MENTOR PROGRAMS AS A STRATEGIC APPROACH TO NURSE RETENTION: INTEGRATIVE REVIEW

A Scholarly Project

Submitted to the

Faculty of Liberty University

In partial fulfillment of

The requirements for the degree

Of Doctor of Nursing Practice

By

Nancy J. Thompson

Liberty University

Lynchburg, VA

December 8, 2020

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Scholarly Project Chair Approval:

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ABSTRACT

The purpose of this integrative review is to identify commonalties of mentor program success demonstrated by registered nurse retention to support DNP leaders seeking to address the nursing shortage by retaining newly licensed and experienced registered nurses. Mentor programs offer nurse leaders a low-cost solution with a high return on investment to address nurse retention. The United States is facing a tremendous nursing shortage compounded by multiple factors, including an unprecedented global pandemic. An aging population is leaving the profession while the new generation of nurses struggle to find their niche. Registered nurses make up the largest sector of health care workers. Retaining newly licensed nurses is essential to the future of health care and the nursing profession. Nurse leaders need proven solutions that are easily identifiable to tackle the monumental nursing shortage on the horizon.

Keywords: Mentor, mentor program, retention, turnover, newly licensed registered nurse

Acknowledgements Page

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American Association of Colleges of Nurses (AACN)

Doctor of Nursing Practice (DNP)

Integrative Review (IR)

Liberty University (LU)

Liberty University School of Nursing (LUSON)

Newly Licensed Registered Nurse (NLRN)

Nurse Residency Program (NPR)

Registered Nurses (RN)

Retention Rate (RR)

SECTION ONE: FORMULATING THE REVIEW QUESTION

An essential component of the Doctor of Nursing Practice (DNP) nurse leader role is safeguarding fiscal responsibility across complex health care organizations. Registered nurse (RN) turnover represents a large expenditure, posing a threat to patient safety and quality (Suby, 2018). The United States Department of Labor, Bureau of Statistics (2020) data suggests 200,000 projected RN openings each year for the next six years. The staggering statistics were predicted prior to an unprecedented global pandemic directly impacting the nursing profession. The COVID-19 pandemic has dramatically impacted all aspects of nursing practice across the globe since early spring 2020. Many healthcare organizations halted all elective procedures for months, leaving procedural RNs scrambling for employment while intensive care unit (ICU) RNs were inundated with high acuity patient assignments and long hours. The consequences of COVID-19 with respect to RN retention and shortage are not fully known. However, a negative impact on RN retention is highly plausible, leaving DNP leaders seeking inventive ways to retain, recruit, and support RN staff. A reduction in quality patient care and influx in recruitment and orientation costs are associated with RN turnover (Hayward et al., 2016).

Mentorship has been cited as a strategy to support retention of newly licensed registered nurses (NLRNs) (Hayward et al., 2016). Equally, minimizing turnover and retaining the considerable number of experienced nurses across acute care settings is key to maintaining quality care and cost savings (Hayward et al., 2016). Benefits of mentorship have the capability to span across NLRNs and experienced RNs. Nevertheless, there is a lack of knowledge surrounding which mentor programs are more effective as retention tools. Mentor programs vary

immensely, increasing confusion among DNP leaders hoping to employ mentor programs as a retention strategy.

An aging population of RNs also poses a threat to the profession, with a projected one in six RNs retiring over the next 10 years (World Health Organizations [WHO], 2020). Inconceivable numbers of NLRNs leave their first position within the first year of practice (Zhang et al., 2016). Strategies to retain RNs across organizations fall upon DNP nurse leaders seeking to maintain safe and quality care delivery. Mentor program implementation at an organizational, hospital, service-line, or unit level supports a relatively low-cost, strategic approach to address RN retention. Creative strategic planning and the ability to successfully reduce high-cost expenditures through low-cost revenue solutions illustrate DNP nurse leader competency (Suby, 2018). The average hospital spends between four to seven million dollars annually on RN turnover (Edmonson & Zelonka, 2019). DNP nurse leaders may also view mentor program implementation as a method to encourage engagement and motivation among frontline staff, thereby improving retention and reducing new hire orientation costs (Suby, 2018). However, nurse leaders seeking to utilize mentor program implementation as a strategic approach to nurse retention need evidence of successful mentor programs prior to utilization. Program implementation requires organizational resource allocation and stakeholder support. DNP nurse leaders should seek out evidence-based strategies to address the complex and multifaceted problem.

The United States is predicting an increasing nursing shortage compounded by the inability of nursing programs to keep up with demand for NLRNs to replace the increasing number of “Baby Boomers” leaving the profession (AACN, 2020).Transitioning to practice is

challenging for NLRNs with as many as 57% leaving their initial RN position in the first two years of practice (Zhang et al., 2019). The American Association of Colleges of Nursing (AACN) (2020) is working to utilize resources to transform legislation, find strategies, and create alliances to address the shortage. Unfortunately, DNP nurse leaders lack the luxury of waiting on legislation. Strategic measures to retain NLRNs and experienced RNs are needed now.

Baby Boomers are one of the many factors contributing to the nursing shortage. The nursing shortage has been described in the literature as a "crisis" (Zhang et al., 2016). Today's job market is robust (Suby, 2018), presenting opportunities to RNs seeking to leave the profession. The private business sector offers multiple high paying career opportunities for individuals with nursing degrees. Alternate career opportunities entice RNs away from clinical practice and highly trained specialties. Mentorship is a key component of the NLRN's ability to obtain the skill set needed to provide safe patient care (Szalmasagi, 2018). Furthermore, mentor program participation improves NLRNs transition to practice while providing a framework designed to increase and demonstrate skills (Szalmasagi, 2018).

Defining Concepts and Variables

Establishing if mentor program implementation improves RN retention represented the central concept. Additionally, do mentor programs utilized as a retention tool possess common themes or characteristics? For example, are the mentor programs formalized, based on theoretical framework, or embedded into a nurse residency program? Multiple mentor programs exist, however the synthesis of literature completed in this integrative review identified common themes associated with mentor program success demonstrated through RN retention.

