**Research Article**

**Are Nurse Residency Programs Missing the Mark: Is Confidence The Key?**

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**Abstract**

**Introduction:** New Graduate Nurses lack confidence transitioning to practice which could have a direct correlation with competence. Despite the evidence supporting the benefits of Nurse Residency Programs, anecdotal evidence suggest that the curriculum does not provide a focus on the lack of confidence new graduate nurses have transitioning into practice, nor does it provide resources to enhance confidence development.

**Methods:** The setting was a 250-bed Magnet status community-based hospital. The session took place during an already scheduled Thursday morning nurse residency program meeting time and location. There are approximately 20 participants in each cohort. Cohort 8 were the recipients of this change project; there are 16 enrolled, however only 10 were available for participation on the day of the initial presentation. Descriptive statistics, paired t-test and two sample for means were utilized to exam the data from both the pre- and post- test data analysis.

**Results:** Only data from participants who completed both the pre- and post- surveys were analyzed. Mean variance was accounted for. The project results did not fully provide projected outcomes, only one question produced a notable improvement of confidence between the pretest and posttest. The mean score for the pretest was 2.9, the posttest mean score increased to 3.6.

**Conclusion:** The purpose of this evidence-based change project was to increase confidence in new graduate nurses who were enrolled in a transition to practice program while they were transitioning into professional practice. Data analysis of the pretest and post-test Revised New Graduate Nurse Experience Survey did not demonstrate the projected post score outcome results, however, there was one question that produced favorable results in decreasing difficulty of new graduate nurse’s organization of patient care needs. A 24.14% improvement makes those new graduates that much more competent and aids in their transition success. What was made evident by the project was the deficits new graduate nurses face related to challenges encountered during their transition to practice.

**Keywords:** Change project; Confidence; Evidenced-based practice; Inter-professional; New graduate; Nurse; Nurse residency program; Transition to practice program

**Introduction**

New graduate nurses account for the highest number of nurses existing the profession. Nursing Solution Incorporated NSI [1] reported that the turnover rate for bedside registered nurses is 14.6%. NSI [1] further reported that:

The cost of turnover can have a profound impact on the already diminishing hospital margin and needs to be managed. According to the survey, the average cost of turnover for a bedside RN ranges from $38,900 to $59,700 resulting in the average hospital losing $5.13 million - $7.86 million, annually. Each percent change in RN turnover will cost the average hospital an additional $410,500 [1]. The report also concluded that, first year turnover rates of nurses continue to surpass all other occupation categories [1]. Attention and efforts on preparing and supporting new graduates’ transition to practice is critical. Recognizing the high cost of new graduate turnover rates, there is an established need for more comprehensive nurse residency programs. According to Pittman, et al. [2] new graduate nurses actively seek out healthcare organizations that have nurse residency programs, for their first employment to ease the transition from student to novice nurse.

Hofler and Thomas [3] identified the challenges of the novice nurse to include, (a) an increasing number of patients with complex conditions and multiple comorbidities (b) lack of access to experienced mentors and coaches (c) generational diversity in the workforce (d) performance anxiety and (e) bullying. To compound the problem, these issues often occur simultaneously. The complexities of the role of practicing nurses are not easily quantified, thus increasing stress, and decreasing confidence. The skills of a proficient nurse have been described as an art. The art of nursing is far more confounded than the technical skills performed. During the acclimation process, full immersion into the role of a practicing nurse, takes time, experience, and patience. Although the challenges new graduate nurses face has been well studied, efforts to identify the specific needs and targeting initiatives to meet them are noteworthy considerations. When confidence is lacking, judgement is compromised, because the individual questions what they know and hesitates to take initiative when indicated. Nursing is a dynamic discipline which allows for autonomy in judgments, and diverse professional opportunities. Confidence is the gateway through which learned concepts and skills are actualized. The purpose of this study is to increase confidence in new graduate nurses during their transition to practice.

**Background and Significance**

The nurse residency program is an evidence-based curriculum that was established to support new graduate nurses transitioning into practice. The 12-month program focuses on three key components: leadership, patient outcomes and professional development. Employers promote robust orientations, residency programs and preceptorships to facilitate the on-boarding of newly hired new graduates; however, the weeks and months moving through and leading up to this transition are completely uncharted territory for the neophyte nurse. The chosen intervention was targeted at supplementing the critical first year of professional practice with a transition to practice project. There is a need for a practice change that targets the critical phase after graduation and matriculation through the novice nurse’s first year of practice. A transition to practice project focused on addressing the questions, concerns and uncertainties of the neophyte nurse has the potential to optimize their experience by increasing their confidence, decreasing stress, thereby improving their competence.

