ABSTRACT

BACCALAUREATE NURSING STUDENT PERCEPTION OF
NURSE RESIDENCY PROGRAMS: A SURVEY APPROACH

This project assessed baccalaureate nursing student perception and preferences of residency programs with a focus on program design, curriculum, skills, procedures, and expectations. Project data can inform residency program leaders with guidance on easing transition to practice and improving acquisition of new graduate nurses. With Duchscher's Stages of Transition as a theoretical framework, this project utilized a quantitative survey format for ease of administration and analysis of baccalaureate nursing students' responses at California State University, Fresno. Using convenience sampling methods, student nurses' perspective before graduation were voluntarily and anonymously collected through am original Qualtrics survey that addressed 5 components of evaluation. Descriptive statistics and chi-square analysis using SPSS software illustrated significant themes in participants' perception and desires. Variance was noted in desires for program design. Trends were noted in desire for curriculum design. Statistically significant relationships were noted between participant age and several desired skills/procedures, and between cohort and simulation inclusion in residency programs. Several skills and procedures were identified as priorities among participants for a residency program to include. Participants expressed a high level of expectations for residency support of new graduate nurses. This project produced evidence-based data to guide residency program adjustment and support further research of residency programs and target population needs.

Darby Axelrod
May 2021

BACCALAUREATE NURSING STUDENT PERCEPTION OF

NURSE RESIDENCY PROGRAMS: A SURVEY APPROACH

by

Darby Axelrod

A project

submitted in partial

fulfillment of the requirements for the degree of

Doctor of Nursing Practice

California State University, Fresno

Doctor of Nursing Practice

May 2021

APPROVED

For the California State University, Fresno
Doctor of Nursing Practice:

We, the undersigned, certify that the project of the following student
meets the required standards of scholarship, format, and style of the
university and the student's graduate degree program for the
awarding of the Doctor of Nursing Practice degree.

_____Darby Axelrod_____
Project Author

Danette Dutra (Chair)   Nursing
                                              California State University, Fresno
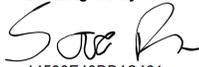
Sara Drum MSN, FNP, MPH, PCCN   Emory University Hospital
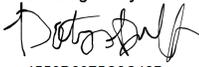
Doty Duhon MSN, APRN, NP-c   Emory University Hospital

AUTHORIZATION FOR REPRODUCTION

OF DOCTORAL PROJECT

<u>   X   </u>   I grant permission for the reproduction of this project in part or in its entirety without further authorization from me, on the condition that the person or agency requesting reproduction absorbs the cost and provides proper acknowledgment of authorship.

                    Permission to reproduce this project in part or in its entirety must be obtained from me.

Signature of project author: _DocuSigned by: DR. FBY AXEof FOD — 307531F86A174B0_
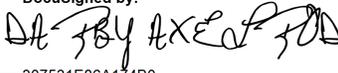
ACKNOWLEDGMENTS

TABLE OF CONTENTS

Page

LIST OF FIGURES

Page

CHAPTER 1: INTRODUCTION

Background

Within the dynamic healthcare environment, change is inevitable. Nursing school builds the foundation of nurses' education, but the classroom has limited hours to present a limitless amount of health information. The discrepancy between time available in nursing school and knowledge to be learned has created knowledge gaps that can increase stress and anxiety, especially among new graduate nurses entering the field. Duchscher reported "a disorienting, discouraging, and exhausting initial work experience for young nurses that is resulting in high levels of burnout among them within the first 18 months of professional practice" (Duchscher, 2008, p. 441). Many hospitals have responded by creating nurse residency programs that extend the training period with increased support and additional classroom learning time to ease the transition for new graduate nurses entering the field. In a 2014 study, researchers Barnett, Minnick and Norman, noted that among the 1,011 U.S. hospitals having 250 or more inpatient beds, 48% reported operating a nurse residency program. Unfortunately, they also determined that the extent of differences within nurse residency programs lacked the treatment fidelity needed to objectively detect the impact of the program. Although there is support for nurse residency programs and the programs are growing, curriculum is inconsistent and may not address the needs of the new graduate nurses entering them. Evaluation of nursing student perception of residency programs and their desire for specific skills, procedures, and information to be included in residency program design can identify gaps present during the school-to-work transition which will inform health institutions of the needs of their target population. This information can drive development

and restructuring of curriculum to close the gap and ease the transition from education into practice for new nurses and serve to incentivize new nurses into employment.

Purpose

The purpose of this Doctor of Nursing practice (DNP) project assesses baccalaureate nursing students in the final stages of their education by identifying their perceptions of nurse residency programs as well as their personal learning needs. Student perceptions were collected voluntarily through the completion of a survey created by the author. The collection of nursing student perceptions of nurse residency programs and self-identified areas of weakness could help to inform nurse residency program curriculum to entice new graduates into employment, address their learning needs, ease their transition, and most effectively prepare them to deliver high quality, well-informed patient care. This data could provide organizational leaders with guidance in implementing and adapting residency program curriculum that increases successful acquisition of new graduate nurses and higher employee satisfaction within an organization. As a secondary benefit, identified gaps may also serve to notify nursing programs of areas were curriculum can be modified and improved.

Theoretical Framework

The theoretical framework used to guide this study was Duchschers Stages of Transition theory. Duchscher noted a human resource management crisis with a growing need for registered nurses, paired with growing rates of seasoned nurse attrition. Using the knowledge gained through numerous transition studies, the results of four qualitative studies spanning 10 years, and a final doctoral project study, Duchscher culminated her knowledge and conceptualized the Stages of

Transition Theory (Duchscher, 2008). She explored the process of transition that graduates work through in their first 12 months of practice. Duchscher stated that her goal is that the Stages of Transition Theory is to "be used as a guide by clinical educators, unit managers, and hospital administrators who are recruiting, orienting and mentoring, and seeking to successfully integrate new nurses into their workplace" (Duchscher, 2008, p. 442). This goal aligns with that of nurse residency programs and this study.

Duchscher's Stages of Transition Theory discusses new graduate nurse transition through three separate stages of "doing", "being" and "knowing", which they experience in their first 12 months of new entry into the clinical setting (Murray et al., 2019). In the first stage, graduates feel high levels of stress, performance anxiety, self-doubt and may be plagued by feelings of inadequacy and a need to belong. The 'being' stage involves a battle between confidence and insecurities. Ultimately this stage increased self-trust and control and results in graduates that "seek out challenges to their thinking, put themselves in new and unfamiliar practice situations, and plan long-term career goals" (Duchscher, 2008, p.447). For the final stage termed 'knowing', graduates perform deeper exploration into their roles, as well as the sociocultural and political environments of their profession and make critiques. Stress levels decrease, knowledge base broadens and by the end of this stage graduates are "able to answer questions rather than simply ask them and assist others with their workloads" (Duchscher, 2008, p.447).

Theory Relevance

Duchscher's Theory and her focus on the patient population of new graduate nurses will provide the framework throughout the projects' process in

planning, implementation, and evaluation. The Transition Stages Theory encompasses concepts that focus on idealistic expectations which were formed during the educational stages and did not translate into actual clinical environment (Duchscher, 2008). This disparity between classroom learning and work experience can be anticipated even before graduation as nursing students anticipate their transition. Duchscher reported "it is unreasonable to expect undergraduate educational institutions to prepare graduates to competently preform all of the skills required by a contemporary acute care workplace" (Duchscher, 2008, p.448). Nurse residency programs seek to ease the transition of the new nurse population; however, residency program structure and curriculum remains highly variable and largely facility-dependent in regards to consistency.

Due to its relevance in the transition from classroom to practice and its identification of challenges and coping difficulties that the new graduate faces during their transition, Duchscher's theory provided structure in survey development and result interpretation in this investigational study. Where survey respondents fell in Duchscher's Stages of Development and their perception of their future professional environment was important to consider when interpreting the participant responses. The Stages of Transition Theory displays prodigious relevance in framing this project.

Problem

The need for nurses continues to rise as they comprise the largest component of the healthcare workforce and additionally are the primary providers of hospital patient care (Rosseter, 2019). Hospitals are responding to the nursing shortage by offering nurse residency programs to entice new graduates into employment. The efficacy of nurse residency programs as a tool to motivate new

graduates to join an organization is still lacking research. No curriculum standard or competency requirements have been developed and accepted which has resulted in a wide variance in the educational composition of nurse residency programs from one facility to the next. Obtaining information on new graduate need in transition can provide not only hospitals, but also nursing schools, with important information. This information could be used to adjust curriculum that more effectively closes the classroom-to-profession transition gap for nurses.

Summary

Identification of baccalaureate nursing student perception of current programs and personal need is of interest to organizational leaders determining what offerings would serve to incentivize new nurses into employment. Hospitals that can close that gap could have a benefit in luring new graduates. In addition, identification of gaps could shed light on the role of senior nursing students' classroom instruction. This study utilized survey analysis of the targeted population as a vehicle to investigate gaps nurses may face in their classroom-to-career transition. The survey was created with expert collaboration to address specific aims of this study. Duchschers Stages of Transition Theory was used as a theoretical framework in this study and during survey creation. This study sought out student nurses' perspectives on residency programs before graduation, including what prompts them to seek specific employment. It also investigated their desire for specific skills, procedures, and information to be included in residency program design.

CHAPTER 2: LITERATURE REVIEW

A literature search resulting over 2000 journal entries was conducted using various keyword combinations relating to nurse residency programs and transition to practice. Several online medical journals and databases as well as the One Search database search engine through Henry Madden Library at California State University, Fresno were utilized in the review. Generated results were further defined to include only peer reviewed publications from the year 2015 and later. Most articles were excluded for review based on the title. 50 articles were thoroughly reviewed, with an extensive in-depth analysis on the10 deemed most relevant to the research study design. Since the focus of this project was on nursing student perceptions of nurse residency programs, the following specific topics will be reviewed in the literature of this chapter: Student Personal Feelings, Empathetic Nursing Practice, and Retention Rates.

Student Personal Feelings

Using Meleis' Transition Experience Theory as a theoretical framework, Wildermuth et al. (2020) conducted a transcendental phenomenological qualitative study exploring the experience of a group of student nurses and new graduates during their transition in a residency program. Their research question addressed the personal feelings these individuals went through during the transition process. Study participants were comprised of a convenience voluntary sample of nine new graduate nurses. The setting of this study was conducted in a small Midwestern college of nursing and in an affiliated hospital's nurse residency program. The intervention used on the participants was the collaborative residency program. Data collection was completed using anonymous surveys using structures and open-ended questions. Outcomes were measured qualitatively by identifying

central and repeating themes from survey responses. Data was analyzed by separating textual and structural descriptions of responses and composite description of the phenomenon. The study findings identified that participants experienced an overwhelming feeling of support. Additional themes of feeling overwhelmed, supported, and confident were also identified (Wildermuth et al., 2020). This study was a compilation of only 9 participants' survey responses which limits the study. The small sample size and qualitative nature of the study can yield biased results more indicative of a single organization or individual experience, rather than a prediction of results for future populations. Though having a limitation in its small sample size, this study showed strength in its ability to pull in-depth qualitative information from its participants.