The word “mentor” may be used as a verb meaning to “advise or train,” or as a noun, meaning “experienced or trusted advisor” (Merium-Webster, n.d). Mentoring is frequently identified as a strategy to retain NLRNs. However, formalized mentor programs with proven results based on theoretical models are not readily available to DNP nurse leaders seeking strategies to reduce RN turnover. Inconsistency among mentor program type, definition, curriculum, and independence of nurse residency programs pose challenges for DNP nurse leaders. Mentor programs may support NLRN retention through increasing resiliency gained by supportive social peer relationships. Conversely, experienced RNs in the mentor role will likely exhibit an increase in employee engagement while evoking excitement for their profession. Both mentor and mentee will benefit from the relationship. This integrative review supports fostering experienced and novice RN growth through mentorship while identifying characteristics and common themes of mentor programs that increase RN retention.

Mentor Program

Mentor programs can be formal or informal, depending on the organization. Scheduled training sessions, meeting times, and alternate learning opportunities are present in formal mentor programs. Mentor programs may be independent of a nurse residency program or included as a supportive component. The setting for mentor programs may be face-to-face, or in various venues. Mentor-mentee sessions may take place within the health care organization or in preplanned locations mutually agreed upon. Virtual mentor-mentee meetings are an option as well. Mentor programs may be one-to-one or a single mentor to a group of mentees. Mentor programs are defined as at least six months in length.

Mentor

"To mentor" is defined as a nurturing process aimed at professional and personal development, one where a more skilled and experienced person, serving as a role model, teaches, encourages, counsels, and befriends a novice (Anderson & Shannon, 1988). "A mentor is someone who teaches, guides and lifts you up by virtue of his or her experience and insight" (Maxwell, 2016). Mentors have a head full of experience and a heart full of generosity to bring concepts together for others (Maxwell, 2016). Mentors have clear expectations, listen, express vulnerability, and maintain direct and honest relationships with their mentees (Yaeger, 2019). This integrative review observed RNs in the mentor role as more experienced than their mentee, and were willing to offer expertise, guidance, and to nurture novice RN mentees with less than two years of RN experience.

Mentee

Mentees are defined as NLRNs with less than two years' experience, or RNs entering a new role in a specialty area.

Mentor-Mentee-Relationship

The mentor-mentee relationship is defined as at least six months in length and mutually beneficial. The mentor-mentee relationship is represented by one-on-one mentor-mentee and/or single mentor to multiple mentees.

Nurse Retention

For the purposes of this review, retention is defined as a strategy to prevent nurse turnover and keeping nurses within an organization. Nurse retention may be illustrated through discussion of turnover rates, attrition, or retention specific to the study being discussed.

Rationale for Conducting the Review

DNP nurse leaders are struggling to tackle an imminent nursing shortage compounded by accelerated nurse turnover rates with estimated costs as high as $88,000 per nurse (Schroyer et al., 2020). Nursing exemplifies one of the most understaffed professions with a high demand (American Nurses Association, 2018). The effects of the COVID-19 pandemic are not yet fully recognized, yet are likely to negatively impact retention and recruitment among RNs. This integrative review will identify themes in mentor programs linked to RN retention. The identification of specific mentor programs successfully utilized in RN retention will support DNP leaders searching for strategic options to address the forthcoming RN shortage and NLRN turnover. Although the literature supporting mentor programs as a retention tool is vast, a clear mentor program identified as successful to reduce RN turnover has yet to be identified.

In 2020, WHO cited nearly 90 countries around the globe as having less than three nurses for every 1,000 individuals. A harsh reality, there will not be enough RNs to care for an aging population with increasingly complex disease processes. The RN shortage facing the future of nursing supports the topic relevance for this integrative review as indicated by the Iowa Model algorithm. RN retention is essential now, more than ever, and represents a significant patient safety concern. The effects of the COVID-19 pandemic are certain to impact an already overworked and burnout sector of healthcare workers pushed to the limit (Daley, 2020). Experienced RNs nearing retirement may leave the profession earlier while others are likely to avoid entering the profession at all. Gaietto & Brooks (2019) indicated the inability to retain specialty trained nurses presented a challenge to meeting patient needs and delivering quality patient care. Specialty trained, experienced nurses in areas such as critical care are vital to patient

safety and RN resilience. Mentor programs support new nurses and reduce turnover, thereby improving patient safety and the quality of care delivered (Gaietto & Brooks, 2019).

Workplace relationship dynamics may negatively or positively impact nurse turnover (Pham et al., 2019). Mentorships illustrate a strategic approach to support nurses working in rural healthcare (Rohatinsky & Jahner, 2016). However, all RNs may benefit from support derived from mentor program participation, regardless of geographic location. Nurse leaders may employ mentor programs to support healthy workplace relationships for all RN staff. Managers may want to consider taking steps to foster rapport between mentors and mentees to improve nurse retention and support quality care (Pham et al., 2019). Incorporating nurse mentor programs into nurse residency programs provides an additional supportive factor for the new nurse experience (Van Patten & Bartone, 2019). Nurse residents cite debriefing, mentorship, and preceptors as beneficial, therefore it is imperative that new nurses have a chance to participate in programs that offer mentorship, preceptors, and debriefing essentials (Van Patten & Bartone, 2019). The American Nurses Association (ANA) (2020) stated "by 2022, there will be far more registered nurse jobs available than any other profession, more than 100,000 per year." DNP leaders need resources to address NLRN and RN turnover in a cost-effective manner. A greater understanding of types of mentor programs, common themes, and determinants of mentor program successes specific to RN retention may be identified through the integrative review process.

Purpose and/or Review Questions

Therefore, the purpose this integrative review was to identify commonalties of mentor program success exhibited by RN retention to support DNP leaders seeking to address the RN shortage by improving RN retention.

The following questions guided the integrative review:

- What mentor programs are employed as organizational strategies to retain RNs?
- What tools have been used to measure mentor program effectiveness in retaining RNs?
- What theoretical frameworks are utilized as foundation design for mentor programs employed to increase RN retention?

