to 2016 reporting outcomes of new graduate NRPs relating to retention.

RESULTS: In the articles reviewed, the 1-year retention was higher than the national average for new graduate nurses ranging from 74% to 100%. Higher rates were associated with national programs such as the University Hospital Consortium/American Association of Colleges of Nursing or Versant compared with organization-based programs.

CONCLUSIONS: NRPs can increase 1-year retention of new graduate nurses. More controlled and comparative studies are needed to evaluate program differences. Nurse leaders need evidence to ascertain which programs are the most effective in supporting retention and return on investment.

The "The Future of Nursing" report, released in 2010 by the Institute of Medicine, detailed 8 recommendations to guide the profession into leading change and advancing health.[1] One of these initiatives included the recommendation to implement nurse residency programs (NRPs) to help aid the transition into practice for new nurses. This recommendation also calls for healthcare organizations who implement these NRPs to evaluate them for their effectiveness.[1]

NRPs are detailed orientation curricula created for individuals who have completed a prelicensure program and are transitioning into professional practice as a newly licensed RN.[2] A literature review was performed by Letourneau and Fater[2] describing and analyzing NRPs from 2006 to 2013. Their review concluded that NRPs were beneficial to the new graduate and the hospital, but a variety of suggestions for future research were called for regarding NRPs' influence on patient outcomes, curriculum differences, and retention. Many of the articles reviewed focused solely on program development. Based on the promulgation of programs, it is vital to evaluate outcomes for organizations to continue to support and provide resources. Specifically, a closer look on how these programs influence retention rates needs to be closely evaluated as 1 indicator of success or failure.

According to the 2019 National Healthcare Retention and RN Staffing Report by NSI Nursing Solutions, Inc,[3] 1st-year turnover outpaces all other tenure groups and was responsible for a national average of 27.7% of nursing turnover within US hospitals. The average for nurses leaving within their 1st 2 years of employment is 48.2% of all nursing turnover.[3] The average turnover cost of a bedside nurse is $52 100.[3] With a reported turnover rate of 17.2% in 2019, the annual loss for a hospital is $5 700 000.[3] In 2019, it was reported that for each point increase in turnover percentage it cost the average hospital an additional $328 400.[3] The trend of new nurses leaving early in their employment requires organizational leaders to explore ways to improve retention for this group.

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The author declares no conflicts of interest.

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Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (www.jonajournal.com).

The purpose of this integrative literature review is to examine and synthesize the research regarding NRPs and ask: What effect do NRPs have on turnover and retention outcomes?

Methods

In designing a strategy for this research, Whittemore and Knafl's[4] integrative review methodology was used. Once the research question was formulated, a search of the databases Cumulative Index to Nursing and Allied Health Literature and Ovid was performed in January 2017 to find research related to the impact of NRPs on turnover and retention. Years searched included articles from 2010 to 2016. The search terms and Boolean operators used were "nurs* residenc*" AND "ret* OR turnover OR outcome*." Other limiters

applied include English language, research article, and peer review.

Inclusion criteria included all peer-reviewed research studies from 2010 to 2016 that reported outcomes of new graduate RN (NGRN) residency programs related specifically to turnover and retention. Exclusion criteria involved any nonnovice RN residency programs, such as nurse practitioner or LPN programs. Specific literature reviews and systematic reviews were also excluded. A total of 16 articles met the criteria and were included in this review (Figure 1).

Methods used for data extraction include the creation of a matrix (Supplemental Digital Content 1; http://links.lww.com/JONA/A715). Hawker and colleagues'[5] quality appraisal tool was used to help evaluate articles and minimize bias. The tool enables the
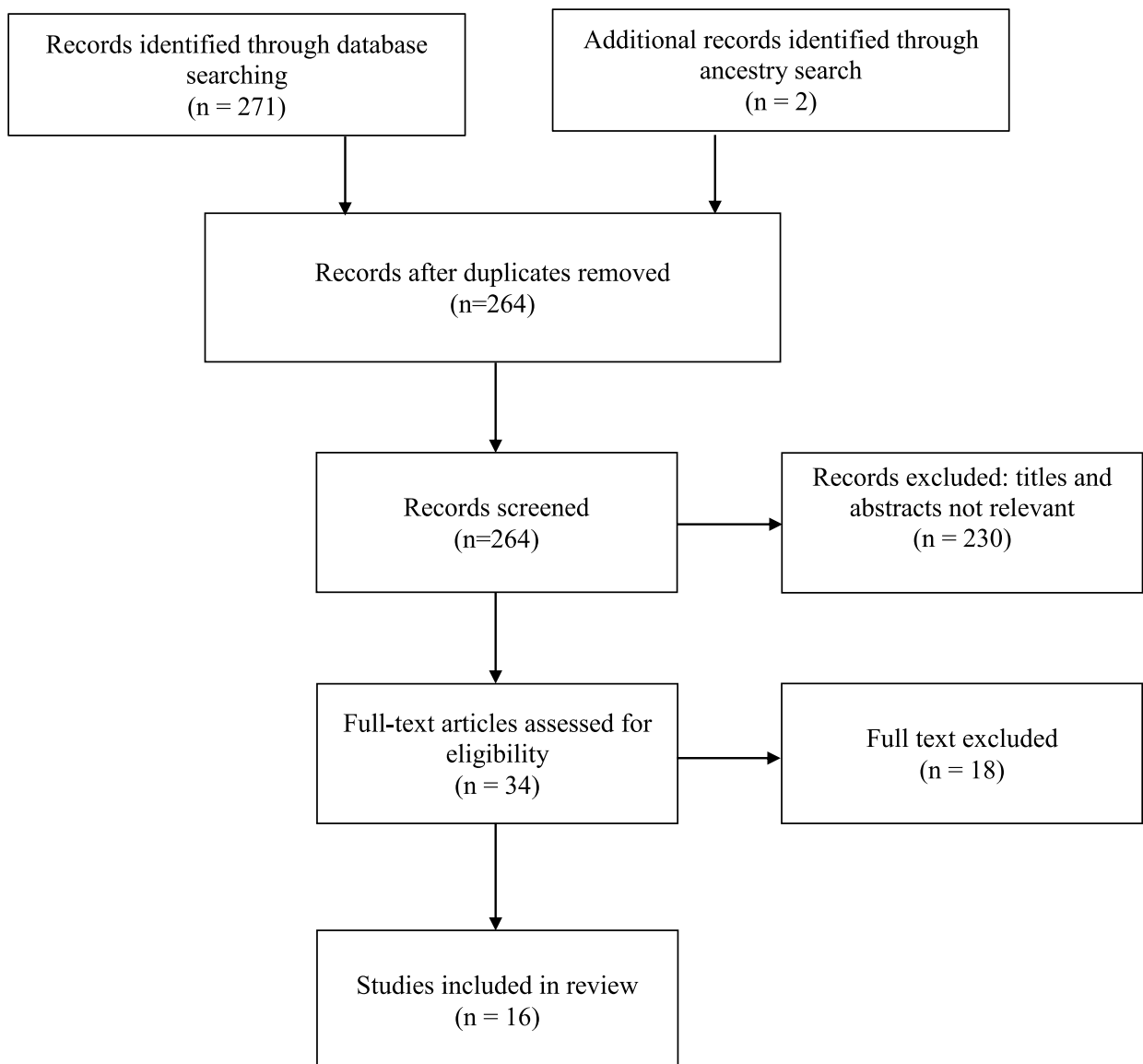

Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-analyses flow diagram.

author to read each article and give a score from 9 to 36 to evaluate quality based on 9 categories. It was determined that any article with a score less than 26 would be discarded for a rating indicating that certain sections were ranked as "poor." No articles were eliminated.

Results

Retention Rates

In all 16 articles, retention rates were calculated for NGRNs after 1 year of hire who participated in an NRP. In each of these articles, the 1-year retention was higher than the national average for NGRNs ranging from 74% to 100%. Three studies compared their retention data prior to implementing an NRP with postresidency data, which showed an increase in retention after the program initiation.[6-8]

Maxwell[6] followed new graduate nurse turnover data from 1 acute care hospital in Georgia from 2001 to 2009 in an ongoing effort to improve 1-year retention rates. Prior to having an NRP, retention rates were as low as 50%. After creating a 10-week, organization-based NRP in 2006, the hospital saw no change in retention rates. In 2007, they expanded the internal model for their NRP to 1 year, and retention rose to 60%. The hospital hired a full-time clinical nurse specialist to oversee the program in 2008, and rates climbed to 86%. In 2009, the hospital joined the University Hospital Consortium (UHC)/American Association of Colleges of Nursing (AACN) NRP and achieved a retention rate of 100%.

Olson-Sitki et al[7] reported new graduate nurse retention rates of 86.5% at a Magnet®-designated medical center 2 years prior to implementing an NRP. After implementing their 1-year, organization-based NRP, rates rose to 91%. Trepanier et al[8] conducted a study incorporating 15 hospitals within a multisite healthcare corporation who participated in identically structured NRPs. The mean retention rate across the hospitals was 63.2% prior to the NRP, which increased to 93.6% postresidency for the 15 hospitals.

In 2 of the studies, retention rates of NGRN were compared using an intervention group who completed a formal NRP[9] and a control group who did not.[10] Although Harrison and Ledbetter's[9] data showed the highest retention rates belonging to NGRNs who completed an NRP in 1 hospital compared with nurses from 2 other hospitals who did not complete NRPs, it was not a statistically significant difference. Phillips and Hall[10] collected data from a control group consisting of NGNs who participated in 1 hospital's traditional orientation program from 2007 to 2011 and compared it with an intervention group that comprised NGRNs. The average retention rate 5 years prior to the NRP was 72%, and at 1-year postresidency implementation, it increased to 74%.

A majority of the research reviewed included retention data only up to the 1-year mark. Four of the 16 articles had information regarding retention data past 1 year from the date of hire. Friday et al[11] reported 2-year retention data of 91% of all new graduates who participated in an NRP. Fiedler et al[12] reported that they maintained an 86.3% cumulative retention rate of all NRP participants up from 1.5 to 3 years posthire. Researchers of longer-range studies included cumulative data of nurses who participated in NRPs ranging from 1 to 7 years posthire having retention rates of 60.2% to 65.5%.[13,14]

Length of Program

The NRPs in the articles reviewed varied in length ranging from 12 weeks to 1 year. In 12 of the articles, the NRPs were 1 year in length. Two studies had NRPs 18 weeks in length. One of the studies had an NRP that started out as a 16-week program, but increased to 22 weeks halfway through data collection. One article included data on different programs ranging from 12 weeks to 1 year.

The retention rates from the NRPs 1 year in length ranged from 74% to 100%. Phillips and Hall[10] measured retention rates of 74%. Kowalski and Cross[15] reported retention of 78% at 1 year, and Bratt and Felzer[16] reported 81%. The remaining 9 studies that reported retention outcomes for NRPs of 1 year had rates greater than 90%.[6,7,9,11-13,17-19]

The researchers of the 2 studies that investigated 18-week NRPs reported retention rates of 92.9% to 93.6%.[8,14] One study that increased the length of their NRP from 16 weeks to 22 weeks found retention rates averaged 90.8% over the 9 cohorts studied.[20] This single-center study had contracted a company to implement an NRP for the 1st 3 years of data collection and then continued on with their own organization-based program for the final 2 years of the study after receiving feedback and making changes. The mean retention during the 1st 3 years during the 18 week program was 84.6%, and rose to 98.8% for the 22-week program during the last 2 years.