Empathetic Nursing Practice

Blake et al. (2018) designed a qualitative study based on Swanson's Theory of Caring which addressed the question of "how nurse residents feel about how their own development of an empathic nursing practice during their first year in a residency program." Their sample consisted of 10 participants who were all new graduate nurses. The setting of the study was an inner-city tertiary care 716-bed independent academic medical center in Massachusetts. The variable being studied was the influence the residency program had on empathetic nursing practice. Data collection was performed using interviews, focus groups and review of the hospital's nurse residency curriculum. Outcomes were measured using data from multiple sources and themes were identified that aligned with the processes of Swanson's Caring Theory. Conclusions were then drawn from these themes. Data analysis was conducted by the researcher using expert assistance in coding, thematic analysis and result interpretation. Results indicated that the nurse

residency program "contributed to the knowledge base regarding the development of empathy amongst nurse residents" (Blake et al., 2018). A weakness of this study is the small sample size of 10 participants. A strength of this study is that it has multiple methods of data to be compared which helps to draw themes.

Retention Rates

Crimlisk et al. (2017) conducted a study analyzing a nurse residency program that was designed to train a large group of new graduate nurses hired into multiple specialty areas. Their research questioned the efficacy and success of the program and its role in improving retention rates among participants. Forty-six BSN prepared participants were enrolled in two separate groups of 26 and 20 members each. The setting was in a 500-bed inner city, Level 1 trauma center. The nurse residency program, or NRP intervention "included lecture, simulation, and technical skills" (Crimlisk et al., 2017). Data were collected through a web-based questionnaire administered to program participants at 6 months and 1 year after hire. Surveys were generated so outcome material could be easily extracted, such as questions about clinical orientation, class content, retention, and graduate perception of their confidence. Data analysis was completed using SPSS statistical analysis. Results showed above average retention rates with a 6-month retention rate of 98% and a 1-year retention rate of 91%. Crimlisk et al. (2017) concluded "that nurse residency programs (NRP's) are important in transitioning graduate nurses into the professional role." A strength from this study was having a large enough sample size to make statistically significant results on retention rates. A limitation in this study was the potential for biased answers from participants due to the nature of the researchers being a part of the program development and employers of the participants.

Summary

Overall, all studies supported the implementation of and participation in new graduate programs for new graduate nurses. Within any given study there are some identified gaps that can be addressed in future studies. The Wildermuth study was a compilation of only 9 participants' survey responses which present a potential gap. The small sample size and qualitative nature of the study can yield biased results more indicative of a single organization or individuals experience, rather than a prediction of results for future populations. A gap identified in the Blake et al. study showed that the nurse residents studied had various lengths of enrollment in their 12-month residency program at the time of interviews and focus groups which can mean that their residency experiences differed. The nurse residency program study conducted by Crimlisk et al. identified residency programs as resulting in positive retention rates. They lacked a discussion on other factors that could also be affecting retention rates at the time of their study compared to previous studies. For example, economy fluctuation at the time this study was conducted may not have been a factor in a previous study on retention rates among nurses. Despite the literature supporting nurse residency programs, student nurse perceptions of these programs and student desire for specific skills, procedures, and information to be included in programs are lacking research. This project aimed to address this gap in literature through an investigational survey study of baccalaureate nursing students.

CHAPTER 3: METHODOLOGY

This investigational study aimed to evaluate baccalaureate nursing student perception of nurse residency programs as well as their self-identified personal learning needs. The study sought to answer the research questions as to whether the presence of a nurse residency program motivate nursing students to seek employment at one hospital or institution over another, and whether nursing student perception and learning needs can provide data that informs residency program design.

Project Design

This project utilized a survey approach on two cohorts of baccalaureate nursing students, one in their 4th semester and one in their 5th semester, to assess perceptions on nurse residency programs. A quantitative format was used in survey development for ease of administration and analysis. Survey questions consisted of categorical, numerical (Likert scale), true/false, and multiple-choice. Survey data results can provide vital information for an institutions' nurse residency program leaders looking to implement or adapt an existing program to better meet the needs of their target audience and further propel new graduate nurses to employment.

Setting

This study was conducted beginning with a brief project presentation video and distribution of survey access to nursing students at California State University, Fresno. As the video presentation was viewed and surveys were gathered electronically, exact physical location is not concrete. Data analysis was conducted with remote support from the Fresno State graduate statistics studio.

Recruitment Procedure

After discussing the project purpose, potential benefits, and minimal risks, the Department Chair at California State University, Fresno's School of Nursing Dr. Sylvia Miller provided her written permission to implement a Qualtrics survey to current 4th and 5th semester nursing students. (Appendix A). After Fresno State's IRB department provided its approval, the investigators collaborated with the lecture course teaching faculty who advised students of the study and the invitation they would receive to participate. A concise, video-recorded project presentation of the co-investigator explaining the background and purpose of the project (Appendix B) and a residency program data sheet (Appendix C) was posted for BSN students to view via their online learning platform, Canvas. Following the video publication on Canvas, an email with written explanation of the survey procedure and a Qualtrics survey link was sent to eligible participants. Co-investigators' contact information was included for students to reach out with any questions. This project consisted of investigational procedures of subjects using anonymous survey responses.

Since the survey tool was created by the co-investigator, permission did not need to be obtained. California State University, Fresno IRB was obtained. After which, data collection through surveys was initiated. Data analysis was conducted in the two to three-month period following data collection. The DNP final project was completed April of 2021.

Subjects

Survey participants were recruited using convenience sampling. Total subject population invited to participate in the study included all students from two cohorts of nursing students preparing for graduation from Fresno State's School of Nursing. At the time of the study, all current students were invited for voluntary

participation in the survey. Students were surveyed to evaluate their perception of nurse residency programs, identification of alluring factors of such programs, and areas they feel are important to include in a residency program. Selecting students from two different points of progress in their program allowed for analysis of how perception can change throughout the educational process. Students who are not currently enrolled in Fresno State's School of Nursing at the time of survey implementation were excluded from participation. Subject population can give their own consent. Potential problems are associated with convenience sampling which can be biased in that the sample may not be representative of the entire population.

The participant population who engaged in this study was comprised of 33 baccalaureate nursing students. There were 24 students in their 4th semester and 9 students were in their 5th semester at the time of survey distribution and collection. There were 5 students who identified as male and 28 who identified as female. Racial distribution of participants can be seen in Figure 1. There were 30 participants aged 18-30 and 3 participants were aged 31-40 at the time of survey distribution and collection.
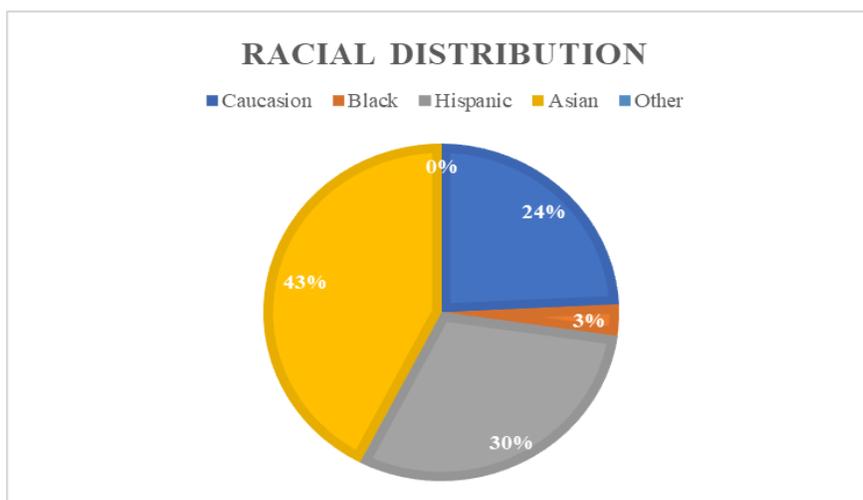
Figure 1. Racial distribution of survey participants.

Survey Tool

Several survey tools were investigated during study design; however, none were found to appropriately address the research question. For this reason, a new survey tool was curated. This survey tool was reviewed and approved by the following experts in the field: primary investigator Danette Dutra EdD, MSN-FNP-C, Sara Drum MSN, FNP, MPH, PCCN, and Doty Duhon MSN, APRN, NP-C and co-investigator Darby Axelrod MSN, RN, PCCN. These experts found the survey to be supported through face validity wherein the format and questions are subjectively viewed as covering the concepts of assessing student nurse perception of nurse residency programs and their desires of program design. The survey demonstrates transparency in assessing such perceptions to the student nurse participants of the study.

The survey tool consists of five sections. The first has demographic questions to collect data on

- age
- gender
- race
- expected graduation date
- other degree if applicable
- expected date of hire as a graduate nurse

Section II of the survey consists of 8 multiple choice questions focusing on residency program design. This section is multiple choice and was analyzed as follows:

- The first five questions discuss job placement and relocation
- The following three questions address desired time allocation and preceptor design of a nurse residency program.

Section III of the survey consists of eight 4-point Likert scale (1= strongly disagree, 2= somewhat disagree, 3= somewhat agree, 4= strongly agree) questions focusing on residency program classroom curriculum:

- The first four questions focus on nursing role regarding the interdisciplinary team.
- The next question addresses patient and skill prioritization and the final three questions address hospital policy and expectation.

Section IV of the survey consists of a list of 28 skills and procedures that the participant will rate on a 4-point Likert scale (1= strongly disagree, 2= somewhat disagree, 3= somewhat agree, 4= strongly agree) describing their level of agreement that each item should be included in a nurse residency program. The final question asks participants to select the top three skills and procedures from the previous list they feel are most important to be addressed in a nurse residency program. Skills should be selected in the participants' ranking of importance, with 1st listed as most important.

Section V of the survey consists of 11 true/false questions about participants' perception on nurse residency program expectations.

- The first three questions address expectations of hospital staff on the new nurse in a residency program.
- Questions four and five investigate participants' perception of a residency program on emotional responses during role transition.
- Questions six through nine address participants' perceptions of nurse residency programs during role transition from student to registered nurse.

- The final two questions investigate participants' perception of the role residency programs play in incentivizing new graduates for employment.

Ethical Considerations

This study was designed with ethical considerations in mind. Potential benefits, and risks associated with participants and study execution were considered. Risk minimization was prioritized. Compensation of subjects was addressed. These areas are explored in detail in the following section.

Potential Benefits

Survey participation provided nursing students from California State University, Fresno with an opportunity to share their perception of residency programs and their desire for specific skills, procedures, and information to be included in residency program design within the hospital setting. Results of the data collected provide meaningful information for residency program creators and leaders in their evaluations, modifications, and implementations of nurse residency programs. Improvement of such programs could positively influence nurse acquisition, transition, and patient care.

