

Impact of Nurse Residency Programs on Retention and Job Satisfaction: An Integrative Review

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Abstract

Objects: Retention of new nurses is vital within the context of the nursing shortage Canada is currently facing. Nurse residency programs (NRP) need to be explored to better understand their role in combating the nursing shortage. The aim of this study is to explore current nurse residency programs and their impacts on retention and job satisfaction with the aim to inform development of similar programs in Canada. **Methods:** The study utilized Whittemore and Knafli's integrative review methodology to review current literature on nurse residency programs in The United States of America with focuses on retention rates, job satisfaction and intent to leave. Overall, this article drew on seven distinct research studies. **Findings:** The literature review found that Nurse Residency Programs (NRP) can improve retention rates however, this may be due to contracts signed upon beginning of NRP. Job satisfaction for newly licensed registered nurses (NLRNs) participating in NRP also showed improvements but their impact on reducing turnover intention is unclear and needs further study. **Conclusion:** The impact of nurse residency programs on retention and job satisfaction has some positive effects, but the strength of this relationship remains unclear and would benefit from further research.

Keywords: Nurse, New graduate, Nurse residency programs, retention, job satisfaction

Introduction

This paper provides an up-to-date integrative literature review on the impact of Nurse Residency Programs (NRP) on newly licensed registered nurses (NLRN) retention rates. It draws themes from recent literature reviews and provides recommendations regarding how these themes may be valuable when applied to the Canadian hospital healthcare system; within the context of the recent announcement of a first of its kind NRP by the Canadian Association of Schools of Nursing (CASN).

Background & Context

The Canadian healthcare system is facing significant challenges and the profession of nursing has been under extreme strain. Currently, in Canada, there is a critical shortage of nurses, due in part to the retirement of late-career nurses, with one in ten nurses over the age of 55 (Canadian Institute of Health Information, 2020). The COVID-19 pandemic has played a significant role in contributing to the Canadian nursing shortage. Due to the COVID-19 pandemic, 92 percent of nurses reported feeling more stressed at work, and 83 percent of nurses reported increased workloads (Statistics Canada, 2022). These impacts on nurses have resulted in a significant nursing shortage with a reportedly 115 percent increase in nursing vacancies over a two-year period (Statistics Canada, 2022). At the end of 2021, one in four Canadian nurses reported that they planned to leave or change jobs within the next three years, with job stress or burnout being the most common reason for healthcare workers to leave a position (Statistics Canada, 2022).

New graduate nurses (NGNs) are at particular risk of leaving the profession with over three-quarters of NGNs labeling their work stress as high (Parker et al., 2014). In 2023, close to a third of newly hired registered nurses left within a year of their hire date (NSI Nursing Statistics, 2023). NGNs require organizational, environmental, and personal support when transitioning to practice environments to ensure they remain a part of the healthcare workforce. One strategy is to implement NRPs that help newly licensed nurses get support and training and acclimatize to workplace demands (Rush et al., 2013).

NRPs have a long history in the United States and recommendations for their development were made in 2002, with the goal of improving delivery and quality of care (Friday, et al., 2015). NRPs have shown to decrease voluntary turnover in hospital settings and have been shown to decrease burnout and stress (Warren et al., 2018), while increasing job satisfaction and decreasing stress amongst newly licensed registered nurses (NLRN) (Walsh,

2018). They also improve cost savings, critical thinking and leadership skills (AL-Dossary et al., 2014). The literature demonstrates that when NRPs focus on communication, organization, stress management and critical thinking, job satisfaction and NLRN retention may improve (Walsh, 2018). NRPs contribute to positive transitions for NLRNs which translates to benefits for the employer and the patients (Chochran, 2017).

In the Spring of 2023, the CASN announced the introduction of a competency-based residency program for registered nurses (RNs). This program was launched with the intent to assist with nursing shortages in the Canadian hospital sector, due to harsh working conditions exacerbated by the COVID-19 pandemic and the increasing demands faced by NLRN's (CASN, 2023). CASN's plans to implement a 6-month NRP including five days of hospital led orientation followed by 11 weeks of formal preceptorship for NLRNs, followed by 3 months of as needed support for NLRNs with virtual workshops provided by CASN throughout (CASN, 2023). This program is supported financially through the Canadian government and would be the first of its kind in Canada. It is with this in mind that we aim to better understand how participation in NRP impacts retention and job satisfaction in NLRN's and ensure the nuances of the Canadian healthcare system are considered in addressing the current nursing shortage in Canada.

