# New Graduate Nurses Training and the Effects of Mentoring Program

By

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A Directed Scholarly Project Submitted to the
Department of Nursing
In the Graduate School of
Bradley University in
Partial fulfillment of
The requirements for the
Degree of Doctor of Nursing Practice.

Peoria, Illinois

March 2020

# Dedication

This scholarly project is dedicated to my mother, Elizabeth Yankey Ewoo, and my father Dr. Pastor Andrews Lawrence Ewoo, an international evangelist. They both challenged me to pursue a doctoral degree which had been their unspoken dream for me since childhood. My father made me realize that anything in life can be achieved through perseverance, self-motivation and family support. I will always remember this quote he shared with me at a point when I almost gave up on this dream: “don’t look down at the hawks, keep flying high as an eagle.” Thank you, mom and dad, for pushing me to accomplish this goal you set for me. You were my backbone in this process and I hope I have made you proud.

Acknowledgements

I would like to thank several people for their help and support in my quest to achieve the Doctor of Nursing Practice (DNP) degree. I would first like to thank Mary Kerich who served as my mentor and provided countless hours in guidance and encouragement to produce a quality project. Although you left the organization before I completed my project, you continued to be a support and offered your ongoing motivation to keep going. To Dr. Erica Brinkley who took on the role as my mentor towards the end, guiding, encouraging, and providing oversight of my project at a critical stage. To Dr. Clifford Mensah, thank you for the late-night calls, text messages, and email through which I received invaluable feedback. You availed yourself even when you were mourning the death of your father, thank you.

To Drs. Judith Walloch and Sarah Silvest Guerrero, thank you for providing me with the time and valuable feedback in producing a quality work, and serving as faculty support on the committee to help complete my paper and earn my degree. To the rest of my direct faculty and advisors at Bradley University, you have been inspirational to me and I want to thank you for your commitment. I hope that your feedback, guidance and evaluations are demonstrated in this scholarly paper.

To my husband, Ebenezer Asiem, thank you for your daily encouragement to not give up and keep on pushing to the end, you gave up so much to see me accomplish this. And finally, to my children Myron and Michael, thank you for giving me the time and space to accomplish this. You never complained when mom was unable to take you to certain events because of my tight writing and research schedules, however, you always gave me these positive smiles and cheers. Thank you for helping me achieve my goal.

## Abstract

The first year of a new graduate nurse's transition into professional nurse can be challenging. Supporting them in the transition to practice through training and mentoring could improve self-confidence, competence and retention. This project primarily seeks to assess improvements in the retention of new graduate nurses by introducing a mentorship program to augment the efforts of the Vizient Nurse Residency Program (NRP). The coupling of the two programs is expected to facilitate higher retention rates among new nurse graduates in the field. The preceptors of the new graduate nurses were trained to serve as mentors to new graduate nurses during, and beyond the initial orientation phase. Each new graduate nurse had access to a trained mentor at the unit level. All fifteen new graduate nurses participated in the Quality Improvement (QI) project and completed an intent- to- stay- within -twelve months- survey by the end of the QI project. The findings from this project suggests an improved retention of 80% within the first year of the new graduate nurse's employment, yielding cost savings of $723,840 from 15 new graduate nurses salaries. In conclusion, the QI project found that intentional mentorship training for new graduate nurses' preceptors and ongoing support, improve retention. The QI project found evidence in support of the effectiveness of coupling the two programs in the retention of new graduate nurses. However, further research quantifying the benefits of mentorship would provide further support for successful replication of the proposed model in similar programs.


*Keywords:* new graduate nurse, retention, mentoring, nurse residency program.

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## Chapter I: Introduction

The new graduate nurse's transition from nursing student to practicing nurse can be a challenging time during which the graduate nurse needs to learn how to function independently. (Missen, McKenna & Beauchamp, 2014). According to Kennedy (2018), there continues to be shortage of nurses, and although there are 2,000 new nurses each year in Colorado for example, there is a projection of 3,200 new nurses in need per year. A study completed by Speitz, Harless, Herrera, and Mark (2013) using California hospitals concluded that adequate registered nurse (RN) staffing reduced patient length of stay, and RN staffing had some form of positive impact on adverse patient outcomes. Although hiring new graduate nurses would appear to be one solution to the nursing shortage, Speitz et al. (2013) found that with a little more than twenty new graduate nurses hired every three months, a retention rate within the 40%-80% range was realized for the new graduate nurses in most instances. New graduate nurse retention is the ability of the nurse to remain in their position and thrive in a stressful environment (Moran, 2012). Registered nurse turnover is defined as the nurse leaving an organization involuntary and voluntary (Kovner, Brewer, Fatehi & Jun, 2014).

The setting for this Quality Improvement (QI) project was a community hospital in Maryland. Although the hospital had implemented the NRP several years prior, retention rate among new graduate nurses continued to be challenging. The identified underlining problem was the lack of mentoring to support the new graduate nurses beyond the orientation phase with an assigned preceptor. This project's purpose was to improve retention through mentoring of new graduate nurses. The mentorship program for the new graduate nurses at this hospital could help improve retention amongst new graduate nurses. Transitioning from nursing student can be

enhanced through training and mentorship to help the graduate nurse's independence in the rapidly changing, fast-paced healthcare environment (Missen, McKenna & Beauchamp, 2014). The implementation of mentoring opportunity for the new graduate nurses could produce 25% or higher retention rate compared to those without a mentor (Schroyer, Zellers, & Abraham, 2016).

**Background and Significance**

Transition to practice program that trains the new graduate nurse to become a professional nurse, as well as a mentor that supports and role model them during the first year, have been reported to decrease turnover, improve retention and patient outcomes (Silvestre, 2017). Our local new graduate nurses need more than they get in the classroom, simulation lab and training on the unit. Successful transition of the graduate nurse requires orientation and a transition to practice program that provides the bases of support, and the development of clinical competence (Hussein, Everett, Ramjan, Hu, & Salamonson, 2017).

A transition program for the new graduate should include a mentorship program beyond the preceptorship phase during orientation. "Mentorship program can be an effective recruitment and retention strategy but are also resource intensive. Measuring new graduates' perceptions of mentoring contribute to program relevance in addressing their personal, professional and clinical skill development needs" (Tiew, Koh, Creedy, & Tam, 2017, p.77).

The purpose of this project was to assess the improvement in the retention of new graduate nurses through the Nurse Residency Program (NRP) and mentorship. A mentor serves as a role model for the mentee and helps grow them professionally, socially and personally. The process of mentorship benefits the mentee, mentor and the organization. The mentors have a

sense of ownership and motivation when they role model the novice nurse, by sharing their experience, nurturing, support and resource.

Mentorship programs could improve new graduate nurses' retentions. If the mentor and mentee have a good relationship that supports and nurtures, the new graduate nurse will feel supported. A study was conducted by a group of nurse leaders to look at how mentorship affected the professional value of a clinical nurse leader graduate. The results showed that a "model C clinical nurse leader graduate participants experiencing formal mentoring may develop professional nursing values more than their colleagues" (Gazaway, Anderson, Schumacher, & Alichnie, 2018, p.1045). Mentoring has been seen in the past as an intense relationship between an expert and novice, however, mentorship can also offer benefits such as: teaching, socialization, providing opportunities, sponsoring, coaching, guiding, protecting, advising, counselling, inspiring, challenging, supporting and role modeling (Vatan, 2016).

**Needs Assessment**

In 2013, this community hospital in Maryland adopted the Vizient Nurse Residency Training Program (NRP) through a statewide collaborative effort amongst hospitals and other healthcare settings that employ new graduate nurses. The NRP was intended to support the transition of the new graduate nurse to competent professional nurse, as supported by evidence-based curriculum customized to reflect the values and mission of the organization. The new graduate nurses had access to content experts, and participation in evidence-based practice (EBP), and Quality Improvement (QI) projects. The NRP was a 12-month long program with two new cohorts per year. The cohorts typically began concurrently with the graduate nurses' initial onboarding orientation and were assigned a preceptor for their orientation period. Much of the orientation time was spent at the unit level with the assigned preceptor. Unit based

orientation lasted from twelve weeks for the medical surgical / telemetry units, and up to six months for the Emergency Department (ED), Critical Care Unit (CCU) and Intermediate Medical Care Unit (IMCU) new graduate nurses.

The hospital's NRP was structured with the following requirements:

1. Participation by all new graduate nurses hired.
2. Monthly class sessions for 12 months.
3. Required participation in an EBP, or a QI project appropriate for their home unit.
4. Academic partnership.

The hospital spent an estimated $60,320 on training one new graduate nurse on the medical surgical /telemetry through the 12-month long NRP however, retention continued to be an issue (Human Resources, 2019). Although there is a transition to practice program through the NRP, this effort could be enhanced through mentorship (Missen, McKenna & Beauchamp, 2014).

Secondly, there was no mentorship program. Nurses who served as preceptors did not have the training to be mentors during orientation and beyond. Educators and facilitators were engaged with the new graduate nurses during their NRP and served as resources to the entire cohorts rather than one-on-one support for the new graduate nurse at the unit level. Clearly, there was a lack of mentoring and support for the new graduate nurses. Although a transitional program such as the NRP provides the training and knowledge that helps the new graduate nurse transition into a professional nurse, an organized support for the new graduate nurse includes support from leadership and the participation in a mentorship experience (Pfaff, Baxter, Ploeg, and Jack, 2014).

Most healthcare organizations are cutting down the costs of mentoring new graduate nurses, and rather using senior staff nurses who serve as mentors for the new nurse. It is also

reported that when the new graduate nurse receives a one-to-one mentoring, they are well supported with guidance, professional development, stress management among other benefits, compared to a group of mentors or one mentor that are/is available to multiple new graduate nurses (Williams, 2018). In a study to determine the effectiveness of Nurse Residency Programs (NRPs) based on length of program, Chappell, Richards, and Barnett (2014) found that, new graduate nurses transition to practice programs that were more than 24 weeks, were 21 times more likely to remain employed in an organization than lesser timeframe. This supports the idea that a longer-term relationship and support with the new graduate nurses could improve retention.

During the Nurse Residency Training (NRP), the new graduate nurses completed surveys at the beginning of the program, six months into the program, at the end of the program, a year and two years post program completion. These surveys had shown that the new graduate nurses, although were getting the fundamental training to help transition into practice, continued lack ongoing support after their unit-based orientation period. The Casey-Fink Experience Survey was a tool that was used in the NRP to measure stress levels and help identify specific stressors of the new graduate nurses. The survey specifically asked questions about comfort levels in various clinical situations and feeling overwhelmed by patient care responsibilities. The hospital's 2019 Casey-Fink Experience Survey report of the current new graduate nurses enrolled in the NRP was reviewed. The report showed that, the stress and support level that the new graduate nurses were feeling at the beginning of their practice were same or worse at month six and twelve however, there was no mentorship for them at those points in their job. The survey used a Likert scale ranging from 1-4, with 4 being equal to highest support level. The hospital's graduates in 2018 reported a mean support level of 3.8 initially (during orientation

with a preceptor), then there was a decline to 3.18 at six months. Using the same scale, with 4 being equal to highest stress level, they reported a mean stress level of 2.14 initially (during orientation with a preceptor), then it increased to 2.31 at six months and 2.58 at 12 months. The data showed that the stress levels increased as the new graduate nurses progressed into RN roles independently without the direct support their preceptors.

Although the new graduate nurses continued to participate in the NRP, engaged in interactions with each other, and NRP coordinator and facilitators, there still existed, high levels of stress and fear of making fatal patient errors. An analysis of internal strengths, weaknesses, opportunities and threats (SWOT) was conducted. The objective was to improve new nurse graduate retention and turnover rates within the first year of employment. The following were noted strengths:

1. Increased number of new graduate nurses in the organization.
2. Nurse residency program was evidence based driven.
3. New graduate buy-in of the transitional training program.
4. Interest of nurse preceptors to be trained as mentors to support the new graduate nurses.
5. New graduate nurses were young, motivated and receptive to training to become effective professional nurses.

The following weaknesses were noted in the analysis:

1. Lack of formal training for preceptors to serve as mentors for the new graduate nurses.
2. Poor compliance with survey and data collection completion by all new graduate nurses enrolled in the NRP.
3. Financial burden to train mentors.

The following opportunities were noted in the analysis:

1. Scheduling conflicts of new graduate nurses in attending the NRP cohort training sessions.
2. Preceptors feeling burned out and overworked to embark on mentoring role post orientation.

The following threats were noted in the analysis

1. Preceptors feeling burned out and overworked, which could lead to inadequate patient care, that could have affected compliance with quality indicators such as increased Central Line Associated Blood Stream Infection (CLABI), Catheter Associated Urinary Tract Infection (CAUTI), Ventilator-Associated Pneumonia (VAP) and decreased positive patient experiences.
2. New graduate nurses learning the bad practices from burned out preceptors.
3. Negative impact on quality care and patient safety.