Formulate Inclusion and Exclusion Criteria

The inclusion and exclusion criteria encompassed an extensive search of literature published between 2015-2020. Peer reviewed research published in English was included. Opinion articles, Theses, and Dissertations were excluded. Dissertations were considered as secondary sources and supplemental literature. The population included was comprised of registered nurses. Student nurse populations were excluded from this integrative review. Studies conducted in the acute care setting and outpatient settings were included. Studies conducted in countries outside the United States were considered. Informal and formal mentor program studies were analyzed.

Table 1

Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
English language	Studies from academic setting
Published between 2015-2020	Non-acute care setting
Peer reviewed	Unpublished manuscripts, Theses, Dissertations, Book Reviews, Book Chapters
United States and Countries outside United States	Opinion articles

Conceptual Framework

This integrative review framework was based on the five-stage process proposed by Whittemore and Knafl (2005):

1. Problem identification stage.
2. Literature search stage.
3. Data evaluation stage.
4. Data analysis stage.
5. Presentation stage.

The integrative review supports a broader research method, thus embracing non-experimental and experimental research concurrently, to fully understand the phenomenon in question (Whittemore & Knafl, 2005). Techniques to reduce bias and error such as including mixed method and qualitative research (Whittemore & Knafl, 2005) were utilized by the DNP student author. The ability to accommodate multiple methodologies and levels of evidence supports the reasoning for conducting an integrative review to identify mentor programs successfully utilized to reduce RN turnover. Whittemore and Knafl (2005) contend that excluding studies based on quality of appraisal is not recommended while maintaining importance of methodological soundness and authenticity. The DNP student author adopted Whittemore and Knafl's (2005) promise to build on nursing science and have a positive impact on nursing practice.

SECTION TWO: COMPREHENSIVE AND SYSTEMATIC SEARCH

Whittemore and Knafl's (2005) suggestion of systematic process was utilized to conduct the primary review of literature. The Cumulative Index to Nursing and Allied Health Literature

(CIHAHL), Cochrane, PubMed, and MEDLINE databases were utilized through the Liberty University (LU) Jerry Falwell Library website. English-language articles published between January 2015 and October 2020 were included. Operators *AND* and *OR* were observed to combine search terms nurse, nurse turnover, mentor, retention, new graduate nurse, and mentor program. Initial search yielded 722 responses. A total of 401 dissertation/theses were excluded based on exclusion criteria. Book chapters, book reviews, magazine articles, and newsletters were excluded as well. Once non-relevant topics and duplicates were removed, 239 journal article abstracts were reviewed. The 121 studies omitted after abstract review indicated lack of inclusion criteria. Specifically, studies with a high risk of bias, older than five years, and those with a lack of validity identified in the study. A total of 118 studies were downloaded for full review. A total of 16 studies including systematic review, meta-analysis, qualitative, quantitative, descriptive, retrospective cross-sectional, mixed-methods, and quasi-experimental studies were included in the review.

Search Organization and Reporting Strategies

A thorough search of relevant peer reviewed literature was conducted for studies less than five years old. Sample studies included meta-analysis (*n*=1), systematic reviews (*n*=3), Pre/post survey design (*n*=3), quantitative (*n*=1), descriptive quantitative (n=2), retrospective cross-sectional quantitative (*n*=3), Classical Grounded Theory (*n*=1), quasi-experimental quantitative (*n*=1), and longitudinal (*n*=1).