Method

In designing a search strategy, Whittemore and Knafl's (2005) integrative review methodology was utilized. This methodology was chosen to guide the research for its ability to build nursing science, inform practice through research and have applicability to practice, which aligned with the goal of the research team (Whittemore & Knafl, 2005).

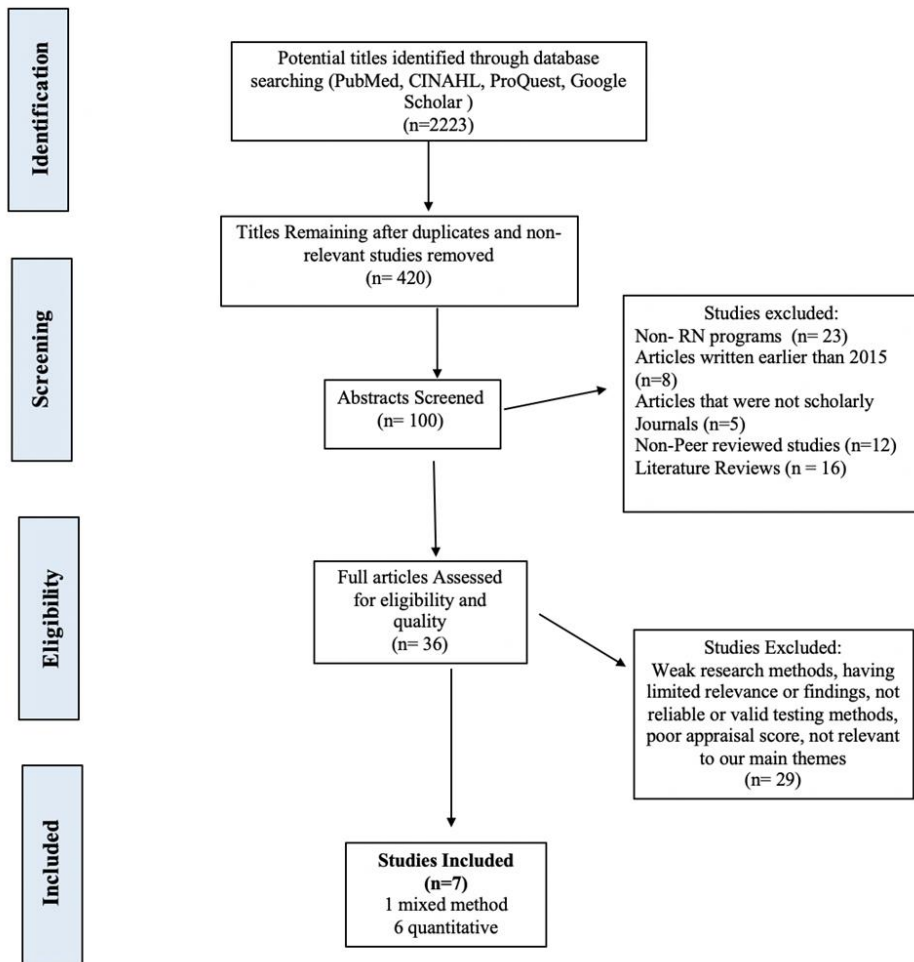
Once the research question was formulated, a search of databases was completed. The literature was identified using four databases: (1) PubMed, (2) Cumulative Index of Nursing and Allied Health Literature (CINAHL), (3) ProQuest and (4) Google Scholar. The search was performed in May of 2023 to find research relevant to NRP and retention. Boolean operators and search terms were used with key search terms used being "nurs* residency" AND retention OR turnover. Other limiters included peer reviewed journals in the English language.

Inclusion criteria included peer reviewed journals from 2015-2023 that reported outcomes of NLRN residency programs six-months to one year in length, with outcomes related specifically to retention rates after one to three years of practice. Articles from The United States of America were included to gather evidence from similar healthcare systems. Exclusion criteria included non-novice RN residency programs, including licensed practical nurse (LPN), registered practical nurse (RPN) or nurse practitioner (NP)

residency programs. Systematic and other literature reviews were also excluded. A total of 12 articles were included in this review with 7 articles being included in the findings section due to exclusion and inclusion criteria (Table 1).