**Problem Statement**

Shortage of nursing staff affect patient safety (Diya, Van de Heede, Sermeus, & Lesaffre, 2012; Needleman et al., 2011; & Walter, 2015). Nursing staffing and patient-to-nurse ratios highly impact patient outcomes such as mortality and satisfaction (Walter, 2015). Based on salary rate of the new graduate nurses at this hospital, the cost for training one new graduate nurse was estimated at $60,320 per year (N. A. Santos, personal communication, September 20, 2018). This meant that, a new graduate nurse leaving his or her position within the first year of employment could cost the hospital $60, 320 to train another new graduate nurse. A program providing mentoring support to new graduate nurses, coupling with the current NRP could increase new graduate nurse retention within the first year.

**Project Aim**

The goal of this project was to improve retention of new graduate nurses on the medical surgical / telemetry unit through a mentorship training program, to support them in conjunction with the existing NRP by the end of the project's implementation. A mentor serves as a professional role model for the mentee and helps them to mature professionally, socially and personally. Mentoring has been a strategy that supports nurses in the stressful healthcare setting (Jones, 2017).

The project was based on the following objectives:

1. Survey preceptors of new graduate nurses to identify their professional learning gaps, confidence, and motivation to serve as mentors.
2. Use the data from the preceptors' surveys, and literature reviews to develop a mentorship training program to train preceptors of new graduate nurses, to serve as mentors beyond the orientation period.
3. Continue to support new graduate nurses' transitions into practice through the NRP.
4. Collect data on participating new graduate nurse's satisfactions with the unit support, mentor support, NRP support, and their intent to stay on the medical surgical / telemetry unit within 12 months.

**Clinical Question/ PICOT**

In new nurse graduates working in acute care hospital, does a new graduate nurse training program, coupled with mentoring training program for their mentors improve retention?

**Congruence with Organizational Strategic Plan**

The healthcare environment is becoming increasingly costly, reimbursement for services becoming increasingly tough, complicated, and linkage to nursing care (Moran, Gardner, Outlaw, and O'Grady, 2015). These can lead to stressful encounters for the new graduate nurse. Hospitals are finding ways to decrease cost and still maintain safe patient care, however this cannot be accomplished without making the effort to embrace and invest in training programs that will sustain and retain the new graduate nurses as part of the healthcare team. The organization implemented the Nurse Residency Program (NRP) in 2013, however, it continues to struggle with retention. For this reason, this project sought for ways to improve retention through mentoring as an augmentation to the existing NRP. Implementing NRP and evaluating their effectiveness is necessary for nursing leaders as an investment for the organization (Asber, 2019). This project and the proposed training aimed at supporting nurse leaders in improving retention of the new graduate nurses.

**Synthesis of Evidence**

The search process used to identify information related to the PICOT question were: CINHAL, OVID, and online EBSCO host website via the Bradley University online research resources for articles that were not available in full text on other mentioned databases. CINAHL was used for initial searches followed with OVID and EBSCO. The following key words were used: new graduate nurse, retention, training, mentoring, transition to practice, nurse residency program (NRP). Initial CINAHL resulted in over 400 articles related to the topic and keys words. A careful literature review was conducted, and articles found appropriate with data that supported this project and practical goals were reviewed.

New graduate nurses are successful, more confident and feel supported through structured transitional training programs such as Nurse Residency Program (NRP). This

increases self-confidence, competence, job satisfaction, reduces anxiety and improves retention (Edwards, Carrier & Hawker, 2019; Goode, Lynn, McElroy, Bednash & Murray, 2013; Hussein, Everett, Ramjan, Hu & Salamonson, 2017). Factors that increases the new nurses' self-confidence and willingness to work in a specific hospital is influenced by the availability of a transition-to- practice training programs (Halcomb, Salamonson, Raymond; & Knox, 2012).

Cost-benefit analysis of new graduate nurses transition to practice training programs include: decrease in turnover rates and cost reduction (Edwards, Carrier & Hawker, 2019; Pillai, Manister, Coppolo, Ducey & McManus-Penzero, 2018; & Trepanier, Early, Ulrich, & Cherry, 2012).

For the new graduate nurse to be successful, the continued support of a mentor beyond the initial orientation phase was necessary. A mentorship program impacts the new graduate nurse's job satisfaction and professional confidence, which positively influences the quality of care delivered (Mijares, Baxley, & Bond, 2013; Pfaff, Baxter, Ploeg, & Jack, 2014; Szalmasagi, 2018; & Williams, 2018). Mentoring engages and supports the new graduate nurse (Tiew, Koh, Creedy, & Tam, 2017).

One way to help new graduate nurses gain more confidence satisfaction with their job may be by a mentoring program (Cottingham et al., 2011). The organization's support and inclusion of a mentoring program can also increase the new graduate nurse's job satisfaction, enhance confidence, and increase retention rates (Spiva, 2013). Mentoring leads to staff satisfaction, support, productivity and increased retention (Disch, 2018; Payton, Howe, Timmons & Richardson, 2013).

Building the novice nurse's confidence through mentoring, guided the theme for this Quality Improvement (QI) project. In comparing the benefits of mentoring to the purpose of this project, novice nurses can achieve their professional confidence through mentoring. Guerrero & Brenner (2016, p. 422) indicated that mentoring "helps mentees face difficult truths about the gap between their aspirations and their actual current capabilities."

**Theoretical Foundation of Framework**

According to Fawcett (2002), the mentoring benefits both the mentee and the mentor through a learning relationship and that. Having a mentor provides the novice nurse, the opportunity to learn from an experienced nurse and acquire support through a professional relationship. The definition of mentoring by Weng et al. (2010) builds on this concept of relationship: "Mentoring function is defined as the sum of the career development function, psychosocial support function, and role modeling function as perceived by nurses in the mentoring program" (p. 2). This relationship was essential to the novice nurse's ability to grow professionally in making clinical decisions.

Mentoring is not a new concept in healthcare and nursing. "Traditionally, mentoring is described as a relationship between two persons, a protégé and a mentor" (Pennanen, Bristol, Wilkinson, & Heikkinen, 2016, p. 4). Furthermore, "mentorship differs from role modelling in that the mentor is actively engaged in an explicit two-way relationship with the junior colleague- a relationship that evolves and develops over time and can be terminated by either party" (Kaplan, 2019. p. 709). The definition by Disch (2018, p. 437) is slightly different, however it builds on the previous definitions in addition to development of the mentee, stating that: "mentoring relationships consist of a seasoned (although not always older) mentor and a mentee

with specific development goals. They engage in a long-term professional relationship that focuses on the development of the mentee in certain areas."

Transition to practicing nurse can be stressful for the new graduate nurse (Powers, Herron, and Pagel (2019). Novice nurses have the professional responsibility to make clinical decisions during patient care which can be a stressor. This decision-making ability may be learned and improved through mentoring opportunities. "Mentoring may focus on the behavior, knowledge, skills, reasoning, and attitude of the master teacher or the person most experienced with problem solving" (Holmes, Warnes, O'Gara & Nishimura, 2018. p. 455).

This project presents the Clinical Decision-Making (CDM) framework as an opportunity to guide and help the new graduate nurse develop their clinical decision-making skills in a complex healthcare setting through mentoring. The CDM theory suggests that, with enough support and experience while working in the clinical setting, the new graduate nurse will move from being task oriented, to applying abstract thinking in clinical situations. In current healthcare setting, the new nurse lacks the mentoring and clinical support necessary to grow their clinical decision-making skills.

There are lapses in the novice nurse's ability to move from being clinically narrow minded, to having the ability to apply concrete experience while viewing clinical situations (Shelestak, Meyers, Jarzembak & Bradley 2015).

The challenge was that, in current health care environment, new graduate nurses frequently work with few experienced nurses and mentors while facing complex patient situations, which demanded critical skilled decision-making. This project aimed at supporting the new graduate nurse through mentorship and improving their clinical decision-making abilities.

Studies that have been conducted around the Clinical Decision-Making (CDM) theory have been focused on patient outcomes such as: prioritization, communication, and time management. The efforts should rather be on valid and reliable processes that incorporate the CDM theory for the new graduate nurse (Shelestak et al., 2015). Experienced nurses have well developed critical thinking skills and can support the novice nurse in growing similar skills (Mason, 2015).

According to Kozlowski, Hutchinson, Hurley, Rowley and Sutherland (2017), Clinical Decision-Making (CDM) also focuses on community-based practice in supporting individual's learning, emotional competence and decision making. The CDM fosters a supportive based practice by providing a wide range of support from the mentor, nurse leader, and experienced nurses. Lack of support for the new graduate nurse may lead to the new graduate nurse failing to seek help with difficult clinical situations, leading to making patient care errors.

To better manage the care of the patients, nurses must be able to work together, communicate effectively and transparently while mutually supporting one another to care for the patient, reduce errors and improve outcomes. Pfaff et al. (2014) looked at methods by which an organization can engage the new graduate nurse in collaborative practice as a way of improving retention and decreasing turnover. The study concluded that, the retention of the new graduate nurse should be a human resources focus in helping address the issue of nursing shortage, set priorities that provide ongoing leadership accessibility for the new graduate nurse, and provide quality preceptorship and mentorship programs that supports the nurse.

## Chapter II: Methodology

### Project Design

This was a Quality Improvement (QI) project. The project fitted a QI criteria because, the goal was in alignment with the improvement of patient outcome through new graduate nurses training and mentoring. QI is defined as the "combined and unceasing efforts of everyone, healthcare professionals, patients and their families, researchers, payers, planners and educators to make the changes that will lead to better patient outcomes" (Batalden and Davidoff, 2007, p. 2).

An Evidence-based-practice (EBP) on the other hand is defined as a "decision making with evidence at every level, from the patient up through the system. Evidence-based practice strives to replace quirky, personal predilections and institutional myths with evidence" (Fulton, 2018, p. 57). This being a QI project did not meet the criteria for an EBP requiring an Institutional Review Board (IRB) approval because it involved surveys of participants that were non identifiable (Terry, 2014).

**Setting**

This project was conducted in a 179-bed urban community hospital. The hospital provided care in more than 30 medical specialties to more than 120,000 patients. The hospital's team consisted of more than 500 doctors, and over 400 nurses caring patients with expertise and compassion (Human Resources, 2019).

The project was conducted on two medical surgical/telemetry nursing units. One of the units had twenty-five inpatient beds and the other had twenty-one inpatient beds. Rationale for choosing this setting was because, the units had the most patient population in the hospital. According to the nurse manager, more than 60% of the patient discharges from the hospital came from these two units (N. A. Santos, personal communication, September 20, 2018). This meant

that, a Quality Improvement (QI) initiative that supported patient care for the hospital was going to greatly impact the two units.

The two medical surgical /telemetry nursing units had a total of 46 patient beds. There was a total of 89 nursing staff which included:

1. 52 full time Registered Nurses (RNs).
2. Eight part time RNs.
3. 20 Patient Care Technicians (PCTs).
4. Five Unit clerks.
5. One Nurse Manager.
6. Two Patient Care Coordinators (PCCs).
7. One Nurse Educator.

The RNs, PCTs, PCCs worked 12-hour shifts, the unit clerks worked eight-hour shifts, and the nurse manager and nurse educator worked ten to 12-hour shifts, Monday to Friday. Out of the 52 full time RNs working on these units, 17(33%) of them were new graduate new nurses and 35(67%) were experienced nurses with experience ranging from two years to 39 years. According to the nurse manager on the two nursing units, there had been concerns with experienced and new graduate nurse retention over the last few years.

The low retention rates in the past resulted in negative impact on staffing, morale of the nursing staff, patient-to- nurse ratio, patient safety, patient satisfaction, staff satisfaction and financial outcomes of the units (N. A. Santos, personal communication, September 20, 2018). The following were the units in the hospital at the time of the project:

1. Four Medical Surgical/Telemetry Units.

2. One Medical Surgical Unit.
3. One Critical Care Unit (CCU).
4. One Intermediate Medical Care Unit (IMCU).
5. One Emergency Department (ED).
6. One Behavioral Health Unit.
7. One Post-Acute Specialty (PASP) Unit.
8. One Operating Room (OR).
9. Ambulatory Services.
10. One Post Anesthesia Care Unit (PACU).

Secondly, out of the forty-six new graduate nurses that were enrolled in the hospital's Nurse Residency Program (NRP) cohorts during the Quality Improvement (QI) project, seventeen (37%) were new graduate nurses from the two participating nursing units. Furthermore, the nurse manager for the participating units was a leader champion that supported the Nurse Residency Program (NRP), and a stakeholder for a mentoring training program for mentors on the units. NRP that are supported by leadership are successful (Chant and Westendorf, 2019).

**Population/Sample**

There were two sets of participants: (1) graduate nurses, and (2) preceptors of new graduate nurses that were trained to assume mentor roles. The new graduate nurse participants were the 17 new graduate nurses that were currently working on the two medical surgical/telemetry nursing units. The new graduate nurses were enrolled in the Nurse Residency Program (NRP). The mentors were previous preceptors of the 17 new graduate nurses who had

oriented them to the unit for 12 weeks. The rationale for this was to exclude nurses that did not have experience in orientating or training new graduate nurses.

Inclusion criteria for the new graduate nurses were:

1. Current new graduate Registered Nurse (RN) on one of the medical surgical / telemetry nursing units.
2. Less than one-year nursing experience in a hospital setting.
3. Enrolled in the NRP.
4. Fulltime RN.