Potential Risks

Participation was voluntary and anonymous which resulted in no social risk or adverse consequences by choosing to, or not to, participate. Participants were asked their perceptions and opinions on several topics surrounding nurse residency programs along with demographic data. Opinion based questions and rating style questions may cause minimal psychological risk if participants feel unsure on how to rate their opinions, however none was noted or reported during this study. The

Qualtrics survey could be completed through a student's personal device or through an on-campus computer without additional cost, if preferred. Since the survey completion did not require any physical tasks, patient specific care data, or monetary expense of participants, there was no physical, economic, or legal risks. Completing the survey tool was minimally time consuming. An introduction to the project and survey was given to potential participants prior to their survey engagement which outlined normal expectations so no violations would be incurred.

Risk Minimization

Participation was voluntary and the survey was free of personal identifiers. Survey responses were anonymous to protect confidentiality and not released individually to nursing school staff so there would be no impact to school conditions. Participants were free to refuse to respond to a question or statement that may cause them personal discomfort or psychological stress. The completed survey data is secured on a personal, password protected computer and with the password kept solely by the coinvestigator. The Qualtrics account is password protected with the password kept solely by the coinvestigator. Upon completion of research, when data is no longer needed, it was be permanently erased from the computer and hard drive. Once all the data was entered into SPSS all surveys responses were deleted from Qualtrics.

Compensation of Subjects

All potential participants had access to a concise project presentation video recording which explained to the purpose of the project and notified them of an upcoming email with the survey attached. Personalizing and explaining the study and survey to potential participants served to encourage participation in the

survey. The students participating in the survey were not compensated directly for their participation in the survey.

Data Collection and Analysis

Once data collection was ready to commence, a brief explanation of the study was electronically mailed to all eligible baccalaureate nursing students (Appendix D) in their final two semesters of the program with explanation and link to accessing the electronic survey through Qualtrics (Appendix E). Students were informed that study participation was both anonymous and voluntary. Two reminder emails were sent at approximately 3 and 5 weeks following the initial survey. The coinvestigator's Fresno State email address and phone number were included in the survey introduction email for any inquiries or concerns any participants, or potential participants had. The survey, upon completion and submission, acted as the participants' informed consent.

The email with link to the electronic survey included an introductory letter and explanation of the study. There were no personal identifiers on the survey, and it was created without tracking to emails or of IP addresses. The received survey responses were kept on a private, password locked computer. Data was collected for approximately 6 consecutive weeks during the Fall of 2020.

Data from surveys was coded, and data analyzed with the assistance of an experienced statistician using IBM SPSS software. Descriptive statistics for calculating frequencies and chi-square analysis was used to illustrate significant themes in participants' perception of nurse residency program design, curriculum, skills, and expectations.

Summary

An original survey tool was created in Qualtrics though collaboration with experts in the field and with extensive literature reviews. This survey was designed to assess nursing student perception of residency programs and uncover areas of self-identified weakness among students. Project participants completed the Qualtrics survey in the 4th and 5th semesters of their program. Coded data from the survey was entered into IBM SPSS software for statistical analysis. The findings from this study offers insight into nursing students' perception of new graduate programs and their desire for specific skills, procedures, and information to be included in residency program design.

CHAPTER 4: RESULTS

This project assessed baccalaureate nursing student perceptions of nurse residency programs. A self-designed survey was administered that investigated participants' view on the following related to nurse residency programs:

- Program design

- Program curriculum

- Skills and procedures included

- Top three skills and procedures

- Expectations

Participants could opt out of answering any number of questions if they desired. Surveys were electronically distributed to 120 students and 33 students participated in and submitted the survey. Result data from the survey was analyzed through SPSS using chi square analysis and descriptive statistics.

Residency Program Design

Following demographics, the survey focused on residency program design. A series of eight multiple choice questions evaluated participant preference in several areas. This included their preferred job placement, specialty, program length, composition of classroom time, as well as other areas. Results were evaluated through both descriptive statistics and chi square methods.

Descriptive Statistics for Residency Program Design

Data indicated 100% (n=33) of participants reported their preferred job placement to be at an acute care hospital. Preferred specialty varied greatly (see Figure 2).
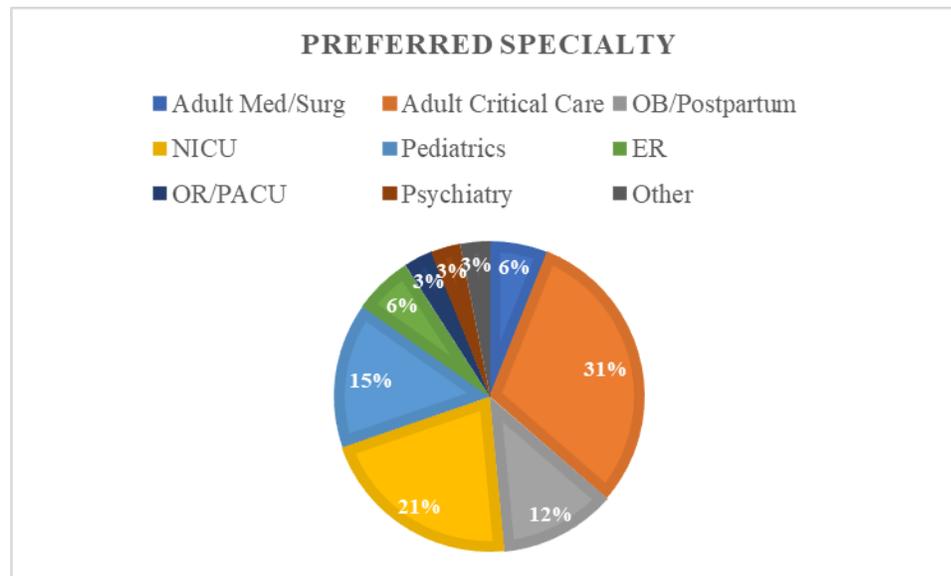
Figure 2. Participant preferred specialty

Results showed 90.9% (n=30) of participants reported they were willing to relocate for employment at a hospital with a nurse residency program (see Figure 3). This percentage decreased to 60.6% (n=20) of participants being willing to relocate for employment at a hospital without a residency program (see Figure 4).
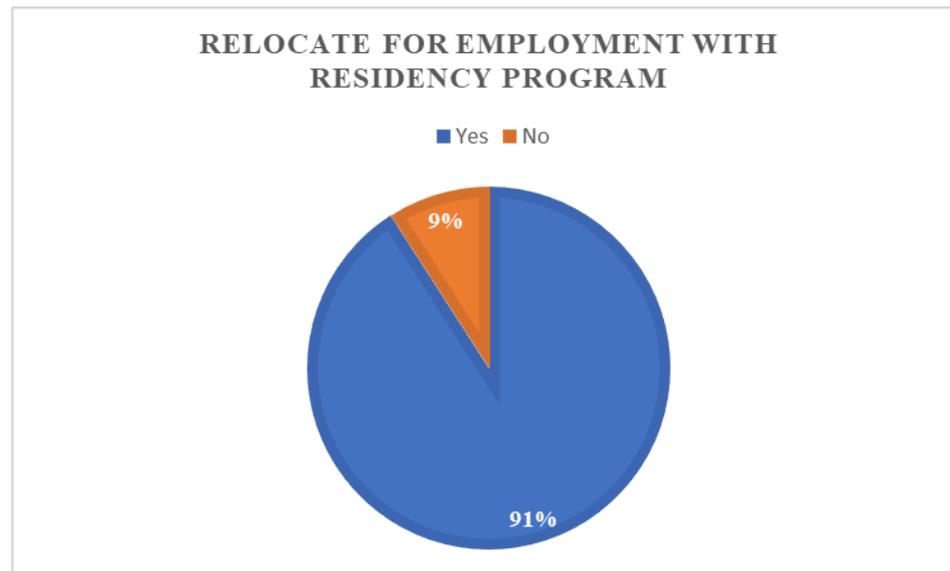
Figure 3. Participant willingness to relocate for employment that offers nurse residency program
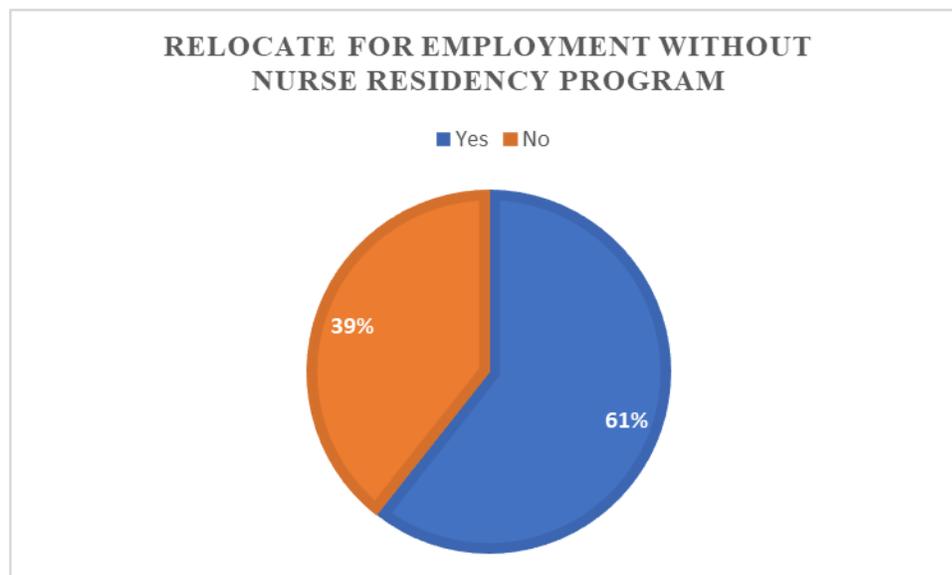
Figure 4. Participant willingness to relocate for employment that does not offer nurse residency program

Approximately 72% (72.7%; n=24) reported they would be more likely to accept a job at a facility that offers a nurse residency program over one that did not have such a program in place (see Figure 5). Participants' desired length of time for a residency program varied (see Figure 6). Participants' desired percentage of time in a classroom varied (see Figure 7). Participants' desired number of preceptors varied (see Figure 8).