A data extraction matrix was used as a method to organize and review data. The Hawker et al. (2002) quality appraisal tool was used to evaluate the quality of literature and minimize bias. The tool evaluates each article based on nine categories and provides a score between nine and 36. Each category rates elements of the literature on a scale of good, fair, poor and very poor and a score of 4 (good) to 1 (very poor) is assigned, and the scores are tabulated to determine article quality. It was determined that a score of less than 18 would determine that the article was of poor quality and was subsequently omitted from the literature review. No articles were eliminated. A more in-depth look at the search strategy can be observed in Figure 1.

Figure 1: PRISMA Diagram



Note. This figure demonstrates the search criteria utilized for this integrative review.

Table 1: Findings of the Literature Review

<u>Authors, Date, Title, Journal</u>	<u>Category</u>	<u>Aim/ Purpose</u>	<u>Design</u>	<u>Instruments, Reliability & Validity, Data Collection Methods</u>	<u>Sample, Sample Size and How Selected</u>	<u>Findings</u>	<u>Limitations</u>	<u>QOE (n=36)</u>
Church, He & Yarbrough, 2018. Factors Influencing Organizational Commitment and Turnover in Nurse Residents. The Journal of Continuing Education in Nursing	Turnover & Job satisfaction	Determine the effect of autonomy, competence, group cohesion, structural empowerment and job satisfaction on organizational commitment, IOT and actual job turnover in NRP.	Retrospective Correlational approach.	Previous data from Versants Centre. SPSS analysis Path Model WLS estimator.	1498 NLRN from 2011 Versants study.	Turnover at 1 year 2.0 out of 6. At 2 years, 91.7% remained employed, 8.3% resigned from the organization.	Secondary data being used with predetermined definitions and instruments. Generalizability only to nurses in the Versant NRP.	29
Friday, Zoller, Hollerbach, Jones & Knofczynski, 2015. The effects of a prelicensure extern program and nurse residency program on new graduate outcomes and retention. Journal for nurses in professional development	Retention & Job satisfaction	To investigate the effects of prelicensure extern program and NRP on NLRN and organizational outcomes.	Longitudinal Quantitative study.	CFGNE Survey. Cronbach alpha of .89. MANOVA	Convenience sample of NLRN in a teaching hospital and level 1 trauma center in southeast USA. 46 participants.	1-year retention of 96% and 2-year of 91%. The 30-month retention dropped to 68%. Extern group had higher job satisfaction, although not statistically significant.	Small sample size; lack of generalizability. The convenience sample does not represent nurses at larger institutions.	29

Hernandez, S. H. A., Francis, M. A., & Winn, D. (2020). Employment and Retention of Nurses Who Completed an Internship and Residency Program. Journal of continuing education in nursing	Retention	To evaluate the effectiveness of NRP in increasing retention and hiring of NLRN.	Retrospective	Academic records and employment records Chi-Square test	472 former nurses who graduated from University of New Mexico College of Nursing.	84.4% (341) remained employed at 1-year and 43.3% (88) remained employed at 5-years.	Does not identify causes of retention, lack of generalizability due to only studying in universities graduates.	30
Miller, C. M., Meyer, K., Riemann, L. A., & Carter, B. T. (2023). Transition into Practice: Outcomes of a Nurse Residency Program. The Journal of Continuing Education in Nursing	Retention, Turnover & Job satisfaction	Determine whether those in NRP transitioned into practice more successfully when compared to traditional orientation programs.	Prospective, longitudinal quasi-experimental	Casey-Fink Readiness for Practice Survey Nurse retention & job satisfaction surveys Group differences tested with the Pearson X2 and t test.	106 NLRN split between the control and intervention group (77 in the intervention and 29 in the control).	2-point increase in satisfaction for those in the NRP and a 27 decrease for the control group. An average retention rate of 85.7% at 1-year and 79.7% at 2-years. An average turnover rate of 14.27% of those in the NRP.	Lack of blinding causes potential bias. Sample size and control group became less powered overtime and by 2019 all members were a part of the NRP.	32
Salmond, S. W., Cadmus, E., Black, K. K., Bohnczyk, N., & Hassler, L. (2017). Long-Term Care Nurse Residency Program: Evaluation of New	Job satisfaction	To determine the effects on NLRN confidence, competence, retention, satisfaction & perceptions of	Pretest, posttest, mixed methods.	CFGNE survey. GIAP survey Job satisfaction survey Focus groups NHSPSC	37 NLRN through convenience sampling in LTCH in New Jersey.	9% decrease in job satisfaction in those in the NRP, but a 6% increase for workload satisfaction and 5% increase for	Participants lack experience completing surveys and facilities not accustomed to collecting data. Lack of generalizability due to different	30