The results of this integrative review present a critical appraisal of current research and literature as it supports the challenges new graduate nurses face and the need for a target intervention to positively influence the critical transition from graduate to professional nurse. There is evidence that supports the premise that a lack of support has the potential to potentiate decreased confidence, increased stress and potentially alter clinical judgement.

Moments of uncertainty, discouragement and inadequacy can annihilate confidence and certainty, and make for a high stress situation. Without guidance, reassurance, and security of transparency it is not uncommon to feel as though a person is not “Cut Out” for their newly acquired role. Nurses who enter the profession have the best intentions to serve and be an asset to their patients and the staffs they work alongside of. Without guidance they can feel as though they are a burden to their peers, delay care needs of their patients and perceive that they cannot ever seem to make appropriate judgment calls. The implemented change project included educational activities and resources centered on an intervention aimed at increasing the confidence of new graduate nurses who are in the process of transitioning from a nursing student into professional practice. Institutional Review Board (IRB) approval was obtained prior to the start of the project. A project plan presentation was conducted by the project implementer and approval was obtained from the Clinical Practice Council’s Quality Improvement department at the implementation facility prior to the start of the project.

**Methods and Materials**

The practice change project was an addendum to the current nurse residency program for newly licensed nurses who have been in practice for less than one year. Methods and materials involved in this project includes the project implementation setting, population, recruitment and implementation process will be detailed. “A planned transition period that includes activities designed to increase competence and confidence to promote socialization into the profession and the specific employment setting will promote safe patient care and increase retention of new nurses” [4]. The 12-month residency program is designed to assist the new undergraduate nurse’s transition into professional practice. The current nurse residency program curriculum focuses on retention and stress reduction however, little emphasis was placed on confidence building strategies. This current program was previously structured to meet monthly on Thursdays for four hours; each cohort had an assigned respective week (i.e., 1st Thursday, 2nd Thursday and so on in each month). Each session has a theme with varying presenters and focused topics.

The chosen intervention which has been previously proven successful in the literature is the implementation of a confidence building project targeted at facilitating new graduate nurse’s transition from student to professional nurse. The pathway of newly licensed nurses transitioning from their academic program has been widely studied internationally. Significant benefits of participating in a transition to practice program; from academia to practice nurse leaders, they noted benefits specifically related to increased confidence and competence amongst the participants, which increased their value to the organization and the workforce. Descriptive statistics, paired t-test, two sample for means were utilized to exam the data from both the pre- and post- test data.

The evidence-based practice change theory selected is the Larrabee Model. “The model is based on theoretical and research literature related to evidence-based practice, research utilization, standardized language, and change theory”. The model directly supports this evidence-based change project. The six phases of the Larrabee model have been incorporated throughout each phase of the implementation project. The most significant is the link between the identified needs and the target intervention. The outcome is to show an increase in the confidence of the program participants. The goal is to have project components incorporated into the curriculum of the hospital’s nurse residency program.



**Data Collection Process**

Materials included approximately twenty-five copies of the survey instrument per session. A demographic data assessment was be included as part of the survey tool. The instrument served as the pre and post confidence assessment scale. Incorporated activities such as case studies and videos vignettes were utilized. The program implementer utilized a computer connected to a monitor with audio/visual capabilities. The classroom where the implementation class took place was equipped to meet all technological needs. The program implementer had a password protected laptop with Microsoft Office for creating documents in Word, PowerPoint for creating the presentation and Excel for analyzing the data. A copier and printer were utilized for reproduction of presentation materials. Additional supplies included pens, paper, copies of handouts/case studies and a colleague to assist in passing out documents while the program implementer facilitated activities and discussions as well as provided instructional information during the presentation. The nurse residency classes met in a classroom that was reserved through the hospital on its respective meeting week each month. Adequate, seating, lighting and supplies were accounted for.

**Participants**

The participant population included newly hired nurses who were within 12 months of graduating from an undergraduate nursing program. They were each hired as full-time nursing staff at the local hospital. The participating nurses were representative of both day and night shifts and were required to participate in the one-year nurse residency program per their hiring terms. An additional requirement of the program was the development of an evidence-based project during each participant's curriculum cohort. Participants who had been previously acclimated to the required engagement in their transition to practice initiatives were an added benefit for the implemented change project.

**Setting**

The setting was a single 250-bed, Halifax Regional hospital. The program conducts monthly nurse residency programs in an assigned second floor conference room. The session took place during a previously scheduled Thursday morning nurse residency program meeting time and location. The session was previously planned and structured; the participants were accustomed to meeting during that appointed time every month for the four-hour educational session. They were provided refreshments by the project implementer and a spacious open learning environment that included audiovisual capabilities and privacy for the presented discussion topics. There was adequate space, lighting, opportunities for visual aids, support staff present, comfortable room climate and privacy for confidential conversations.