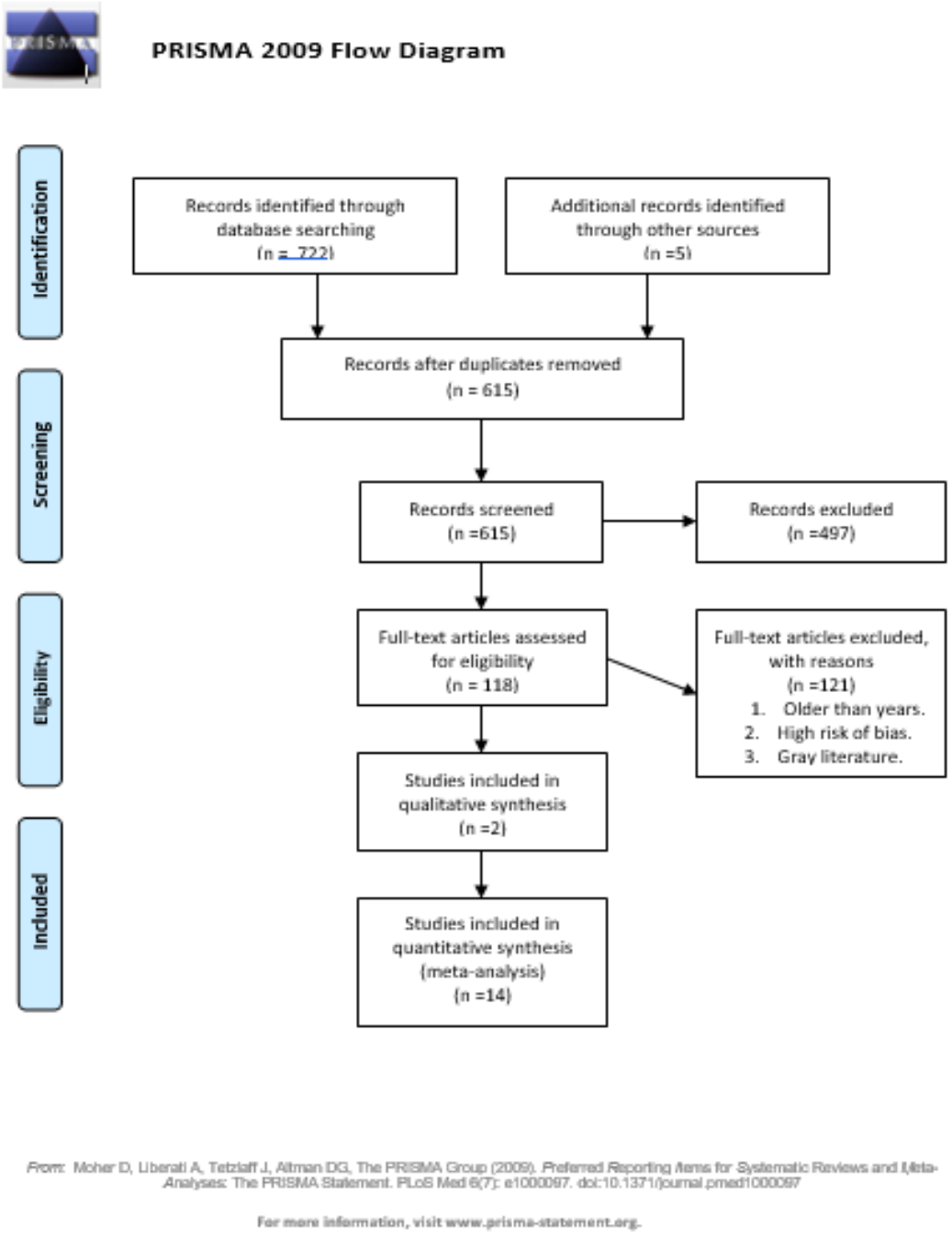
Terminology

CINHAL, PubMed, Cochrane, and MEDLINE were searched using the search terms nurse, nurse turnover, mentor, retention, new graduate nurse, and mentor program.

SECTION THREE: MANAGING THE COLLECTED DATA

Data analysis is presented utilizing the Preferred Reporting Items Systematic Reviews and Meta-Analysis (PRISMA) framework, originally developed to report level of quality for meta-analyses (Mother et al., 2009). PRISMA adopts a flow diagram methodology (see Figure 1).

Figure 1: PRISMA Flow Diagram



SECTION FOUR: QUALITY APPRASIAL

Conducting an effective, non-bias appraisal of study quality is a crucial part of the integrative review development. Inclusion and exclusion criteria were applied to identify less than adequate studies after an appraisal process (Remington, 2020). Relevance of literature pertinent to the integrative review questions guided the inclusion or exclusion of literature throughout the appraisal process (Remington, 2020).

Sources of Bias

The DNP student author independently examined each study to determine internal validity. The author independently abstracted data to reduce potential bias (Dwyer, 2020). A continuous observation for potential sources of bias was employed throughout the integrative review process. Sources of bias are identified in a transparent manner. Remington (2020) identified the following common types of bias: selection, measurement, attrition, and performance.

Internal Validity

A thorough examination of the truth or validity (Remington, 2020) was conducted by the DNP student author. Each study was examined for results driven by scientific methods illustrating validity and sources of bias compromising validity (Remington, 2020).

Critical Appraisal Tools

Although the ideal method for quality appraisal of literature for integrative reviews is widely inconsistent, a single quality appraisal tool was utilized to prevent confusion (Remington, 2020). The DNP student author critically appraised all the integrative review literature utilizing the Melnyk and Fineout-Overholt (2015) evidence-based practice in nursing and healthcare tool.

The quality appraisal is displayed in a literature matrix clearly identifying critical components of the literature.

Applicability of Results

Although applicability of study results may vary with display through a variety of appraisal tools, the following key components are typically included: preamble, introduction, design, sampling, data gathering, ethical issues, results, discussion, and relevance to research questions (Remington, 2020).

Reporting Guidelines

In observance of integrity, the PRISMA flow chart diagram was utilized to identify eligible studies which were screened and included in the integrative review process. Quality and transparency are increased through PRISMA guideline reporting in the systematic review as well as integrative reviews (Remington, 2020). Although there is an extension of PRISMA specific to integrative review reporting, the integrative review observed the original PRISMA reporting system approach.

SECTION FIVE: DATA ANALYSIS AND SYNTHESIS

Whittemore and Knafl (2005) data analysis stages including data reduction, display, and comparison were utilized throughout this integrative review.

Data Analysis Methods

A thorough analysis of study characteristics was conducted to determine common themes across the literature. Each study was analyzed and deconstructed into a strength of evidence table for ease of leveling evidence and common theme identification (See Appendix A).

Synthesis

Methodological decisions identified during integrative review stages suggested application of thematic organization of synthesized literature (Dwyer, 2020). A strength of evidence table was utilized to identify common themes in the literature. Common themes identified across literature include benefits of mentor programs and theoretical perspective. Thematic analysis revealed two major themes and seven subthemes.

Benefits of Mentor Programs

Job Satisfaction. Hale and Phillips (2018) asserted 100% of program participants, both mentees and mentors viewed the program as positive experience. Although there was no statistical significance with intent to stay after three months of program participation, intent to stay increased by 7.33% upon program completion (Jones, 2017). Two studies suggested a good rapport between mentee and mentors is positively correlated with intent to stay in position, mentor program success, and increased job satisfaction (Pham et al., 2019; Zhang et al., 2015).

Increased Confidence. Increased confidence in the clinical setting is beneficial to both mentee and mentor. However, novice nurses lack confidence as they enter practice. After conducting a retrospective study, Maryniak et al. (2017) suggested the importance of NLRNs' training and support to increase intent to stay. Relationships with colleagues ranked higher in mentored groups (Shermont et al., 2019; Baumann et al., 2018). NLRNs self-reported increased levels of comfort during clinical decision making and a greater organizational commitment when compared to non-mentored peers (Baumann et al., 2018). Chan et al. (2020) indicated a significant improvement in knowledge, attitude, and practice specific to evidence-based practice (EBP) following participation in a mentor program intended to create frontline EBP champions

through formalized mentor program implementation. Zhang et al. (2016) drew a correlation between increased RN competency and mentoring after systematic review of nine studies. Increased internal and external confidence was supported through the Classical Grounded Theory (CGT), *Mentoring Up* theory, with interactions between mentor and protégée (Hale & Phillips, 2018).