Nurse Experiences and Lessons Learned, The Journal of Continuing Education in Nursing		organizational safety.		Descriptive statistics used with a 5% being statistically significant.		training satisfaction.	measurement tools and no additional studies on NRP for NLRN in LTCH.	
Shinners, Africa, Mallory & Durham (2021). Versant Nurse Residency Program. Nursing Economics	Turnover	Determine what factors have the greatest impact on IOT in NLRN who participated in a NRP.	Longitudinal; Retrospective Review	Single question survey Likert scale from 2015	6700 responses from nurses who participated in the Versants NRP between 2009 - 2019	Cumulative turnover rate for the NRP is 9% at 12 months, 21% at 24 months, 24% at 36 months, 40% at 48 months, and 48% at 60 months.	Did not account for employment contracts.	19
Wolford, Hampton, Tharp-Barrier & Gross, 2019. Establishing a nurse residency program to boost new graduate nurse retention. Nursing Management	Turnover	To determine the effectiveness of a NRP on less than 1-year RN turnover and work engagement and quantify the program's ROI.	Retrospective	Utrecht Work Engagement Scale Newly Licensed Nurse Turnover/Replacement Cost Worksheet Chi-Square analysis	791 NLRN in standardized orientation and 232 NLRN that took part in the NRP	The 1-year turnover for the control group is 14% and the NRP was 3.5%.	Limited generalizability due to lack of sample group tested.	27

NLRN = Newly licensed registered nurse, NRP = Nurse residency program, WLS = weighted least squares, CFGNE = Casey-Fink graduate nurse experience, IOT = intent of turnover, RN = registered nurse, ROI = return of investment, MANOVA = Multivariate analysis of variance, LTCH = Long-term care homes, GIAP = Geriatric Institutional Assessment Profile, NHSPSC = The Nursing Home Survey on Patient Safety Culture, QOE = Quality of Evidence

Findings

Retention Rates

Retention of NLRN was the primary focus of many of these studies, however only three of the studies used a measurable item to determine if the NRP improves retention. Miller et al, (2023), utilized the Casey-Fink Nurse Retention Survey to measure the level of retention between a control group and intervention group. The Casey-Fink Retention Survey consists of 70 questions aimed to understand the factors influencing nurse retention. The scale's Cronbach's alpha is 0.92 and reliability values for the four subscales range from 0.77 to 0.94 (Miller et al., 2023). In this study, this survey was administered at six and 12 months (Miller et al., 2023). The retention rates of the intervention group [those in the NRP] were 77.27% for 2016, 90.20% for 2017 and 89.71% for the 2018 cohort. Retrospectively the two-year retention rates were 68.18%, 84.13% and 86.76%. Ultimately, there was an increase in retention at both three and 12 months for the intervention group and a decline of retention rates in the control group.

Friday et al. (2015), utilized a longitudinal quantitative study with repeated measures at three, six and 12 months. The quantitative method of study used was the Casey-Fink Graduate Nurse Survey. This study measures the benefits of both a pre-licensure extern program and a NRP on retention. The total Casey-Fink score has a Cronbach's alpha of .89. A convenience sample was used to find 60 NLRN to participate in the NRP and this study was conducted in the southeast United States. At the end of the study only 46 participants remained. Retention was measured 18-months after the NLRN had completed the NRP by requesting current employment status from the hospital's Human Resources (HR) department. The retention rates for those who participated in the NRP were 96% at one year and 91% at two years (Friday et al., 2015). Although these are high, this study reported a significant decrease to 68% retention at the 30-month mark (Friday et al., 2015).

Similarly, Hernandez et al., (2020) measured the benefits of a pre-licensure extern program and a NRP. This study compared one-year retention rates to the five-year retention rates and went further to assess if age, gender and ethnicity/race impacted the retention rates. The Chi-square test was used to assess for significant differences in one-year and five-year retention rates based on the previously mentioned demographics. A *p* value of 0.05 or less was considered statistically significant. After one year 84.4% (341) of participants that were former externs and participated in the NRP continued their employment. For the five-year retention period only 203 RNs could have been employed due to the length of this study; thus, at five years 43.3% (88) remained at their current employment. There were no significant differences in the one-year and five-year employment based on age and race/ethnicity.