Chappell et al[21] designed a study involving NGRNs participating in an NRP in 23 different acute care hospitals. The objective was to determine predictors of clinical leadership skills among NGRNs and NRP characteristics. One of the NRP characteristics focused on was length of the program. They divided this category into 4 sections including NRPs less than 12 weeks, 12 to 16 weeks, 16 to 24 weeks, and more than 24 weeks. The 1-year retention rates reported were 76.8% for 12 weeks or less, 85.7% for 12 to 16 weeks, 86.7% for 16 to 24 weeks, and 98.6% for more than

24 weeks. Chappell et al[21] found that NGRNs in programs that were more than 24 weeks were 21 times more likely to remain employed in an organization than graduates in programs that were 12 weeks or less. They also found that there was a significantly higher perception of overall quality of the program by the nurse residents the longer the NRP was.

Structure of Program

Three types of NRP programs were studied within the articles used for this integrative review. Six studies reported on UHC/AACN NRPs, 6 studies reported on organization-based NRPs, and 2 studied Versant NRPs. One study included data that were initially collected while utilizing the Versant program and then midway through data collection switched to an organization-based model.[20] Chappell et al[21] researched 23 hospitals that had varying program structures that incorporated all 3 models of structures found in this integrative review, but did not report out retention data separately by program type.

The authors of studies in this review reported 90.6% to 100% retention rates for the UHC/AACN programs,[6,7,11-13,18] 74% to 98% for the organization-based NRPs,[7,9,10,15,16,19] and 92.9% to 93.6% for the Versant NRPs.[8,14] Hillman and Foster[20] had a mean retention during the 1st 3 years with the Versant program of 84.6%, and in the last 2 years with the organization-based program, it was 98.8%.

Additional Findings Involving Predictors of Commitment

In addition to retention data, authors of 9 of the studies researched predictors of organizational commitment. Professional satisfaction scores, level of job stress, being in a hospital setting, and perceived support were found to be predictors of retention.[9,16,18] In addition, Goode et al[17] found that overall Casey-Fink Graduate Nurse Experience Survey scores, as well as the organization-prioritization and communication-leadership subscales, were statistically significant predictors of organizational commitment.

The authors of these 9 studies reviewed data of NGN at different time points throughout the programs to capture additional information. All of the NRPs were yearlong programs, and all of them included data at 6 and 12 months. Most of the studies had baseline data, and some included more time points in between and after the program had ended. Bratt and Felzer,[16] Maxwell,[6] and Lynn[18] found that job stress scores of NGRNs decreased at every time point from baseline to 12 months. Kowalski and Cross[15] measured NGRNs at 8 time points within 1 year in their single-center study of NRP outcomes and reported that

it took 12 months to establish a statistically significant decline in perceived threat.

Researchers using the Casey-Fink Graduate Nurse Experience Survey reported that organizing-prioritizing and communication-leadership subscales had a statistically significant increase at 6 months and then again at 12 months.[6,10,17,18] Olson-Sitki et al[7] found an increase in scores from 6 months to 12 months for comfort and confidence measures. Phillips and Hall[10] measured that there was an increase from 6 months to 12 months in new graduates' opportunity to practice skills, feelings of excitement, and being challenged by their career. Additionally, a control and intervention group had their Casey-Fink survey scores compared at different time points over the course of a year. The control group that comprised NGRNs who did not participate in an NRP had their Casey-Fink scores declined overall from the 6-month to 12-month time point. The intervention group made up of NGRNs who had participated in an NRP had their scores increased overall from 6 to 12 months.

Researchers of 2 studies reported findings that professional satisfaction scores decreased from baseline to 6 months to 12 months.[6,7] Lynn[18] and Medas et al[19] found that professional satisfaction scores decreased from the baseline to 6-month marker, but reported no further decline. However, Medas et al[19] reported that the score increased from 6 months to 12 months and continued to rise back to baseline by 18 months.

Discussion

Retention Rates

The findings of this study support that NRPs have a positive effect on retention of newly licensed nurses. Thirteen of the 16 articles reviewed presented 1-year retention rates of 90% to 100%, indicating less than 10% turnover of new graduates after implementation of NRPs.[6-9,11-14,17-21] Authors of the remaining 3 studies included retention rates ranging from 74% to 81%, which were not much improved from the 70% to 82.5% new graduate nurse retention rates that have been reported nationally. All 3 of these studies were similar in that they reported data from single centers that had organization-based NRPs with 1-year durations.[10,15,16] The studies with the 2 lowest retention rates did, however, have some promising data in support of the effectiveness of NRPs. Phillips and Hall[10] reported 74% retention, but indicated that it was an improvement from their prior rates. Kowalski and Cross[15] reported 78% retention, but indicated that the 2nd cohort that had not yet finished the program had a retention rate of 96% at the time of publication. Also, both sets of data only reflected the 1st

year of the implemented organization-based NRP and discussed shortcomings of the programs and how they plan to improve upon them going forward.

Structure of Program

The fact that the 3 lowest retention rates were all from organization-based programs does indicate a trend that the structure of programs may have an impact on retention outcomes. UHC/AACN and Versant are formally defined and established NRPs and were associated with retention rates ranging from 91% to 100% in this review.[6,8,11-14,17,18] This could be because these programs are not in their infancy and have had a large number of NGRNs across the country experience their programs and have had the opportunity to alter the curriculum based on input from participants. It could also be related to individual components to each program, including factors such as trained preceptors, mentor programs, residency development days, or simulation. This is supported by Hillman and Foster's[20] data of an NRP changing from a Versant to their own organization-based format and still seeing retention rates climb. More studies need to be done comparing the retention outcomes of NRPs based on the specific structural components to establish which contribute to the success of programs. This can provide guidance for institutions who wish to create their own organization-based NRP by providing them with research and evidence for a particular framework.

Length of Program

This review found little association with retention outcomes and length of NRPs, other than the 1 study by Chappell et al.[21] Their research of 23 US hospitals found that the longer the NRP was, the better the retention rate was. Their article classified the different programs only by length and did not delve into structural differences between the varying programs across the hospitals. They reported a mix of UHC/AACN, Versant, and organization-based programs, but did not provide analysis of the differences between them in their discussion.