Chi Square for Residency Program Design

A chi square test of independence was performed to examine the relationship between preferred job placement and likelihood of accepting a job at a facility that offers a new graduate program. The relationship between these variables is not significant (χ^2 (16, 33) = 16.609, p = 0.411). There is no statistically significant difference between the participants' desired specialty and their likelihood to accept a job at a facility that offers a new graduate program over one that did not have such a program in place.
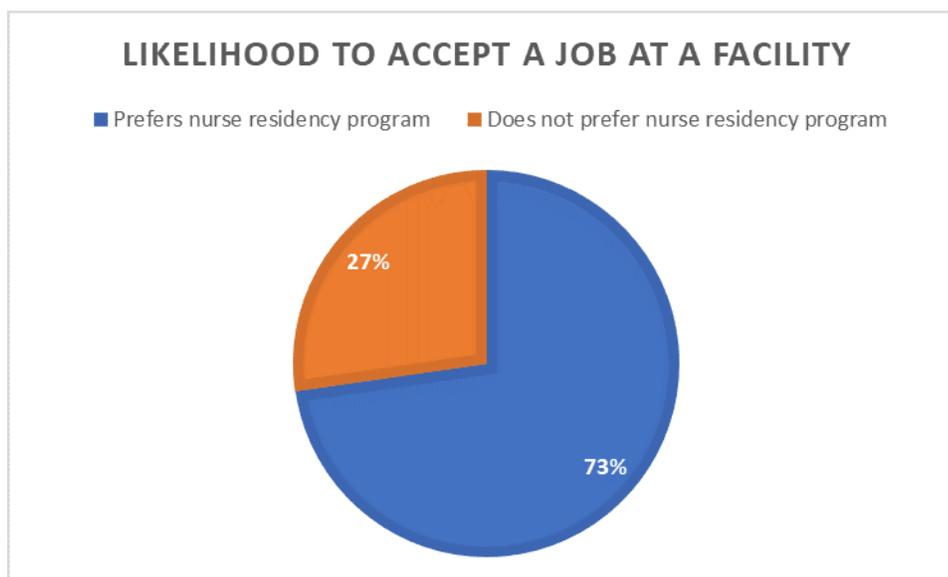
Figure 5. Participant likelihood to accept a job at a facility based on presence of residency program
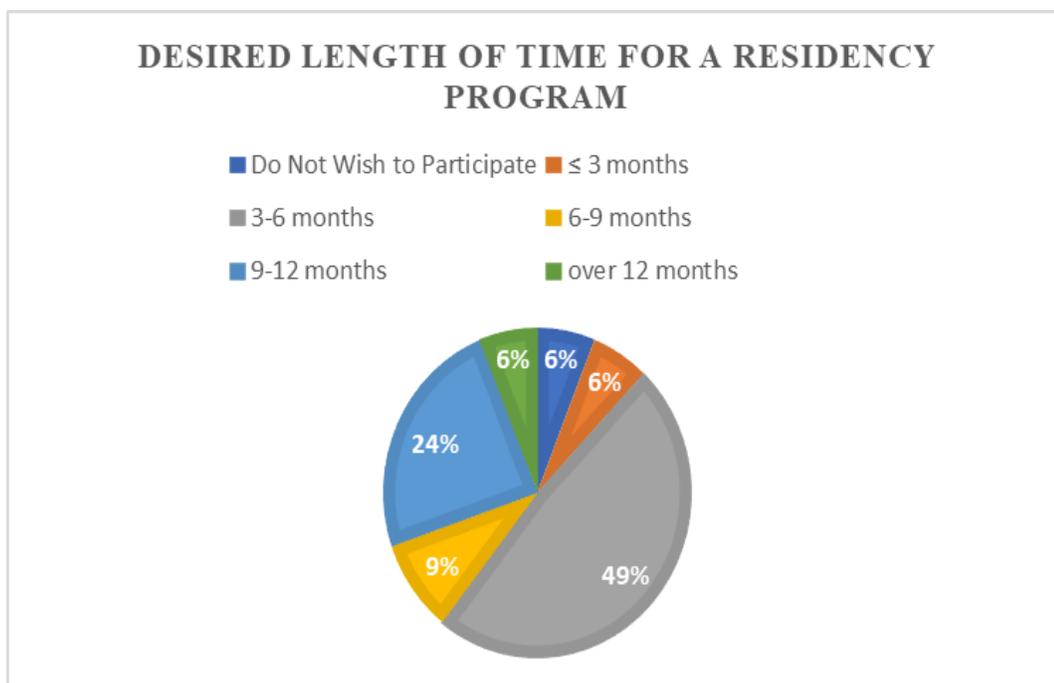
Figure 6. Desired length of time for a nurse residency program
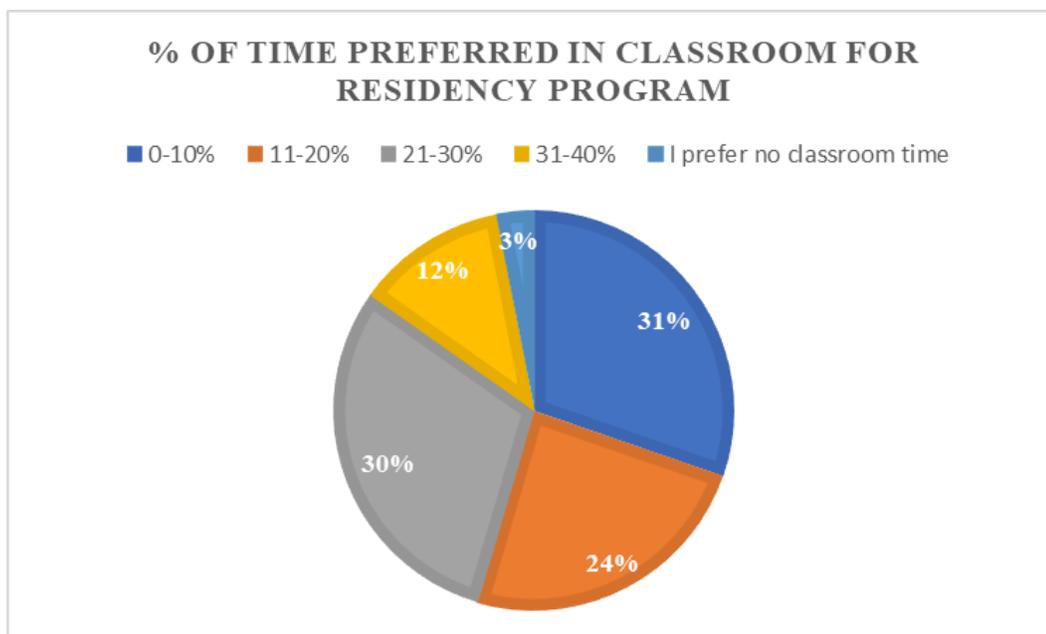
Figure 7. Desired percentage of classroom time for a nurse residency program
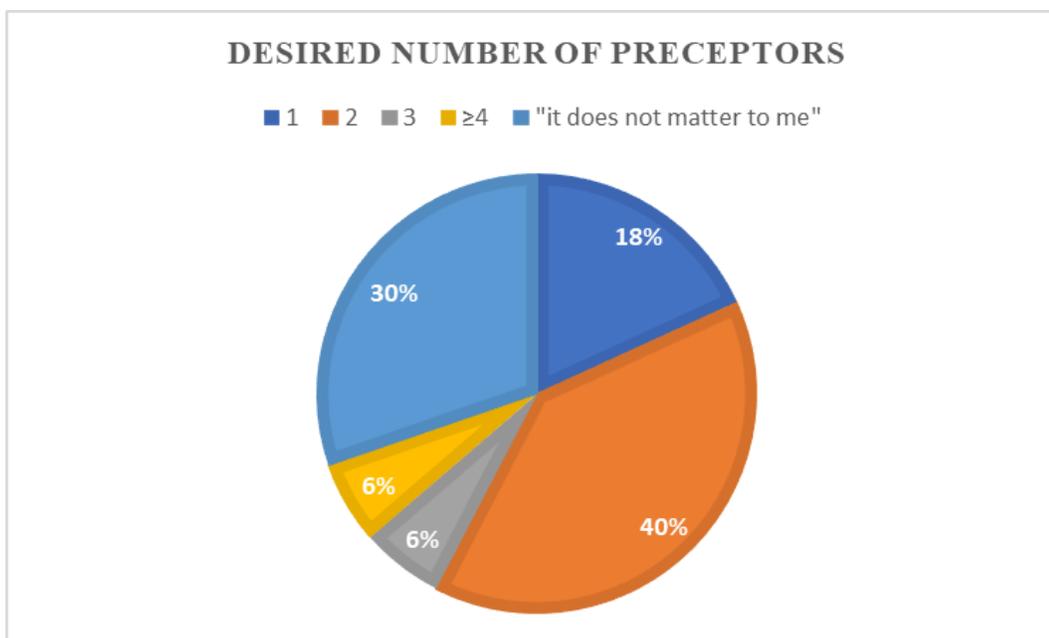
Figure 8. Desired number of preceptors for a nurse residency program

Residency Program Curriculum

Participants were asked to rate their level of agreement or disagreement that eight listed items be included in a residency program's curriculum. Answer choices followed a 4-point Likert scale format (*1 - Strongly Disagree, 2 - Somewhat Disagree, 3 - Somewhat Agree, 4 - Strongly Agree)*. 96.8% (n=30) agreed that a nurse residency programs' curriculum should include presentations from interdisciplinary team members (figure 9) and education on roles and responsibilities of the healthcare team members (figure 10) while 3.2% (n=1) disagreed.
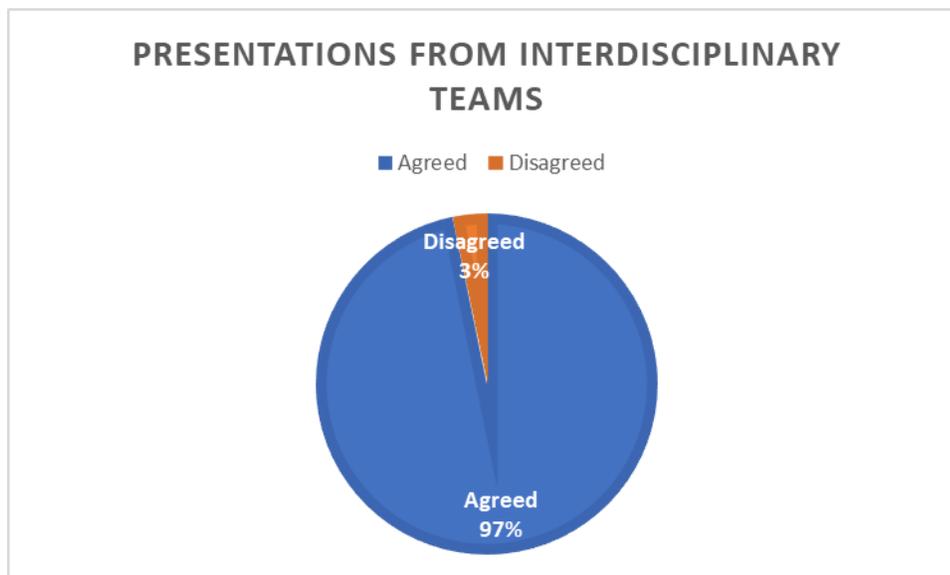
Figure 9. Curriculum should include presentations from interdisciplinary team members
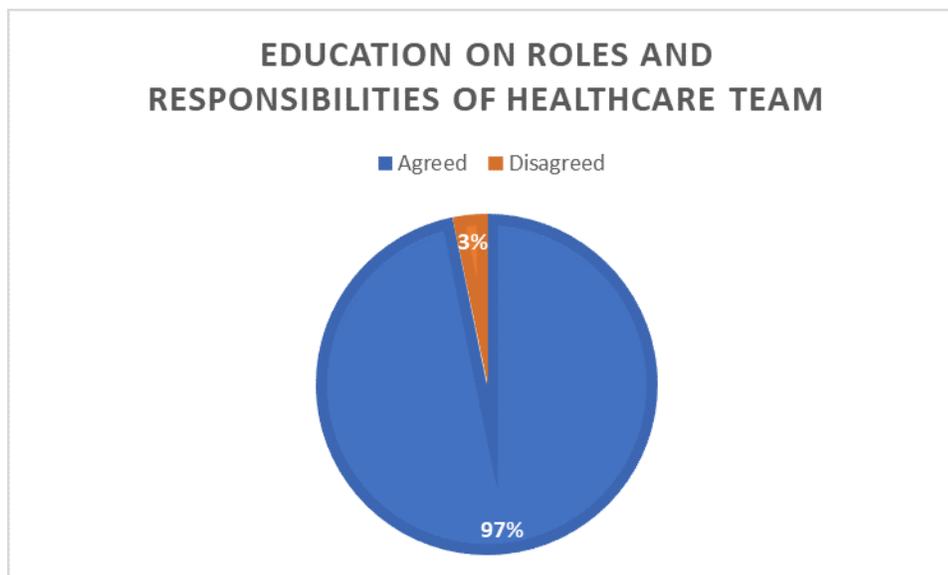
Figure 10. Curriculum should include education on roles and responsibilities of healthcare team members