Improved Work Environment. A positive correlation was indicated between decreased stress at work participation in a mentor program (Van Patten & Bartone, 2019). Schroyer et al. (2016) noted improved morale with mentor program participants. One-on-one mentoring suggested a higher level of ability to successfully transition to practice, manage stress at work, and improved professional development (Williams et al., 2018). Two studies illustrated positive work environments, enhanced professional development, and increased nursing competency after participation in a mentor program (Zhang et al., 2016; Shermont et al., 2019). A descriptive study conducted in a Magnet© organization discovered 85% of mentor/mentee program participants associated the program with improved teamwork, relationships, communication, and collaboration (Shermont et al., 2019).

Increased Retention. Shroyer et al. (2016) found that 66% of the non-mentored group were retained compared to 91% of the mentored group RR at the end of the one-year mentor program. In a systematic review conducted to evaluate the effectiveness of a mentor program with respect to organization, mentor, and mentee, turnover rates in non-mentored groups ranged from 20%-31% compared to mentored group turn-over rates ranging from 7%-20% (Zhang et al., 2016). A three-year longitudinal study in China driven by shortage of new nurses and retention of new nurses suggested one-on-one mentoring of new graduate nurses during their first year of practice

significantly increased retention rates (Zhang et al., 2019). A comparison of non-mentored new nurses to one-on-one mentored new nurses revealed a turnover rate of 33.17% compared to 14.64% respectively (Zhang et al., 2019). Zhang et al. (2019) found no statistical significance in turnover rates among new nurses in year two and three. A meta-analysis based on quantitative synthesis revealed highest predictors of turnover related to low organizational support and actual nurse turnover related to relationships in the work environment (Nei et al., 2015). A study aimed at developing and testing an instrument to measure graduate nurses' perceptions of nurse mentor programs highlighted mentor programs as effective retention and recruitment tools (Tiew et al., 2017). Established programs lasting at least 12 months were associated with increased RRs, however, retention was not sustained greater after 24 months (Ackerson & Stiles, 2018; Zhang et al., 2019).

Theoretical Perspective

Classical Grounded Theory. Hale & Phillips (2019) intended to produce a substantive theory of nurse-to-nurse mentoring through the constant coding, memoing, and comparative method of the Classical Grounded Theory (CGT).

Benner's Novice-to-Expert Theory. Multiple studies analyzed referenced Benner as a basis for mentor program utilization to support NLRN transition to practice. Benner's Theory frequently provided inspiration, discussion, and guidance for mentor programs, not necessarily foundational underpinning or framework for study. Two studies viewed mentors as experts and NLRNs as novices passing through five levels of proficiency to successfully transition to practice with mentor support (Schroyer et al., 2016; Van Patten & Bartone, 2019). Maryniak et al. (2017) described new nurses as novice or advanced beginner level along the continuum of clinical

competence. Ke et al. (2017) established theoretical significance for mentor program implementation through discussion of Benner's nurse competency categories.

Social Cognitive Career Theory. Pham et al. (2019) employed the Social Cognitive Career Theory (SCCT) as a foundational framework to specific career decisions, intent to leave, rapport, intent to leave profession.

Ethical Considerations

Institutional Review Board approval (IRB) was obtained and approved through the LU IRB (see Appendix B). CITI training on basic biosafety was completed by the student author prior to initial research for the integrative review began (see Appendix C). No human subjects were included in the integrative review research process.

SECTION SIX: DISCUSSION

The integrative review of literature guided by the following questions were answered as follows: (1) What mentor programs are employed as organizational strategies to retain RNs? Informal, formal, embedded into NRPs, and pilot programs are utilized to improve RRs. Both theoretical and non-theoretical based mentor programs were employed. Mentor programs varied in length and frequency of interaction between mentor and mentee. Two nationally recognized mentor programs were utilized. Larger programs paired multiple mentees with mentors, embracing a group mentoring environment. Mentor programs were both theoretical and non-theoretical based. Most mentor programs were at least 12 months in length, with some as many as three years and as little as 6 months. (2) What tools have been used to measure mentor program effectiveness in retaining RNs? Only one study clearly identified a tool to measure mentor program effectiveness related to RRs. The 10-item National University Hospital

Mentorship Evaluation (NUH ME) instrument was utilized to evaluate a formal mentor program with an *n*=73 NLRNs in a metropolitan tertiary hospital setting (Tiew et al., 2017). Six studies measured program effectiveness through pre and post-test survey strategies. One study measured program success through a target of 2% RR improvement in medical-surgical and an increase in patient satisfaction scores (Maryniak et al., 2017). Retrospective RRs were obtained from human resources for six months prior to mentor program implementation (Schroyer et al., 2016). Zhang et al (2019) utilized PASS15.0 software to calculate turnover rates with a log-rank test based on existing annual turnover rates of new NLRNs as a baseline. Program effectiveness was generally observed through survey results obtained from mentor program participants. (3) What theoretical frameworks are utilized as foundation design for mentor programs employed to increase RN retention? Multiple studies referred to theoretical principles related to mentor program success. However, only a few mentor programs identified in the literature had theoretical foundations. The literature suggested theoretical foundation of a mentor program as being less relevant than program structure and substance (Ackerson & Stiles, 2018). Thematic analysis identified two major themes and seven subthemes associated with mentor programs. Although the mentor programs analyzed were diverse, overarching positive results were consistent across all 16 articles reviewed. Positive attributes of mentor program application were easily identified, however variability in mentor program type, length, and theoretical foundation was more difficult to ascertain. Studies disclosed mentor program sources and details, but adaptability was common throughout mentor program application creating ambiguity specific to measuring success of one mentor program over another. Perhaps the inconsistency across mentor program type implemented in the literature reviewed, coupled with success indicated across all programs,

suggests the importance of implementing any mentor program is better than none. Conversely, DNP leaders intending to employ mentor programs as retention tools need easily identifiable return on investment tools prior to obtaining stakeholder support.