Additional Findings

Despite length of the NRP not being a sole determinant in higher retention rates in this review, it did have an effect on scores related to predictors of retention and organizational commitment, which is a body of evidence that could lend support to establishing longer NRPs. Although professional satisfaction scores were found to decline in the 1st 6 months of the NRP, they stabilized and had no further decline after the 6-month marker. This finding could relate to the research performed by Duchscher[22] expanding upon the theory of transition shock. NGRNs report experiencing transition shock, which stems from an underestimated adjustment from their educational preparation to the reality of the professional nurse workplace expectations. The initial dip in professional satisfaction scores may relate to this challenging adjustment period, as the scores were found to stabilize 6 months posthire, and even improve after 18 months.[19]

Although the professional satisfaction scores dipped, graduates of NRPs had lower job stress scores from every time period assessed up through 1 year.[6,16,18] This review found various elements of the Casey-Fink Graduate Nurse Surveys to have statistically significant increases from 6 months to 1 year. Phillips and Hall[10] was the 1 study in this review that had comparative data and found nurses in NRPs had higher overall Casey-Fink scores at the end of 1 year. Increases in prioritization, communication, and leadership after 6 months for nurses in yearlong NRPs could make an argument for longer programs to be developed. More comparative studies need to be done to examine if improvements are due to participation in an NRP or are an incidental measurement coinciding with gaining experience as a nurse over time.

Limitations

Healthcare institutions that have NRPs need to continue evaluating their outcomes and publishing retention data. The majority of the data from this review was collected from 2005 to 2012. The recession in the United States (unstable economy) was experienced in 2008 at the median point in these data and should be considered. It is unknown what amount of influence this recession may have had on NGRNs' decisions to remain in their current positions. Evaluating and reporting outcomes from programs in place since the economic recovery will strengthen the literature on the retention outcomes of NRPs. Also, retention data need to be collected beyond 1 year out. The studies in this review found 2-year retention NGN data ranging from 78.8% to 91%,[11-14] which is a significant improvement from the national average of 51.8%.[3] More research is needed to support long-term benefits of NRPs.

Other limitations to be considered in this literature review are that all of data were collected from hospital settings, so it is not generalizable to all practice settings. Many of the studies in this review reported on single-center outcomes, which may present bias and not be as generalizable as multisite studies.
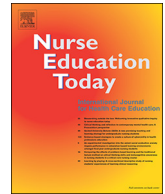
Conclusion

The implications of this integrative literature review are relevant to nursing leaders. Nursing administrators of hospitals should be encouraged to support development of NRPs within their institutions as they increase retention rates and organizational commitment

and decrease costs of turnover. However, they need to be aware that all NRPs are not equal and should consider the structure of the program. The data in this review support that organizationally created programs tend to not have the same initial increase in retention rates that national programs such as UHC/AACN and Versant do. If a quality NRP is implemented within an organization, it has the potential to decrease job stress while building confidence and increasing prioritization, communication, and leadership skills. Even without considering the potential effects NRPs could have on patient care, the improvements to retention rates should strongly encourage nursing leaders to put their confidence in implementing the right NRP for their organization. It has the potential to attract and retain NGRN and save costs from a reduction in turnover.

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Review

The impact of nurse residency programs in the United States on improving retention and satisfaction of new nurse hires: An evidence-based literature review☆

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ARTICLE INFO

ABSTRACT

Entry into practice for newly graduated nurses can be a demanding and overwhelming experience. These stressful work conditions have contributed to decreased retention and satisfaction amongst new nurse hires. The aim of this literature review is to answer the following question: in newly hired BSN graduates, how would the use of a one-year nurse residency program compared to a traditional orientation affect turnover rates and reported satisfaction of the new nurse hires over a one-year period? Peer-reviewed research and systematic reviews between the years of 2012–2017 found on the Medline, Nursing & Allied health, and CINHAL were used. Inclusion criteria were peer-reviewed literature that addressed the impact of one-year NRPs on nurse retention or nurse satisfaction. Exclusion criteria were articles that addressed NRPs without discussing retention or satisfaction. The JHEBP Appraisal Tools were used to extract and appraise evidence. Use of NRPs showed increased satisfaction and retention of new nurse graduates over a one-year period, leading to the conceptualization that this is a more effective method than traditional orientations for new nurse hires.

1. The Impact of Nurse Residency Programs on Satisfaction and Retention of New Nurse Hires

Transitioning from the student nurse role to the practicing nurse role has been identified as a stressful and challenging time for new nurses as they try to adjust to caring for multiple patients with chronic, complex health conditions (Van Camp and Chappy, 2017). The challenging evolution can last as long as 12 months and has been shown to be a contributing factor for a high turn-over rate amongst new nurses during their first year of hire (Olsen-Sitki et al., 2012). Research studying the impact of hospital work environments on retention of new nurse hires found that new nurses experience less anxiety and stress in environments that foster a safe learning environment and effective communication and support (Cochran, 2017).

This is a relevant issue to nursing education because, as educators, it is vital to assess the needs of new graduates and develop effective transitional programs that will empower new nurses to practice with confidence in a safe and proficient manner, which may lead to increased satisfaction and retention during their first year of hire.

In 2010, the Institute of Medicine (IOM) offered recommendations on how to improve the nursing profession to better care for the increasingly complex patient population. One of the recommendations was to implement nurse residency programs (Al-Dossary et al., 2013; Lin et al., 2014). This recommendation was identified in response to evidence reporting retention issues and decreased satisfaction of new nurse graduates due to stressful work environments, increased patient acuity, and lack of confidence in skill and critical judgment (Al-Dossary et al., 2013). Further studies also found that as many as 90% of hospital nurse leaders felt that new graduate nurses are ill-equipped to safely and proficiently practice as a registered nurse (Al-Dossary et al., 2013). Transitioning from the student role to the fully practicing nurse role can be stressful and overwhelming, leading to 35–60% of nurses leaving their first place of employment within one year (Van Camp and Chappy, 2017). These high turnover rates can have detrimental financial implications, costing approximately $88,000 per nurse due to lost revenue spent on training and having to replace the nurse (Van Camp and Chappy, 2017).