Inclusion criteria for the preceptors of the new graduate nurses were:

1. Current Registered Nurse (RN) on one of the two nursing units.
2. Previously served as a preceptor for a new graduate nurse in the NRP.
3. Fulltime RN on one of the two nursing units.
4. Has no documented disciplinary action on record within previous six months.

The 17 new graduate nurses were recruited through: (1) face to face conversations during NRP cohort classes, (2) email, and (3) telephone conversations. The preceptors of the new graduate nurses were recruited through: (1) face to face conversation on the nursing units, (2) email communication, and (3) recommendation from the nurse manager to ensure that there were no documented disciplinary actions on the participant mentor. Once the participating new graduate nurses were selected, there were email communication outlining the purpose of the project, surveys requirements, surveys were due dates and opportunity to ask questions as needed. Once the participating preceptors of the new graduate nurses were selected, email communication was sent that outlined the purpose of the project.

**Instruments**

Following approval, a newly designed Mentor Self Confidence (MSC) tool created by the DNP student (see appendix A) was used. The MSC was made up of eight survey questions using a 3-point Likert scale (agree, neutral, disagree) to assess skills level of the anticipated mentors. The eight questions were based on the following:

1. Self-confidence
2. Comfort level in communicating effectively with the mentee
3. Understanding of effective communication in healthcare
4. Understanding the roles and responsibilities as a mentor
5. Whether they have had any formal mentorship training
6. Understanding of mentoring timeframe
7. Understanding of the delegation process
8. Understanding the difference between a preceptor and a mentor

The MSC questions were put in an online survey with instructions and directions, using the Jot form online system. McMaster, LeardMann, Speigle, & Dillman (2017), conducted an experiment to compare survey response rates, sample, and cost between web-based surveys versus a paper-based surveys. The result concluded that a web-based survey was more effective and less costly than a paper-based survey.

The MSC survey questions were used based on literature reviews that addressed the qualities of a mentor. According to a study by Sheikh, A.S.F, Sheikh, Huynh, and Mohamed (2017), problems that mentees face include lack of time for mentorship, inadequate communication and poor understanding of the needs of the mentee by the mentor. Choi, Moon,

Steinecke, and Prescott (2019) further support the need for adequate interpersonal communication in mentorship. Mentoring improves satisfaction and communication skills (Feyissa, Balabanova, & Woldie, 2019; Farah, Goldfarb, Tomczik, Karels, & Hordinsky, 2020). Mentoring improves satisfaction and communication skills (Feyissa et al., 2019; Farah et al., 2020). Mentor training programs should focus on improving skills level such as leadership, how to provide effective feedback and communication (Dwyer, Hunter & Revell, 2016; Rush, Adamack, Gordon, Lilly, & Janke, 2013).

The non-identifiable results of the MSC survey were received electronically via online Jot form submissions. The data were inputted in Microsoft Excel Spreadsheet for descriptive statistical analysis. Only aggregated data was reported. The anonymity of participants and confidentiality of their responses were ensured by using numerical codes for survey questionnaires, destroying the data at the end of the QI project, assuring nurses that the overall results would be used to determine a mentor training program that met their needs.

The participant mentors in the mentor training were asked to complete a hard copy evaluation at the end of the training using the Mentor Training Program Evaluation (MTPE) tool, developed by the DNP student, (see appendix B). The hard copy tool was used to assess the effectiveness of the program. The MTPE was an 11-item questionnaire tool using a 3-point Likert Scale (agree, neutral, disagree). The questions were based on the program meeting stated objectives, appropriateness of teaching methodology in meeting participant's learning needs new mentors, program's concepts being applicable to practice and role as a mentor, willingness to attend future programs around mentoring, knowledge of the instructor, their organizational skills, and whether she was effective in providing the training.

The hard copy evaluations were inputted in Microsoft Excel spreadsheet for descriptive statistical analysis. Non-identifiable results are provided. The anonymity of participants and confidentiality of their responses were ensured by using numerical codes for evaluations forms, destroying the data at the end of the project, assuring nurses that the overall results would be used to determine future modifications to the mentor training program (MTP).

To measure retention rates after the mentor training program, new graduate nurse participants were asked to complete a hard copy of the New Graduate Nurse Intent to Stay (NGNIS) within twelve months survey (see appendix C), developed by the DNP student. Cochran (2017) made a point of view that considers the need for the new graduate nurses to be supported and be provided the opportunity to declare their intention to stay with the organization, which allows for assessment and effectiveness of the NRP. After review of the literature on nurses' intent to stay in their role as it relates to support, the NGNIS used a 3-point Likert scale (agree, neutral, disagree) to identify the new graduate nurses' intents to stay within 12 months. The tool focused on one of the subscales of the MMSS, satisfaction with coworkers and support. The tool consisted of nine questions: gender, age, nursing degree, length on the nursing unit, length of nursing experience in a hospital setting, preparedness for transition into nurse role through the NRP, support from mentor, job satisfaction on unit, and intent to stay in their position within the next 12 months. Data was collected via: (1) a survey link via Jot form online survey, (2) a hard copy tool during NRP class, or (3) a telephone questionnaire by the DNP student. Four new graduate nurses completed the form during their NRP graduation class, five completed it through Jot form online survey and six completed it via telephone survey questionnaire using the same questions.

Data were inputted in the Statistical Package for Social Science (SPSS) 2019 Version. The anonymity of participants and confidentiality of their responses were ensured by using numerical codes for questionnaires, Jot form submissions, and phone survey response. The data was destroyed at the end of the QI project and only aggregated data were reported.

**Project Plan/Intervention**

The project began with an application to the Committee on the Use of Human Subject in Research (CUHSR) at Bradley University (see appendix D). The initial intention was that this being a Quality Improvement (QI) project was not going to require an Institutional Review Board (IRB) of the hospital to approve. After much discussion and email communication, final feedback from the DNP student's faculty at Bradley University indicated that, this was a Quality Improvement (QI) project and may not require an IRB approval however, it was required to be reviewed by the Institutional Review Board (IRB) of the hospital. An application with the hospital's IRB was initiated and response was received within several days (see appendix E). After the approval of the hospital's IRB, the response was shared with the CUHSR team at Bradley University and the CUHSR application with Bradley University was also approved (see appendix F).

The project's implementation began with the use of the Mentor Self Confidence (MSC) to survey to identify learning gap with the potential mentors for the new graduate nurses. Data collection was conducted over a one-month period, from May to June (see appendix A). A Jot form survey link was created and sent to all nine mentors via email. All nine mentor participants responded to the survey. The non-identifiable results of the surveys were received electronically via online Jot form submissions. There were no barriers noted with this data collection process.

**Data Analysis**

Data results from the MSC were incorporated into the content for the Mentor Training Program (MTP) to train the preceptors to be mentors of the new graduate nurses. There were two components of the training program. One component was an online training titled: "Transitions from Precepting to Mentoring". This training was offered through Nursing CE Direct and the participants received one nursing education credit for completing the course. The purpose of the Preceptor Specialty Review course was to prepare the mentors with the following objectives: (1) identify the three relationships in the onboarding development continuum, (2) explain the difference between the preceptor and mentor roles, (3) state the benefits of mentoring, and (4) discuss the transition from preceptorship to mentorship (Swihart, 2016).

The second component of the training was content developed by the DNP student. The content included: 1) introduction to mentoring, 2) effective communication, 3) how to provide constructive feedback with role playing, and 4) effective ways to mentor.

The rationale for this content being included in the training was that, several studies had reported that mentoring improves knowledge sharing, satisfaction and communication skills (Feyissa, Balabanova, & Woldie, 2019; Mason et al., 2015). The literature supports the need for mentor training programs to focus on improving skills level such as leadership, how to provide effective feedback and communication (Dwyer & Hunter Revell, 2016; Rush et al., 2013). Nurse leaders play significant role in new graduate nurses' retention. "In an effort to reduce the experience of turnover in the first two years of practice, residency program coordinators and professional development staff must collaborate with nurse leaders and unit preceptor/mentors to use strategies that increase job embeddedness" (Tyndall, Scott, Jones, & Cook, 2019. p.97).

Mentors were required to complete the Mentor Training Program (MTP) and provided an evaluation at the end of the program using the MTPET (see appendix B). There were three MTP sessions scheduled in the month of June after receiving approval. The MTP was advertised using a flyer which included dates, times, location, how to enroll for the training, and a contact number for the instructor for questions or concerns. The flyer was emailed to participants and posted on the units' bulletin boards (see appendix G). Due to cancellation of one of the mentors, an additional class session became necessary which was scheduled in August (see appendix H). The MTP was a four-hour training. The program's agenda included all stated content (see appendix I).

The Mentor Training Program (MTP) dates were spread out to accommodate scheduling and staffing needs. The first and second class sessions had three participants in each, the third class session had two participants, and the fourth class session had one participant. Enrollment for the training was through the hospital online Learning Management System (LMS) called UMMS U. Participant were also encouraged to email enrollment choice or cancellation due to staffing or personal emergencies to the instructor via email or telephone.

The MTPE survey was provided to each attendee during the Mentor Training Program (MTP) and were asked to complete at the end of the class. All nine participants completed an evaluation and returned it to the instructor. The evaluation tool did not have requirement for name. Data were inputted in in Microsoft Excel Spreadsheet for descriptive statistical analysis, only aggregated data was reported. The only barrier to the MTP was the additional class due to one participant's cancelation. The project's plans and anticipated timelines were referred to frequently and modifications made as necessary, see (appendix J).

The New graduate nurses continued to attend scheduled monthly NRP cohort class sessions led by content facilitators and supported by the NRP coordinator. The content included in the NRP training at this hospital were:

1. Introduction and overview of the nurse residency program.
2. Communication between nurses and care teams, physicians.
3. Conflict resolution.
4. Stress and healthy work environment.
5. Evidence-based fall prevention program.
6. Evidence-based medication administration.
7. Resource management, managing the delivery of care and changing patient condition.
8. Organization of data and shift reporting.
9. Evidence-based pain management.
10. Cultural competence in the nursing care environment, ethical decision making and end of life care.
11. Evidence-based practice project process.
12. Patient and family teaching.
13. Quality and patient safety initiatives.
14. Evidence-based skin care practice.
15. Nurse sensitive patient outcomes.
16. Infection prevention.
17. Professional development, certification, shared governance process, professional advancement model (PAM).

**Institutional Review Board (IRB) and/or Ethical Issues**

The Committee on the Use of Human Subject in Research (CUHSR) application was completed and submitted for approval through Bradley University (see appendices D). In addition, an application was sent to the hospital's Institutional Review Board and the project was deemed except since it was aimed at assessing a Quality Improvement (QI) project (see appendix E). One challenge noted with this process was, the initial feedback that since the project was thought to be a QI project, it did not require an IRB approval from the host hospital, however after much discussion with the faculty at Bradley University, it was determined that an IRB approval was needed in addition to CUHSR approval (see appendix F). This delayed the implementation plan by two weeks. The DNP student had to wait for the hospital's IRB approval before obtaining final approval from Bradley University to implement the project's plan. On a positive note, responses and feedback were timely from CUHSR and the hospital's IRB.

There was one privacy issue regarding the MTP evaluation data collection. Due to the small class sizes (1, 2, & 3), it was easy to potentially identity a participant based on handwriting from the attendance roster, posttest, and the hard copy MTPET (see appendix B). Nevertheless, the data collection process made all efforts to keep responses unidentifiable to specific participants. The evaluation forms were asked to be put in a provided basket without participant's name.

## Chapter III: Organizational Assessment and Cost Effectiveness Analysis

### Organizational Assessment

One anticipated barrier was the new graduate nurses being able to attend the monthly NRP cohort class sessions. As previously mentioned, the hospital spends an estimated $60,320 on salary in training one new graduate nurse on the medical surgical/telemetry unit over the

course of one year. This project involved two medical surgical/telemetry units. There had been several occasions where the new graduate nurses from the two units and other units: Emergency Department (ED), Critical Care Unit (CCU) and Intermediate Medical Care Unit (IMCU) being absent for the NRP class sessions due to staffing challenges on the unit.

However, the manager on the two medical surgical/telemetry units was ready for a change that supported the new graduate nurse retention during and after the orientation period. There was open communication between the manager, the mentors and the DNP student to address barriers such as: absences of new graduate nurses to NRP monthly cohort class sessions, mentors attending MTP class sessions.

One unexpected barrier was that, during the project's implementation, the nurse manager was transferred to a different nursing unit to manage however, she continued to support the progress of the project. Communication continued to exist between the nurse manager and the DNP student via telephone and email communications to determine the status of the new graduate nurses, and their mentors. The nurse manager also ensured that the new nurse managers that were hired to the unit were informed about the NRP and need to ensure they attended classes.

Similarly, one of the trained mentors left the organization within three months of being trained however, and the remaining eight mentors provided support to all the new graduate nurses. The manager made all efforts to ensure that the new graduate nurses from these units were in every class. There were occasional absences from participants due to illness or emergency. Attendance to the NRP class sessions were higher from the two units compared to the other units. The DNP student collaborated with the nurse managers to inform them of class attendances and absences. In the event a new graduate nurse was absent from a class session, the

required make-up of the missed content was communicated to the new graduate nurse, the nurse manager, and the clinical nurse educator via email; with instruction and deadline to submit the makeup work within 14 calendar days. This practice provided clear communication between the three parties ensuring staff accountable to missed content completion compliance.

