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A Preliminary Evaluation of an Academic Support Program

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A PRELIMINARY EVALUATION OF AN ACADEMIC SUPPORT PROGRAM

by

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ABSTRACT

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The responsibility for graduating students is a school responsibility. A large urban Midwestern research university created the Nursing Endeavor Program (NEP) to ensure that students from underserved minorities, first generation, and/or low income are enabled to graduate successfully. There is a 100% retention rate for the period from admission to the nursing major in the junior year; however, in the pre-nursing years, the retention rate is only 50%. The role transition from pre-nursing student to student nurse can be challenging and stressful. A qualitative phenomenographic research approach was utilized to identify the factors facilitating and the factors hindering this transition.

Online and telephonic recruitment, with face-to-face interviewing techniques, was utilized to sample students who had previously been in the NEP (11 students who stayed in the program and 8 students who stopped out of the program) to identify facilitating or hindering factors. Nine of the 10 interventions that had been part of the NEP were successful in facilitating the students' transitions. Three factors were found that hindered pre-nursing transitions—academic rigor, isolation, and living at home. One factor not named by any of the students in the NEP was that of attendance at professional events.

This study has implications for nursing programs, as interventions based on Jeffreys' evidence-based practice recommendations and part of the NEP were given credit for the successful transitions by both groups of NEP students. Additionally, the factor of attending professional events was not named as a major factor facilitating or hindering students. This study reinforces the need for this type of program and specifies areas for further intervention to assist in successful role transition and to guide future research.

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ACKNOWLEDGEMENTS

I dedicate this dissertation to my sons, Ben and Stephen, my daughter Magdelene, my friend Kathy, my late parents, Adain and Mary, who always encouraged me, my Aunt Mary Jane, my late Uncle and Aunt, Dr. Jack and Beverly Geist. Also Dr. Kim Litwack and Dr. Karen Morin, who never gave up on me, Dr. Andy Tracy, who showed me the way, the rest of my Committee, Dr Gwat-Yong Lie, Dr Kay Jansen, Dr Dora Clayton-Jones and the College of Nursing at UWM, who put up with me, and most especially Almighty God who watches over us all in our endeavors.

Chapter 1: Introduction

Students attend institutions of higher learning in order to receive an education, which is the institution's product. The higher education institution is reimbursed for that education, making the school responsible for this education. Higher education institutions need to assure a standard quality of service (Akareem & Hossain, 2016). In 1998, the education scientist Vincent Tinto pointed out that more students drop out of college than stay in their course of study through graduation. This trend has continued, and for universities, has had the effect of shrinking enrollment (Tinto, 2009). Acknowledging their obligation to assist in student success, these institutions have researched various interventions to assist students in continuing their success through graduation (Jeffreys, 2012; Tinto, 2009. In their book *Educating Nurses, A Call for Radical Transformation,* Benner, Sutphen, Leonard, and Day (2010) present a strong case of the need for both increasing the quality of nursing education and for expanding the number of graduates. Research has led to the recognition of specific factors that challenge the success of students, three of the strongest ones are financially disadvantaged, belonging to an underrepresented minority group, and being first generation students (Jeffreys, 2012: O'Brien, 2016). Students who lack family financial support often have to work to make up the difference (Jeffreys, 2012). First generation college students suffer from a lack of family understanding of what they are experiencing and, therefore, a lack of support (Jeffreys, 2012). Students from an underrepresented minority groups may suffer from a lack of role models (Jeffreys, 2012). Jeffreys (2012) took the interventions suggested for all students to increase their success and applied them specifically to nursing.

A college of nursing at a large Midwestern research university created the Nursing Endeavor Program (NEP), with the goal of increasing student success to enable them to enroll, progress, and successfully graduate. The NEP is designed to assist students from admission as

freshmen in pre-nursing courses, to becoming students in the nursing major as juniors, and then through graduation. According to Robin Jens, Assistant Dean of Student Services (personal communication, 2015),

> The NEP is an intensive and integrated learning community that supports selected first generation college students, who are also underrepresented minority students and/or economically disadvantaged students, with transition to college and through the Baccalaureate of Science in Nursing (BSN) program.

The NEP is a program designed to apply recommended evidence-based practice interventions to a select group of first generation, underrepresented minority, and/or economically disadvantaged college students. According to Robin Jens (personal communication, 2016), these interventions include:

- directed academic skill development through supplemental instruction and/or tutoring;
- intensive, intrusive academic advising;
- consistent and required use of resources, including professors, supplemental instruction, and tutoring;
- weekly group and monthly meetings;
- weekly study hall and grade monitoring;
- immersion visits to campus resources;
- cohort/block scheduling in all freshmen year courses and 50% of sophomore year courses;
- optional attendance at professional and student nursing conferences; and
- faculty, staff, and peer mentoring, and community and leadership building.

