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Impact of Nurse Residencies on a Graduate Nurse's First Year

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Impact of Nurse Residencies on a Graduate Nurse's First Year

Graduate nurses are the largest source of registered nurses available for recruitment in the nation, often facing difficult intellectual and psychological challenges as they adapt to their new careers (Welding, 2011). The first year for a new graduate nurse will lay the groundwork for the rest of their professional career. It is the responsibility of Nurse Leaders to ensure that the groundwork they build on is solid and one that will carry them forward for many years to come. One of the ways to achieve this foundation is by the type of orientation the nurse receives those first 12 months. For Graduate Nurses (P), how does completing a nurse residency or externship (I) compared to a one on one preceptorship on the nursing unit (C) affect the retention and competence (O) after the graduate nurses first 12 weeks on the unit?

Executive Summary

Nursing is the second greatest job growth of all US professions, yet some experts project that the shortage could reach close to half a million by the year 2025 (Zinn et al., 2012). Abandonment of the profession by newly licensed RNs and job turnover are a major source of cyclical, sustained nursing shortages (Kramer et al., 2012). Elevated turnover rates of nursing staff who are the primary caregivers in the health care system, affect and weaken the ability of patient care teams to ensure quality patient care outcomes (Zinn et al., 2012) As our population continues to age, especially with the Baby Boomer generation, the demand for RNs will continue to increase. Research estimates that it takes at least one year for a nurse to become proficient in a job, it is no longer acceptable for organizations to expect a new graduate to transition into practice without participating in a nurse residency program (Zinn et al., 2012). Nurse residency programs are specially designed to help new graduate nurses by giving them tools and access to the resources needed for success in their career.

Rationale

In less than two years an estimated 500,000 seasoned RNs are anticipated to retire in the U.S. With the ongoing COVID-19 pandemic, these numbers are only expected to increase. The Bureau of Labor Statistics projects 1.1 million new RNs will be needed for replacement of retirees and to avoid a nursing shortage (American Nurses Association). This staggering statistic has put a tremendous amount of strain on the already stressed nursing profession to train new nurses quickly. Maryniak, Markantes, and Murphy (2017) advise that graduate nurses require support to develop competency effectively and promote retention on their unit. A poor experience during that vital transition period can delay new nurses from reaching their full potential causing them to leave their first job in less than 12 months or the profession altogether (Edwards et al., 2015). The first few months of the graduate nurses transition from the educational environment to the professional role is a critical period of adjustment, unfortunately during this time it is estimated that more than 40% of newly licensed RNs quit, not only leaving their place of employment, but also the field of nursing (Medas et al., 2015). In the article from Goode et al. (2009), studies revealed that both new graduates and employers identified the need for development in organizing work and setting priorities, effectively communicating with physicians, team members, as well as patients and families; development of clinical leadership skills; learning to work in emergency situations and end-of-life care; and development of the technical skills required to provide safe, quality care to acutely ill patients. A Nurse Residency Program's curriculum is built and based off of these identified areas listed above.

Literature Synthesis

The Institute of Medicine released "The Future of Nursing" report in 2010 detailing eight recommendations to guide the profession with one of those initiatives being implementation of nurse residency programs (NRPs) to help transition graduate nurses into practice (Asber, 2019). NRPs are structured programs that incorporate didactic education, clinical support by a nurse preceptor, and

mentorship to help ease the new graduates' entry into the workforce (VanCamp & Chappy, 2017). They are planned to help the new graduate with goals of increasing patient safety, increasing clinical competency, improving job satisfaction, and reducing turnover (Williams et al., 2018). Many graduate nurses seek out employers who have a residency type of program to help acclimate them to their new role.

According to Wolford et al. (2019), 18.1% of newly licensed RNs left their first job within 13 months of hire and over a quarter NLRNs left their first nursing job within 25 months of starting. NRPs have been shown to increase retention of newly graduated nurses. In the review by Asber (2019), over 75% of the articles reviewed showed 1-year retention rates of 90-100%, indicating a less than 10% turnover rate after implementation. NRPs are key for successful transition into practice in which the new graduate nurse is engaged, satisfied, feels empowered, has a high level of organizational commitment, and is confident (Wildermuth, Weltin & Simmons, 2019).