Furthermore, interprofessional communication and collaboration were essential in this project. This required comprehensive nursing management skills to collaborate in non-clinical related needs that affect patient safety, staff education and professional development. Collaborative practice in health care includes clinical and non-clinical health-related work, such as health communications and management (World Health Organization, 2010). Interprofessional collaboration during the project's implementation included the following stakeholders:

1. Nurse managers.
2. Mentors.
3. New graduate nurses.
4. Nurse educator.
5. NRP content facilitators.

**Cost Factors**

There was no capital equipment for this QI project. The NRP classes were four-hour long and consisted of different content. One cost factor was the new graduate nurses' salaries to attend the monthly NRP cohort class sessions. Also, there was cost involved in the salary of the NRP coordinator and one content facilitator. The class sessions generally required one NRP coordinator who was present to support the effectiveness of the class, in addition to content

facilitators that taught. Because staffing has been one of the challenges for some of the nursing units, this results in the hospital spending additional revenue in recruitment and re-training efforts to fill vacant positions.

Nurse turnover can cost as much as $88,000- 96,000 per nurse (Robert Wood Johnson Foundation, 2014). The hospital spends an estimated $60,320 in training one new graduate nurse on the medical surgical /telemetry unit over the period of one year. Achieving a retention rate of 80%-93% on the two medical surgical /telemetry units, could have yielded cost savings of at least $723,840 in training 12 new graduate nurses to fill those positions had they terminated their employment with the organization.

Another cost factor was the salaries of the nine mentors to attend the four-hour training. The cost for the nine mentors to attend a four-hour class was $1,116.00.

The mentorship training required printing of course materials and flyers. Total cost for the project amounted to $23,061.99 (see appendix K). The online training through CE direct was an existing service that had been purchased by the hospital, as a result, the mentors had access to the training without any additional cost.

## Chapter IV: Results

### Analysis of Implementation Process

The overall goal of this project was to improve retention on the medical surgical/telemetry nursing units. The project's plans were to continue to: (1) offer the Nurse Residency Program (NRP) cohort classes to new graduate nurses, (2) train mentors on the medical surgical /telemetry units to support the new graduate nurses during the first year in practice, and (3) support them after the initial orientation process. The project began with the

DNP student obtaining approval from the nurse manager on the two units in collaboration with the Clinical Practice and Professional Development Department (CPPD) of the hospital. The hospital's IRB and the school approved the project's plans and goals. After approvals were secured, the DNP student conducted a survey of the existing preceptors of the new graduate nurses on the two medical surgical/telemetry nursing units to determine their learning gap using the Mentor Self Confidence (MSC) survey question tool in May(see appendix A). During this same timeframe, the DNP student also conducted a literature review to determine appropriate content for effective mentoring training. During the same timeframe, the DNP student reviewed an existing mentor training CE direct course to determine appropriateness in meeting the needs of the mentors to be trained.

Once the MSC results were reviewed, it was determined that the mentors needed training on the mentoring process, effective communication and how to provide constructive feedback. The DNP student scheduled three four-hour MTP sessions in June (see appendices G) and the training flyer was communicated via email with the nine mentors, and nurse manager via email. The flyer was also posted on each unit's education bulletin board. Eight mentors were able to attend the MTP in June, however, due to staffing needs, one of the mentors was unable to attend by the end the last class session, which led to an additional class being scheduled in august (see appendix H).

The hospital offers two NRP cohorts per year to new graduate nurses hired as Clinical Nurse I's (CNIs). The new graduate nurses in the Quality Improvement (QI) project continued to attend the monthly scheduled NRP cohort class sessions. There was a total of ten NRP cohort class sessions during the QI project. There was a total of 46 total new graduate nurses that were enrolled in the NRP during the QI project; 17 were new graduate nurses from the two nursing

units (37%). 15 new graduate nurse participants met the inclusion criteria and completed the New Graduate Nurse Intent to Stay (NGNIS) within 12 months during the QI project. Two new graduate nurses would have been included in the QI project however, they failed to complete the NGNIS, and hence they were excluded.

Two modifications to the project's initial plan were: (1) the addition of a fourth MTP class session, and (2) three means of the NGNIS data collection. Originally, it was intended that the NGNIS surveys would be conducted via hard copy questionnaires in the NRP classes however, due to differences in cohorts' class schedules and class agendas. The class agendas did not offer enough times during the cohort classes to conduct the surveys, therefore a modified plan was warranted. The first group surveyed were five new graduate nurses that were graduating from the NRP. These five new graduate nurses received and completed a hard copy of the NGNIS. The remaining participants enrolled in two different cohorts completed their survey through a Jot Form online survey that was created using the NGNIS questions, or by telephone questionnaire with the DNP student using the NGNIS survey questionnaire hard copy that was read to them and responses were circled as they provided.

**Lesson learned 1**. The first lesson learned through this project was, nursing teams support involves collaborative efforts and shared goals. The nurse manager on the two units, the nurse educator, and the DNP student collaborated effectively to support the new graduate nurses, and the mentors. These were three key stakeholders in making this a successful project. The DNP student believes that the project's outcome and result were attributed to this inter-professional collaborative efforts. Elements that contribute to health care team satisfaction include feeling supported both administratively and interpersonally, being respected, valued, understood, and having clear understanding of role (Institute for Healthcare Communication,

2011). "Staff nurses' immediate leaders have a significant impact on both their job satisfaction and their intent to remain in their unit" (Correa, 2019, p. 215). Moreover, the nurse manager demonstrated an example of a transformational leadership. Transformational leadership inspires others to grow their own leadership abilities considering provided opportunities (Shaughnessy, Quinn Griffin, Bhattacharya, & Fitzpatrick, 2018).

**Lesson learned 2**. The second lesson learned was, the importance of effective communication. Effective communication is fundamental to safe, high-quality, patient-centered care. There is compelling evidence that communication among health care team members influence the quality of working relationships and job satisfaction, which has profound impact on patient safety (U.S. Department of Health and Human Services, 2017). Also, there is the need to prioritize interprofessional communications in healthcare which impacts the health of the population served (Mason et al., 2015).

**Lesson learned 3.** The third lesson learned was, new graduate nurses that received ongoing support in their nursing unit from mentors and nurse leaders, have high probability of feeling satisfied and staying on their unit. This reduces turnover and increases retention. This process also taught me that, nurse leaders in healthcare setting must support QI projects as such; to improve practice and attain positive patient outcomes. Leadership is an important component of the nursing profession across all spectrum; patients' lives can be improved worldwide if nurses embrace the impact of individual leadership roles (Mason, 2015).

**Lesson learned 4.** The fourth lesson learned was, nurses that serve as preceptors have the desire to serve as mentors after the initial orientation period. All nine mentors had served as preceptors to the new graduate nurses during their orientation period and were willing to mentor

them. This made the transition into a mentor role easier because the relationship had already been initiated.

**Analysis of Project Outcomes Data**

The project involved three data collection tools to measure the selected outcomes. The tools included the Mentor Self Confidence (MSC) tool completed by the mentors to identify learning gaps in serving as mentors. There were the nine identified mentors that had served as preceptors to the new graduate nurses (n=9).

**Quantitative Data Analysis of Mentor Self Confidence (MSC)**

The MSC data was originally planned to be collected using online survey using the questionnaire, and that is how the data was collected. Data collection was conducted via online Jot Form survey completed by the nine participants. The non-identifiable online survey responses were printed as they were received, and a numerical code assigned to each printed response. The DNP student entered all the printed hard copy data from the survey responses into an excel spreadsheet. The DNP student received guidance from her onsite mentor; this person worked in the Quality Department of the hospital and was familiar with data collection processes. To ensure accuracy of data entry, the data was doubled-checked by the DNP student. The excel spreadsheet with the data was analyzed by the DNP student to obtain quantitative data. Descriptive statistics were used to analyze the data which included frequencies descriptive statistics. All nine mentors completed the MSC survey n=9. See Table 1 for data outcome from the MSC.

Table 1

*Mentor Self Confidence Survey (MSC) Survey Responses*

| Question | Agree (%) | Neutral (%) | Disagree (%) |
|---|---|---|---|
| Confidence in mentoring | 4(44) | 1(11) | 3 (33) |
| Constructive feedback skills | 1(11) | 1(11) | 7(78) |
| Understanding of mentor roles | 4(44) | | 5(55) |
| Formal mentor training | 1(11) | | 8(89) |
| Communication skills | 7(78) | 1(11) | 1(11) |
| Mentoring ends with orientation | 6(67) | 2(22) | 1(11) |
| Delegation skills | 8(89) | 1(11) | |
| Preceptor versus mentor | 4(44) | 2(22) | 3(33) |

*Note: N*=9 Blank sections indicate, there was no corresponding response to that item

**Qualitative Data Analysis of Mentor Self Confidence (MSC)**

As shown in Table 1, majority of the mentors did not possess the skills in providing constructive feedback to mentee (78%), understanding the roles of a mentor (55%), or having formal mentor training (89%). Confidence in mentoring was averagely agreed to. Majority of the mentors agreed they possessed the skills in communication and delegation (78% and 89%) respectively. Also, majority of the mentors had not received a formal training in mentoring (89%), lacked knowledge of mentorship being a longer term relationship, as opposed to ending with the orientation period (89%), and majority lacked the understanding of the difference between a preceptor and mentor (22% + 33% = 55%). This result showed the need for a Mentor Training Program (MTP) to support the nurses as they learned skills necessary to being effective mentors. The mentoring process improves, supports and role models (Vatan, 2016).

**Quantitative Data Analysis of Mentor Training Program Evaluation (MTPE)**

The second tool was the Mentor Training Program Evaluation Tool (MTPET). This was used to evaluate the MTP to ensure it met the learning needs of the participants. The MTPE data was collected through a hard copy evaluation tool (see appendix B), that was completed at the end of each training session. The form did not include the name of participants. The DNP student entered the responses into an excel spreadsheet with direction and guidance from the student's mentor at the hospital. To ensure accuracy of data entry, the data was doubled-checked by the DNP student. The excel spreadsheet with the data was analyzed by the DNP student to obtain quantitative data. Descriptive statistics were used to analyze the data which included frequencies descriptive statistics. A total of nine mentors completed the MTPE survey n=9. Data analysis results are summarized in Table 2.

Table 2

*Mentor Training Program Evaluation (MTPE) Frequencies Descriptive Data Analysis*

| Question | Agree (%) | Neutral(%) | Disagree (%) |
|---|---|---|---|
| Program objectives were met | 8(89) | 1(11) | |
| Content covered objectives | 8(89) | 1(11) | |
| Appropriateness of teaching method | 8(89) | 1(11) | |
| Program met learning needs as mentor | 8(89) | 1(11) | |
| Appropriateness of posttest | 9(100) | | |
| Program met expectation | 9(100) | | |
| Concept incorporation into practice | 9(100) | | |
| Similar program will be attended in future | 9(100) | | |
| Instructor was knowledgeable | 8(89) | 1(11) | |
| Instructor was organized | 9(100) | | |
| Instructor was effective | 8(89) | 1(11) | |

*Note: N*=9 Blank sections indicate, there was no corresponding response to that item

**Qualitative Data Analysis of Mentor Training Program Evaluation (MTPE)**

The data from the evaluations clearly show that the nurses benefitted from the MTP and were ready to serve as mentors to the new graduate nurses on the two nursing units. This was important to the goal of this project because, a mentor is an important factor to the support of the new graduate and their intention to stay on the nursing unit. A mentor is different from a preceptor in that, it is a long-term relationship between an experienced and less experienced person (Thomas, Allen & Edwards, 2018). Nurses' transitions to practice conditions are maximized when vital resources are provided such as: support, preceptor, and mentor (Pilat & Merriam, 2019).

**Quantitative Data Analysis of New Graduate Nurse Intent to Stay (NGNIS) Survey**

The last tool was used in this project was the New Graduate Nurse Intent to Stay (NGNIS) with 12 months on the unit survey questionnaire. Each new graduate nurse completed the NGNIS through one of the following three processes:

1. A hard copy survey questionnaire during NRP graduation.
2. Online Jot Form questionnaire survey
3. Telephone questionnaire survey.

After participants completed the survey by one of the mentioned means, the DNP student entered the data from the survey responses into excel spreadsheet and the Statistical Package for Social Science (SPSS), 2019 version application after gaining a 14-day trial access approval from the International Business Machines Corporation (IBM). To ensure accuracy of data entry,

the data was doubled-checked by the DNP student in SPSS data view and compared with the variable view. The excel spreadsheet with the data was analyzed by the DNP student to obtain quantitative data. Descriptive statistics were used to analyze the data which included frequencies. SPSS data procedures included: descriptive statistics (frequencies, means and standard deviations), and bivariate Pearson correlations 2-tailord test. A total of 15 new graduate nurses completed the surveys. Seventeen of the new graduate nurses (n=17) met the inclusion criteria as summarized in Table 3.