However, at the five-year mark there was a statistically significant higher percentage of males still employed ($p= 0.023$).

Job Satisfaction

Job satisfaction was a measurable item within four of the studies included in this literature review (Miller et al., 2023; Salmond et al., 2017; Friday et al., 2015; Church et al., 2018). The Nurse Job Satisfaction Survey, a 32 question 8 sub scale survey with Likert type responses was used by three researchers to determine NLRN job satisfaction (Miller et al., 2023; Salmond et al., 2017; Church et al., 2018; Hinshaw & Atwood, 1983).

Miller et al., (2023) measured job satisfaction at 3, 6 and 12 months and found that NLRNs who participated in an NRP had a 2-point increase between three and 12 months where the control group, who participated in a standard orientation, had a 27-point decrease in job satisfaction over the study period. The same study noted that job satisfaction was significantly higher for those NLRN's who participated in the NRP at 6 and 12 months than the control group (Miller et al., 2023).

Church et al., (2018), noted that at the end of the 24-week NRP, participants reported high levels of job satisfaction. This study demonstrated the value of group cohesion that NRPs can provide as there were moderate relationships noted amongst job satisfaction, structural empowerment and group cohesion, all of which contribute to the NLRN's positive perception of their workplace and their satisfaction with their job (Church et al., 2018).

Friday et al., (2015) utilized the Casey Fink Graduate Nurse Experience Survey (CFGNES) to ascertain job satisfaction amongst a group of NLRNs who completed an NRP alone versus a licensed extern program followed by NRP. The survey was administered at the beginning, 3, 6 and 12 months of employment. A prelicensure extern program was not found to have a significant impact on job satisfaction when compared to the stand alone NRP group and showed no statistical significance ($p < .05$) although job satisfaction rates remained high amongst both groups (Friday et al., 2015),.

Interestingly, Salmond et al. (2017) found that overall job satisfaction with those who participated in an NRP group at a long-term care facility had decreased in overall job satisfaction, by 9 percent, yet scores for workload satisfaction and satisfaction with training saw small increases, 6% and 5% respectively.

Turnover/ Intent to Stay

Four articles reported turnover rates amongst NLRN that were a part of the NRP. Two of these studies calculated turnover rates by dividing the number of nurses who left the organization by the total number of nurses used in the study (Miller et al., 2023; Wolford et al., 2019).

Wolford et al. (2019), used a pre and posttest design following NLRN in five hospitals across the southern region of the United States of America. The sample control group included 791 NLRN hired before the initiation of the NRP and the intervention group included 232 NLRN that took part in the NRP. Chi-square analysis was performed to identify the turnover relationship and an alpha level of 0.05 was used for statistical significance. The turnover for the control group at 1 year was 14% in comparison the intervention group had a turnover of 3.5%. Using the Chi-Square test $\chi^2(N = 68) = 19.55, P < .001$, a significant decrease in turnover was identified for those who participated in the NRP.

Similarly, Miller et al. (2023), used a pre and posttest design following NLRN in the northwest region of the United States of America over a three-year period. The sample intervention group consisted of nurses in the NRP and the control group was NLRN that were receiving traditional orientation. Nurse turnover was defined as the number of nurses who left the organization during that time period and was calculated by dividing the number of nurses who stayed at the organization during the study program divided by the number of nurses hired during the study period. Each year of cohort turnover was calculated but did not differentiate between the control and intervention group. Turnover for the first year of cohorts was 22.73%, 9.8% for the second year and 10.29% for the third cohort.

Church et al., (2018) utilized data from Versant Center for the Advancement (Vcan) of Nursing which is a non-profit organization that manages the collection and storage of survey data on nurse residency participants enrolled in Vcan. The data collected from 2011 included 1498 nurses and to measure turnover the single item scale was “Do you plan to leave this facility in the next year?” (Church et al., 2018, p. 485). Turnover intent (TOI) at one year was low indicated by a mean score of two of six and actual turnover was also low indicated by a mean score of 1.08 of six. It was determined that there was a nonsignificant correlation between turnover intention and actual job turnover.