Implications for Practice/Future Work

The integrative review revealed sufficient evidence to change practice in support of formal mentor program development and implementation to increase nurse retention. Benefits of mentor programs analyzed led to increased RN confidence, improved work environment, and increased job satisfaction. Inconsistency across nursing practice with respect to type of mentor program, cost, length, and theoretical foundation solidified the need for a formal mentor model development with adaptability across the nursing trajectory. Irrespective of the inconsistencies noted throughout mentor programs studied in the literature, positive benefits were consistently derived from mentor program implementation. Multiple variations of mentor program adaptation and implementation creates confusion and frustration for leaders seeking proven mentor program schematics to deploy as retention tools, thus creating difficulty for DNP leaders seeking formal mentor programs to utilize as a supplemental tool to retain RNs.

This integrative review will serve as the groundwork for moving forward with development and practice application of a formal mentor model program. The formal model will be theoretically based and established with all the benefits of multiple mentor programs incorporated into an adaptable model. The use of a consistent mentor model will also increase the ability to accurately capture data points determining of success. Increased awareness of how mentorship from fellow nurses encourages nurse retention will be helpful for nurse leaders as they seek tools to retain nurses (Pham et al., 2019). Nurse residents cite debriefing, mentorship,

and preceptors as beneficial, therefore it is imperative that new nurses have a chance to participate in programs that offer mentorship, preceptors, and debriefing essentials (Van Patten & Bartone, 2019). Ensuring NLRNs feel supported through formalized mentor programs is key to addressing the RN shortage and NLRN turnover. Providing support for RNs experiencing accelerated rates of burnout due to increased work stress is imperative to patient safety and organizational costs.

Dissemination

Change will only occur when evidence is disseminated (Dudley-Brown, 2016). The integrative review findings will be delivered to the LUSON DNP committee for review. Once final approval is granted for dissemination, this integrative review will be published through the Jerry Falwell Library portal in the Scholars Crossing section. The DNP scholarly work will also be submitted for poster presentation and manuscript submission for participation in the 2021 LU research week. Lastly, appropriate peer reviewed journal selection will be explored for manuscript submission to support maximum impact of phenomenon of interest to DNP leaders seeking mentor programs as a strategic approach to improve RN retention.

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Appendices

A. Strengths of Evidence Table

B. IRB Approval Documentation

C. CITI Certificate

Appendix A

Strengths of Evidence Table

Name: Nancy J. Thompson
Clinical Questions:
1. What mentor programs are employed as organizational strategies to retain RNs?
2. What tools have been used to measure mentor program effectiveness in retaining RNs?
3. What theoretical frameworks are utilized as foundation design for mentor programs employed to increase RN retention?

Ackerson, K., & Stiles, K. A. (2018). Value of nurse residency programs in retaining new graduate nurses and their potential effect on the nursing shortage. *The Journal of Continuing Education in Nursing, 49*(6), 282-288. doi:10.3928/00220124-20180517-09	Exploration of nurse residency program (NRP) implementation and the correlation between nurse retention.	A total of 26 quantitative and qualitative studies were reviewed.	Systematic Review	Established NRP for at least 12 months was associated with retention. Retention was not sustained after year two. Four studies reviewed utilized internally developed theory-based p NRPs, 17 studies reviewed employed nationally recognized NRPs. NRPs had a positive influence on retention.	Level 5	Limitations included weak evaluation methods to adequately evaluate programs.
Baumann, A., Hunsberger, M., Crea-Arsenio, M., & Akhtar-Danesh, N. (2018). Policy to practice: Investment in transitioning new graduate nurses to the workplace. *Journal of Nursing Management, 26*(4), 373-381. doi:10.1111/jonm.12540	Analysis of nurse perception of impact of an extended transition to practice program.	A sample size of *n*=2369 convenience sampled nurses in Canada. Surveys were mailed between Dec 2013-Jan 2014 to new graduate nurses via email. Two-year and four-year nurses graduating between 2007-2012 were included.	Cross-sectional study design/ Statistical program Stata Se/12.1 was utilized to analyze survey results.	The study revealed statistical significance in mean score of higher confidence, level of comfort, clinical decision making, providing safe care, and performance when compared to the non-transition to practice participants. Relationships with colleagues were rated higher in the group that had transition to practice as well. Commitment to	Level 6	Limitations included self-reported data.

				the organization was significantly higher as well.		
Chan, E., Glass, G. F., & Phang, K. N. (2020). Evaluation of a hospital-based nursing research and evidence-based practice mentorship program on improving nurses' knowledge, attitudes, and evidence-based practice. *The Journal of Continuing Education in Nursing, 51*(1), 46-52. doi:10.3928/00220124-20191217-09	Implement and study a research EBP mentor program for junior nurses to produce EBP champions.	Nine junior nurses (*n*=9) and 185 (*n*=185) ward colleagues in a 1,900-bed acute care hospital in Singapore. (*n*=3) ICU junior nurses and (*n*=6) general ward junior nurses.	Pre/Post - EBPQ score Subscales were utilized to collect data. Wilcox rank-sum tests were used for comparative data analysis.	Significant improvement related to knowledge, attitude, and practice, specific to EBP was demonstrated.	Level 6	Limitations included small sample size. Findings on nurses' attitudes, knowledge, and practice were based on self-reporting tools resulting in possible inherent bias.
Hale, R. L., & Phillips, C. A. (2018;2019;). Mentoring up: A grounded theory of nurse-to-nurse mentoring. Journal of Clinical Nursing, 28(1-2), 159-172. doi:10.1111/jocn.14636	Generate theoretical exploration of nurse-to-nurse mentoring in clinical environment.	(*n*=15) nurses ranging from age 26-63 years old, 12 were female, 3 males in various specialty areas of nursing. Nursing experience of less than 5 years to 40 years at time of study.	Classical Grounded Theory (CGT) methodology. CGT analytic strategies: coding and memoing as a constant comparative method (CCM).	Nurse-to-nurse mentoring is beneficial to both mentee and mentor. There is a profound positive relationship between novice and non-novice nurse. 100% of participants reported a positive experience being mentored regardless of being questioned about challenges.	Level 5	Participants were self-selected. The study size was small and limited to the southwest region of Texas.
Jones, S. J. (2017). Establishing a nurse mentor program to improve nurse satisfaction and intent to stay. *Journal for Nurses in Professional Development, 33*(2), 76-78. doi:10.1097/NND.0000000000000335	Intent to improve new nurse satisfaction and intent to stay with implementation of nurse mentor program.	An (*n*=8) mentors and (*n*=4) mentees participated in a formal 12-month mentor program in ED in a rural community hospital.	Quantitative and qualitative pre/post intervention design study. The intent to leave/stay diagnostic scale survey and four sub-scales of the McCloskey/ Mueller Satisfaction Scale Survey were completed by the RN	100% of the mentors reported enhanced job satisfaction related to the mentor program participation. The mentees did not show statistical significance with their intent to stay at the 3-month interval. Upon program completion, intent to stay results included a mean increase of 7.33	Level 6	Limitations included small sample size and one unit in a small hospital was observed.