Table 3

*New Graduate Nurse Participants Inclusion Criteria*

| Criteria | *n* | Total % |
|---|---|---|
| Hired as a new graduate RN | 17 | 100 |
| 12 months or less experience in a hospital | 17 | 100 |
| 12 months or less on unit | 17 | 100 |
| Enrolled in NRP | 17 | 100 |
| Completion of NGNIS | 15 | 88 |

*Note:* RN= Registered Nurse

As shown in Table 3, there were 15 new graduate nurses that participated in the Quality Improvement (QI) project. 17 could have participated however, survey responses were not received from two participants hence the exclusion.

Demographic data of the new graduate nurses are summarized in Figures 1 and 2; and Table 4.

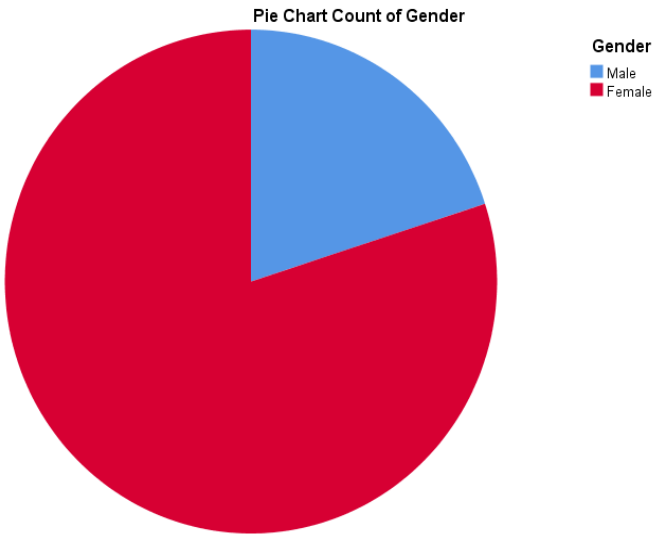


*Figure 1* New Graduate Nurses Demographic Data on Gender

As shown in Figure 1, majority of the participants were females.

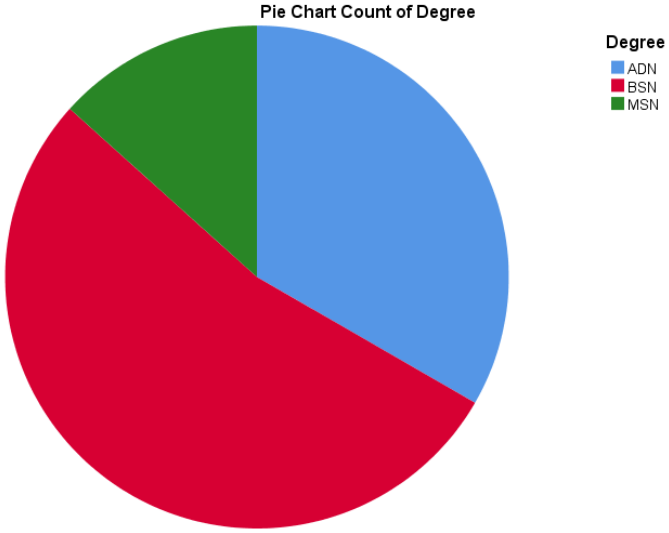


*Figure 2* New Graduate Nurses Demographic Data on Nursing Degree

As shown in Figure 2, majority of the participants possessed Bachelor of Science in Nursing (BSN) degree. Associate Degree in Nursing (ADN) was second most common degree, and fewer with Master of Science in Nursing (MSN).

Table 4

*New Graduate Nurses Demographic Data on Age*

| Demographic | Frequency | Total % |
|---|---|---|
| Age | | |
| 22-24 | 5 | 33 |
| 25-30 | 4 | 27 |
| 31-40 | 4 | 27 |
| 41-50 | 2 | 13 |

*Note:* $N = 15$; $M = 2.20$; $SD = 1.08$.

As shown in Table 4, majority of the participants were under age 50.

Data analyses of new graduate nurses' responses to NGNIS questionnaire items: 4, 5, 6, 7, 8, and 9 (see appendix C) were conducted using SPSS, descriptive statistics and histogram graphs. These are summarized in Figures 3, 4, 5, 6, 7 & 8.

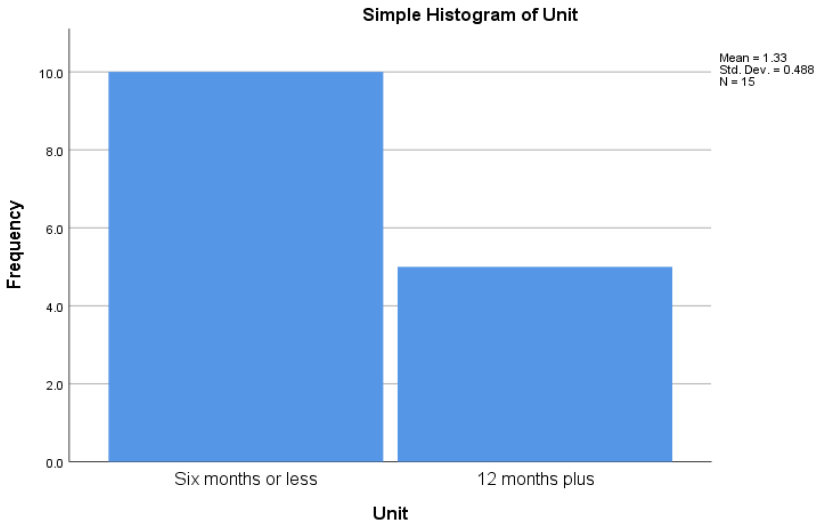


*Figure 3* Descriptive Frequencies Data on Length on Unit

As shown in Figure 3, majority of the participants had been on the unit for less than 12 months and fewer with 12 months or more. This could be the new graduate nurses that had been through the NRP program and were graduating.

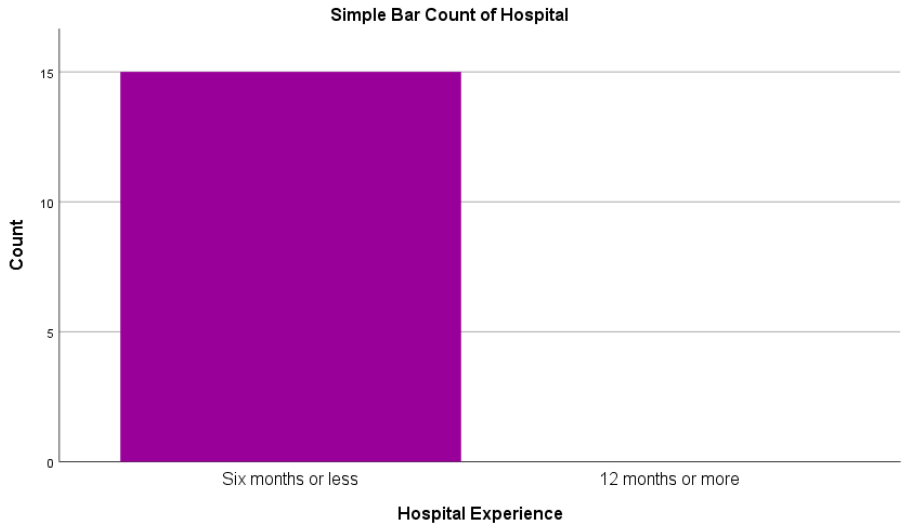


*Figure 4* Descriptive Frequencies Data on Length on Unit

As shown in Figure 4, all the participants had less than 12 months of hospital experience before enrolling in the NRP. They were all new graduate nurses with less than one year of nursing experience in acute care setting. This supported the purpose of the Nurse Residency Programs (NRP) that have been reported to reduce turnover in the first year of employment (Wolford et al., 2019). Transition to practice programs are necessary when the new graduate nurse has less than one year of nursing experience (Goode et al., 2013).

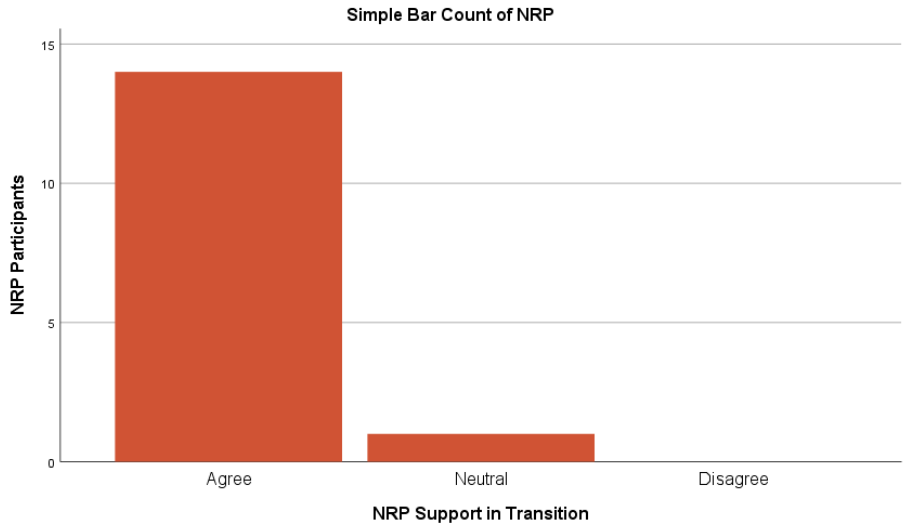


*Figure 5* Descriptive Frequencies Data on NRP Support in Practice Transition

As shown in Figure 5, most participants agreed to the survey question item six; NRP preparation support in transition into practice. There was no disagreement with the question item.

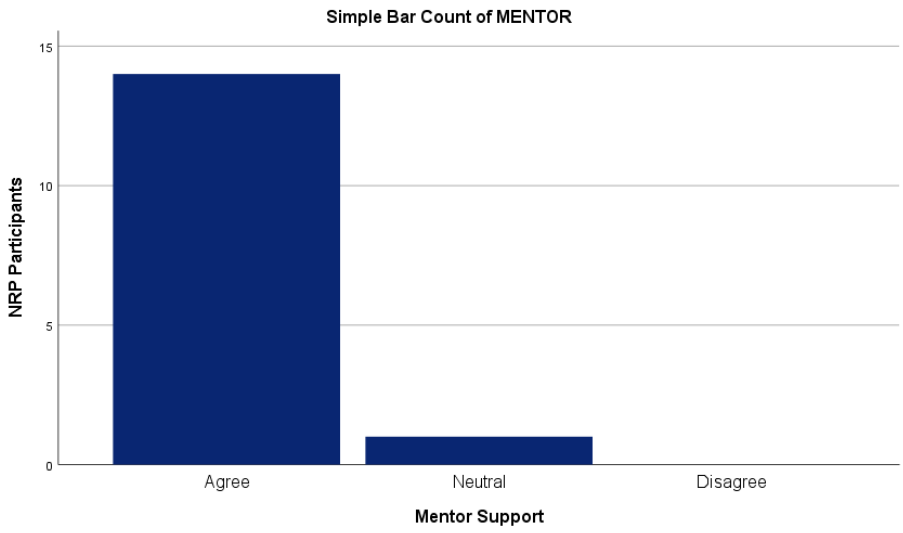


*Figure 6* Descriptive Frequencies Data on Mentor Support on Unit

As shown in Figure 6, most participants agreed to the survey question item seven; mentor supported them in their professional growth. There was no disagreement with the question item.

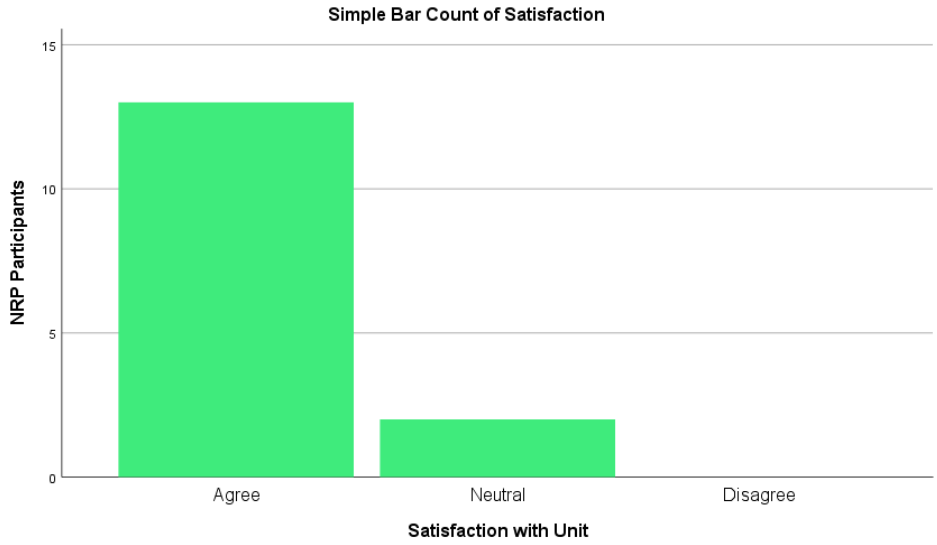


*Figure 7* Descriptive Frequencies Data on Job Satisfaction on Unit

As shown in Figure 7, most participants agreed to the survey question item eight, satisfaction on the unit. There was no disagreement with the question item.