Jeffreys (2012) described many evidence-based interventions that contribute to student success. The NEP, as a program, is directed at Jeffreys' factor of student profile characteristics of underrepresented minority students and first generation students (parental education level), as well as the environmental factor of financial status and family financial support. The NEP is designed to apply many of Jeffreys (2012) recommended interventions:

1. The NEP intervention of directed academic skill development through supplemental instruction and/or tutoring is supported by Jeffreys' academic factor's concept of study skills and the professional integration factor's concepts of faculty advisement and helpfulness and enrichment programs.
2. The NEP intervention of intensive, intrusive academic advising is supported by Jeffreys' academic factor's concept of general academic service and the professional integration factor's concept of faculty advisement and helpfulness.
3. The NEP's consistent and required use of resources, including professors, supplemental instruction, and tutoring intervention, is supported by Jeffreys' academic factor's concepts of study hours and course attendance, and the professional integration factor's concepts of peer mentoring and tutoring, faculty advisement and helpfulness, and enrichment programs.
4. The NEP's intervention of weekly student groups and monthly NEP cohort meetings is supported by Jeffreys' academic factor's concept of course attendance and professional integration factor's concepts of faculty advisement and helpfulness, encouragement from friends in class, enrichment programs, and attendance at professional events.

5. The NEP requires weekly study hall and grade monitoring, which Jeffreys supports by professional integration factor's concepts, including faculty advisement and helpfulness, and the academic outcomes factor's concepts of course grades, nursing grade point average (GPA), and overall GPA.
6. Another NEP intervention is immersion visits to campus resources, which Jeffreys supported through the academic factor's concept of general academic services.
7. An NEP intervention is cohort/block scheduling in all freshmen year courses and 50% of sophomore year courses, which Jeffreys suggested is supported through the professional integration factor's concept of encouragement from friends in class.
8. Another NEP intervention is optional attendance at professional and student nursing conferences, which is Jeffreys' professional integration factor's concept of attendance at professional events.
9. The NEP has the intervention of faculty, staff, and peer mentoring, which Jeffreys suggested is supported by the factor of professional integration through the concepts of peer mentoring and tutoring and faculty advisement and helpfulness.
10. The NEP's final intervention of community and leadership building is found in Jeffreys' student affective factor's concepts of cultural values, self-efficacy, and motivation.

While all students are important to the workforce, increasing diversity is important, as outcomes are tied to identification of the population with their caregiver. A major goal of many U.S. government agencies is the elimination of ethnic health care disparities present in underserved citizen groups (Dreachslin, Gilbert, & Malone, 2012; Institute of Medicine [IOM], 2003; Jackson & Gracia, 2014). The IOM report, *Unequal Treatment: Confronting Racial and*

Ethnic Disparities in Health Care, acknowledged ethnic disparities in health care (Dreachslin et al., 2012; IOM, 2003; Moy & Freeman, 2014). Ethnically diverse populations often have poorer access to health care compared to their White counterparts due to transportation problems; difficulty in understanding English; lack of finances; environmental problems (crumbling infrastructural neighborhoods); biology and genetics (such as, high rate of diabetes among North American Indians); and human behavior (such as, disbelieving mainstream medicine), and it is common for patients not to be able to follow their health care regime due to this lack of access or limited understanding (Centers for Disease Control and Prevention [CDC], 2011; Farrer, Marinetti, Cavaco, & Costongs, 2015; Moore, Yeatman, Davey, 2015; Satcher, 2000; Satcher, & Higgenbotham, 2008). As a consequence of the inability to follow their health care regimen, underrepresented, diverse patients may find their health statuses impacted negatively. These negative consequences result in increased individual medical care costs and overall health care costs (Dreachslin et al., 2012; Pascucci, Leasure, Belkamp, & Kodumthara, 2010).

The IOM (2003) recommended increasing understanding of the health regime and access through increasing the diversity in the health care workforce by increasing the numbers from these underrepresented diverse groups, increasing research about health care disparities, and integrating cross-cultural education in health care training (Moy & Freeman, 2014). Researchers, such as Maier-Lorentz (2008), found increasing ethnic diversity in the workplace was related to a perception of improved quality of care for minority populations, perhaps through increased trust. Investigators have found that underrepresented populations are more satisfied and respond better when care is being given by like people (Cooper, Hill, & Powe, 2002; Evans, 2004).

Increasing the percentage of nurses from underrepresented groups, such as nurses of Hispanic, African American, North American Indian, or Asian cultures, is one way to help

resolve the disparities present in nursing (Badger, Gagan, & McNiece, 2001; Bessent, 1997; Buerhaus, Auerbach, & Staiger, 2009; Dreachslin et al., 2012; Gardner, 2005a; IOM 2003; Ojeda, Navarro, & Morales, 2011; Pascucci et al., 2010). By recognizing the need for a diverse nursing workforce reflecting the same percentages as the U.S. population, nurse educators have taken steps to admit greater numbers of students from these diverse groups (American Association of Colleges of Nursing [AACN], 2011, 2015, 2018; National League of Nursing [NLN], 2011a, 2011b).