A consistent finding amongst current evidence-based literature has found that nurse residency programs should be at least 10–15 months in order to successfully prepare the new nurse for independent practice (Cochran, 2017). The aim of these programs is to provide continued support to new nurses during their first year of hire in order to foster

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essential skills such as: critical thinking, prioritization, delegation, communication, leadership, and conflict resolution (Kramer et al., 2012). Common elements found in these programs consist of mentorship with a preceptor over the course of the program, and combination of didactic education, simulation, case studies, peer reflection and debriefing, and evidence-based practice projects (Cochran, 2017; Goode et al., 2013; Kramer et al., 2012).

In an effort to evaluate the impact of NRPs on new nurse hires the following question utilizing the PSCOT format (population, education, strategy, comparison, outcome, and time) was developed: In newly hired BSN graduates, how would the use of a one-year nurse residency program compared to a traditional orientation affect turnover rates and reported satisfaction of the new nurse hires over a one-year period? The aim of this review is to answer this question by analyzing current literature to determine the effects of NRPs compared to traditional orientations on retention and satisfaction of new nurses during their first year of hire.

2. Method

2.1. Search Protocol

2.1.1. Search Engines and Databases Used
Electronic search engines used to perform the search were: Medline, Nursing & Allied Health Database, and CINHAL. All databases used yielded a wealth of results and information to review regarding the topic of NRPs.

2.1.2. Search Terms
A wide variety of terms were used to search for literature for this review. The keywords used during the search were: (a) nurse residency program, (b) BSN residency program, (c) baccalaureate nurse, (d) new nurse, (e) traditional orientation, (f) transition, (g) retention, (h) turnover, and (i) satisfaction.

2.1.3. Boolean Phrases
Keywords were imputed into the advance search tabs with use of the Boolean phrase "and" or "or" to connect each keyword and narrow the results. Boolean phrases included in the literature search included: (a) nurse residency program AND satisfaction OR retention, (b) BSN residency program AND retention, (c) BSN residency program AND satisfaction and (d) new nurse AND nurse residency program.

2.1.4. Age of Literature
Articles produced within the past five years (2012–2017) were considered for the review to ensure that the most recent evidence is being used. A search for historical, relevant data was also considered for inclusion.

2.1.5. Inclusion Criteria
Articles produced from the search were assessed for inclusion. Inclusion criteria were: published in English, peer-reviewed, addressed nurse retention rates, addressed nurse satisfaction, preceptor-based with nurse residency program participation, one-year long nurse residency program.

2.1.6. Exclusion Criteria
Elements that lead to exclusion from this review were: languages other than English, non-peer reviewed articles, programs that focused on preceptor-only orientations, addressed NRP without discussion of satisfaction or staff turnover rates, articles that discussed factors of NRPs that affected job satisfaction, nurse practitioner residency programs, and research conducted in hospitals outside the United States.

2.1.7. Articles Selected for Inclusion
There were 299 articles located with 18 articles that were selected

to be appraised for use in the literature review. Of the 18 articles, 12 met the inclusion criteria to be included in the review. The John Hopkins Evidence Based (JHEBP) Appraisal Tools were utilized in performing a critical appraisal of the abstracts and articles to help identify the articles to be used.

2.2. Evidence Matrix

The 12 articles that met the inclusion criteria were analyzed for strength and quality of using the John Hopkins Evidence-Based Practice (JHEBP) Appraisal Tool. In order to organize the findings, information pertaining to the: setting, findings, observable measures, limitations, and quality rating were then recorded utilizing the JHEBP Individual Evidence Summary Tool. Please refer to the Appendix for this information.

2.3. Evidence Synthesis

Based upon the literature review it was discovered that the use of the NRP has had a generally positive impact on satisfaction and retention of new nurse hires. The evidence included a wide diversity of evidence levels and quality. Common themes present amongst the findings will be further discussed in this section.

2.3.1. Synthesis of the Population
All 12 articles included in this study evaluated nursing graduates with less than one year of experience (Cline et al., 2017; Edwards et al., 2015; Fiedler et al., 2014; Goode et al., 2013; Lin et al., 2014; Medas et al., 2015; Olsen-Sitki et al., 2012; Rosenfeld et al., 2015; Salmond et al., 2017; Smith et al., 2016; Trepanier et al., 2012; Van Camp and Chappy, 2017). It was discovered that there were limited articles that described the impact of the NRP on just baccalaureate prepared (BSN) nurses. Out of the 12 articles, three evaluated only BSN nurses (Goode et al., 2013; Fiedler et al., 2014; Rosenfeld et al., 2015). The other nine articles evaluated both BSN and associated-prepared nurses (ASN); (Cline et al., 2017; Edwards et al., 2015; Lin et al., 2014; Medas et al., 2015; Olsen-Sitki et al., 2012; Salmond et al., 2017; Smith et al., 2016; Trepanier et al., 2012; Van Camp and Chappy, 2017).

2.3.2. Synthesis of the Strategy
All articles included in this review dealt with NRPs. Six of the articles focused on NRPs initiated throughout a facility, or corporation (Fiedler et al., 2014; Goode et al., 2013; Medas et al., 2015; Olsen-Sitki et al., 2012; Rosenfeld et al., 2015; Trepanier et al., 2012). Three of the articles focused on specific specialties: one focused on pediatric NRPs, one on oncology NRPs, and one investigated NRPs in long-term care facilities (Cline et al., 2017; Salmond et al., 2017; Smith et al., 2016).