			mentees at the 3-month program interval.	with 95% confidence. Qualitative feedback survey indicated positive feedback and suggested the mentor program continue.		
Ke, Y., Kuo, C., & Hung, C. (2017). The effects of nursing preceptorship on new nurses' competence, professional socialization, job satisfaction and retention: A systematic review. *Journal of Advanced Nursing, 73*(10), 2296-2305. doi:10.1111/jan.13317	The study aimed to determine the effects of nursing preceptorship on competence, job satisfaction, professional socialization, and retention related to new nurses.	Five Chinese/English databases for articles prior to June 2015 and six articles published between 2001-2014 were utilized for analysis.	A quantitative systematic review was conducted using the Joanna Briggs methodology. Systematic review reporting followed the PRISMA guidelines. Joanna Briggs institute critical appraisal tools were also used.	A clear conclusion for preceptorship improving nurse retention was not established.	Level 5	There was a lack of detailed data in some of the review articles and lack of random selection, concealed allocation, and blinding of participants increasing possibility of bias.
Maryniak, K., Markantes, T., & Murphy, C. (2017). Enhancing the new nurse experience: Creation of a new employee training unit. *Nursing Economics, 35*(6), 322+. https://link-gale-com.ezproxy.liberty.edu/apps/doc/A521876350/AONE?u=vic_liberty&sid=AONE&xid=d3fa358f	The study aimed to increase retention among new graduate nurses through implementation of new graduate nurse training.	The sample included (*n*=40) new graduate nurses in a medical-surgical unit in a 561-bed acute care non-profit hospital in Arizona.	A retrospective descriptive study.	New graduate nurses need additional training to feel supported and increase their intent to stay.	Level 6	Limitations including small sample size and retrospective descriptive data analysis.
Nei, D., Snyder, L., & Litwiller, B. (2015). Promoting retention of nurses: A meta-analytic examination of causes of nurse turnover. *Health Care Management Review, 40*, 237-253. https://doi.org/10.1097/HMR.0000000000000025	Examine relationships between predictors of turnover to determine strongest predictors of nursing turnover.	106 primary studies were reviewed.	Meta-analysis based on quantitative synthesis of 106 studies.	The highest rated predictors of turnover were related to low organizational support. Distal predictors most highly related with actual nurse turnover were related to	Level 5	Lack of similarity in study characteristics may have affected the accuracy of the meta-analytic correlation.

				relationships with others in the work environment. Supportive and communicative leadership, network centrality, and organizational commitment are the strongest predictors of voluntary turnover among nurses. Job strain, job conflict, job complexity, role tension, rewards/recognition, and team cohesion are also variables related to nurse turnover.		
Pham, T. T. L., Teng, C., Friesner, D., Li, K., Wu, W., Liao, Y., . . . Chu, T. (2019). The impact of mentor–mentee rapport on nurses' professional turnover intention: Perspectives of social capital theory and social cognitive career theory. *Journal of Clinical Nursing, 28*(13-14), 2669-2680. doi:10.1111/jocn.14858	The study aimed to identify the impact of mentor-mentee relationship rapport and RNs intent to leave the profession.	The study sample included (*n*=2,260) RNs working in 109 units in a large medical center in Taiwan.	A cross-sectional survey-based research design. Data was collected by using the social capital theory (SCT) scales.	The study results included mentees relating a positive rapport with willingness to be mentored and mentor's rapport was positively correlated with willingness to mentor. Rapport between mentee and mentor positively impacts the career interests and negatively impacts intent to leave profession.	Level 6	The study limitations included study design which is unlikely to verify causative relationships.
Schroyer, C. C., Zellers, R., & Abraham, S. (2020). Increasing registered nurse retention using mentors in critical care services. *The Health Care Manager*, *39*(2), 85-99. doi:10.1097/HCM.0000000000000293	The purpose of the study was to identify retention rates of RNs in a 325-community hospital after a mentor program was implemented.	(*n*=70) new graduate RNs were dived into two groups in a 325-bed hospital in Indiana. There were three specialty units included.	Quasi-experimental descriptive, quantitative study. The methods included comparing 2 groups of 35 new graduate nurses. 35 who	The results of the study included 66% (23/35) of the non-mentored group being retained and 91% (32/35) of the mentored group retained. However, policy changes related to	Level 6	Limitations included the focus of retrospective quantitative data. Possible positive policy changes made during the study time may have positively influenced retention.