An analysis of the demographics of the nursing workforce from 2000 to 2015 saw an increase of 27% of minorities in the population, while minorities in the registered nurse (RN) workforce increased by 38%, illustrating that diversity in the RN workforce is increasing more rapidly than in the general population (Zangaro, Streeter, & Li, 2018). Programs such as the NEP are successful in supporting student success. There are other programs that support increased diversity and student success, such as U.S. government grants and student loans, specifically the Minority Research Infrastructure and Support program and the Building Research Infrastructure and Capacity program, among others (Moy & Freeman, 2014). Robert Wood Johnson Foundation (RWJF) and AACN have provided the Doctoral Advancement in Nursing Project to enhance the number of minority nurses; RWJF and AACN launched the RWJF New Careers in Nursing Scholarship Program; AACN and Johnson & Johnson Campaign for Nursing's Future launched the Minority Nurse Faculty Scholars Program; and AACN and other nursing organizations have collaborated on funding for nursing workforce diversity grants (Rosseter, 2014). These programs must be continued, as projections predict that by 2044, minorities will have become the majority in the population (Colby & Ortman, 2015).

Application of numerous interventions has led to a 100% graduation rate for students once admitted in their junior year to the nursing major (Robin Jens, personal communication, 2016). Despite evidence suggesting these interventions facilitate success (Jeffreys, 2012), not all students make a healthy and/or successful transition, as the retention rate is only 50% if examining the time period from pre-nursing classes through admission into the major (Robin Jens, personal communication, 2016).

Transition is a complex and multidimensional experience, exposing the individual to increased risks and vulnerability (Meleis, Sawyer, Im, Messias, & Schumacher, 2000). Admission into nursing school is highly competitive. The NEP students who maintain stated expectations and grade point are guaranteed admission to the major. Students are expected to enter with high grades and maintain these standards through difficult course work. As students begin their course of study as pre-nursing students, they have to successfully make this role transition into becoming successful student nurses.

A review of the literature identified variables affecting retention for all nursing students, with some specifically examining variables affecting retention for underrepresented students from diverse groups. Role transition for underrepresented students is possibly more complicated than for the White nursing students. Students enter the role of nursing student with some attributes from their past, such as culture, education level, and previous education experiences. With the high standards that are maintained in a college level nursing program, students who transition into becoming nursing students must become exceptional students in order to persist (Jeffreys, 2012).

In the NEP, the pre-nursing students from underrepresented diverse groups, despite being treated with evidence-based interventions, are only retained at a 50% rate. In the literature, the

framework of role transition has not been applied to this student population. There has been research regarding role transition of the student nurses' experience in becoming registered nurses, but not of students admitted into a pre-nursing program transitioning into student nurses. There has been research into retention in nursing programs. Evaluating the NEP as one approach to facilitate student success from the context of role transition will address this gap in the literature and allow for other variables to be identified through the use of qualitative methods.

Not only is it necessary to recruit additional nursing students from underrepresented diverse groups, it is also essential to find ways of retaining these students in the program. so the nursing workforce demographics change to more closely represent the population (Dapremont, 2013). An underrepresented diverse group is defined as being a group within a larger societal group displaying shared similar physical characteristics or belonging to a cultural group (Brown, 1993). Retention, as used in this study, is defined as underrepresented diverse BSN pre-nursing students continuing in their program through admission to the nursing major. Role transition is the movement from one life role into another (Meleis et al., 2000).

Afaf Meleis, PhD, RN, FAAN, Margaret Bond Simon Dean of Nursing at the University of Pennsylvania, is the originator of the transitions theory to integrate middle range theory in assisting nurses to facilitate positive transitions (Meleis, 2010). Meleis (1975) identified the difference between a successful transition and a flawed transition as stemming from role insufficiency in a flawed transition. Role insufficiency is a perception that the new role performance is not sufficient by the person or significant other and is characterized by moving in and out of the new role, leading to the voluntary or involuntary termination of the new role (Meleis, 2007). It may result from a poor role definition or a lack of understanding of the new

role (Meleis, 2007). When involuntary, it may lead to anxiety, depression, apathy, frustration, grief, powerlessness, unhappiness, aggression, or hostility (Meleis, 2007).

There are four major categories of role transitions: developmental, situational, health, and organizational (Schumacher & Meleis, 1994). Transition experiences have similar properties, moving from awareness, through engagement, and experiencing changes and differences over a timespan with specific marker events (Meleis, 2007). Role supplementation, a process involving the conveying of information or experience needed to bring the awareness of anticipated and expected patterns and goals, will help resolve role insufficiency and increase the likelihood of successful role transition (Meleis, 2007). Noted are facilitators and inhibitors, which are meanings within the transition, such as cultural beliefs and attitudes, socioeconomic status, preparation and knowledge, community conditions, and societal conditions (Meleis, 2007). Such things as feeling connected, interactions with caregivers, location, ability to develop confidence and coping strategies, mastery of skills, and development of a fluid identity increase the likelihood of a successful transition. Meleis (2007) suggested that one nursing mission is to facilitate the ability of people to make a healthy transition, defining nursing as the art and science of facilitating transition of persons to health and well-being.

The Meleis (2010) theory is well supported by strong evidence in developing a more in-depth understanding of the process by which nursing students and others undergo role transitions. The Meleis theory is well suited to investigate nursing student education and is applicable to all nursing students. For the pre-nursing student, a successful role transition is defined as the student being admitted to the nursing major. Students who drop out of the NEP prior to admission to the major do so because of a flawed transition, defined as the inability to transition into the new role (Meleis et al., 2000).