Nursing Leaders and Executives estimate that as few as 10% of new nurses are fully prepared to enter the nursing workforce (VanCamp & Chappy, 2017). Current literature indicates that NRPs help ease new nurses into competent members of their profession by providing additional structure, training and guidance enabling new nurses to gain confidence and firmer clinical decision-making skills (Perron et al., 2019).

Overview of Change Project Process

Stakeholders

The most obvious stakeholder is the newly graduated nurse who is less than 12 months into their nursing career. In a qualitative graduate nurse analysis completed by Fink et al. (2008), graduate nurses experienced challenges during transition into practice, with fear, lack of confidence and concerns of harming patients through their first year of practice. Additional stakeholders who will be touched by this change project would be the nursing managers and nurses on the unit. There is an opportunity to

empower nurses on the unit to help with the NRP by acting as mentors and preceptors for the new graduate nurses. Nurses have an obligation to promote, lead and sustain evidence-based healthcare (Cullen et al., 2020). Permission will need to come from the Executive Leadership Team. The obvious gatekeepers would be the Chief Nursing officer as they have oversight of all nursing units. To ensure that a strong team leads this change, Nurse Managers from all nursing units will be included on change the team as well as Nursing Education, Quality, Nursing Informatics, and Coordinators for Stroke, Cardiac & Trauma, and nurses from the units.

Implementation

For the purposes of beginning this change project process the nursing unit with the greatest number of new graduate nurses and highest turnover rate would be chosen to pilot the nurse residency program. The data that would be required to show that change is needed would be the number of new graduates hired for all nursing units within the organization and the turnover rate and retention of all nursing units broken down by years of experience. There may be barriers to implementation because individuals often like to continue doing things the way they have always done them. Change makes some people uncomfortable. Shirey (2012) found that 75% of change initiatives fail, primarily because of a resistant organizational culture. By involving these people early in the process and getting their buy in, this will help to minimize and hopefully eliminate any roadblocks. Several resources are needed to enact this change. Staff who will be participating in helping with the NRP will need to receive training. There should be no need to hire any extra personnel to implement this program within the organization. There may be extra costs for supplies and software to help with the skills and simulation pieces of the NRP.

There would be four phases of implementation: creation of awareness and interest, building of knowledge and commitment, promoting action and adoption, and lastly pursuing integration and sustained use (Cullen & Adams, 2012). The initial three phases will each last two weeks. That will leave six weeks for the integration and sustainability of the program. Figure 1 shows example of flow chart.

Evaluation

In order to evaluate the effectiveness of the Nurse Residency Program, turnover rates of new graduate nurses would need to be reviewed as well as a skill competency for the individuals completing the program. Ideally, there would be a decrease in the turnover rate and an increase in the overall retention of graduate nurses on the unit and competent in skills. Another key for the evaluation piece would be the overall attitude towards the NRP program by the nurses who complete it. For that the Casey-Fink Graduate Nurse Experience Survey would be utilized. If for some reason an NRP was not able to be enacted within the organization, there are still some steps to take to ensure that the new graduate nurse is supported during their first months on the unit. One example would be to ensure that they have plenty of support from other nurses on the unit. Identify a nurse within the organization who is not on the new graduate's specific unit to meet with them monthly to just check on the graduate nurse's progress and mental health. Institute a bi-monthly lunch and learn for all nurses with less than one-year experience to come and learn some important topics related to nursing and also mingle with other peers who are facing same challenges and hurdles that they are.