Similarly, Shinnars et al., (2021) conducted a longitudinal study including 25,000 NGN from 1999 to 2020 who completed the one-year Versant NRP. Versant’s program measured turnover intent at the time of program completion, month eight and annually up to five years. Until 2015, this study measured turnover by asking a single item question, “Do you plan to leave this facility within the next year” (Shinnars et al., 2021). After 2015, this was changed based on feedback and now utilizes a five-point Likert scale. For the purpose of measuring turnover, 6700 responses were utilized. This study indicated a cumulative turnover rate of the NRP at 12 months, 24 months, 36 months, 48 months and 60 months. The turnover rate was 9%, 21%, 24%, 40% and 48% retrospectively. However, these findings did not

account for possible employment contracts of 2-3 years of commitment post completion of the NRP. In the organizations that do not implement employment contracts Shinner (2021), found that the turnover is 22% at two years, whereas institutions that require employment contracts have a turnover of only 14% at the two-year mark.

Discussion Retention

Friday et al. (2015) indicated a significant drop in retention rates at 30-months. This study did not indicate any reason for the sudden decrease in nurses, but this can be linked to the employment contract lengths. Furthermore, this study had monthly educational sessions for those participants in the NRP where data collection was scheduled; however, not all participants attended these meetings which resulted in the loss of complete sampling and thus lowering the total number of participants in the study. This study's small sample size greatly reduces the generalizability. Miller et al. (2023) study findings contradict what Friday et al. (2023), discovered with only noting a small decrease in retention rates at the two-year mark. The findings of Hernandez et al. (2020) are more congruent with Fridays et al., (2023), of showing a significant decrease in retention rates at the five-year mark. Similar findings indicate that there is an associated positive relationship between participation in a NRP and increased retention rates of NLRN. Although these three studies have the same findings of high retention rates at the one-year mark and significant decreases at the end of their study period, it is hard to directly compare the results. The drastic difference in study period (2 years to 5 years), does not allow for clear understanding of when the majority of nurses left the workplace. Furthermore, some of these programs require the NLRN to sign an employment agreement which may also alter the findings of these studies.

Job Satisfaction

The link between job satisfaction and nurse retention, particularly amongst NLRN's cannot be overlooked. High turnover and low retention rates can impact staff morale and affect job satisfaction, resulting in more turnover and a cyclical pattern of challenges retaining staff (Salmond et al., 2017). There were clear links between the impact of NRP's on job satisfaction, and the poor ratings of job satisfaction by non-NRP prepared NLRNs (Miller et al., 2023; Friday et al., 2018), with NRPs also demonstrating value to NLRN's experiences related to group cohesion and structural empowerment (Church et al., 2018). Both group cohesion and structural empowerment are linked to organizational commitment which is an important consideration when considering strategies to improve retention rates amongst NLRN's (Church et

al., 2018). Friday et al. (2015) compared job satisfaction amongst nursing students who completed a pre-licensure extern program followed by NRP versus NLRN's completing an NRP only. Job satisfaction was not statistically significant indicating funds utilized for prelicensure extern programs could in fact be redirected to improve postgraduate NRP to impact long term retention rates of NLRNs. Contrastingly, Salmond et al., (2017) found a decrease in overall job satisfaction over time, but small increases in workload and training satisfaction for NLRNs who participated in an NRP. NLRNs in this study indicated the NRP improved patient care skills and nurse competencies. Overall, this study demonstrated numerous positive impacts of participation in an NRP, but, the long-term care setting in which the NRP took place may be responsible for the decrease in overall job satisfaction during the course of the NRP (Salmond et al., 2017).

Turnover

The findings in the four studies are conflicting whether NRP has a positive effect on turnover of staff. Only one study used a reliable control and intervention group to determine the effect on turnover (Wolford et al., 2019). This study identified that the group of NLRN who participated in the NRP had a significantly lower turnover percentage than the control group (Wolford et al., 2019). Findings from Miller et al. (2023) cannot be considered reliable when assessing the impact of NRP on turnover, due to not having a standardized intervention group. The percentages of turnover are based on all the participating NLRN, and not specific to just those nurses who participated in the NRP. Although not all the data is reliable, it does indicate that those who participate in NRP programs are less likely to leave their place of employment. Shinnars et al., (2021), mentioned that some institutions require NLRN who completed the NRP to sign a contract agreeing to employment for a set number of years [typically two to three years]. This employment contract can skew the data indicating a lower level of turnover rates for said institutions. It is hard to interpret if the improved turnover rates amongst those participating in NRP is impacted by employment contracts. Many articles aim to find the correlation between nurse residency programs and their effect on retention rates of new grad nurses (NGN). However, very little examines them from a quantitative perspective using a control and intervention group. This lack of quantitative studies impacts the ability to accurately determine what if any impacts these programs have.