Further work utilizing this theory will make the discovery of new factors possible that affect the process of students remaining in school and completing their degree. It may also reveal interventions that are in place that need to be applied in a greater or lesser amount to increase effectiveness. It will help create a greater understanding of the student and the interaction by the student with the program, problems, and factors that facilitate the continuation in a nursing program. This theory can be used to develop new knowledge and understanding of the role transition from pre-nursing student into student nurse. Its entire focus is on understanding the student's role transition and developing new factors to understand both successful and flawed transitions.

Statement of the Problem

Despite the application of multiple evidence-based interventions, 50% of NEP students are unable to persist into the nursing major (see Table 1). This suggests that there continue to be variables about which we know little. The literature consistently suggests that being a member of an underrepresented group negatively affects a student's retention when compared to the White majority (Dyck, Oliffe, Phinney, & Garrett, 2009; Jeffreys, 2003; McLaughlin, Muldoon, & Moutray, 2010; Pryjmchuk, Easton, Richardson, & Brown, 2009; Rouse & Rooda, 2010). Despite targeted interventions designed and applied to increase retention, there continues to be a lack of retention in students admitted to the NEP during the freshman and sophomore years. An evaluation of the NEP from the students' perspective may allow for the identification of variables that facilitate or inhibit the transition of these students.

Table 1

NEP Students by Cohort

Year	Enrolled	Currently in Courses	Excused – Not meeting standards	Excused – Change of major, transfer, personal	Graduated
2008	19	0	4	3	12 (63.2%)
2009	20	0	5	8	7 (35.0%)
2010	12	0	4	2	6 (50.0%)
2011	12	1	4	1	6 (50.0%)
2012	12	3	2	3	4 (33.3%)
2013	11	5	1	5	N/A
2014	12	6	4	2	N/A
2015	12	7	0	5	N/A
2016	13	13	0	0	N/A

Source: Robin Jens, personal communication, 2016.

Theoretical Framework

The guiding theoretical framework for this study is Meleis's theory of role transition. The transitions framework has been used to measure the transition from student nurse to practicing nurse, as well as the role of registered nurse to practicing certified registered nurse anesthetist (CRNA). There is little on the role transition from pre-nursing student to student nurse or on underrepresented groups moving from the role of pre-nursing to nursing student, which was the focus of this study.

Meleis et al. (2000) suggested that transitions have several experiential properties, including awareness of the transition, engagement in the transition, the changes and differences taking place, the timeline required, and the discovery that each transition has critical points. It is particularly important to explore this experience with these students whose background is so different from other students.

Purpose of the Study

The purpose of this study was to evaluate the NEP from the viewpoint of students. Students who have successfully entered the major and students who have been unable to

continue with the program were interviewed. A qualitative research design using face-to-face interviews in a guided phenomenographic design led to the development of a rich background of participant experiences, leading to a greater understanding of the process of role transition. A qualitative design was chosen for this study because while many factors have been explored in the general student nurse population, despite the application of interventions to overcome these, there continues to be serious problems in the success of the students in the NEP.

Qualitative methods are used for the exploration of phenomenon which has not been explored previously or for which there is little prior research. In this case, while student nurse retention has been explored previously, it has not been examined through the lens of role transition.

Research Questions

The following research questions were designed to guide the study:

1. What factors do participants perceive facilitated a successful transition?
2. What factors do participants perceive impeded or hindered their transition?

Research Approach

Data were collected using a phenomenographic qualitative approach to identify the common experiences of a successful or flawed role transition. This approach produced an in-depth understanding of the students' perceptions of their experiences and led to the discovery of further variables in the transition process. Phenomenography was developed to identify similarities and differences in the ways in which the participants experience and understand phenomenon (Barnard, McCosker, & Gerber, 1999; Sonneman, 1954).

Qualitative studies are more concerned with saturation than with the overall total number of interviews (Polit & Beck, 2008). Saturation is defined as being reached when redundancy of

data collected is occurring and the addition of new participants yields nothing new (Polit & Beck, 2008, 2010). Rigor and credibility were maintained throughout the study through periodic data review by the researcher's major professor and a qualitative expert throughout the time period of the study.

The study sample was drawn from the NEP program participants. A purposive sample of nine students was drawn from the group of students who had been admitted to the nursing major or graduated, at which point saturation was reached. An additional two students were then interviewed to verify that saturation had been reached. A purposive sample of eight students was drawn from the group who dropped out, saturation was reached with six; two additional students were interviewed after that to verify saturation.

Study participants were identified by a number, and interviews were recorded and transcribed verbatim. Both open-ended and guided questions were used. The guided questions were preapproved by the researcher's major professor and the qualitative methodology expert and were based on factors identified through the literature.

Definitions

BSN student: Typically, statistics are reported only from when the student is admitted to a program, normally in their junior year, rather than including pre-nursing students; in this study pre-nursing students were included.