EBP Change Model

The EBP Change Model chosen would be the Evidence-Based Advancing Research and Clinical Practice Through Close Collaboration Model: A Model for System-Wide Implementation and Sustainability of Evidence-Based Practice (Dang et al., 2019). The reason for this model is because it encompasses strategies for not only the individual change, but organizational change as well, which helps to increase the sustainability of the best practice. A change as big as an NRP requires a change in culture and the ARCC model helps with this by utilizing mentors. This model has been developed over the last two decades helping to advance and sustain EPB across the nation and globe (Dang et al., 2019)

Cost and Benefit

There is no doubt that an NRP is expensive and time consuming, but so is the high turnover rates of nurses. Wolford et al., (2019) estimates that the cost of an NRP for a new nurse is approximately \$97,777. This amount seems excessive for only one nurse, but the hospital will hit a break-even point for program cost if three NLRNs stay past 8.32 months of work in productive status. The turnover costs of a seasoned RN is also significant in not only terms of costs, but quality patient care. In a study by Price Waterhouse Coopers, it was estimated that every percentage point increase in nurse turnover costs an average hospital about \$300,000 annually (Ulrich et al., 2010). More important than decreasing turnovers costs is adding the value of the organizational impact of having an NRP (Ulrich et al., 2010).

As healthcare continues to forge ahead in these trying times of nursing shortages and global pandemic one must look at other ways to sustain funding for these beneficial NRP programs. It has been discussed that a residency program is essential for new graduates and efforts should be made to support accredited nurse residency programs. It is with this accreditation that the Centers for Medicare & Medicaid Services would be more inclined to step up to the plate and support these programs with pass through funds like they do for pharmacists, physicians, and pastoral-care residents (Goode et al., 2009). Another option for funding nurse residency programs could come from philanthropic organizations.

Results

Implementing an NRP contributes to strong retention at one year post hire and may contribute to improved institutional retention of residency program participants further in their career (Cline et al., 2017). This can translate into cost savings and a more robust nursing workforce within institutions with well-established residency programs (Cline et al, 2017). NRPs are designed and developed to increase retention rates and provide essential tools to ensure new graduate nurses are successful and productive. A study conducted by the University Health System Consortium (UHC) and the American

Association of Colleges of Nursing (AACN) indicated a 95.6% retention of new nurses involved an NRP (Welding, 2011).

The results of a 10-year long longitudinal study conducted by Ulrich et al. (2010), concluded that NRPs accelerate competence development and self-confidence. In addition to the increase in new graduate competencies, the study also found NRPs decrease the chance of preventable adverse events, therefore decreasing the hospital's exposure to decreased reimbursement and liability claims (Ulrich et al., 2010).

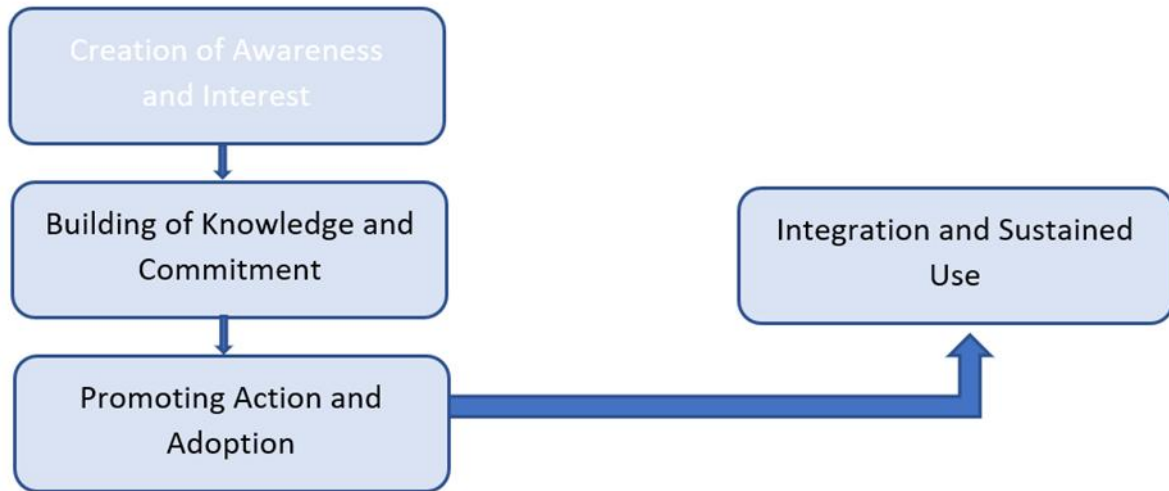
Recommendations

The Institute of Medicine published a report recommending the development and implementation of residency programs to support nurses' transition to practice (Cline et al., 2017). In that report several key policy actions were listed for a successful implementation. One of those being that State boards of nursing, along with accrediting bodies must support and advocate for nurses to complete a nurse residency program after graduation or when they are transitioning to a new clinical practice area (Zinn et al., 2012). In this time of significant nursing shortages, developing structured evidence-based new graduate nurse residency programs to provide sustained developmental support to nurses is crucial for retention and satisfaction of individuals new to the profession (Fink et al., 2008).