One-hundred percent (n=31) of participants agreed that nurse residency programs curriculum should include clear written expectations of nurse residents and their established goals as they progress through the program as well as education on:

- communicating with physicians
- appropriate delegation to other staff members
- patient and skill prioritization and organization
- hospital policies and procedures
- hospital specific documentation requirements

Skills and Procedures

The skills and procedures section comprised a substantial component of the survey and the analysis data. Participants were asked to rate their level of agreement or disagreement that twenty-eight listed skills and procedures be included in a residency program. Answer choices followed a 4-point Likert scale

format (*1 - Strongly Disagree, 2 - Somewhat Disagree, 3 - Somewhat Agree, 4 - Strongly Agree).* The data was analyzed using descriptive statistics and chi square analysis with results to follow.

Descriptive Statistics for Skills/Procedures in Nurse Residency Program

Survey analysis revealed 89.7% (n=26) agreed the following skills and procedures should be included, while 10.3% (n=3) disagreed that the skills should be included in a nurse residency program (see figure 11a):

- Blood product administration/transfusion
- Central line care including dressing change, blood draws, discontinuing
- Chest tube care and assessment
- Code and Emergency Response scenario
- Defibrillator/cardioversion/external pacing
- Patient care and expectations during death, dying and end of life care
- Wound care/dressing change/wound vac
- Peritoneal Dialysis management
  - Safe patient handling/Patient transfer

Data indicated 86.2% (n=25) agreed the following skills and procedures should be included, while 13.8% (n=4) disagreed that the skills should be included in a nurse residency program (see figure 11b):

- Charting/documentation in hospital specific programs
- MD communication
- Prioritization/time management
- Tracheostomy care
- Ventilator care/management
- Alcohol and drug withdrawal management
- Patient lab result interpretation
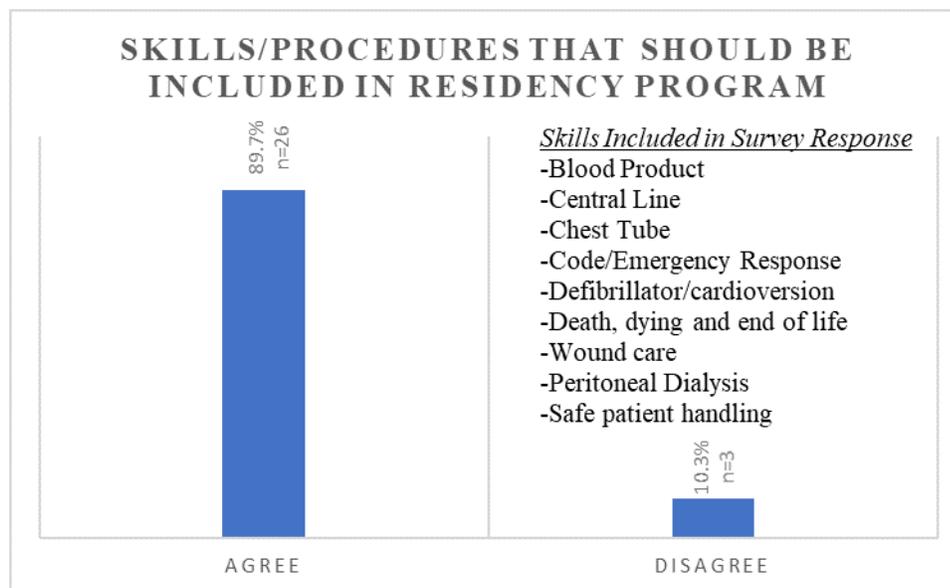
Figure 11a. Skills/procedures that should be included in residency program
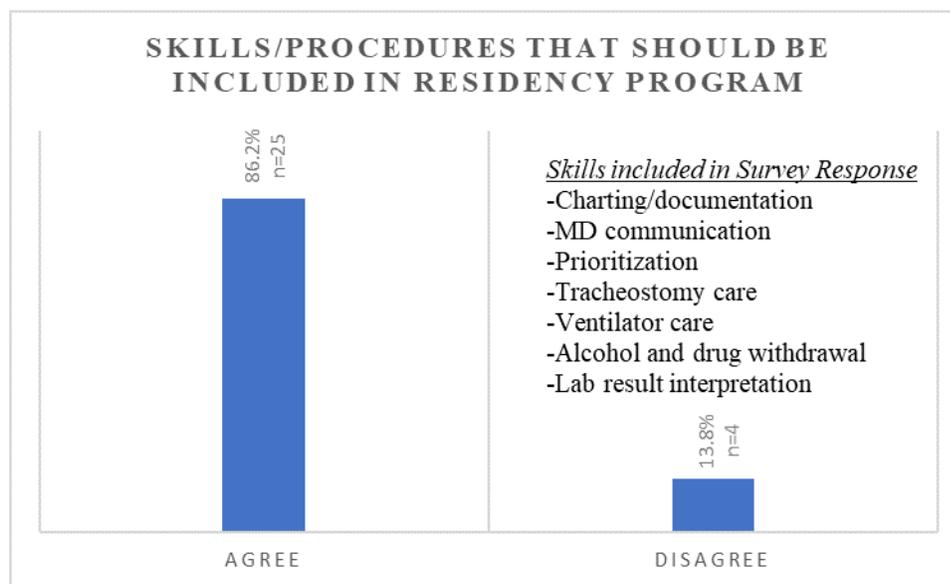
Figure 11b. Skills/procedures that should be included in residency program

Descriptive statistics further showed that 85.7% (n=24) agreed urinary catheter insertion and irrigation skills should be included in a residency program while 14.3% (n=4) disagreed.

Data revealed 82.8% (n=24) agreed the following skills and procedures should be included, while 17.2% (n=5) disagreed that the skills should be included in a nurse residency program (see figure 11c):

- External catheter placement and care
- Nasogastric tube placement and management
- Intravenous starts
- Patient/family communication and teaching
- Restraint placement and monitoring
- Assessment skills

SKILLS/PROCEDURES THAT SHOULD BE INCLUDED IN RESIDENCY PROGRAM

82.8% n=24

Skills Included in Survey Response
-External catheter
-Nasogastric tube
-Intravenous starts
-Patient/family communication
-Restraints
-Assessment skills

17.2% n=5
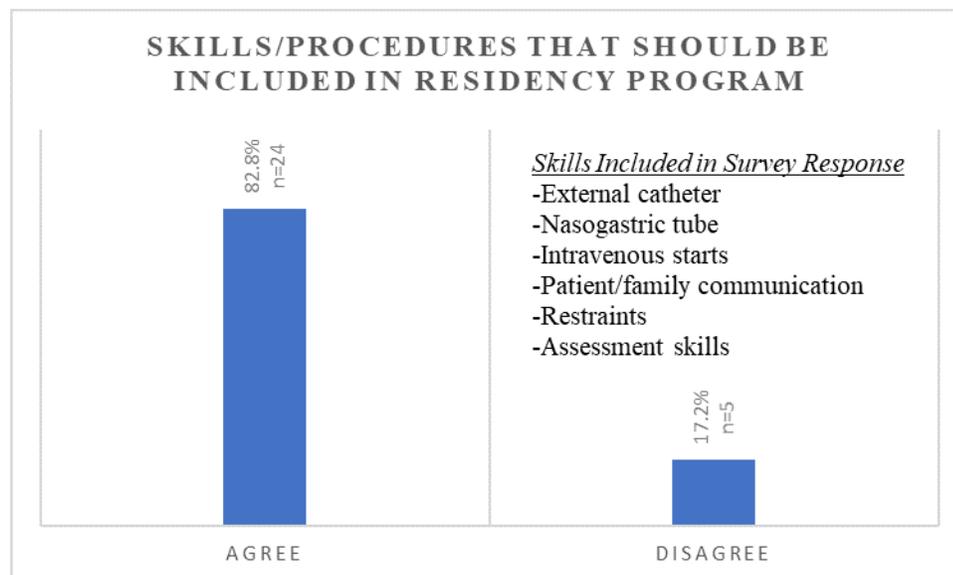
AGREE   DISAGREE

Figure 11c. Skills/procedures that should be included in residency program

Participant response analysis showed 79.3% (n=23) of participants agreed the following skills and procedures should be included, while 17.2% (n=5-6)

disagreed that the skills should be included in a nurse residency program (see figure 11d):

- Simulation scenarios using mannequins or actors as patients
- ECG/EKG placement and interpretation
- Intravenous medication administration/pumps/PCAs