Underrepresented minority students: An underrepresented minority student is defined as being from a group within a larger societal group displaying shared similar physical characteristics or belonging to a cultural group (Brown, 1993). This variable is operationalized as being the students in the NEP who are members of underrepresented minority groups.

Retention: As used in this study, retention is defined as pre-nursing students remaining in the program through admission to the nursing major and indicates a successful transition.

Pre-nursing student: A person who is first entering pre-nursing courses with no experience of what will be needed to become a nursing student.

Flawed transition: A student is not progressing in their transition as planned and withdraws from the NEP.

Facilitation: Those factors that assist a student in a transition.

Hindering: Those factors that restrict or delay a student's transition.

Role insufficiency: The student perception of a flawed transition, leading to dropping out of the NEP.

Successful role transition: For the purposes of this study, successful role transition refers to the pre-nursing student being admitted to the full nursing program in their junior year as a student nurse.

Unsuccessful role Transition: Unsuccessful role transition refers to the pre-nursing student dropping out of the NEP before becoming a student nurse in the NEP.

Student nurse: A person who is admitted to the BSN nursing program in their junior year

Positionality of the Researcher

This researcher's desire to explore the factors involved with ethnic minority persistence came from the researcher's own experiences as a predominantly White, part North American Indian, older male in transitioning into the role of nursing student after many years working outside of school. Additionally, as a nursing faculty member, this researcher noted that while many factors have been determined and implemented to positively affect retention, the NEP continues to have less than optimal outcomes. Clearly, there are other factors involved, and these

factors deserve to be identified. This researcher is also a first generation PhD student. As a clinical instructor responsible for teaching several NEP students, this researcher noted that the stories related by these students indicated there may be other factors affecting program retention.

Study Assumptions

Individual Interviews

The students will be interviewed face-to-face in person. It is assumed that students interviewed will be honest and respond accurately to the interview questions about their experiences during the role transition.

Significance of Study

The long-term goal is to eliminate underrepresented groups' health care disparities present in underserved U.S. citizen groups. The plan is to increase the diversity of the nursing workforce. The findings of this investigation have important potential implications for nursing patient outcomes, nursing education, nursing practice, nursing research, and nursing policy in increasing diversity from underrepresented groups. A discussion of these potential implications follows in greater detail in individual sections.

Nursing Education

If further variables are discovered through this study affecting underrepresented group retention in pre-nursing programs, then interventions could be designed to help increase student retention. Increased retention would allow greater numbers of underrepresented students to progress into becoming registered nurses, improving the diversity in the nursing workforce and, ultimately, improving patient outcomes. Additionally, exploration of factors and interventions that have a positive impact on the NEP students may allow for the application of these same interventions to the general nursing student population.

Nursing Practice

If the discovery of additional variables affecting retention of underrepresented groups leads to improved retention of these same underrepresented groups, this will ultimately lead to a more diverse nursing workforce, allowing this workforce to provide care that is more culturally congruent with the constituent underrepresented groups in the community.

Research

While the methods used in this study have been applied to underrepresented groups of students, it is possible that the application of these methods to the larger student nurse population may lead to additional variables that affect the retention of all nursing students. This could potentially lead to a reduction in the number of students who drop out, increasing overall graduation percentages and reducing the nursing shortage in general.

Policy

While there is an international shortage of registered nurses, more than 15 years ago, the National Advisory Council on Nurse Education and Practice (2000) recommended increasing the racial, cultural, and ethnic diversity of the registered nurse workforce based on the need for culturally competent care and the ethical challenge of equity and fairness towards all ethnic groups (AACN, 2011, 2015, 2018; Fox & Abrahamson, 2009; Gonzalez, Barr, & Wanat, 2010; NLN, 2011b; Sheils, 2010; Sweet, 2012). Recognizing the need for a multi-ethnic workforce in the same percentages as the U.S. population, nurse educators have taken steps to admit greater numbers of students who fit these categories (AACN, 2011, 2015, 2018; Nivet & Berlin, 2014). Bringing additional African-Americans, Hispanics, and persons from other underrepresented diverse groups into the registered nurse workforce could potentially diversify the nursing workforce (Bessent, 1997; Buerhaus et al., 2009; Gardner, 2005a; Ojeda et al., 2011; Phillips &

Malone, 2014). Under the Equal Opportunity Law, these underrepresented groups are required to have an equal opportunity to become nurses. Clearly at this time, they do not.

The AACN (2016) recommends that the admissions process at many nursing schools be changed in order to admit nursing students of greater ethnic diversity. This change is to implement the use of holistic qualitative interviewing as a part of the admission process, which is a move away from only considering the student's academic qualifications when determining student admission (Glazer, Bankston, Clark, & Ying, 2014; Glazer et al., 2016). This decision will now also be based on the application of holistic skills of communication, motivation, and empathy during the interview (AACN, 2016). In many ways, these students will, therefore, likely correspond with the NEP students, and the findings from this study regarding what helped and what hindered the student's role transition into student nurse will become more important. Institutions may well embrace these recommended changes to increase the size of the underrepresented groups in their nursing programs.

Significant positive results from this investigation will enable the development of programs that will increase retention through finding further ways to intervene, ultimately leading to increasing the numbers of students in those diverse demographic groups who graduate. This research will reinforce existing policy and lead to more focused and informed policy, and nurse educators will observe these demographic groups of registered nurses increase.