Conclusion

A report by the Health Care Advisory Board estimated that 42% of hospitals' new hires will be recent graduates (Goode et al., 2009). The precepting and hiring of this many inexperienced nurses is extremely taxing on hospital resources, and it is the responsibility of hospital leadership to ensure there is a sound plan so that care and patient safety are maintained with this huge number of novice nurses (Goode et al., 2009). Execution of a Nurse Residency Program will ensure that new graduate nurses stay in the organization, improve patient care outcomes, and help reduce the costs associated with hiring and training staff due to frequent turnover rates. This change is something that will change the whole

culture of the organization. Graduate nurses will be future leaders in practice, administration, education, and research so it is imperative that organizations ensure they are building on a strong foundation.

Figure 1**Flow Chart of Implementation**

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Appendix

PICOT Question: For Graduate Nurses (P), how does completing a nurse residency or externship (I) compared to a one on one preceptorship on nursing unit (C) affect the retention and competence (O) after the graduate nurses first 12 weeks on the unit?				
PICOT Question Type (Circle):	Intervention	Etiology	Diagnosis or Diagnostic Test	Prognosis/Prediction
Meaning				

References

- Asber, S. R. (2019). Retention outcomes on new graduate nurse residency programs. *The Journal of Nursing Administration*, 49(9), 430-435. doi: 10.1097/NNA.0000000000000780
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Citation: (i.e., author(s), date of publication, & title)	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied and Their Definitions	Measurement of Major Variables	Data Analysis	Study Findings	Strength of the Evidence (i.e., level of evidence + quality [study strengths and weaknesses])
Author, Year, Title	Theoretical basis for study Qualitative Tradition		Number, Characteristics of the sample (not inclusion/exclusion criteria), Attrition rate & why?	Independent variables (e.g., IV1 = IV2 =) Dependent variables (e.g., DV =)	What scales were used to measure the outcome variables (e.g., name of scale, author, reliability info [e.g., Cronbach alphas])	What methods were used to answer the clinical question (i.e., all stats do not need to be put into the table)	Statistical findings (i.e., for every statistical test you have in the data analysis column, you should have a finding) or qualitative findings (themes and subthemes)	<ul style="list-style-type: none"> Strengths and limitations of the study (Consider the validity of the study and/or flaws in the method not just what is stated as limitations) Risk of harm if study intervention or findings implemented Feasibility of use in your practice Remember: level of evidence (See Melnyk & Finout-Overholt handout) + quality of evidence = strength of evidence & confidence to act Use the USPSTF grading schema http://www.ahrq.gov/clinic/3rduspstf/ratings.htm
Williams, F., 2018, New nurse graduate residency mentoring: a retrospective cross-sectional research study	N/A	Retrospective cross-sectional research of secondary analysis Study Purpose: to examine the relative influence as one-to-one and group mentoring on transition to practice, professional development, comfort as a staff nurse and turnover intention (p.121)	Versant Nurse Residents from 2011-2014 From approx. 102 hospitals in 24 hospital systems across 14 states 84% female 71% white 43% BSN prepared 40% ADN prepared	IV1= Individuals receiving one-to-one mentoring IV2= individuals receiving group mentoring DV1= transition into practice DV2= professional development DV3= stress management DV4= comfort as a staff nurse DV5= turnover intention	Versant Evaluation of RN Residency, Versants Self-Competency and Self-Confidence <i>Reliability and validity of instruments were not addressed or included</i>	Chi-Square analysis, descriptive, correlational analyses, one-way analysis of variance Chi Square test of independence	Individuals receiving one-to-one mentoring rated the mentoring experience higher in helping transition to practice p<0.001, professional development p<0.001, and stress management p<0.001. Not significant results r/t type of mentoring, comfort, turnovers. Nurses with higher degree of discomfort more likely to leave Relationship between degree of comfort and	1. Strengths: - outcomes were measured with valid and reliable instruments - statistics were used appropriately to answer questions 2. Limitations: - no hypotheses stated - stronger research designs are needed to validate best practices in mentoring NGN 3. Risk of Harm: None. 4. Feasibility: Not feasible 5. Level of Evidence for PICOT question type: Level IV 6. Quality of Evidence: Fairly High USPSTF: Grade B Level of Certainty: Moderate