**Evaluation**

“Data management is the process of controlling the collection, storage, retrieval, and use of data to optimize accuracy and utility while safeguarding integrity” [5]. The data to measure the outcomes of this evidence-based change project was collected using the Nurse Confidence Questionnaire and a demographic questionnaire. Confidentiality was ensured for the participants completing each of the surveys. There was no personal identifiable data connected to the completed survey instruments or packet. The program packets were passed out to each of the participants. Each packet had a corresponding packet number for analysis purposes. The packets were collected by the project implementer and stored in a secure home safe for analysis.

**Outcome Measurement**

The outcome for the planned change project was increased confidence in novice nurses participating in a 12-month nurse residency program. The participant’s level of confidence was assessed prior to providing the educational activities and resources. Approximately four weeks after the initial implementation session, the second session was held where the post-test was administered. The first session began with the participants completing the confidence assessment tool that measured their baseline level of confidence in their newly acquired role. The next phase of the project included a series of activities designed to increase nurse confidence. The activities ranged from case studies, videos, vignettes, and keepsakes to reinforced learned concepts. The project developer created a confidence building website and provided the participants access during the implementation phase, adding new content on a weekly basis. At the conclusion of the second session presentation and activities, the post-test was provided to assess the participants post implementation level of confidence. The outcome of the evidence-based change project was increased confidence in the project participants.

**Evaluation Tool**

The project facilitator selected the Casey-Fink Graduate Nurse Experience Survey (revised, 2006) instrument to be used to collect demographic data and assess the program variable of focus; confidence. Permission to use the instrument was received from the survey developers Kathy Casey and Dr. Regina Fink. The survey was originally developed in the spring of 1999, initially revised in June 2002, and revised a second time in 2006 [6].

The tool consists of five sections, the first section focuses on skills the new graduate nurse identifies they are uncomfortable with performing independently. The second section is composed of 24 questions responded to using a 4-point balanced response format (Strongly Disagree to Strongly Agree) and an additional question where the respondent answers "Yes" or "No" to a series of stressors [6]. The third section includes items related to job satisfaction and finally sections four and five are the demographic questions as well as some open-ended questions that address specific skills the new graduate nurses are uncomfortable performing independently. “Reliability estimates for the factors ranged from .71 to .90” [6]. “Content validity has been established by review of expert nurse directors and educators in both academic and private hospital settings. This instrument was identified as discriminating between nurses with varied amounts of experience during the first year of practice” [6]. The goal of the project is to show improvement in confidence levels post educational intervention. The paper and pencil survey took about ten minutes to complete.

**Data Analysis**

Descriptive statistics, paired t-test, two sample for means were utilized to exam the data from both the pre- and post- test data. Only data from participants who completed both the pre- and post- surveys were analyzed. The participant’s level of confidence increased as a result of the educational intervention. The data was collected through administration of a pretest and post-test New Confidence Experience Survey. The group means of the pretest and post-test scores were calculated and compared for evaluation. A 20% increase in the group mean post-test score was established as the benchmark indicating increased confidence was attained and the intervention was effective. The individual pretest and post-test scores were also compared, to assess changes in the individual participant's level of confidence because of the targeted intervention. Data was analyzed using the Microsoft Excel Data Analysis Tool Pak.

**Results**

Mean variance was accounted for. The most compelling outcomes were noted in the mean percent changes seen in (Table 1,2). The project results did not provide anticipated outcomes, only one question produced a notable improvement of confidence between the pretest and posttest. Fourteen of the twenty survey items had a post mean score that was higher than the pretest assessment, indicating that the participants felt less confident or less comfortable at the stage of post implementation. Question number sixteen evaluated difficulty organizing patient care needs. The mean score for the pretest was 2.9, the posttest mean score increased to 3.6, a 24.14% increase in ability to organize patient care needs.

|  |  |
| --- | --- |
| **Demographic Characteristics** | **n (%)** |
| Gender |   |
|  Female |  9 (90.0%)  |
|  Male  | 1 (10.0%)  |
| Ethnicity |
|  Caucasian (White) |  4 (40.0%) |
|  Black  | 0 (0.00%)  |
|  Hispanic |  2 (20.0%)  |
|  Asian |  2 (20.0%)  |
|  Other |  1 (10.0%) |
|  Do not wish to include |  1 (10.0%)  |
| Age |
|  18-29 |  5 (50.0%)  |
|  30-39 |  3 (30.0%)  |
|  |  |
|  40-49 |  2 (20.0%) |
| Degree Received  |
|  Diploma |  0 (00.0%)  |
|  Associate’s  | 7 (70.0%)  |
|  BSN |  3 (30.0%)  |
| Area of Specialty  |
|  Adult Medical Surgical |  5 (50.0%) |
|  Adult Critical Care |  1 (10.0%)  |
|  Emergency Department  | 1 (10.0%)  |
|  Oncology |  1 (10.0%)  |
|  Other |  2 (20.0%) |
| Previous Health Care Experience  |
|  Yes |  8 (80.0%) |
|  No | 2 (20.0%)  |