Summary of Study

Benner et al. (2010) issued a challenge to nursing educators to increase the quality of education and expand the number of nursing graduates. At the same time, educators need to produce nurses of greater diversity, especially students from underrepresented groups (Jeffreys, 1998, 2012; National Advisory Council on Nurse Education and Practice, 2000). Students from

several underrepresented groups, compared to White students, have greater difficulty in passing their courses (Dyck et al., 2009; McLaughlin et al., 2010; Pryjmchuk et al., 2009; Rouse & Rooda, 2010). Recognizing this, nursing educators have attempted to increase retention for all students and have explored concepts, such as mentoring, tutoring, and financial aid, and examined some of the relationships of those concepts with persistence. In the NEP, a select group of underrepresented, low income, first generation students have been given every opportunity to experience these interventions, and yet, the outcomes are virtually unchanged. Through qualitative phenomenographic interviews, the researcher gathered rich data to gain further insight into the role of transition these students are undergoing. This will contribute to our understanding of the process of role transition and may allow further interventions to be designed to increase diversity.

Structure of Dissertation

This dissertation is composed of six chapters. Chapter 2 is composed of a review of the current literature regarding Meleis's transitions theory and nursing students and then Jeffrey's framework and the NEP and includes a manuscript addressing interventions. The focus of Chapter 3 is a discussion of the proposed methodology and includes a manuscript on the method of phenomenographic analysis. Chapter 4 describes the actual methodology used for this study. Chapter 5 presents the results of the study. Chapter 6 is a synthesis of the manuscripts and other works. The manuscripts included in this dissertation are prepared and formatted as individual manuscripts and include their own tables, abstract, author notes, body of manuscript, references, and figures. As there are different requirements for different journals, the manuscripts have been formatted following university guidelines.

Chapter 2: Literature Review

The role transition from pre-nursing student into student nurse can be a difficult and challenging process. Many pre-nursing students who wish to become student nurses drop out of the nursing program and do not continue to become student nurses. Researchers examining students dropping out have focused on persistence, retention, and attrition and have not examined this process through the role transition lens. The entire process of role transition from pre-nursing student to registered nurse is a challenging progression. There are two transitional stages in this process, the first is the pre-nursing student into the student nurse and the second is the student nurse into the registered nurse.

A shortage of registered nurses exists (Cottingham, DiBartolo, Battistoni, & Brown, 2011; Grant, 2016; "Nursing now," 2018). Mitigating the growing shortage of nurses is important. Using U.S. Department of Labor Statistics, the Robert Wood Johnson Foundation found a nursing shortage of 500,000 nurses in 2015, projected to reach 800,000 by the year 2020 (Grant, 2016; "Nursing now," 2018; RWJF, 2018). Researchers have examined the transition from graduate nurse and/or student nurse into registered nurse as a means to discover ways to assist the graduate and/or student nurse to become a registered nurse. This study is focused on finding those factors that facilitate pre-nursing students in becoming successful nursing students in a select sample. This will assist nurse educators to address the nursing shortage by assisting pre-nursing students to be successful as nursing students, so they may graduate and transition into registered nurses.

A low level of retention from pre-nursing students through graduation within nursing school programs contributes to this problem, with rates that vary from 15% to 75%, depending on the type of program (Andrew et al., 2008; Bowden, 2008; Fowler & Norrie, 2009; Gaynor et

al., 2007; Newton & Moore, 2009; Pryjmchuk et al., 2009). Theoretical models have been proposed to suggest reasons for attrition, retention, or persistence of students within the general university system (Bean & Metzner, 1985; Nora, Cabrera, Hagredon, & Pascarell, 1996; Rendon, Jalomo, & Nora, 2000; Tinto, 2009). These various models have led to the development of interventions to increase student retention; but, despite these interventions, the retention rate within the university systems has remained constant during the last 50 years (Burkum, Habley, McClanahan, & Valiga, 2010; Mortenson, 2005; Tinto, 1993).

Much of the work that has been done with interventions has been largely based on the work of Tinto (1998) and the factors his theory postulates. This model was first proposed in the 1980s, but continues to form the basis for the majority of research studies regarding student persistence (Draper, 2008; Tinto, 2009). Despite the application of these interventions to pre-nursing students, as in education, the number of students retained remains low. It is time to re-examine the factors using the lens of role transition to see if there are other factors that play a part in the decisions of these students.

Method

Keywords searched were *registered nurse role transition, student nurse role transition, role transition into student nurse,* and *student nurse role socialization*. A bibliographical search of peer-reviewed journals, dissertations, and chapters, limited to English language only, was performed on the indexed databases: Cumulative Index to Nursing and Applied Health Literature (CINAHL), Education Resources Information Center (ERIC), the Medical Index (MEDLINE), ProQuest, Psychological Literature (Psych Lit), and World Catalogue (Word Cat). This search was augmented from the bibliography from each article or dissertation.