			were assigned mentors and 35 who were not. 32 mentors were utilized for the study. Data was collected from new hire information and termination data from human resources.	floating of RNs to sister units were changed during the study and deemed to potentially have influenced the increased retention rate.		
Shermont, H., Pignataro, S., Moonan, M., Memmolo, S., & Murphy, J. M. (2019). Transitional mentor education program pilot: Preparing nurses to adapt to changing acute care settings. *Journal for Nurses in Professional Development, 35*(1), 32-38. doi:10.1097/NND.0000000000000508	Aim to increase confidence, decrease knowledge gap for new graduate nurses after orientation and build professional development through a transitional mentor program.	(*n*=20) Large academic, Magnet, tertiary pediatric hospital in the Northeast United States.	Descriptive study analyzing both formal and informal evaluation feedback from mentee and mentors over the course of a yearlong program.	42% of mentees reported increased self-confidence. 80% of mentee and mentor program participants found reflective practice beneficial. 85% of mentee/mentor program participants felt the program improved teamwork and relationships. Communication and collaboration were cited as improved by the program.	Level 5	Limitations were not identified.
Tiew, L. H., Koh, C. S. L., Creedy, D. K., & Tam, W. S. W. (2017). Graduate nurses' evaluation mentorship: Development of a new tool. *Nurse Education Today, 54*, 77-82. doi:10.1016/j.nedt.2017.04.016	Develop and test instrument to measure new nurses' perceptions of a formal mentor program.	(*n*=73) new graduate nurses in a second-year residency program in a metropolitan tertiary hospital.	Pre/post-test interventional design study. The 10-item National University Hospital Mentorship Evaluation (NUH ME) instrument was tested. Psychometric tests included reliability, stability, content	The NUH ME tool was found to be reliable. Mentor programs may be a useful tool for retention and recruitment.	Level 5	Limitations included a single study location and small *n*=73. Data collection was only derived from survey.

			validity, and factor analysis. Cronbach's alpha revealed internal reliability.			
Van Patten, R., & Bartone, A. S. (2019). The impact of mentorship, preceptors, and debriefing on the quality of program experiences. *Nurse Education in Practice, 35*(63-68). doi:10.1016/j.nepr.2019.01.007	Identify factors that positive NRP experiences, both direct and indirect.	(*N*=1078) convenience sample of graduate nurses completing the Versant nurse residency program (NRP) in various hospitals across the United States.	Quantitative cross-sectional survey design with secondary analysis. Two data collection instruments were utilized to extract survey data from an existing NRP database.	Results included identification of two independent variables: debriefing and preceptor experiences. Intercorrelations between debriefing and preceptorship were statistically significant. Reduced stress due to mentorship was noted by mentees. Positive correlation between NPR participation when mentorship and debriefing are included.	Level 5	Limitations included restriction of data specific to the Versant NRP curriculum.
Williams, F. S., Scott, E. S., Tyndall, D. E., & Swanson, M. (2018). New nurse graduate residency mentoring: A retrospective cross-sectional research study. *Nursing Economic, 36*(3), 121-127.	Examine the influence of two-types of intentional mentoring on new graduate nurse (NGN) transition and an exploration of turnover intentions to determine the return on investment mentoring offers an organization.	(*n*=3484) An examination of an existing Versant NRP database of NGNs between 2011-2014 from 102 hospitals in 24 hospital systems across 14 United States.	Retrospective cross-sectional research design study. Two evaluation surveys and a self-competency survey were gathered to collect NGN data within a 2-week window of formal NRP ending. A one-way analysis of variance was utilized to establish relationship between comfort in	No significant relationship between type of mentoring and comfort specific to staff nurse or turnover. Nurses who reported a high level of discomfort were significantly more likely to have intent to turnover. One-on-one mentoring was reported at a higher level of helping transition to practice, manage stress, and improve professional development.	Level 4	Limitations included data limited to Versant NRP database and curriculum.

			NGN role and proportion of nursing skills. Turnover intention was also surveyed within 2-week of NRP completion and at the 1-year anniversary of NGN program start. SPSS 24 was utilized for descriptive and inferential statistical analysis.			
Zhang, Y., Huang, X., Xu, S., Xu, C., Feng, X., & Jin, J. (2019). Can a one-on-one mentorship program reduce the turnover rate of new graduate nurses in china? A longitudinal study. *Nurse Education in Practice, 40*, 102616. doi:10.1016/j.nepr.2019.08.010	Assess effectiveness of one-to-one mentor program in reducing nurse turnover in China.	(*n*=199) control group & (*n*=239) experimental group of new graduate nurses in tertiary hospital in China. Two hospital campuses were observed.	Three-year longitudinal, non-randomized control study. PASS15.0 software was used to calculate sample size for turnover rates with a long-rank test. Cronbach's alpha of 0.05 was used. Assumed attrition of 1% was include for both control and experimental groups. SPSS 22.0 was	One-to-one mentoring is beneficial to reduce turnover rates of new graduate nurse sin the first year of practice. 66% control group compared to 14.64% of the experimental group left their positions within the first three years of practice.	Level 4	Limitations include generalization due to lack of randomized control study. The two samples were form different time periods which threatens the internal validity of the study.
Zhang, Y. Qian, J. Wu, F. Wen, Y. Zhang (2016). The effectiveness and implementation of mentoring program for newly graduated nurses: a systematic review. *Nurse Educ. Today (37)*, 136-144. https://doi-org.ezproxy.liberty.edu/1	The study aimed to evaluate effectiveness of a mentor program for the mentor, mentee, and organization.	The sample included a systematic review of nine eligible studies.	The methods for the systematic review included the Cochrane Library, Medline, Ovid, Embase, CINAHL,	There were nine potential studies identified. The methodological quality of eligible studies was ranked as a level B. Studies indicated turnover rates are	Level 5	Limitations included searches being limited to electronic databases and published articles only.

0.1016/j.nedt.2015.11.027			CMB, CNKL, and WanFang Data bases.	decreased when mentor programs are utilized. Mentoring also improves nursing competency.		

Appendix B

IRB Approval Documentation

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

November 24, 2020

Nancy Thompson
Cynthia Goodrich

Re: IRB Application - IRB-FY20-21-294 Mentor Programs as a Strategic Approach to Nurse Retention: Integrative Review

Dear Nancy Thompson and Cynthia Goodrich,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study does not classify as human subjects research. This means you may begin your research with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study is not considered human subjects research for the following reason:

(1) It will not involve the collection of identifiable, private information.

Please note that this decision only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix C

CITI Training Certificate

CITI PROGRAM

Completion Date 31-Aug-2020
Expiration Date 31-Aug-2023
Record ID 38125757

This is to certify that:

Nancy Thompson

Has completed the following CITI Program course:

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Biomedical Research - Basic/Refresher (Curriculum Group)
Biomedical & Health Science Researchers (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Liberty University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w74748282-ea1b-48cb-aa2b-eec7a329c4ad-38125757