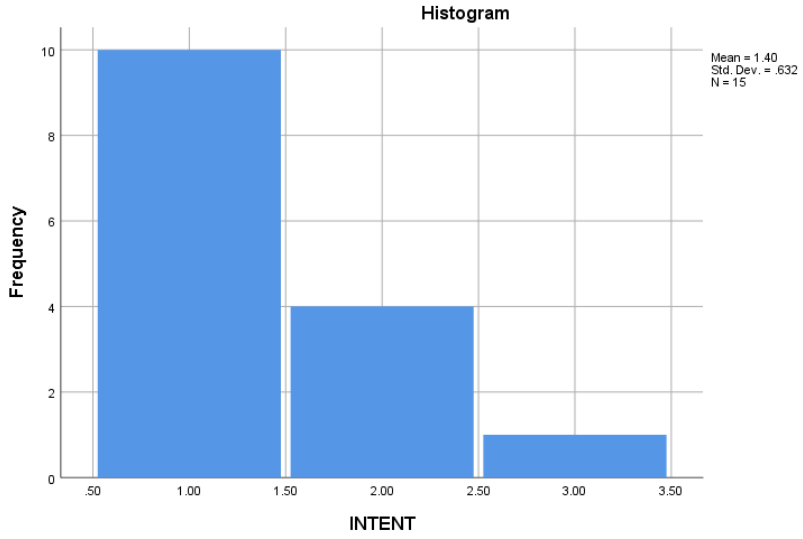


*Figure 8* Descriptive Frequencies Data on Intent to Stay on Unit

As shown in Figure 8, most participants agreed to the survey question item nine; intent to stay on the unit within 12 months. There were some neutral responses and a disagreement response to the question item. The mean and standard deviation of the variables: NRP support, mentor support, satisfaction on unit, and intent to stay were also analyzed using SPSS (see Table 5).

Table 5

*New Graduate Nurse Intent to Stay (NGNIS) Descriptive Statistics Variable Comparison*

| Variables | *M* | *(SD)* | n |
|---|---|---|---|
| NRP Program Support | 1.06 | (.26) | 15 |
| Mentor Support | 1.06 | (.25) | 15 |
| Satisfaction on Unit | 1.13 | (.35) | 15 |
| Intent to Stay | 1.4 | (.63) | 15 |

*Note: M= Mean score; SD= Standard deviation*

Pearson correlations, bivariate, 2-tailord test was conducted on different paired variables to determine correlations and significance of results. First step was to compare the correlation between the variables: intent to stay within 12 months with support from a mentor. The result was as followed:

| | | Intent to stay | Mentor support |
|---|---|---|---|
| Intent to stay | Pearson Correlation | 1 | .262 |
| | Sig. (2-tailed) | | .345 |
| | N | 15 | 15 |
| Mentor support | Pearson Correlation | .262 | 1 |
| | Sig. (2-tailed) | .345 | |
| | N | 15 | 15 |

*Figure 9* SPSS Mentor Support and Intent to Stay Correlation Data

As shown in Figure 9, there was non-significant positive relationship between mentor support for the new graduate nurse and intent to stay, $r$ (13) = 0.262, $p$ = .345.

The second step was to compare the correlation between the variables: intent to stay within 12 months with NRP support in practice transition. The result was as followed:

| | | Intent to stay | NRP support |
|---|---|---|---|
| Intent to stay | Pearson Correlation | 1 | .262 |
| | Sig. (2-tailed) | | .345 |
| | N | 15 | 15 |
| NRP support | Pearson Correlation | .262 | 1 |
| | Sig. (2-tailed) | .345 | |
| | N | 15 | 15 |

*Figure 10* SPSS NRP Support and Intent to Stay Correlation Data

As shown in Figure 10, there was a non-significant positive relationship between the NRP support and the new graduate nurses' intent to stay on unit within 12 months, $r$ (13) = 0.262, $p$ = .345.

The third step was to compare the correlation between the variables: intent to stay within 12 months with satisfaction on the unit. The result was as followed:

| | | Intent to stay | Unit satisfaction |
|---|---|---|---|
| Intent to stay | Pearson Correlation | 1 | .385 |
| | Sig. (2-tailed) | | .156 |
| | N | 15 | 15 |
| Unit satisfaction | Pearson Correlation | .385 | 1 |
| | Sig. (2-tailed) | .156 | |
| | N | 15 | 15 |

*Figure 11* SPSS Unit Satisfaction and Intent to Stay Correlation Data

As shown in Figure 11, there was a non-significant positive relationship between the new graduate nurses' intent to stay and unit satisfaction, $r\,(13) = 0.38$, $p = .156$.

Finally, SPSS bivariate, 2-tailord test between the variables: mentor support and unit satisfaction were analyzed. The result was as followed:

| | | Mentor support | Unit satisfaction |
|---|---|---|---|
| Mentor support | Pearson Correlation | 1 | .681** |
| | Sig. (2-tailed) | | .005 |
| | N | 15 | 15 |
| Unit satisfaction | Pearson Correlation | .681** | 1 |
| | Sig. (2-tailed) | .005 | |
| | N | 15 | 15 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | |

*Figure 12* Mentor Support and Unit Satisfaction Correlation Data

As shown in Figure 12, there was a significant positive relationship between the new graduate nurses' satisfaction on their unit and mentor support, $r\,(13) = 0.68$, $p < .01$.

# Chapter V: Discussions

## Findings Linked to Objectives

According to the nurse manager, prior to the implementation of the project, the retention rate of the new graduate nurses on the two units was estimated at 50% in previous years.

**Objective 1**. Implement a mentor training program to augment the existing NRP in supporting the new graduate nurses on the nursing unit's transition from student to professional nurse. The MTP was successful. It was well attended and received by the mentors with 100% completion by all nine selected participants (n = 9). The mentors were trained and motivated to provide effective mentoring to the new graduate nurses through the successful completion. The DNP student believes that the MTP's intended outcomes were met (see appendices L, M and N).

**Objective 2.** Continue to support the new graduate nurses' transition into practice through the NRP. As shown in Figure 10, there was a positive relationship between the NRP support and the new graduate nurses' intent to stay on unit within 12 months. This result confirmed what many studies had concluded; transition to practice programs such as the NRP, supports new graduate nurse's growth into professional nurses and improves retention (Bednash & Murray, 2013; Goode et al., 2013). Additionally, as shown in Figure 11, there was a positive relationship between the new graduate nurses' intent to stay and unit satisfaction.

**Objective 3.** Improve retention on the two medical surgical/telemetry units from 50% to 80% or greater. As shown in Figure 9, there was positive non-significant relationship between mentor support for the new graduate nurse and intent to stay. The DNP student believes that a retention rate of 80% -93% was achieved based on the NGNIS responses to question number nine (see Figure 8); 12- agree responses, 2-neutral responses, and 1-disagree response.

According to Asber (2019), the average cost per bedside nurse turnover is about $52, 100. This hospital spends an average cost of $60,320 on salary to train one new graduate nurse per year. This concludes that the medical surgical /telemetry units with a retention rate of 80%-93% achieved cost savings of at least $723,840.

These results affirm the positive impact on retention of the new graduate nurse when supported by a mentor at the unit level, helping them through professional, personal and social growth. The aim of this QI project was to train mentors on the medical surgical unit to support the new graduate nurses during the first year in their practice and serve as a support beyond the initial orientation phase. Studies support the need for formalized graduate nurses transitional training to improve retention however, formalized mentor training plays an important role (Mijares et al., 2013; Pfaff et al., 2014).

**Limitations or Deviation from Project Plan**

**Limitation 1.** One limitation was the sample size. The small sample size of new graduate nurses (n = 15) could imply a non-generable application to a larger sample size. There were three new graduate nurses that had left the unit prior to the project's implementation which affected the sample size. Also, there were two new graduate nurses that had met the inclusion criteria, however, did not complete the NGNIS and were excluded from the data reporting. Also, the project did not involve the entire 46 new graduate nurses in the active NRP cohorts during the project's implementation which could have increased the sample size for significant results.

**Limitation 2.** Another limitation was the difference in data collection from the new graduate nurses. There were three ways that data were collected using the NGNIS survey questionnaire: (1) online survey via a Jot form, (2) a hard copy tool during NRP graduation, and

(3) telephone questionnaire by the DNP student. Four (27%) new graduate nurse participants completed a hard copy of the survey during their NRP graduation, five (33%) completed it through Jot form online survey, six (40%) completed it via telephone survey questionnaire using the same questions. The inconsistency in the data collection could have affected the responses.

**Implications for Practice Change**

The results of this Quality Improvement (QI) project may imply that, new graduate nurses can be supported through formalized transition to practice training programs such as: the Nurse Residency Programs (NRP) however, after the initial orientation period and beyond, a continued support from a mentor is critical.

**Practice.** A trained mentor with the understanding on how to be an effective role model through professional guidance, empowers the new graduate nurse to be self-confident, satisfied with their job, provide quality nursing care, and improve patient outcomes. Previous studies have reported that mentorship for new graduate nurses' improved confidence and retention (Missen et al., 2014; Schroyer et al., 2016). The recommendation from this project was that hospital should support new graduate nurses training through a mentoring program for all nursing units. This could reduce turnover, improve retention and offer financial cost savings. This project provided a background for other units in the hospital to implement an MTP for the preceptor to serve as mentors to the new graduate nurses.

Transferability and sustainability of the interventions recommended will require the identified challenges being addressed for all the nursing units. This would include the support for the new graduate nurse to attend all NRP cohorts' class sessions. This meant that scheduling challenges needed to be addressed to allow the new graduate nurses to participate in all classes.

Also, this would require that all preceptors that orient new graduate nurses complete the mentor training program (MTP).

**Future Research.** The QI focused on the new graduate nurses' retention through a structured MTP. There exists currently, a plethora of research supporting the impact that NRP has on transitioning the new graduate nurse into practicing nursing role however, there is a need for more research in the area that augments the NRP through mentoring. New graduate nurses need this support during and beyond their initial orientation period with a preceptor. The project's findings will be shared with the nursing leadership team in the organization to apply the concept of mentoring to the NRP (see appendix O). There should be consideration for preceptors to be trained to serve as mentors in helping achieve a higher satisfaction, and retention rate among the new graduate nurses in the organization. The DNP student believes that the publication of this QI project will also allow for more future studies to answer the question: "in new nurse graduates working in acute care hospital, does the NRP, coupled with mentoring improve retention within the first year and beyond?"

**Nursing.** Nurses are the backbones of healthcare settings especially in the hospital. Patients' healthcare needs and interdisciplinary plan of care are directly impacted by nurses' ability to make clinical decisions, critical thinking, ensuring the effectiveness of the patient's overall outcome (Mason, 2015). Leaders in healthcare are constantly struggling with the issues affecting staffing, and the shortage of nursing. Kennedy, 2018 reports that, there continues to be shortage of nurses and although there are 2,000 new nurses each year in Colorado for example, there is a projection of 3,200 new nurses in need per year.

Hiring new graduate nurses would appear to be one solution to the nursing shortage however, Speiz et al. (2013) reported that, there are more than twenty new graduate nurses hired

every three months with a retention rate ranging from 80% in some areas to 40% in other areas. Hospitals are bridging the gap between nursing training in the academic setting with the provided clinical through nurse residency programs (Medas et al, 2015) however, there continues to be low retention rates of new graduate nurses in hospitals. According to Halcomb et al. (2012), students' self-confidence at the school before graduating, and availability of a transition-to-practice training programs are vital to the decisions to work in a critical care setting post-graduation.

Through the implementation of an NRP, the new graduate has the opportunity for professional socialization, competence, and confidence development (Commission on Collegiate Nursing Education, 2015). A mentor could serve as a role model for the new graduate nurse achieve these milestones. In a published article that looked at the impact of a mentor on the newly hired critical care nurse, one of the ways reported to help with the alleviation of anxiety and stress level was managed through the assigning of a mentor, one who had experience and the willingness to teach the new graduate nurse (Ihlenfeld, 2005). Implementation of a trained mentors that are available to new graduate nurses on all nursing units in the hospital should be considered for implementation in conjunction with the NRP.

**Health Care Policy.** It is well established that, new graduate nurse retention rate can be enhanced through a formalized mentorship program according to Cottingham et al., (2011). The professional relation that can be achieved through mentoring can improve competence, quality care and improved patient outcomes (Mason, 2015). The Healthy People 2020 preventative goals for a healthier nation require healthcare professionals to be competent in providing quality care (Healthy People, 2019). One of the objectives of the Healthy People 2020 is to reduce Healthcare- Associated Infections (HAIs) through the reduction of:

1. Central Line-Associated Blood Stream Infections (CLABSIs).
2. Catheter-Associated Urinary Tract Infections (CAUTIs).
3. Ventilator-Associated Pneumonia (VAP).

Report shows that, at any given time in the United States, 1 out of every 25 hospitalized patients are affected by a HAI (Magill et al., 2014).