Literature Review

The review of literature included theses, dissertations, articles, and books from the past 20 years, 1996 to 2016. The purpose was to explore significant literature published on the topic of role transition in student nursing. The role transition from student nurse to registered nurse was well researched, while the role transition from pre-nursing student to nursing student was not. Many dissertations performed research, which through the individual's committee are peer-reviewed for accuracy and science, but never published other than through ProQuest and therefore, are included. All relevant research and findings are summarized in Table 2. Studies were coded for relevance and evaluated per Polit and Beck (2008, 2010).

Theoretical Liteature

Pre-Nursing Student Transition to Student Nurse

A number of studies examined characteristics of student nurses who were successful in their programs of study who had a prior health care license of some sort. Brennan and McSherry (2007) found that when health care assistants were adjusting into the role of student nurse, they experienced two factors: Clinical issues were a problem, leading to the health care assistants returning to the role of assistant rather than performing as student nurses; and health care assistants experienced culture shock as they moved into becoming student nurses, making it difficult for them to perform as student nurses and interfering with their transition.

Hutchinson, Mitchell, and Winsome (2011) found the student nurse with a lesser degree had difficulty reconciling their clinical and academic environment. They felt as if they were being forced into a dual identity. Melrosse and Wishart (2013) reported that licensed practical nurses (LPNs) enrolled in a BSN program felt the program reduced their independence. They then individually resisted the changes needed, until they were forced to reach out, and through

faculty support, re-imaged themselves as BSN nurses. Wheeler (2015) applied Mezirow's transformational learning theory to the role transition from LPN to registered nurse student. The theory suggests that adults will understand the significance of life experiences, and when able to, transformational learning allows them to make meaning of the experiences. Wheeler found that the LPN's acceptance of the changed role was an individual acceptance and that faculty support was crucial in this process.

Researchers examined pre-nursing students' transition into nursing students. Lyon, Younger, Goodloe, and Ryland (2010) examined transitions in an accelerated nursing program and found that different educational backgrounds yielded different results. A health and science background allowed an easier transition initially. Non-science students had a more difficult immediate transition; but long term, they had increased writing skills and stronger interpersonal skills. Blustein et al. (2002) found that social class affected the transition into student. Higher socioeconomic class students had increased interest in their classes, felt work was personally satisfying, had an improved self-concept, and had increased access to external reserves and level of career adaptability. Students from lower socioeconomic classes did not enjoy these aids in their transition.

In a qualitative descriptive study, Cubit and Lopez (2011) found that examining their sample at the beginning, middle, and end of the course produced consistent themes of stepping out of their comfort zone, being taken advantage of, and needing support. Goetz (2007), using grounded theory with Hispanic students, found barriers of being unprepared for the level of difficulty, time management, finances, family beliefs, culturally taught to do it themselves, intimidation, inadequate academic preparation and support, prejudice, and the institution. Family and student praise helped, especially from the faculty, patient, and nursing staff. Family, faith,

and community were strengths. Students who successfully transitioned were able to balance life and cultural compromises. In an ethnographic study with four focus groups, Holland (1999) found that there were themes of dual role conflict, blurred boundaries between profession and skills, nursing's vocational image, and a ritualized transition. Meinert (2008), in a mixed-methods descriptive study, found that caring feelings, high expectations, reality shock, and personal conflict led to knowledge conflict and cognitive resistance, while faculty were instrumental in adaptation.

In a qualitative phenomenological hermeneutic study of 30 Swedish nursing students, Fagerberg and Ekman (1998) applied the theory of role transition, as delineated by Meleis and Trangenstein (1994), suggesting that when students enter nursing, they are beginning a process that may be defined as a role transition. Chick and Meleis (1986) specified that this process may include such things as process, timespan, and perception. Fagerberg and Ekman (1998) found the students transitioned from "caring for others" through working with the health care team and developing theoretical and technical knowledge, which increased self-esteem, leadership skills, and confirmed their identity as nurses (p. 606).

Registered Nurse Transition to Family Nurse Practitioner

Heitz, Steiner, and Burman (2004) found that registered nurses returning to school and becoming students experienced turbulence, which was both an internal and an external obstacle to their transition. They suggested that as the student further transitioned, the turbulence became a positive internal and external force in the transition.

Student Nurse Transition to Registered Nurse

Newton, Cross, White, Ockerby, and Billett (2011) examined the experience in transition from student nurse to registered nurse through the second and third year BSN students, finding

that organization familiarity, social participation, and continuity eased the transition. Weiland, Mackinlay, and Jelineck (2010), in a triangulated qualitative descriptive study, found that senior BSN precepted students, in transitioning to registered nurses, had improved nursing skills, which improved their confidence, allowing them to be better connected to patients and experience more comfort in the nurse role.

Slone (2012) examined a school in the Midwest offering senior student nurses the opportunity to participate in a specialized clinical course that would improve their confidence, easing their transition into registered nurses. The school offered the student nurses a course in emergency nursing. Through skill repetition, learning to prioritize, following nurse role models, exposure to death and dying, and debriefing sessions with their preceptors, the students felt they gained confidence and were more comfortable with the role of nurse. Deasy, Doody, and Tuohy (2011) and Doody, Tuohy, and Deasy (2012) found their fourth year BSN students reflected on their transition into registered nurse throughout their final year. Focusing on how to manage work, priorities, ethics, and time management, the students agreed they needed support being positive about preceptorships. Through their final year's course, the students' confidence increased from 35% to 55%.