SKILLS/PROCEDURES THAT SHOULD BE INCLUDED IN RESIDENCY PROGRAM

79.3% n=23

17.2% n=5-6

Skills Included in Survey Response
-Simulation scenarios
-ECG/EKG
-Intravenous medication
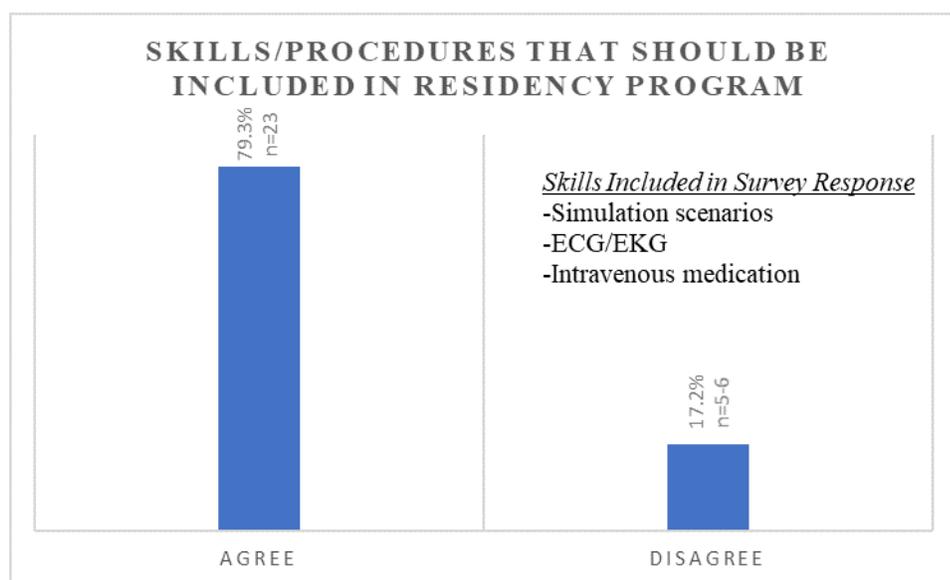
AGREE   DISAGREE

Figure 11d. Skills/procedures that should be included in residency program

Results indicated 75.9% (n=22) Blood sugar testing and insulin administration should be included in a residency program while 24.1% (n=7) disagreed.

The lowest percentage in agreement of inclusion in a residency program was noted with medication administration (PO, IM) at 72.4% (n=21) while 27.6% (n=8) disagreed.

Chi Square Analysis

A chi square test of independence was performed to examine the relationship between age of participants and specific skills and procedures that

they either agreed or disagreed should be included in a nurse residency program. Appendix F Statistically Significant Chi Square Analysis of Age and Skills/Procedures indicates the statistically significant relationship between age and the skills and procedures listed in the table. There is a statistically significant difference between participant age and their agreement or disagreement with the inclusion of each skill or procedure listed in Appendix F in a nurse residency program.

A chi square test of independence was performed to examine the relationship between age of participants and whether they agreed or disagreed that a residency program should include medication administration, both oral and intramuscular. The relationship between these variables is not significant. χ^2 (1, n=29) = 2.558, p=0.110. There is no statistically significant difference between the participants' age and their agreement or disagreement in including medication administration in a nurse residency program.

A chi square test of independence was performed to examine the relationship between age of participants and whether they agreed or disagreed that a residency program should include blood sugar testing and insulin administration. The relationship between these variables is not significant. χ^2 (1, n=29) = 3.305, p=0.069. There is no statistically significant difference between the participants' age and their agreement or disagreement in including blood sugar testing and insulin administration in a nurse residency program.

A chi square test of independence was performed to examine the relationship between 4th and 5th semester graduates, and the participants' desire for a simulation experience in their nurse residency program. The relationship between these variables was significant, χ^2 (1, n=29) = 9.746, $p<$ 0.05. There is a

difference with the 4th and 5th semester participants and their agreement or disagreement with the inclusion of simulation in residency program curriculum.

Top Skill Requests

A list of twenty-eight skills and procedures was supplied for participants to select the top three they felt were most important to be included in a nurse residency program. The most requested skill was *code and emergency response scenarios* with 54% (n=13) including it in their top three. This was also the skill most frequently chosen as number one, with a total of seven participants selecting it as the top skill request. One quarter, or 25% (n=6) participants included at least one of each of the following skills in their top three:

- simulation scenarios using mannequins or actors as patients
- assessment skills
- central line care including dressing change, blood draws, discontinuing.

Of those, 'simulation scenarios using mannequins or actors as patients' was the chosen top skill by four participants, 'assessment skills' was chosen top skill by three participants, and 'central line care including dressing change, blood draws, discontinuing' was chosen top skill by one participant. The following skills were not selected by any participant in the top three:

- external catheter placement and care
- nasogastric tube placement and management
- medication administration (PO, IM)
- restraint placement and monitoring
- alcohol and drug withdrawal management
- peritoneal dialysis management
- blood sugar testing and insulin administration.

Expectations of Nurse Residency Programs

Participants were presented with 11 true/false questions on what they expected from a nurse residency program. The entirely of the participant population (n=28) reported that they expected nurse residency programs to:

- Have preceptors who provide encouragement and feedback about their work
- Ensure that staff is available to them during new situations and procedures
- Provide positive role models for them to observe on their unit
- Provide them with the opportunity to practice skills and procedures more than once
- Ease their transition from student to registered nurse
- Help prepare them to complete their job responsibilities
- Provide them with regular feedback on their progress

Descriptive statistics found 96.4% of participants (n=27) reported that they expected nurse residency programs to reduce their fear that they may harm a patient due to lack of knowledge and experience. Data analysis revealed 89.3% of participants (n=25) reported that they would rather work at a hospital where they started in a nurse residency program than one that did not offer a program. Additionally, data indicated 89.3% of participants (n=25) reported that they would be more willing to sign an employment contract in a hospital that had a nurse residency program over one that did not offer a program. Analysis found that 78.6% of participants (n=22) reported that they expected nurse residency programs to help them cope with stress about their workload as a new registered nurse.

Summary

The data analysis using descriptive statistics demonstrated that the majority of participants were: in support of nurse residency programs, would be more likely

to accept a job at a facility with a residency program, and would be more willing to relocate for a job if a residency program was offered. Participant desires for specific components of program design varied greatly. When analyzing residency program curriculum and skills and procedures for inclusion, no significant differences were noted in responses based on gender or specialty preference ($p > 0.05$). There was a significant relationship between 4th and 5th semester students and the desire for a simulation experience in their nurse residency program. Otherwise, cohort enrollment was not noted to share a significant relationship with other residency program skill/procedure preferences. Twenty-six statistically significant relationships where noted between age of participants and their agreement or disagreement for the inclusion of different skills and procedures in a residency program (see Appendix F). Participants demonstrated variance in their 'top three' skill/procedures requested, however 'code and emergency response scenarios' had the most top three requests among all survey responses. Although not unanimous, most participants agreed with the expectations of a residency program listed in the survey (see Appendix E). The next chapter will discuss limitations of the study, recommendations derived from this research, and how these results may be applied to current practice.

CHAPTER 5: CONCLUSION

The primary purpose of this study was to assess the baccalaureate nursing student perception of nurse residency programs as well as their opinions on program design and inclusion materials. The input and opinions of student nurses near graduation provides data that can inform nurse residency program leaders of beneficial modifications to personalize programs toward their target audience. Creating programs tailored to the learning needs of graduating nurses is a step toward closing their classroom-to-career transition gap. Curation of a custom survey tool, distribution and collection of the survey, and analysis of collected data entailed more than a year of project work. This project involved extensive collaboration with experts in the field including teaching faculty at California State University, Fresno.

Discussion

The outcomes from the survey determined baccalaureate nursing students supported nurse residency programs. Results suggest improved acquisition of new graduate nurses for hospitals with nurse residency programs over those without such programs. Data indicated 72.7% of participants reported being more likely to accept a job at a facility that offers a nurse residency program over one that does not. Participants demonstrated significantly more willingness to relocate for employment if the hospital also offered a nurse residency program. Amid a nursing shortage, being able to incentivize nurses into employment is more critical than ever. The World Health Organization (WHO) has estimated that there will be "global deficit of 12.9 million health workers by 2035… and nurses comprise the largest professional component of the health workforce" (Buchan, Duffield, & Jordan, 2015). The evidence-based data gathered in Buchans' et al. study can be

used to support allocation of funding and further research into residency program establishment and/or improvement which may incentivize new graduates into employment. Increasing desirability of employment will help combat the nursing shortage in individual facilities.

The study's participants all expressed their preferred job placement to be in an acute care facility, though their specialty preferences varied greatly. Variance was noted in participant response with nearly every aspect of program design including desired length of program, time spent in a classroom, and number of preceptors. Variance in participant desires in this area may be attributed to a lack of direct experience as a nurse resident.

In the analysis of survey responses on curriculum, several areas resulted in unanimous agreement for inclusion in a residency program. All participants agreed that residency programs should have clear expectations and established goals for nurse residents. Additionally, all participants expressed residency programs should include education on communication, delegation, prioritization, organization, documentation, and hospital policies and procedures. The student concordance in these areas suggest they should be prioritized among nurse residency program leaders who are working toward incentivizing new nurses into employment.

Analysis of participants' desire for inclusion of specific skills and procedures demonstrated several trends. The skill with the highest disagreement response rate was medication administration. This skill is important throughout nursing specialties and is covered extensively in many nursing programs. Comprehensive nursing school education may contribute to why participants didn't feel as strongly about medication administrations' inclusion in a residency program. Another skill that stood out was the inclusion of simulation. A study by Amy Weaver (2011) reported that high fidelity patient simulation

"benefits nursing students in terms of knowledge, value, realism, and learner satisfaction". There was a statistically significant relationship between participants' cohort and their agreement or disagreement with the inclusion of simulation in residency program curriculum. Further analysis would be needed to determine the reason for the statistical significance between 4th and 5th semester students and simulation skill. Further investigation into nursing programs cohort specific implementation of simulation would assist in understand the relationship. There was also a statistically significant relationship between student age and agreement for a range of skills and procedures to be included in nurse residency programs (see Appendix F). A larger sample size and identification of additional factors that are influencing this relationship (such as previous experience, confidence, etc.) should be investigated to understand the true significance of the relationship identified in this study.

 Out of a list of 28 skills and procedures, participants chose 'code and emergency scenarios' most frequently to be included in a residency program. This data encourages programs to address self-identified learning needs of their target population by including code and emergency scenarios in their curriculum. Interestingly, 'simulation scenarios' were only slightly lower than 'code and emergency scenarios' as a most frequently requested skill. When considering the statistically significant relationship that was noted between this skill and participant cohort, further investigation is justified. Additional studies can bolster understanding of why one cohort agreed this skill was important to include, while the other cohort felt less so. This relationship may shed light on how learning priorities change for students advancing through a nursing program.

 Analysis using descriptive statistics generated strong positive response in the areas of 'expectations' of nurse residency programs. Participants unanimously

agreed that residency programs should provide new nurses with encouragement, feedback, positive role models, staff support during new procedures and situations, and opportunities to practice skills multiple times. They also expected residency programs to ease their transition into practice and help them prepare to complete their job responsibilities. This data implies residency programs are viewed as a valuable tool in the students transition into practice. The vast majority of participants (89.3%) reported they would both rather work at a hospital where they started in a nurse residency program. Data also revealed 80.3% of participants would be more willing to sign a contract in a hospital if it offered a nurse residency program. This data supports the statement that a nurse residency program may improve a hospitals' acquisition of new nurses. The increased willingness to sign a contract if a residency program is present also suggests potential improved retention rates of nurses.