2.3.3. Synthesis of the Comparison
Most of the articles compared the results of their studies regarding retention and satisfaction to national statistics (Cline et al., 2017; Fiedler et al., 2014; Goode et al., 2013; Medas et al., 2015; Rosenfeld et al., 2015; Salmond et al., 2017; Smith et al., 2016). One article compared the study results to retention rates at the hospital prior to the initiation of the NRP (Trepanier et al., 2012). There were no articles found that met the inclusion criteria that studied nurse turnover and satisfaction for those included in a NRP compared to a control group that participated in a traditional orientation.

2.3.4. Synthesis of the Outcome and Time
Based upon the literature review it was discovered that the use of the NRP has had a generally positive impact on satisfaction and retention of new nurse hires. Satisfaction rates of the programs implemented in these studies were analyzed using various measurements. Four studies used the Casey-Fink Survey (Cline et al., 2017; Goode et al., 2013; Olsen-Sitki et al., 2012; Salmond et al., 2017). The

McCloskey/Mueller Satisfaction Scale (MMSS) was another measurement tool used in three studies (Fiedler et al., 2014; Goode et al., 2013; Medas et al., 2015). The Gerber's Control Over Nursing Practice Tool, The Nurse Job Satisfaction Scale, and The Cummings and Estabrooks' quality rating tool were used in two studies (Goode et al., 2013; Lin et al., 2014).

2.3.5. Nurse Retention

Nurse retention rates have shown a dramatic increase with the use of NRPs with most studies showing a retention rate of over 90% after the first year of hire (Goode et al., 2013; Medas et al., 2015; Trepanier et al., 2012). Two studies showed a lower retention rate (Rosenfeld et al., 2015; Salmond et al., 2017). One study had a retention rate of 85% one year post hire during the first year of the program being implemented; however, the study showed that the retention rates increased with subsequent NRPs, with a peak retention rate of 97.2% for the NRP implemented in 2010 (Rosenfeld et al., 2015). The other study of a long-term care NRP had a retention rate of 86% after the first year; however, the authors still considered this to be a considerable improvement compared to the state-wide average of 64% retention rate for new nurse hires in long-term care facilities (Salmond et al., 2017). Yet, Rosenfeld et al. (2015) found that 78.4% of participants in the NRP were still working at the same facility three years after his or her date of hire.

Financial savings were also noted in some studies as a direct correlation to increased nurse retention. Trepanier et al. (2012) reported a net gain of $15,228,000 across the 15 hospitals studied due to increased nurse retention rates. Another study found that the increased retention saved a facility $13,057,200 over a three-year period (Fiedler et al., 2014).

2.3.6. Nurse Satisfaction

Nine of the articles explored new nurse satisfaction as a result of the NRP (Cline et al., 2017; Edwards et al., 2015; Fiedler et al., 2014; Goode et al., 2013; Lin et al., 2014; Medas et al., 2015; Olsen-Sitki et al., 2012; Salmond et al., 2017; Van Camp and Chappy, 2017).

Two studies reported a high level of perceived job satisfaction at the start of the NRP that remained steady at six and 12 months (Fiedler et al., 2014; Olsen-Sitki et al., 2012). Perceived contributors to high level of satisfaction were peer support and positive interactions with staff and patients (Fiedler et al., 2014; Medas et al., 2015).

One study showed a gradual decrease in overall satisfaction demonstrated in a decrease in overall satisfaction from the start of the NRP (Salmond et al., 2017). The other studies showed a decline from perceived satisfaction at six months, however, the level of satisfaction was found to be back up to baseline at 12 months (Cline et al., 2017; Edwards et al., 2015; Goode et al., 2013; Lin et al., 2014; Medas et al., 2015; Van Camp and Chappy, 2017). Contributing factors identified to the decrease in satisfaction were: stress related to the work environment, staffing, and difficulty acquiring a day shift position (Lin et al., 2014; Medas et al., 2015). The rebound in satisfaction noted could be related to an increase in confidence and management of workload by the end of the NRP (Lin et al., 2014).

3. Limitations

There were three common themes amongst the twelve articles related to limitations and risk of bias: (a) economic hardships, (b) poor response rate, (c) and voluntary participation. Economic hardship related to the economic decline in the United States in 2008 was noted as a potential limitation in two studies. The researchers felt that the poor economic conditions could have influenced increased nurse retention (Olsen-Sitki et al., 2012; Trepanier et al., 2012).

Low response rates were reported as a limitation in five of the articles. (Fiedler et al., 2014; Goode et al., 2013; Medas et al., 2015; Olsen-Sitki et al., 2012; Smith et al., 2015). One article had a response

rate of less than 25% which negatively impacted the quality of the study (Medas et al., 2015).

A risk for selection bias was identified as a limiting factor in two studies (Fiedler et al., 2014; Lin et al., 2014). The authors reported that since participants were aware that they were participating in a survey and that participation was voluntary, there was an identified risk for participants reporting "superficially increased changes in satisfaction" (Lin et al., 2014, p. 448).

Another limitation to this study was the lack of evidence studying just BSN nurse hires, as the majority of the studies included both ASN and BSN graduates. Only three out of the twelve studies included just BSN nurse graduates in their program (Goode et al., 2013; Fiedler et al., 2014; Rosenfeld et al., 2015). This could be considered a confounding variable as one's level of education may impact how he or she handles stressful work environments and increased patient acuity. Additionally, confidence in skill and critical judgment may be different amongst ASN and BSN graduates. Based upon differences in level of education, ASN graduates and BSN graduates may require different elements to be included in the NRP in order to successfully complete the program (Cochran, 2017).

Furthermore, there were no studies found during the literature review that compared traditional orientation programs to NRPs during the same time period. This may decrease the reliability of the findings as retention and satisfaction during different time periods may vary due to factors such as job availability and economic conditions.