							turnover intention ($\chi^2(2)$ = 24.91, $p \leq 0.001$), with small effect size ($\Phi = 0.083$) Relationship between low frequency group and turnover intent was significant $\chi^2(1)$, $n=138$ = 3.85 $p < 0.05$	
Wildermuth, M., 2019, Transition experiences of nurses as students and new graduate nurses in a collaborative nurse residency program	Trans pheno qual approach	Trans pheno qual approach using Meleis' Transition Exp Theory as Theo Framework Study Purpose: To explore lived experiences of nurses during transition in collaborative nurse residency program (p.69)	-Small Midwestern College of Nursing and affiliated hosp -15 new grad nurses invited by letter -Inclu Criteria: participated in clin immer exp, in orientation on same unit -RN in practice for 1 yr and compl n -9 responded to invite -Sample in convien sampl e det by # of nurses willing to participate	-Trans pheno approach -Interviews of subjects 45-90m -Face to Face	Meleis' 5 essential properties of trans: -awareness -engagement -change & difference -time span -critical points and events	Data analysis: Transcriptions highlighted for significant statements, grouped into themes -Textual and structural descript developed a composite descript of the phenomenon	Feeling overwhelmed: felt they should know more Feeling supported: felt greatly supported by the preceptors Feelings Confident: having same preceptor contributed to confidence	1. Strengths: - results are plausible and believable -Participants quotes fit the findings of the study 2. Limitations: -small number on participants in study -ability to replicate 3. Risk of Harm: None. 4. Feasibility: Feasible 5. Level of Evidence for PICOT question type: Level VI 6. Quality of Evidence: Fairly High USPSTF: Grade B Level of Certainty: Moderate
Van Camp, J., 2017, The effectiveness of nurse residency programs on retention: a systematic review	N/A	Systemic review of literature Study Purpose: Examine new graduate NRPs, residents'	48 potential articles, included 22 in research Graduate Nurses Internships and Nurse Residency	IV= graduate nurses DV1= perceived satisfaction DV2= retention rate	Johns Hopkins Evidence Based Appraisal Tools	Perceptions of NRP Experiences Retention Rates	-Confidence and competence -Job and professional satisfaction -Engagement and organizational commitment	1.Strengths: -Relevant studies included in review 2. Limitations: -Lack of consistency in program design -Comparison measures not the same 3. Risk of harm: None. 4. Feasibility: Feasible 5. Level of evidence for the PICOT question type: Level I 6. Quality of the evidence: Fairly High