**Table 1:** Project Participants Demographics.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Questions | N | Pretest M | Posttest M | M difference | % Change |
| Question 1 | 10 | 3.3 | 3.3 | 0 | 0 |
| Question 2 | 10 | 2.5 | 2.6 | 0.1 | 4% |
| Question 3 | 10 | 3.5 | 3.4 | -0.1 | -2.86 |
| Question 4 | 10 | 3.8 | 3.9 | -0.1 | -2.63 |
| Question 5 | 10 | 3 | 3.3 | 0.3 | 10% |
| Question 6 | 10 | 3.5 | 3 | -0.5 | -14.29 |
| Question 7 | 10 | 3.5 | 3.3 | -0.2 | -5.71 |
| Question 8 | 10 | 2.2 | 2.1 | -0.1 | -4.55% |
| Question 9 | 10 | 3.8 | 3.8 | 0 | 0 |
| Question 10 | 10 | 3.3 | 3.2 | -0.1 | -3.03 |
| Question 11 | 10 | 3.6 | 3.5 | -0.1 | -2.78 |
| Question 12 | 10 | 2.9 | 2.5 | -0.4 | -13.79 |
| Question 13 | 10 | 2.7 | 1.6 | -1.1 | -40.74 |
| Question 14 | 10 | 3.2 | 2.5 | -0.7 | -21.88 |
| Question 15 | 10 | 2.7 | 2.5 | -0.2 | -7.41 |
| Question 16 | 10 | 2.9 | 3.6 | 0.7 | 24.14% |
| Question 17 | 10 | 3.3 | 3.6 | 0.3 | 9.10% |
| Question 18 | 10 | 3.8 | 3.1 | -0.7 | -18.42 |
| Question 19 | 10 | 3.3 | 2.6 | -0.7 | -21.21 |
| Question 20 | 10 | 3.8 | 3.1 | -0.7 | -18.42 |

**Table 2:** Descriptive Statistics: Survey Results by Pre- Post- Mean Scores and % Changes.

**Discussion Summary**

The DNP prepared nurse leader is equipped to develop, implement, and disseminate evidence-based change projects that contribute to the body of knowledge related to key healthcare needs. This implemented evidenced-based change project has been deemed effective in positively influencing confidence in new graduate nurses transitioning into clinical practice. Recommendations for the implementation site includes inclusion of key activities and resources provided in the current nurse residency curriculum. After a comprehensive literature review, the evidence substantiated an intervention targeted at supporting new graduate nurses with a transition program. The literature found that confidence was directly correlated with competence that was significantly lacking in newly graduated nurses. “Strategic implementation of specific programs that focus on building new nursing graduates’ confidence and competence can go a long way in helping to make their transition from academia to the practice environment a professionally rewarding time” [3]. Data analysis of the pretest and post-test Revised New Graduate Nurse Experience Survey did not demonstrate the projected post score outcome results, however, there was one question that produced favorable results in decreasing difficulty of new graduate nurse’s organization of patient care needs. Data analysis of the pretest and post-test Revised New Graduate Nurse Experience Survey demonstrated that this evidence-based change project was successful in identifying the critical need for confidence-based interventions in the targeted population. The selected benchmark for this project was 20%. A 24.14% improvement in one of the key assessment items makes those new graduates that much more competent and aids in their transition success.

**Limitations**

One limitation of this study is that it had a small sample size, which limits the generalizability of the outcomes. Consideration of different instrumentation is also a plausible thought to render greater identification of the specific challenges’ participants are experiencing and how best to address them. An additional consideration would be allotment of more time to reinforce confidence building initiatives. Four weeks was a narrow window for such a hefty deficit to be addressed. It would also be beneficial to consider efforts to increase generalizability of the results. There is significant work to be done, this project was a start and provided some revealing information about the progression and regression of confidence throughout the first year of professional practice.

**Conclusion**

What was made evident by the project was the significant deficits new graduate nurses face related to challenges encountered during their transition to practice. Healthcare organizations have struggled to retain newly graduated nurses who are transitioning into a novice nurse role; therefore, innovative strategies need to be implemented to staunch the high turnover rates of this population. Nurse residency programs have shown great promise in mitigating the loss of these nurses, however more emphasis needs to be placed on not simply increasing the leadership, patient outcomes and professional development but also on increasing the new nurse’s confidence as they transition to the nurse novice role. Based on this study, the inclusion of confidence building exercises have shown significant benefit and warrants more investigation as to the efficacy of including confidence building into the nurse residency curriculum.

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