4. Discussion

4.1. Review of Evidence

Review of evidence analyzed in this review yielded two important findings. Based upon the literature reviewed there is a strong correlation between the use of a NRP and increased nurse retention of new nurses in their first year of hire (Cline et al., 2017; Edwards et al., 2015; Fiedler et al., 2014; Goode et al., 2013; Medas et al., 2015; Van Camp and Chappy, 2017). The improved retention rates were also shown to have positive financial implications, saving some facilities up to $15,228,000 (Trepanier et al., 2012). This is vital information that is beneficial for nurse educators in the hospital setting as well as nurse graduates looking for their first job. Through the use of the NRP, it can be assumed based upon the literature, that more new nurses will remain in their role within the first year of hire, which will also have positive financial outcomes for the facility compared to facilities offering only traditional orientation programs (Trepanier et al., 2012). Furthermore, newly graduated nurses may be more prone to apply to a hospital offering a NRP due to the positive outcomes of NRPs present in current literature.

There is moderate evidence to support an increase in satisfaction with the use of a nurse residency program. Although literature showed a decrease in satisfaction in new nurse hires after six months of employment, satisfaction rates stabilized and were still considered to be high based upon the McCloskey Mueller Satisfaction Scale (Goode et al., 2013; Fiedler et al., 2014; Lin et al., 2014).

4.2. Implication for Practice

These findings reinforce the need for medical institutions to develop NRPs in place of traditional orientations for new nurse hires. The correlation between NRPs and improved satisfaction and retention amongst new nurses is promising in terms of encouraging new nurses to remain in their role and continue to develop and grow professionally. This will have a positive implication for the facility in terms of financial savings and increased experience and satisfaction amongst staff members.

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5. Conclusion

NRPs have been identified as a successful method, in comparison to traditional orientation, in easing new nurses into the role as a professional nurse (Van Camp and Chappy, 2017). Increased retention and satisfaction of new nurse hires have been proven outcomes of NRPs,

positively impacting nurse turnover rates and finances in healthcare institutions. Further research is needed in the following areas in order to strengthen research supporting the implementation of NRPs: comparing traditional orientations with NRPs during the same time period, studying the effect of NRPs on just BSN graduates, and implementing methods to increase participation in the studies being conducted.

Appendix A. Evidence Matrix Table

Article name	Author and date	Evidence type	Sample size, setting	Findings that help answer the EBP question	Observable measures	Limitations	Evidence level, quality
Longitudinal outcomes of an institutionally developed nurse residency program	Cline, D., La Frentz, K., & Fellman, B. (2017)	Longitudinal Retrospective analysis Purpose: To present a 10-year retrospective review of outcomes from an internally developed nurse residency program	Sample: 1118 nurse residents who completed the NRP between the summer of 2005 until November of 2014 Setting: A Comprehensive cancer center. Students were assigned to the hematologic, surgical, medical oncology, intensive care, and emergency center units.	- Greater than 90% retention rate after one year - Moderate decline in satisfaction over the course of the residency program.	The Casey-Fink Graduate Nurse Experience Survey was used to measure data obtained	- Data collected over 10-year period had some variability in questions asked - Residency program curriculum changed over time to stay in line with the NCSBN guidelines, making it difficult to draw conclusions about how aspects of curriculum impacted survey scores Responses were originally completed on paper for the first few years of study and then had to be manually inputted into electronic data collection spreadsheet	III A
A systematic review of the effectiveness of strategies and interventions to improve the transition from student to newly qualified nurse	Edwards, D., Hawker, C., Carrier, J., & Rees, C. (2015)	Systematic Review Purpose: To determine the effectiveness of the strategies used to support newly qualified nurses during the transition into the clinical workplace	N/A	- Studies showed a higher 12-month job satisfaction with use of NRP and retention rates were between 73 and 94% at one year	Evaluation of the impact of support strategies and programs on individual and organizational outcomes	- The search was restricted to the English language	II A
Long-term outcomes of a post baccalaureate nurse residency program	Fiedler, R., Read, E. S., & Lane, K. A. (2014).	Descriptive case study Purpose: To determine what influence a nurse residency program (NRP)	Sample: 170 graduates who were still employed at the medical center Setting: NPR employed at	- Only 5.6% of residents left during their first year of hire Satisfaction remained high with the highest	The survey was released by SurveyMonkey analyzed using McClockey/ Mueller Satisfaction Scale	- Small sample size -Response rate of 30.2% - Participation was voluntary which increases rick of selection	III A