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		perceived satisfaction, and retention rates, and make recommendation for implementation (p. 129)					-Studies with 10 yrs of retention data -Studies with 3-5 yrs of retention data -Studies with 2 yrs of retention data -Studies with 1 yr of retention data	USPSTF: Grade B Level of Certainty: Moderate
Perron, T., 2019, Effectiveness of nurse residency programs	N/A	Review of current literature Study Purpose: Review of the current literature regarding the effectiveness of nurse residency programs on nurse retention and job satisfaction and the impact on the finances of healthcare organizations. (p. 49)	Job satisfaction and performance Increased retention Financial impact	IV= Nurse Residency Programs DV1= best practices DV2= benefits and impact of retention DV3= financial implication	Literature Review	Review	-Best Practices -Benefits and Impact on Retention -Financial Implications	1.Strengths: -Relevant studies included in review -Review of current literature 2. Limitations: -Limited sample size -Limited data available -No standard format or methodology to develop or evaluate NRP -Lack of true experimental research designs 3. Risk of harm: None. 4. Feasibility: Feasible 5. Level of evidence for the PICOT question type: Level VI 6. Quality of the evidence: High USPSTF: Grade C Level of Certainty: Moderate
Wolford, J., 2019, Establishing a nurse residency program to boost new graduate nurse retention	N/A	Retrospec pre-test, posttest design Study Purpose: to evaluate the effectiveness of an NRP on less-than-1-year RN turnover and work engagement and quantify	-791 NLRNs hired 2yrs before program began - 232 NLRNs who participated in NRP	DV: NLRNs hired 2yrs before NRP program IV: NLRNs who participated in 2yr NRP	UWES 17 ques survey Validity and reliability of the UWES have been studied mult times since it began in 1999	Measures vigor, dedication, and absorption, which are then combined to represent an overall engagement result Desc Statistics (means and SD) used to describe demographics Outcome variables compared using independent sample/tests Chi-square analysis was performed for turnover relationship All analysis was conducted using statistical software; an alpha level of 0.5	- Demographics: age range 22-59, avg 29.7; 81.7% female; 18.3% male; Exp: 16-32 months -Turnover: <1 yr turnover for control group 14%; rate for group in NRP 3.5%	1. Strengths - outcomes were measured with valid and reliable instruments -statistics were used appropriately to answer questions - results are plausible and believable 2. Limitations -Not all NLRNs participated in NRP -Data collected from only one organization -Sample size was small 3. Risk of harm: None. 4. Feasibility: Not Feasible 5. Level of evidence for the PICOT question type: Level VI 6. Quality of the evidence: Fairly High USPSTF: Grade B

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		the program's ROI				was used for statistical significance throughout the study	-Engagement: overall UWES score 3.97 -ROI: Replacement cost on an NLRN \$44,085.61; cost of NRP \$97,777	Level of Certainty: Moderate
Absher, S., 2019, Retention outcome of new graduate nurse residency programs	N/A	Integrative literature review Systemic Review & Meta-analyses Study Purpose: to examine the effects that NRPs have on retention of new graduates	271 articles identified; only 16 included in review Included all peer-reviewed research studies from 2010-2016 that reported outcomes of NGRN residency programs R/T turnover and retention	Effect of NRPs on retention of new graduates	Creation of a matrix for data extraction Hawker and colleague's quality appraisal tool used to evaluate articles	-Retention rates -Length of program -Structure of program -Additional findings involving predictors of commitment	-Retention rates calculated for NGRN after 1yr in NRP; 1yr retention higher than national avg -Length of program varied from 12 weeks to 1 yr -3 types of NRP programs were reviewed -9 of the studies researched predictors of organizational commitment	1. Strengths - Relevant studies included in review -statistics were used appropriately to answer questions - results are plausible and believable 2. Limitations -Median point of data collected during recession -Sample size from hospital setting, unable to be generalizable to all practice settings 3. Risk of harm: None. 4. Feasibility: Not Feasible 5. Level of evidence for the PICOT question type: Level V 6. Quality of the evidence: High USPSTF: Grade B Level of Certainty: Moderate

Abbreviations Key:

QT	Quantitative Study
IV	Independent Variable
DV	Dependent Variable
FAME Scale	Feasibility, appropriateness, meaningfulness, and effectiveness
Lv	Level
Incl	Inclusion
Exclu	Exclusion
Ind	Independently
Appro	Appropriate
Trans	Transcendental
Pheno	Phenomenological
Qual	Qualitative
Exp	Experience
Theo	Theoretical
Hosp	Hospital
Clin	Clinical
Immer	Immersion
Comp	Complete
Convien	Convenience
Det	Determined
Descript	Description
Strat	Strategies
R/T	Related to
Retrospec	Retrospective
ROI	Return on Investment
NLRN	Newly Licensed Registered Nurse
UWES	Utrecht Work Engagement Scale
NRP	Nurse Residency Program
NGRN	New Graduate Registered Nurse