Recommendations

Implementation of a quality NRP may result in increased retention, decreased turnover and improved job satisfaction for NLRN's. With the lack of accurate measurements surrounding intent to leave the workplace, there is

opportunity for new research. It is evident that intent to leave (ITL) the workplace is closely related to actual turnover of nurses, however very few studies have accurately identified the correlation and contributing factors to ITL. Miller et al., (2023) identified a positive correlation between NRP and reduced turnover, however without an intervention group these findings lack validity. Future research should be aimed at identifying if there is a correlation between NRP and reduced turnover rates by using a standardized control and intervention group. Shinnars et al., (2021) also found similar results that NRP reduces turnover rates, however, this study did not exclude nurses that signed an employment contract on completion of the NRP. Further research should focus on measuring retention rates in an accurate and consistent manner and not include institutions that require NLRN to sign employment contracts on completion of their NRP.

Questions remain about how effective the newly announced NRP from CASN, and although it is encouraging to see a government funded NRP implemented in Canada, questions remain on whether this program will be able to move the needle on Canada's critical nursing shortage. The literature review demonstrated that NRPs that were successful in improving retention rates had minimum 12-month NRPs (Miller et al., 2023; Friday et al., 2015; Church et al., 2018; Shinnars et al., 2021) but longitudinal research would be valuable to understand the turnover intention and retention rates of graduates after completing the significantly shorter program put forth by CASN. Moreover, the CASN NRP program only offers 15 - 20 employers to be reimbursed for costs, resulting in the remaining employers having to cover the fees to participate (CASN, 2023). This approach may not provide an equitable strategy to manage the widespread critical nursing shortage and may leave some hospitals already in dire financial situations at risk of falling further behind with staffing shortages. The NRP program put forth by CASN does not follow recommended guidelines for NRP implementation and requires employers to cover enrollment costs, which begs the question of whether this program will be effective in meeting its goal to truly impact the nursing shortage faced by the Canadian hospital system. More research will be needed to understand the impact of this program over time related to its length, curriculum and retention and turnover intention rates.

Conclusion

This literature review highlighted evidence that NRP can have a positive impact on retention rates and job satisfaction of NLRN's. Literature focused on the impact of NRP on turnover intention was less clear, and more formal research methods should be used to assess turnover intention after participation in NRP in future research. As for the Canadian landscape and current nursing shortage, it is unlikely that the NRP put forth by CASN will

have the broadly sweeping impact that is necessary to positively impact NLRN retention. The program itself does not meet established guidelines of length, or focus on clinical specialty areas and is only available at a free cost to a limited number of healthcare institutions, and based on our review, most successful programs which impact NLRN retention are at minimum 12 months in length, and improve job satisfaction by increasing group cohesion and structural empowerment. The data generated from the implementation of Canada's first nationwide NRP will be interesting to evaluate, and longitudinal comparative research regarding turnover and retention who participate in this program versus those who do not may be the building blocks for a better understanding of the future of NRP in Canada.

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References:

1. AL-Dossary, R., Kitsantas, P., & Maddox, P. (2014). The impact of residency programs on new nurse graduates' clinical decision-making and leadership skills: A systematic review. *Nurse Education Today*, 34(6), 1024–1028. <https://doi.org/10.1016/j.nedt.2013.10.006>
2. Cadmus, E., & Roberts, M. L. (2022). First year outcomes: Program evaluation of a statewide nurse residency program. *The Journal of nursing administration*, 52(12), 672–678. <https://doi-org.librweb.laurentian.ca/10.1097/NNA.0000000000001230>
3. Canadian Institute for Health Information. Health workforce in Canada: In focus (including nurses and physicians).
4. Canadian Association of Schools of Nursing. (2023). *Residency program*. <http://cnei-icie.casn.ca/our-programs/residency-program/>
5. Church, C. D., He, Z., & Yarbrough, S. (2018). Factors influencing organizational commitment and turnover in nurse residents. *The Journal of Continuing Education in Nursing*, 49(10), 482–488. <https://doi.org/10.3928/00220124-20180918-09>
6. Friday, L., Zoller, J. S., Hollerbach, A. D., Jones, K., & Knofczynski, G. (2015). The effects of a prelicensure extern program and nurse residency program on new graduate outcomes and retention. *Journal for nurses in professional development*, 31(3), 151–157. <https://doi-org.librweb.laurentian.ca/10.1097/NND.0000000000000158>
7. Hawker, S., Payne, S., Kerr, C., Hardey, M., & Powell, J. (2002). Appraising the evidence: Reviewing disparate data systematically.