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		has on long-term outcomes including turnover rates, career satisfaction, and leadership development	medical center between July 2008 and August 2010	rating for interaction with the coworkers		bias - Trying to locate nurse residents once they graduated from the yearlong program	
Lessons learned from 10 years of research on a post-baccalaureate nurse residency program	Goode, C. J., Lynn, M. R., & McElroy, D. (2013).	Longitudinal survey Purpose: To examine the outcomes from 10 years of research on a post-baccalaureate new graduate nurse residency program	10-years of data of 31,000 graduate nurses across 100 hospitals in the United States who participated in the AACN Nurse Residency Program	- High job satisfaction initially, with a significant decrease at 6 months which then stabilized at 12 months. - Pre-NRP retention 70.5%. - 1-year Post-NRP retention 94%	Data was measured by the Casey-Fink Graduate Nurse Experience Survey, the MMSS, Gerber's Control Over Nursing Practice Scale, and the Graduate Nurse Residency Program Evaluation	- Resident participation rate slowly declined over the length of the 10-year study to 48% by the end of the 10 years.	III B
Factors influencing job satisfaction of new graduate nurses participating in nurse residency programs: A systematic review	Lin, P. S., Viscardi, M. K., & McHugh, M. D. (2014).	Systematic Review Purpose: To explore the relationship between nurse residency program and new graduate nurse's job satisfaction	N/A	Studies saw a decline in satisfaction at 6 months with an increase in satisfaction by the completion of the nurse residency program	The Cummings and Estabrooks' quality rating tool was used to appraise the articles	Participants were made aware that they were participating in the survey	II B
Outcomes of a comprehensive nurse residency program	Medas, J. C., Amato, S., Grimm, D., Radziewicz, R., Rhodes, C., VanHorn, C., & McNett, M. (2015).	Prospective Cohort Study Purpose: to study the effects of a one year long comprehensive nurse residency (CNRP) program over an 18-month period	Sample: 79 participants of the CNRP in 2010 Setting: Public Hospital in Northeast Ohio with Magnet recognition	- Satisfaction amongst the participants was the highest at hire, then decreased at 6 months with a gradual increase by 18 months with the mean satisfaction being a 3.789 (5 being the highest possible response using MMSS.) - Retention rates have been between 90 and 94%	The McClockey-Mueller Satisfaction Scale (MMSS) was used to measure satisfaction amongst the participants	- Response rate decreased from 37% at the beginning of the study to 35% at 6 months, 15% at 12 months and 11% at 18 months post hire. - Was a single-site study which may have impacted the generalizability of the results	II B
Evaluating the impact of a nurse residency program for newly graduated registered nurses	Olson-Sitki, K., Wendler, M. C., & Forbes, G. (2012).	Descriptive Case Study with repeated measures, time series mixed-methods design Purpose: To evaluate a year-long nurse residency program using a non-	Sample: 50 new nurse graduates (Both BSN and ADN) who were hired in the summers of 2006 and 2007 into their first nursing position after graduation in facility's nurse residency program	- Nurse turnover rate for those in the NRP a year post hire was 7% compared to 15% before the implementation of the program. Participants reported a high level of satisfaction with	The Casey-Fink tool was used to analyze results	There was a 38% attrition rate of those who started in the study and completed it. - The one-year post hire mark signified a time of economic decline in the United States. It is unknown if this	III A

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		experimental, repeated measures design with qualitative questions.	Setting: A 207-bed Magnet-designated regional medical center	the program at 6 and 12 months post hire.		had an influence on the low turn-over rate	
Evaluating the short and long-term outcomes of a post-BSN residency program	Rosenfeld, P., Glassman, K., & Capobianco, E. (2015).	Retrospective case study Purpose: To evaluate the short and long-term outcomes of the nurse residency program (NRP) at NYO Langone Medical Center from the perspective of former residents	Sample: 671 former nurse residency program participants from 2005 to 2012 Setting: New York University Langone Medical Center	- 90.6% of NR was still employed one year after their hire date. - 65.6% of these residents were still employed in 2013	A survey, developed by Qualtrics survey in Utah was sent electronically to the residency participants who were located by the Human Resources department at NYU Langone Medical Center	- Study was conducted in one institution with a consistently large number of nurse residents - Super Storm Sandy in 2012 closed the facility for 3 months, making it difficult to assess the impact of these developments on responses to this evaluation study	III A
Long-term care nurse residency program: Evaluation of new nurse experiences and lessons learned	Salmon, S. W., Cadmus, E., Black, K. K., Bohnarczyk, N., & Hassler, L (2017).	Mixed-Methods study Purpose: To identify if implementing a new nurse residency program increase retention and job satisfaction in long-term care environments	Sample: 37 nurse residents of mixed bachelor and associates degree background Setting:36 LTC facilities in NJ	- Retention rates after one year were 86% - Total Satisfaction decreased 9% from pre to post test. However, personal satisfaction, satisfaction workload, and satisfaction with training increased 9%, 6%, and 5% respectively.	Surveys were administered and analyzed by the John J. Heldrich Center for Workforce Development. The Casey-Fink tool were used to analyze data	Nonparticipants workload on new nurse education days, the perception that the program was not always valued by the nurse residents' managers or colleagues, and inconsistent preceptor support	III A
Exploring the structure and content of hospital-based pediatric nurse residency programs	Smith, J. B., Robinson, D., Echtenkamp, D., Brostoff, M., McCarthy, A. (2015)	Longitudinal Quantitative Survey Purpose: To present the results of the survey regarding benefits and challenges of the pediatric nurse residency program	Sample Size: 83 nurse educators responsible for NRP or traditional orientation programs Setting: 81 hospitals across the United States who have a certified pediatric unit	- Turnover after one year ranged from 0 to 16%.	- Survey was developed by the Pediatric Nursing (IPN) Board of Directors and dispersed to the participants through Survey Monkey	- Poor response to survey of 25.6%	IV A
New graduate nurse residency program: A cost-benefit analysis based on turnover and contract labor usage	Trapanier, S., Early, S., Ulrigh, B., & Cherry, B. (2012)	Stepwise regression analysis Purpose: To conduct a cost-benefit analysis of nursing residency program utilizing turnover rate and contract labor usage	❑ N/A Sample: 524 nurses – 87% female, 13% male, with 52% between the ages of 23 and 30 years of age. Setting: 15 hospitals in California, Florida, Georgia,	- Nurse Graduate 1-year turnover rate went from 36.8% pre-residency to 6.41% post-residency. - Decreased turnover rates lead to a $15,228,000	Data was analyzed using the health care system Accounting and Human Resources databases and residency company database	-Study utilized a secondary analysis of a health care corporation's community-hospital database and may not be applicable to other health care settings	III A

			Nebraska, Missouri, Tennessee, and Texas	profit across the 15 hospitals studied.		- The time the study was conducted (2008 to 2010) was during an economic decline which could've contributed to increased turnover rates	
			❏ N/A				
The effectiveness of nurse residency programs on retention: A systematic review	Van Camp, J. & Chappy, S. (2017)	Systematic Review Purpose: examine new graduate NRPs, perceived satisfaction, and retention rates	❏ N/A	- Studies showed a high level of job satisfaction - Studies showed between a 78.3–100% retention rates after the first year hired.	- Manual review of 48 articles for inclusion.	- Many organizations did not clearly define measurement of retention at one year - More quasi-experimental studies are needed to compare retention rates amongst graduate students compared to non-NRP.	II B

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