Limitations

Limitations were identified in this study. The sample size was too small to measure much statistically significant differences between cohorts. Further investigation would be necessary to determine if the statistically significant data that was obtained would be consistent in a larger population size. In the 'top three skills/procedures' section of the survey, participants were limited to select from a list of 28 options. Not having the option of free text for a skill unlisted could have influenced student decision on skill priority. A limitation with the survey tool within this study was that it was not validated, as it was curated specifically for this study and had not been used prior. Since the participant population for this study was selected from a single nursing program, their insights and identified

areas of weakness may be indicative of their specific nursing programs instruction and may not be representative of all baccalaureate nursing students.

Recommendations

This study produced large amounts of data demonstrating student nurses support of nurse residency programs, as well as their specific desires in program design and curriculum. Several topics addressed within the survey invite further research. Adapting the survey to gather more detailed data on specific blocks can fuel change recommendations for both nurse residency and nursing programs. Targeting a larger population for survey distribution could provide vital, statistically significant data that could provide specific change recommendations to a residency program.

When considering the statistically significant relationship between student age and their agreement for a range of skills and procedures to be included in nurse residency programs (see Appendix F), additional studies are warranted. Further investigation could uncover insight into what causes students to feel confident in specific skills and procedures and allow leaders to build a more targeted curriculum. Identifying individual needs in the new graduate population can assist healthcare organizations to increase their health equity and personalize residency programs to foster success among the diverse new nurse population.

Information gathered in this study identified several areas that participants unanimously agreed should be included in nurse residency programs. Residency program leadership should consider integrating these items into their programs to incentivize new graduates toward employment at their institutions. The areas unanimously agreed upon to be included in residency programs are as follows:

- Clear expectations and established goals for nurse residents

- Education on communication, delegation, prioritization, organization, documentation, and hospital policies and procedures
- Regular encouragement and feedback for nurse residents
- Positive role models for nurse residents
- Additional staff support for nurse residents during new procedures and situations
- Opportunities for nurse residents to practice skills multiple times

Summary

A DNP survey approach project was executed to assess baccalaureate nursing student perceptions of residency programs with a focus on program design, curriculum, skills, procedures, and expectations. Student perceptions were voluntarily collected using a newly curated survey tool. The survey was completed and submitted by 33 of the invited individuals. Data was analyzed using chi square analysis and descriptive statistics through SPSS software. Statistically significant relationships were noted between participant age and several desired skills/procedures in a program (see Appendix F), and between cohort and the agreement of simulation inclusion in residency programs. Descriptive statistics demonstrated strong trends of positive perceptions of residency programs by students, as well as several specific desires for program inclusion material. The data from this study provides guidance for residency program leaders looking to personalize their program composition to nursing students. The potential for survey tool alteration invites further research to assist in closing the nurse classroom-to-career transition gap and incentivize new nurses into employment. Most survey subjects reported they had an increased likelihood of accepting, relocating, and signing a contract for employment if a nurse residency program

was offered. The project evaluation demonstrating student support of residency programs can serve as evidence-based data to justify additional budget allocation toward residency program adjustment and further research toward program establishment and improvement. This study provided additional evidence to the growing body of literature focused on nurse residency programs impact on hospitals and the nurses they serve.

REFERENCES

REFERENCES

Blake, C., Eichar, S., Aronson, B., Burger, S., Rebeschi, L., Sousa, M., & Towle, A. (2018). *Exploring the development of empathy with nurse residents in a nurse residency program: A qualitative case study*, ProQuest Dissertations and Theses.

Barnett, J. S., Minnick, A. F., & Norman, L. D. (2014). A description of U.S. post-graduation nurse residency programs. *Nursing Outlook, 62*(3), 174–184. https://doi.org/10.1016/j.outlook.2013.12.008

Buchan, J., Duffield, C., & Jordan, A, (2015). 'Solving' nursing shortages: do we need a New Agenda? *Journal of Nursing Management, 23*(5), 543–545. https://doi.org/10.1111/jonm.12315

Crimlisk, J., Grande, M., Krisciunas, G., Costello, K., Fernandes, E., & Griffin, M. (2017). Nurse residency program designed for a large cohort of new graduate nurses: Implementation and outcomes. *MedSurg Nursing, 26*(2), 83-87, 104.

Duchscher, J. (2008). A process of becoming: the stages of new nursing graduate professional role transition. *Journal of Continuing Education in Nursing, 39*(10), 441- 450.

Rosseter, R. (2019, April 1). *Nursing fact sheet*. Retrieved from https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Fact-Sheet

Rhodes, C., Grimm, D., Kerber, K., Bradas, C., Halliday, B., Mcclendon, S., Medas, J., Noeller, P., & Mcnett, M. (2016). Evaluation of nurse-specific and multidisciplinary simulation for nurse residency programs. *Clinical Simulation in Nursing, 12*(7), 243-250.

Shinners J. (2019). Will New Graduate Nurse Residencies Be a Mandate of the Future? *Journal of Continuing Education in Nursing, 50*(8), 341–344. https://doi.org/10.3928/00220124- 20190717-02

Weaver, A. (2011). High-fidelity patient simulation in nursing education: An integrative review. *Nursing Education Perspectives, 32*(1), 37-40.

Wildermuth, M., Weltin, A., & Simmons, A. (2020). Transition experiences of nurses as students and new graduate nurses in a collaborative nurse residency program. *Journal of Professional Nursing, 36*(1), 69-75.

APPENDICES

APPENDIX A: DR. MILLER PERMISSION

Permission for Survey Distribution

Pending IRB approval, I, Sylvia Miller, EdD, RN, FNP, Department Chair at California State University, Fresno's School of Nursing grant Darby J. Axelrod permission to distribute a voluntary, anonymous survey to two cohorts of BSN nursing students enrolled in Fresno State's School of Nursing in Fall of 2020 as part of her DNP Project "Baccalaureate nursing student perception of nurse residency programs: A survey approach".

Sylvia Miller   7/5/2020
Sylvia Miller, EdD, RN, FNP   Date

APPENDIX B: VIDEO RECORDING SCRIPT

Hello students,

My name is Darby Axelrod and I am a DNP student in the 2021 1st cohort class at Fresno State University. I want to congratulate you all on this part of your educational journey in health care and thank you for your dedication to the field. It is a truly rewarding career. First, I want you to know how important you are already, even before graduation, in healthcare advancement. You are building a foundation of knowledge you will carry with you throughout your career and your insight in unique! Within the dynamic healthcare environment, change is inevitable. With advances in technology, diagnostics and treatments, the curriculum you are being presented with is constantly changing. When you enter the field, you will likely experience advancements you have never heard of before. Nursing school builds the foundation, but the classroom has limited hours to present a limitless amount of health information. The discrepancy between time available in nursing school and knowledge to be learned has created knowledge gaps that can increase stress and anxiety, especially among new graduate nurses entering the field. Many hospitals have responded by creating nurse residency programs to extend the training period with increased support and additional classroom learning time to ease the transition for new graduate nurses entering the field. For more research about documented studies on nurse residency programs, please review the data sheet associated with this video link. My DNP project was created to identify your perceptions of nurse residency programs. I want to know what you want in a program. What will support your weaknesses and address your concerns about transition? I have created a five-part survey consisting of demographics, residency program design, classroom curriculum, program skills, and program expectations. The entire survey will take you between 10-15 minutes to complete and is completely voluntary and anonymous. Your input, as a

baccalaureate student nurse, is crucial in the evaluation of nurse residency programs. Data obtained from your survey responses can provide vital information to organizational leaders seeking improved acquisition of new graduate nurses through implementation and adaptation of residency programs. In addition, it could shed light on the role of senior nursing students' classroom instruction. I encourage you to complete the online Qualtrics survey. You will receive an introductory letter, a residency program data sheet, and a link to the survey through your school email account. I want to remind you that confidentiality of responses will be observed at all times. If you agree to participate in this DNP project Qualtrics survey, simply complete the survey provided via the emailed link and submit it when you are completed. Submission of completed survey will imply consent to participate in this project. Please feel free to contact me if you have any questions or concerns regarding this project, or if you would like to be informed about the findings of the study. You can email me at darbyj333@mail.fresnostate.edu. Thank you for your time in watching this video and for those of you who choose to participate in this study, thank you very much for your time and input. Good luck to all of you on your continued educational journey.

APPENDIX C: RESIDENCY PROGRAM DATA

- There is "a disorienting, discouraging, and exhausting initial work experience for young nurses that is resulting in high levels of burnout among them within the first 18 months of professional practice" (Duchscher, 2008, p.441).

- Among the 1,011 U.S. hospitals having 250 or more inpatient beds, 48% reported operating a nurse residency program (Barnett, Minnick and Normal, 2014).

- The extent of differences within nurse residency programs indicated a lack of treatment fidelity needed to detect objectively the impact of the program (Barnett, Minnick and Normal, 2014).

- American Academy of Nursing (AAN) policy brief was recommending mandatory nurse residency programs (Shinner, 2019).

References

Barnett, J. S., Minnick, A. F., & Norman, L. D. (2014). A description of U.S. post-graduation nurse residency programs. Nursing outlook, 62(3), 174–184. https://doi.org/10.1016/j.outlook.2013.12.008

Duchscher, J. (2008). A process of becoming: the stages of new nursing graduate professional role transition. Journal of Continuing Education in Nursing, 39(10), 441- 450.

Shinners J. (2019). Will New Graduate Nurse Residencies Be a Mandate of the Future?. Journal of continuing education in nursing, 50(8), 341–344. https://doi.org/10.3928/00220124- 20190717-02

APPENDIX D: EMAILED EXPLANATION OF STUDY

Dear Fresno State University School of Nursing Students:

You are invited to voluntarily participate in a Doctor of Nursing Practice (DNP) survey assessing student nurse perception of nurse residency program gaps present in the classroom to employment transition. Your input, as a baccalaureate student nurse, is crucial in the evaluation of nurse residency programs. Data obtained from your survey responses can provide vital information to organizational leaders seeking improved acquisition of new graduate nurses through implementation and adaptation of residency programs. In addition, it could shed light on the role of senior nursing students' classroom instruction. I encourage you to complete the online Qualtrics survey available to you through the link in this email. Confidentiality of responses will be observed at all times. Your responses will be anonymous, and no personal identifiers will be obtained on the survey. The survey will take approximately 10-15 minutes to complete. As participation is completely voluntary, you are free to skip a question or stop at any time. There are no consequences to your grade for the class by participating or not participating in this survey. If you agree to participate in this DNP project Qualtrics survey, please complete the survey provided via the link and submit it when you are completed. Submission of completed survey will imply consent to participate in this project. Please feel free to contact me if you have any questions or concerns regarding this project, or if you would like to be informed about the final findings of the study.