- Qualitative Health Research.*, 12(9), 1284–1299.
<https://doi.org/10.1177/1049732302238251>
8. Hernandez, S. H. A., Francis, M. A., & Winn, D. (2020). Employment and retention of nurses who completed an internship and residency program. *Journal of continuing education in nursing*, 51(11), 504–508. <https://doi-org.libweb.laurentian.ca/10.3928/00220124-20201014-06>
 9. Miller, C. M., Meyer, K., Riemann, L. A., & Carter, B. T. (2023). Transition into practice: Outcomes of a nurse residency program. *The Journal of Continuing Education in Nursing*, 54(1), 32–39. <https://doi-org.libweb.laurentian.ca/10.3928/00220124-20221207-08>
 10. NSI Nursing Solutions Inc. (2023). *2023 NSI National health care retention & RN staffing report*. https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf
 11. Parker, V., Giles, M., Lantry, G., & McMillan, M. (2014). New graduate nurses' experiences in their first year of practice. *Nurse Education Today*, 34(1), 150–156. <https://doi.org/10.1016/j.nedt.2012.07.003>
 12. Pillai, S., Manister, N. N., Coppolo, M. T., Ducey, M. S., & McManus-Penzero, J. (2018). Evaluation of a nurse residency program. *Journal for nurses in professional development*, 34(6), E23–E28. <https://doi-org.libweb.laurentian.ca/10.1097/NND.0000000000000499>
 13. Rush, K. L., Adamack, M., Gordon, J., Lilly, M., & Janke, R. (2013). Best practices of formal new graduate nurse transition programs: An integrative review. *International Journal of Nursing Studies*, 50(3), 345–356. <https://doi.org/10.1016/j.ijnurstu.2012.06.009>
 14. Salmond, S. W., Cadmus, E., Black, K. K., Boharczyk, N., & Hassler, L. (2017). Long-term care nurse residency program: Evaluation of new nurse experiences and lessons learned. *The Journal of Continuing Education in Nursing*, 48(10), 474–484. <https://doi-org.libweb.laurentian.ca/10.3928/00220124-20170918-09>
 15. Shinnars, J. (2021). Versant's nurse residency program: A retrospective review. *Nursing Economics.*, 39(5), 239–246. https://www.researchgate.net/profile/Larissa-Africa/publication/355470923_Versant_Nurse_Residency_A_Retrospective_Review_Nsg_Econ_Sept_Oct_2021/links/61e99f589a753545e2e515fb/Versant-Nurse-Residency-A-Retrospective-Review-Nsg-Econ-Sept-Oct-2021.pdf
 16. Statistics Canada. (2022, June 3). *Experiences of healthcare workers during the COVID 19 pandemic, September to November 2021*.

<https://www150.statcan.gc.ca/n1/daily-quotidien/220603/dq220603a-eng.htm>

17. Walsh, A. L. (2018). Nurse residency programs and the benefits for new graduate nurses. *Pediatric Nursing*, 44(6), 275. <https://login.librweb.laurentian.ca/login?url=https://www-proquest-com.librweb.laurentian.ca/scholarly-journals/nurse-residency-programs-benefits-new-graduate/docview/2160299000/se-2>
18. Whittemore, R., & Knafl, K. (2005). The integrative review: updated methodology. *Journal of Advanced Nursing*., 52(5), 546–553. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>
19. Wolford, J., Hampton, D., Tharp-Barrie, K., & Goss, C. (2019). Establishing a nurse residency program to boost new graduate nurse retention. *Nursing Management*, 50(3), 44–49. <https://doi.org/10.1097/01.NUMA.0000553497.40156.4e>