It is the goal for hospitals to provide quality patient care and improve patient outcomes, as required by regulatory bodies such as the Center for Medicare and Medicaid Services (CMS), and the Joint Commission (TJC). Quality care can be achieved through trained and competent nursing staff; this includes new graduate nurses. Hospitals are required to ensure transition programs such as the NRP is available to improve retention of new graduate nurses. This always allows for adequately available competent nurses to provide quality patient care. Staffing ratios are linked to nurse satisfaction and improved patient outcomes (California Nurses Association, 2009). The nursing teams can provide quality care when the challenges and barriers in nursing care are reduced or removed. One barrier faced by many hospitals is the shortage of nurses.

In 2017, the Institute of Medicine (IOM) published a groundbreaking report which laid out eight recommendations to address the increasing demand for high quality and effective healthcare service. It provided an action-oriented blueprint for the future of nursing. Four of the recommendations were incorporated into the scope of the Nurse Support Program I (NSP I) programs. The recommendations were:

1. Implement nurse residency programs (NRPs)
2. Increase the proportion of nurses with a baccalaureate degree to 80% by 2020.
3. Ensure that nurses engage in lifelong learning.
4. Prepare and enable nurses to lead change to advance health.

Furthermore, Maryland State in 2014 launched a population-based payment model that replaced fee-for-service payments with global budgets for all hospital-based services. The purpose of the global budget revenue is to provide incentives to hospitals for quality patient care (Galarraga et al., 2014). “In recent years, studies of cost analysis have been increasing because the understanding on cost structures of hospitals is essential to improve the efficiency and quality of healthcare services” (Than et al., 2017, p. 2).

Moreover, the Health Services Cost Review Commission (HSCRC) in 2017 approved a grant program that supports hospital-based initiatives aimed at addressing the short- and long-term nursing shortage impacting Maryland hospitals. All Maryland acute care hospitals that are under the jurisdiction of the HSCRC are eligible for funding through their regulated hospital rates.

These are all the different ways that the nursing shortage challenge is being addressed on the federal and state level. These standards should be considered for policy in the organization for all nursing units that employ new graduate nurses. This will allow for the support necessary for the new graduate nurses transition into practice, and positively impact care and patient outcomes through the NRP and mentoring.

## Chapter VI: Conclusion

### Values of the Project

This project provided confirmation of what studies have reported; new graduate nurse transition into practice programs is not only a matter of retention, it also affects patient outcomes and quality of care. The transition into practice not only leads to confidence, competence, leadership skills, and quality patient care, it also leads to job satisfaction, retention and cost savings for the organization. I thought that this project would help the hospital better understand

the importance of transition to practice programs coupled with mentorship. The project can be implemented on other nursing units in the hospital to improve retention. New graduate nurses benefit from their mentors who can support them through their first years into the nursing profession.

This DNP student remembers being a new graduate nurse with no nursing experience, except from previous role as a Certified Nursing Assistant (CNA), and from clinical rotations in nursing school. The thought of being the nurse in charge of the patient alone was frightening, but with the support an experienced nurse that took me under her wings through support and guidance, confidence level improved and grew over time. That fear could only have been managed through a role model that would support in growing me personally, socially, and professionally.

**DNP Essentials**

The *Doctor of Nursing Practice (DNP) Essentials* was established by the American Association of Colleges of Nursing. These provide the framework for core competencies necessary for advance nurse practitioners (AACN, 2006). There eight essential competencies are identified and defined.

**DNP Essential I.** The first Essential involves the scientific underpinnings for the doctoral practice through the application of science-based theories, and concepts to improve nursing practice in the healthcare delivery system. This project applied the Clinical Decision-Making (CDM) nursing theory through the NRP, provided support, on the job training and mentoring. This guided the graduate nurse move from task-oriented nurse, to application of abstract thinking in clinical situations, to help make the best decision for patient care. Current healthcare settings

lack the mentoring and clinical support necessary to grow clinical decision-making skills of the new graduate nurse. Study reports that, there are lapses in the novice nurse's ability to move from being clinically narrow minded, to having the ability to apply concrete experience while viewing clinical situations (Shelestak et al., 2015). This project directly aligned with the competency of "develop and evaluate new practice approaches based on nursing theories and theories from other disciplines" included in Essential I (AACN, 2006, p. 9).

**DNP Essential II**. The second Essential involves the organizational and systems leadership for quality improvement and systems thinking. This project was a Quality Improvement (QI) project with the goal to improve retention on two medical surgical/telemetry nursing units. This project allowed for the development of a Mentor Training Program (MTP) as well as the ongoing NRP to support the new graduate nurses transition to practice. These two program outcomes are in alignment with the competency to " develop and evaluate care delivery approaches that meet current and future needs of patient populations based on scientific findings in nursing and other clinical sciences, as well as organizational, political, and economic sciences" included in Essential II (AACN, 2006, p. 9).

**DNP Essential III**. The third Essential involves the clinical scholarship and analytical methods for evidence-based practice (AACN, 2006). This project through the NRP, and the development of the MTP which involved the use of research, provided an EBP framework to support the retention of new graduate nurse through the NRP and augmenting it with mentoring.

**DNP Essential IV.** The fourth Essential involves the information systems and patient care technology for the improvement and transformation of care (AACN, 2006). This project through the NRP supported the new graduate nurses by the hospital's electronic medical record (EMR) system to identify documentation lapses through chart audits to meet EBP protocols such

as: fall prevention, CLABSI preventions, and CAUTI prevention protocols. The project also allowed for the new graduate nurse to be mentored during their training to ensure proper use of the EMR for patient care documentation that meets regulatory standards.

**DNP Essential V.** The fifth Essential involves the application of health care policy for advocacy in health care (AACN, 2006). This project involved the identification of policy needs that will address the need to mandate NRP and MTP for all nursing units as a recommendation to improve retention of new graduate nurses.

**DNP Essential VI.** The sixth Essential involves the application of inter-professional collaborative efforts that improve patient and population health outcomes (AACN, 2006). This project involved effective communication skills and collaboration with unit mangers, new graduate nurses, mentors and educators in providing EBP through the NRP and MTP. Communication was essential in the successful implementation of interventions. There also existed nurse manager leadership support through collaborative efforts. Nurse leaders play significant role in new graduate nurses' retention. "In an effort to reduce the experience of turnover in the first 2 years of practice, residency program coordinators and professional development staff must collaborate with nurse leaders and unit preceptor/mentors to use strategies that increase job embeddedness"(Tyndall et al., 2019, p. 97). There exist many researches reporting the benefits of effective communication (Institute for Healthcare Communication, 2011).

**DNP Essential VII.** The seventh Essential involves the application of clinical prevention and population health for improving the Nation's health (AACN, 2006). This competency was addressed through the implementation of an NRP and MTP that supported the delivery of care

model to improve the skills of new graduate nurses on the two units through the NRP structured with the following requirements:

1. Participation of all new graduate nurses hired.
2. Monthly class session for 12 months.
3. Required participation in an Evidence Based Patrice (EBP) project.

**DNP Essential VIII.** The eighth Essential require the application of advanced nursing practice through guidance, mentoring, and support for nurses to achieve excellence in nursing practice (AACN, 2006). During the implementation of this project, new graduate nurses were supported and mentored to achieve continuous professional relationship and support throughout their nursing practice on the unit. Additionally, the trained mentors required mentoring from the DNP student along with NRP coordinators, and facilitators in improving their own mentoring skills. One of the exciting outcomes from this project was, an EBP project presented by nurses from one of the medical surgical/telemetry units received nursing leadership attention. The project focused on stress amongst nursing staff, and the impact of stress reduction on nurses' productivity. The new graduate nurses conducted evidence-based research and found out that a stress relief room could decrease stress level on the unit. They then created an "Oasis Room" for nurses on the unit. This room was a place where nurses and other ancillary nursing support staff on the unit, could go and relax for a few minutes after a stressful patient care situation. The most common stressful situations on the unit were: dealing with difficult patients and/or families, rapid response, code blue, and dealing with Interprofessional conflicts. The hospital's Chief Nursing Office (CNO) was very impressed about the "Oasis Room" and how it had already started to decrease the stress level of the nursing staff on the unit.

**Plan for Dissemination**

The project's findings will be shared with the nursing staff, the nurse managers of the two nursing units, and nursing leadership team at the hospital. This will allow other nurse leaders to be informed about the importance of allowing their new graduate nurses to participate in the NRP, and train mentors to support the new graduate nurses throughout their practice on the unit beyond the initial orientation period. This will be accomplished through a podium presentation at one of the nursing leadership meetings.

**Attainment of Personal and Professional Goals**

Supporting nursing professionals' growth through research and evidence-based practice (EBP) is an important part of my advance nursing professional goals. This has been enhanced throughout the project's implementation and experience at the hospital. My goals to further explore evidence-based practices (EBPs) and their impact on nursing care have been motivated through this QI project.

My confidence level in nursing leadership skills through my interaction and collaboration with the teams and processes in the organization have been improved. Leadership skills are vital in staff training and development. Being a leader required my ability to coordinate activities of team members and ensuring team actions are understood, changes are well communicated, shared with team members in timely manners. Nursing staff high turnover rates create barriers to safe patient care. Nurse leaders must practice with vision, act with purpose, and remove barriers to quality care, model acceptable behaviors, support the desired change, and consistently make patients, families and staff their highest priority.

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Appendix A

## Mentor Self Confidence Survey (MSC)

To continue to support your learning needs as a mentor for our new graduate RNs, we would like to get your feedback about your self-confidence and learning needs in orientating new graduate nurse to Medical surgical / telemetry Unit. Thank you for your feedback.

Please provide your rating to the following questions with the provided scale.

Agree= A

Neutral = N

Disagree=D

| Question | A | N | D |
|---|---|---|---|
| 1. I am confident in my skills as a nurse in mentoring a new graduate nurse to the unit. | | | |
| 2. I feel comfortable in communicating both positively and constructively with my new graduate nurse mentee. | | | |
| 3. I understand my roles and responsibilities as a mentor. | | | |
| 4. I have had a formal training in preparing me to be an effective mentor. | | | |
| 5. Being a mentor ends once my mentee completes his or her 12 weeks of orientation with me. | | | |
| 6. I know how to effectively communicate in my work setting and with my mentee. | | | |
| 7. I understand the process of delegation. | | | |
| 8. I understand the difference between a preceptor and a mentor. | | | |

Appendix B

**Mentor Training Program Evaluation Tool (MTPET)**

**Program Date: _____**

To evaluate the effectiveness and quality of this program please supply the following information.

**Use a rating scale of 1 to 3: where 1 = agree; 2 = neutral; and 3 = disagree.** For items that cannot be rated, indicate N/A.

1. The program's objectives were met. _____
2. The content adequately covered the learning objectives. _____
3. The teaching method was appropriate. _____
4. The training met my learning needs as a mentor of new graduate nurses. _____
5. The posttest was appropriate program. _____
6. Concepts presented will be incorporated into my practice. _____
7. I will attend similar program in the future. _____

8. Please rate the instructor using the above scale of 1 to 3 where **1 = agree; 2 = neutral; and 3 = disagree**

| **Speaker (s) Name** | **Knowledgeable** | **Organized** | **Effective** |
|---|---|---|---|
| Hannah Asiem, RN, MSN | | | |

Appendix C

**New Graduate Nurse Intent to Stay (NGNIS)**

To identify our retention rates of newly graduate nurses on the Medsurg / Telemetry nursing units within a 12-month period, we would like to get your feedback about your intention to stay at Midtown in the next six months. Thank you for your feedback.

1. Gender
    a. Male
    b. Female
2. Age
    a. 20-24
    b. 25-30
    c. 31-40
    d. 41-50
    e. Over 50
3. Nursing Degree
    a. ADN
    b. BSN
    c. MSN
4. How long have you worked at Midtown Campus on the Medsurg / Telemetry nursing unit?
    a. Six months or less
    b. One year and beyond

5. How many years of nursing experience did you have prior to working on the Medsurg/ Telemetry nursing unit?
    a. Six months or less
    b. One year and beyond
6. The Nurse Residency Program (NRP) prepared to better transition into a Registered Nurse (RN) role as a new graduate nurse.
    a. Agree
    b. Neutral
    c. Disagree
7. My mentor on the Medical surgical / telemetry nursing unit helped in supporting me grow into a professional nurse.
    a. Agree
    b. Neutral
    c. Disagree
8. I am satisfied with my job as an RN the Medical surgical / telemetry nursing unit.
    a. Agree
    b. Neutral
    c. Disagree
9. I intend to stay in my role as an RN on the Medsurg / Telemetry nursing unit within the twelve 12 months.
    a. Agree
    b. Neutral
    c. Disagree

Appendix D

**CUHSR Cover Letter**

April 18, 2019

Committee on the Use of Human Subjects in Research

Bradley University

1501 W Bradley Avenue

Peoria, IL 61625

Dear CUHSR Committee,

As a requirement for the Doctor of Nursing Practice Degree at Bradley University, I am

Submitting the following research proposal for CUHSR approval: *New Graduate Nurses Training and the Effects of Structural Mentoring Program.*

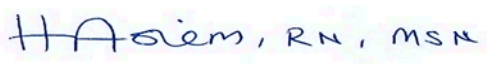
Leaders in healthcare are constantly struggling with the issues affecting staffing, and the shortage of nursing. According to Kennedy, 2018, there continues to be shortage of nurses and although there are 2,000 new nurses each year in Colorado for example, there is a projection of 3,200 new nurses in need per year. As a nurse educator, I have seen the shortage of nurses affect nurse's moral, job satisfaction, and patient safety. In my experience as a nurse educator and previously as a director of nursing education in a hospital, I saw the impact of inappropriate staffing, lack of adequate number of nursing staff, and patient mix on patient outcome and increased turnover.