Sincerely,

Darby J. Axelrod, MSN, PCCN

Doctoral Student California State University, Fresno

Co-Investigator

darbyj333@mail.fresnostate.edu

APPENDIX E: QUALTRICS SURVEY

Baccalaureate Nursing Student Perception of Nurse Residency Programs

Q1 What is your age?
   18-30 years
   31-40 years
   41-50 years
   51-60 years
   61 + years

Q2 What is your identified gender?
   Male
   Female
   Other
   Prefer not to answer

Q3 What is your race?
   Caucasian
   Black
   Hispanic
   Asian
   Other
   Prefer not to answer

Q4 What is your expected month and year of graduation?
   Month _____
   Year _____

Q5 List any non-nursing degrees you hold, if applicable

_____

Q6 Expected date of Hire (as a Graduate Nurse)

   Month _____

   Year _____

Q7 Where is your preferred job placement as an RN after graduation?
   a. Acute care hospital
   b. Skilled nursing facility
   c. Outpatient surgery center
   d. Urgent Care Facility

e. Doctors office

f. other

Q8 If your preferred job placement is in an acute care hospital what specialty do you most desire?

a. Adult Medical/Surgical

b. Adult Critical Care

c. OB/Post-Partum

d. NICU

e. Pediatrics

f. Emergency Department

g. Oncology

h. Step down/ DOU

i. Rehabilitation

j. OR/PACU

k. Psychiatry

l. Step-down/DOU

m. Other

n. not applicable, I do not desire to work in an acute care hospital

Q9 How far would you be willing to relocate for employment at a hospital with a nurse residency program?

a. 30-100 miles

b. 100-500 miles

c. 500+ miles

d. I am not willing to relocate

Q10 How far would you be willing to relocate for employment at a hospital with NO nurse residency program?

a. 30-100 miles

b. 100-500 miles

c. 500+ miles

d. I am not willing to relocate

Q11 Would you be more likely to accept a job at a facility that offers a new graduate program over one that did not have such a program in place?

a. Yes

b. No

c. The presence or absence of a new graduate program would not affect my decision to accept a job at a facility

Q12 What is your desired length of time for a nurse residency program?

a. I do not desire to participate in a nurse residency program

b. ≤ 3 months

c. 3-6 months

d. 6-9 months

e. 9-12 months

f. ≥ 12 months

Q13 What percentage of time would you prefer to be in the classroom during the nurse residency program?

a. 0-10%

b. 11-20%

c. 21-30%

d. 31-40%

e. 41% +

f. I prefer not to have any time in the classroom

Q14 How many preceptors would you desire during your nurse residency program?

a. 1

b. 2

c. 3

d. ≥4

e. The number of preceptors does not matter to me

Q15-22 Consider the following statements about nurse residency program curriculum and rate your opinion on the importance of inclusion of the items according to the following scale: 1 Strongly Disagree, 2 Somewhat Disagree, 3 Somewhat Agree, 4 Strongly Agree.

Q15 A nurse residency programs curriculum should include education on communicating with physicians.

Q16 A nurse residency programs curriculum should include presentations from interdisciplinary team members

Q17 A nurse residency programs curriculum should include education on roles and responsibilities of the healthcare team members

Q18 A nurse residency programs curriculum should include education on appropriate delegation to other staff members

Q19 A nurse residency programs curriculum should include education on patient and skill prioritization and organization

Q20 A nurse residency programs curriculum should include education on hospital policies and procedures

Q21 A nurse residency programs curriculum should include education on hospital specific documentation requirements

Q22 A nurse residency programs curriculum should include clear written expectations of RN residents and established goals as they progress through the program

Q23-50 Consider the following list of skills/procedures and rate your level of agreement that they should be included in a nurse residency program according to the following scale: 1 Strongly Disagree, 2 Somewhat Disagree, 3 Somewhat Agree, 4 Strongly Agree.

Q23. Simulation scenarios using mannequins or actors as patients

Q24. Assessment skills

Q25. Urinary catheter insertion and irrigation

Q26. External catheter placement and care

Q27. Blood product administration/transfusion

Q28. Central line care including dressing change, blood draws, discontinuing

Q29. Charting/documentation in hospital specific programs

Q30. Chest tube care and assessment

Q31. Code and Emergency Response scenarios

Q32. Defibrillator/cardioversion/external pacing

Q33. Patient care and expectations during death, dying and end of life care

Q34. Nasogastric tube placement and management

Q35. ECG/EKG placement and interpretation

Q36. Intravenous medication administration/pumps/PCAs

Q37. Intravenous starts

Q38. Medication administration (PO, IM)

Q39. MD communication

Q40. Patient/family communication and teaching

Q41. Prioritization/time management

Q42. Tracheostomy care

Q43. Ventilator care/management

Q44. Wound care/dressing change/wound vac

Q45. Restraint placement and monitoring

Q46. Alcohol and drug withdrawal management

Q47. Peritoneal Dialysis management

Q48. Patient lab result interpretation

Q49. Safe patient handling/Patient transfer

Q50. Blood sugar testing and insulin administration

Q51 Of the previous skills/procedure list (Q23-Q50), please select the three top skills/procedures you feel are most important to be addressed in a nurse residency program and drag them into the corresponding box in order of importance

Q52-62 Please respond to the following statements by selecting true or false

Q52 I expect a nurse residency program to have preceptors who provide encouragement and feedback about my work.

Q53 I expect a nurse residency program to ensure that staff is available to me during new situations and procedures.
Q54 I expect a nurse residency program will provide positive role models for me to observe on my unit.

Q55 I expect a nurse residency program to help me cope with stress about my workload as a new registered nurse

Q56 I expect a nurse residency program to reduce my fear that I may harm a patient due to my lack of knowledge and experience

Q57 I expect a nurse residency program will provide me with the opportunity to practice skills and procedures more than once.

Q58 I expect a nurse residency program will ease my transition from student to registered nurse.

Q59 I expect a nurse residency program will help prepare me to complete my job responsibilities in my future role as an RN.

Q60 I expect a nurse residency program to provide me with regular feedback on my progress

Q61 I would rather work at a hospital where I started in a nurse residency program than one that did not offer a program.

Q62 I would be more willing to sign an employment contract in a hospital that had a nurse residency program than one that did not offer a program

APPENDIX F: STATISTICALLY SIGNIFICANT CHI SQUARE
ANALYSIS OF AGE AND SKILLS/PROCEDURES

Statistically Significant Chi Square Analysis of Age and skills/procedures

Skills/Procedure	χ^2 **(df, n)**	p-value
Simulation	χ2 (1, 29) = 4.311	0.038
Assessment Skills	χ2 (1, 28) = 5.457	0.019
Urinary Catheter insertion and irrigation	χ2 (1, 28) = 7.529	0.006
External Catheter placement and care	χ2 (1, 29) = 5.729	0.017
Blood product administration/ transfusion	χ2 (1, 29) = 11.445	<0.001
Central line care including dressing change, blood draw, discontinuing	χ2 (1, 29) = 11.445	<0.001
Charting/documentation in hospital specific programs	χ2 (1, 29) = 7.867	0.005
Chest Tube Care and Assessment	χ2 (1, 29) = 11.445	<0.001
Code and Emergency Response Scenario	χ2 (1, 29) = 11.445	<0.001
Defibrillator, Cardioversion, external pacing	χ2 (1, 29) = 11.445	<0.001
Patient care and expectations during death, dying and end of life care	χ2 (1, 29) = 11.445	<0.001
Nasogastric tube placement and management	χ2 (1, 29) = 5.729	0.017
ECG/EKG placement and interpretation	χ2 (1, 29) = 4.311	0.038
intravenous medication administration/pumps/PCAs	χ2 (1, 29) = 4.311	0.038

Intravenous Starts	$\chi2$ (1, 29) = 5.729	0.017
MD Communication	$\chi2$ (1, 29) = 7.867	0.005
Patient/family communication and teaching	$\chi2$ (1, 29) = 5.729	0.017
Prioritization/time management	$\chi2$ (1, 29) = 7.867	0.005
Tracheostomy Care	$\chi2$ (1, 29) = 7.867	0.005
Ventilator care/management	$\chi2$ (1, 29) = 7.867	0.005
Wound care/dressing change/wound vac	$\chi2$ (1, 29) = 11.445	<0.001
Restraint placement and monitoring	$\chi2$ (1, 29) = 5.729	0.017
Alcohol and drug withdrawal management	$\chi2$ (1, 29) = 7.867	0.005
Peritoneal Dialysis management	$\chi2$ (1, 29) = 11.445	<0.001
Patient lab result interpretation	$\chi2$ (1, 29) = 7.867	0.005
Safe patient handling/Patient transfer	$\chi2$ (1, 29) = 11.445	<0.001

Fresno State

<u>Non-exclusive Distribution License</u> (Keep for your records)

(to archive your thesis/dissertation electronically via the Fresno State Digital Repository)

By submitting this license, you (the author or copyright holder) grant to the Fresno State Digital Repository the non-exclusive right to reproduce, translate (as defined in the next paragraph), and/or distribute your submission (including the abstract) worldwide in print and electronic format and in any medium, including but not limited to audio or video.

You agree that Fresno State may, without changing the content, translate the submission to any medium or format for the purpose of preservation.

You also agree that the submission is your original work, and that you have the right to grant the rights contained in this license. You also represent that your submission does not, to the best of your knowledge, infringe upon anyone's copyright.

If the submission reproduces material for which you do not hold copyright and that would not be considered fair use outside the copyright law, you represent that you have obtained the unrestricted permission of the copyright owner to grant Fresno State the rights required by this license, and that such third-party material is clearly identified and acknowledged within the text or content of the submission.

If the submission is based upon work that has been sponsored or supported by an agency or organization other than Fresno State, you represent that you have fulfilled any right of review or other obligations required by such contract or agreement.

Fresno State will clearly identify your name as the author or owner of the submission and will not make any alteration, other than as allowed by this license, to your submission. **By typing your name and date in the fields below, you indicate your agreement to the terms of this use. Publish/embargo options (type X in one of the boxes).**

| X | **Make my thesis or dissertation available to the Fresno State Digital Repository immediately upon submission.** |

| | Embargo my thesis or dissertation for a period of 2 years from date of graduation. After 2 years, I understand that my work will automatically become part of the university's public institutional repository unless I choose to renew this embargo here: fsdr-discuss@csufresno.edu |

| | Embargo my thesis or dissertation for a period of 5 years from date of graduation. After 5 years, I understand that my work will automatically become part of the university's public institutional repository unless I choose to renew this embargo here: fsdr-discuss@csufresno.edu |

Darby Axelrod

Type full name as it appears on submission

05/02/2021

Date