The goal for this project is to create a mentorship program that will support new graduate nurses' mentors, in conjunction with the current Nurse Residency Program (NRP). The project is to develop a mentorship program that will help UMMC Midtown Campus achieve a retention rate of 90% or greater with new graduate nurses within the first year of hire and beyond and maintain adequate nursing staffing.

I believe this Quality Improvement (QI) project will be exempt based on category 2 exemption since the research will involve anonymous surveys with no personal identifiers. I further believe this QI project will be useful in cost savings for training new nurses, improving patient safety, improving staff satisfaction, improve retention and support the nursing profession. A link to the survey questions regarding this research will be sent via email by an Illinois Chapter of the Association of Nurse Executives (AONE) contact person to all Illinois AONE members who have an active email address. I further believe that this QI project will contribute to the existing body of research that continues to see much debate.

Thank you and the committee for your time and consideration of our request. We look forward to your response.

Very Respectfully,




Hannah Asiem, MSN, RN

DNP student at Bradley University Graduate Studies, School of Nursing

Appendix E

**Date: 5/21/19 at 1:23pm**

**Emailed receipt from CICERO@som.umaryland.edu**

**Research is Not Human Subjects Research**

**Not Human Subjects Research (NHSR) Confirmed**

**To:** Hannah Asiem

**Link:** HP-00086165

An IRB Analyst has reviewed the information provided and has determined that the project meets the definition of *Not Human Subjects Research* (NHSR). IRB oversight is not required, and no further actions are required.

**Description:**

**Submission Title:** New Graduate Nurses Training and Mentoring

**POC:** Hannah Asiem

Please contact the HRPO at 410-706-5037 or HRPO@umaryland.edu if you have any questions.

Appendix F

BRADLEY University

DATE: 21 May 2019

TO: Hannah Asiem, Judith Walloch
FROM: Bradley University Committee on the Use of Human Subjects in Research

STUDY TITLE: New Graduate Nurses Training and the Effects of Structural Mentoring
CUHSR #: 25-19
SUBMISSION TYPE: Initial Review

ACTION: Approved
APPROVAL DATE: 21 May 2019
REVIEW TYPE: Quality Assurance

Thank you for the opportunity to review the above referenced proposal. The Bradley University Committee on the Use of Human Subject in Research has determined the proposal to be NOT HUMAN SUBJECTS RESEACH thus exempt from IRB review according to federal regulations.

The study has been found to be not human subject research pursuant to 45 CFR 46.102(i), not meeting the federal definition of research. Please note that it is unlawful to refer to your study as research. This is in agreement with the local IRB determination (HRPO University of Maryland, Baltimore, HP-00086165).

Your study does meet the general ethical requirements for human subject studies as follows:

1. Ethics training of research personal is documented.
2. The study involves no more than minimal risk and does not involve vulnerable population.
3. Subject selection is equitable.
4. There is a consent process that:
    a. discloses the procedures
    b. discloses that participation is voluntary
    c. allows participants to withdraw
    d. discloses the name and contact information of the investigator
    e. provides a statement of agreement
5. Adequate provisions are made for the maintenance of privacy and protection of data.

Please submit a final status report when the study is completed. A form can be found on our website at https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/. Please retain research records for three years from the conclusion of your study. Be aware that some professional standards may require the retention of records for longer than three years. If this study is regulated by the HIPAA privacy rule, retain the research records for at least 6 years.

Be aware that any future changes to the protocol must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review. These changes include the addition of study personnel. Please submit a Request for Minor Modification of a Current Protocol form found at the CUHSR website at https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/ should a need for a change arise. A list of the types of modifications can be found on this form.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR immediately.

This email will serve as your written notice that the study is approved unless a more formal letter is needed. You can request a formal letter from the CUHSR secretary in the Office of Sponsored Programs.

Committee on the Use of Human Subjects in Research – 100 Kauffman
1501 W Bradley Ave.
Peoria, IL 61625

Appendix G

# Mentor Training Program

A mentorship program developed to train mentors of new graduate nurses and includes the following content: introduction to mentoring, effective communication skills, how to provide constructive feedback and effective mentoring process.

| Date: | Time: | Location: |
|---|---|---|
| June 2, 2019 | 10AM-2PM | Training Center |
| June 11, 2019 | 11AM-3PM | Training Center |
| June 27, 2019 | 12PM-4PM | Training Center |

## Register in UMMS U.

For questions, please contact Hannah Asiem, RN, MSN with any questions or concerns at ext. 8336 or hasiem@umm.edu.

Appendix H

# Mentor Training Program

A mentorship program developed to train mentors of new graduate nurses and includes the following content: introduction to mentoring, effective communication skills, how to provide constructive feedback and effective mentoring process.

| Date: | Time: | Location: |
|---|---|---|
| August 5, 2019 | 12PM-4PM | Training Center |

## Register in UMMS U.

For questions, please contact Hannah Asiem, RN, MSN with any questions or concerns at ext. 8336 or hasiem@umm.edu.

Appendix I

# Mentor Training

## Program Date:

**Program Venue:** Coast Guard Room **Time**: 10am-2pm

| Schedule | Topic | Presenter |
|---|---|---|
| 10:00-10:15 | Welcome/ Introductions | Hannah Asiem, RN |
| 10:15-10:40 | Ice Breaker | Hannah Asiem, RN |
| 10:40-1200pm | Introduction to Mentoring | Hannah Asiem, RN |
| **12pm-12:30pm** | **Break** | |
| 12:30pm-1:50pm Participants | "Transitions from Preceptoring to Mentoring" ***Module*** Computer Lab – CE Direct | |
| 1:50pm-2:00pm | Evaluations/Certificates | Participants/Hannah Asiem |

Appendix J

# Project Plan and Timelines

| PROJECT TIMELINE/PLAN | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACTIVITY | DATE | | | | | | | | | | | | |
| | April, 2019 | May 1, 2019 | June 1, 2010 | July 1, 2019 | August 1, 2019 | September 1, 2019 | October 1, 2019 | November 1, 2019 | December 1, 2019 | January 1, 2020 | February 1, 2020 | March 1, 2020 | April 1, 2020 |
| *Project Preparation* | | | | | | | | | | | | | |
| Create Survey Tools | | | | | | | | | | | | | |
| Begin to review literature on Mentor Training Program | | | | | | | | | | | | | |
| Review online CE Direct Mentor training content | | | | | | | | | | | | | |
| Submit CUHSR | | | | | | | | | | | | | |
| Submit IRB application | | | | | | | | | | | | | |
| Obtain IRB approval | | | | | | | | | | | | | |
| Obtain CUHSR approval | | | | | | | | | | | | | |
| *Project Pre- implementation* | | | | | | | | | | | | | |
| Collect Mentor Self Confidence (MSC) surveys | | | | | | | | | | | | | |
| Continue with NRP monthly cohort class sessions | | | | | | | | | | | | | |
| Finalize New Graduate Nurse Intent to Stay (NGNIS) | | | | | | | | | | | | | |
| Communicate project's final plan with unit manager and mentors | | | | | | | | | | | | | |
| Finalize Mentor Training Program | | | | | | | | | | | | | |
| Communicate mentor training flyer to manager and mentors | | | | | | | | | | | | | |
| *Project Implementation* | | | | | | | | | | | | | |
| Offer 3 Mentor Training Program (MTPs) | | | | | | | | | | | | | |
| Continue with NRP cohort class sessions | | | | | | | | | | | | | |
| Collect intent to stay data from one graduating cohort | | | | | | | | | | | | | |
| Evaluation Tool (MTPET) after each training | | | | | | | | | | | | | |
| Collect New Graduate Nurse Intent to Stay (NGNIS) from other NRP | | | | | | | | | | | | | |
| *Project Conclusion* | | | | | | | | | | | | | |
| to Stay (NGNIS) data into excel and SPSS | | | | | | | | | | | | | |
| Data analysis in Excel and SPSS | | | | | | | | | | | | | |
| Report Findings in Scholarly Paper | | | | | | | | | | | | | |

Appendix K

# Project Budget

| Expenses | Amount | Quantity | Total |
|---|---|---|---|
| Salaries for 15 new graduate nurses in NRP class session from May 2019-February 2020 (10 months). 4 hrs. per each class. 4x10 = 40 hours x 15 = 600. | $ 29.00 | $ 600.00 | $ 17,400.00 |
| | | | |
| Salaries for 9 mentors to attend MTP classes in June and August, 2019. Each class session was 4 hours long. 4 x 9 = 36 hours. | $ 31.00 | 36 | $ 1,116.00 |
| | | | |
| Salaries for 1 NRP course coordinator and 1 NRP facilitator in each cohort class from May 2019-February 2020 (10 months). 4 hrs. per each class. 4 x 10 = 40 hours, plus class preparation time of at least 1 hour per class, 10 x 1 = 10 . Total 50 hours x 2 = 100 | $ 45.00 | $ 100.00 | $ 4,500.00 |
| | | | |
| Printing supplies for paper survey/tools | $ 7.99 | 1.00 | $ 7.99 |
| Basket to collect evaluation forms and surveys | $ 2.00 | 1.00 | $ 2.00 |
| | | | |
| Snacks for mentor training classes @ $2 per participant, 9 total. Certificates for mentors trained @ $2 each. | $ 4.00 | 9.00 | $ 36.00 |
| | | | |
| Transitions from Preceptoring to Mentoring, CE direct online course. | $ - | 9.00 | $ - |
| IBM SPSS Software @ $0 for 14 day free trial | $ - | 1.00 | $ - |
| | | | |
| **Total Expenses:** | **$** | | **23,061.99** |

Appendix L


Mentor Training Outcomes
1. Participants will identify the difference between a preceptor and a mentor.
2. Participants will discuss the qualifications of a mentor.
3. Participants will discuss the benefits of mentoring for the mentor, mentee and organization.

Appendix M


Mentor Training Outcomes
4. Participants will identify the roles of a mentor.
5. Participants will discuss the process of providing effective and constructive feedback to a mentee.
6. Participants will describe the roles of the mentor, mentee and organization in mentorship.

Appendix N


Mentor Training Outcomes
7. Participants will apply the principles of mentoring knowledge gained to mentor and empower new graduate nurses to gain self-confidence through support and guidance on the nursing unit.
8. Participants will apply mentoring skills in training new graduate nurses to acquire the professional skills needed to gain satisfaction in their unit and prevent them from leaving their jobs.
9. Participants will demonstrate their understanding of the Mentor Training Program by a passing score of 80-100% achievement on CE direct posttest.

Appendix O

**Request for Nursing Leadership Agenda Spot**

March 22, 2020

Chief Nursing Officer & Vice President of Patient Care Services

UMMC Midtown Campus

Baltimore, MD 21201

Dear CNO/VP of PCS,

First, I would like to express my sincerest gratitude for the opportunity to work with the nursing leadership and nursing teams in conducting this Quality Improvement (QI) project at the hospital as a requirement for my Doctor of Nursing Practice Degree at Bradley University.

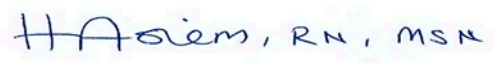
My project was related to: *New Graduate Nurses Training and the Effects of Structural Mentoring Program.*

Leaders in healthcare are constantly struggling with the issues affecting staffing, and the shortage of nursing. According to Kennedy, 2018, there continues to be shortage of nurses and although there are 2,000 new nurses each year in Colorado for example, there is a projection of 3,200 new nurses in need per year. Transitioning from nursing student can be enhanced through training and mentorship to help the graduate nurse's independence in the rapidly changing, fast-paced healthcare environment (Missen, McKenna & Beauchamp, 2014). The implementation of mentoring opportunity for the new graduate nurses could produce 25% or higher retention rate compared to those without a mentor (Schroyer, Zellers, & Abraham, 2016).

The goal for this project was to create a mentorship program that will support new graduate nurses in conjunction with the current Vizient Nurse Residency Program (NRP). The goals were accomplished and a mentor training program (MTP) has been developed to help UMMC Midtown Campus achieve a retention rate of 80% or greater with new graduate nurses within the first year of hire and beyond.

I am requesting for a spot on the agenda at your April or May, 2020 Nursing Leadership meeting so I can share the findings from this QI project. I believe the findings will be beneficial for the nursing leadership to help support the growth of the NRP and improve retention beyond the first years of the new graduate nurses' employment through mentoring. Thank you for your time and consideration of my request. I look forward to your response.

Very Respectfully,




Hannah Asiem, MSN, RN

DNP student at Bradley University Graduate Studies, School of Nursing