McManemy (2002) found that when interested faculty were able to apply role modeling, mentoring, and various socialization behaviors, it helped overcome various negative cultural influences and helped transition to registered nurse caring behaviors for a group of African American students. Ross and Clifford (2007) noted the increased stress transitioning students experienced, and suggested that any form of support is critical to a successful transition.

Conceptual Basis

Meleis et al.'s (2000) transition framework is the theoretical framework for this literature review. Meleis et al.'s transition framework refers to a situational transition when applied to nursing education. Meleis (2007) defined role transition as the passage of an individual from a condition, status, or life phase into another. It is formed though process (phases and sequence), time span (ongoing but finite time), and perception (the meaning to the person experiencing it). Time span is disruption through to stability, process is the disruption and response, and perception is how role ambiguity and the threat to the internal self are explained (Meleis, 2007).

Meleis's theory comes from her work in the mid-1960s with support groups that dealt with health and development issues through either teaching or support. Meleis (2007) concluded that there were universal features in the creation of the groups and their conduct. Meleis went on a quest to identify order from life events, such as planning programs, becoming a parent, and mastering the parent role. She then focused on helping nurses help people after transitions (Meleis & Swendsen 1978). Meleis (1975) studied the differences of unhealthy transitions and successful transitions with role insufficiency. She defines the transitional goal as being mastery of this new role and the transition experience as a concept (Chick & Meleis, 1986).

Schumacher and Meleis (1994) developed and identified transitions as a central concept for nursing, which includes four major categories, those of developmental, situational, health, and organizational. Examples of developmental are motherhood or aging. Situational includes family changes or discharge from a hospital. Nursing students are considered in this group. Health is defined as including such things as a myocardial infract or a diagnosis of AIDS. Organizational includes changes in leadership, policies, and procedures (Meleis, 2007). Transitions often include loss of networks and social support, the marginalization of the

individual, with the possibility of increased stress, or even post-traumatic stress (Meleis, 2007). Meleis (2007) suggested that one nursing mission is to help people make a healthy transition, defining nursing as the art and science of facilitating transition of persons to health and well-being.

Analysis

Meleis's (2007) theory has been applied in nursing education as an educational transition that is situational in nature. These transitions are nursing student to nurse, to increase diploma or associate degree nursing (ADN) to BSN, or nurse to advanced practice nurse. Each of these transitions has similar factors. Transition experiences all have similar properties, moving from awareness, through engagement, and experiencing changes and differences over a timespan with specific marker events (Meleis, 2007). Noted are facilitators and inhibitors, which are meanings within the transition, such as cultural beliefs and attitudes, socioeconomic status, preparation and knowledge, community conditions, and societal conditions (Meleis, 2007). Transitions follow patterns of response, moving clients in the direction of success. Such things as feeling connected, interactions with caregivers, location, ability to develop confidence and coping strategies, mastery of skills, and development of a fluid identity increase the likelihood of a successful transition (Meleis, 2007).

Evaluation

Meleis's (2007) theory has been applied, as shown in the literature review, to explain transitions of nursing students, either student to registered nurse, nursing student to registered nurse, health care worker to registered nurse, LPN to registered nurse, or registered nurse to certified registered nurse anesthetist (CRNA). This work has been done by a number of different

researchers utilizing qualitative and quantitative methods and is sensitive to cultural needs, beliefs, and attitudes.

As applied in this study, role insufficiency is defined as difficulty with the transition (Meleis, 2007). Role insufficiency is the perception that role performance is not sufficient by the person or significant other, characterized by moving in and out of roles, voluntary or involuntary termination of roles, or termination of a role as moving to a new role (Meleis, 2007). It may result from poor role definition or understanding of the new role and, if involuntary, is often demonstrated through anxiety, depression, apathy, frustration, grief, powerlessness, unhappiness, aggression, or hostility (Meleis, 2007). Role supplementation, a process involving the conveying of information or experience needed to bring the awareness of anticipated and expected patterns and goals, will help resolve role insufficiency and increase the likelihood of successful role transition (Meleis, 2007).

Conclusion

Researchers have investigated role transition for health care workers into student nurses, student nurses into registered nurses, ADN nurses into BSN nurses, and LPN nurses into BSN nurses; however, there are few studies investigating the transition from pre-nursing student into student nurse, and the studies investigating this have not looked at underserved students. The exception to this is a study by Goetz (2007), where the emphasis was on grounded theory and the development of a theory, rather than using phenomenography. This investigator believes that inviting the participation of NEP students will produce a focus on the specific factors, both positive and negative, that assist the underserved participants in continuing into becoming student nurses, assisting faculty in the future to help underserved students be successful.

Table 2

Transitions Theory and Nursing Students

Study	N Sample	Significant Findings
Blustein et al. (2002)	N=10 Men N=10 Women Exploratory qualitative Transition from school to work	Higher socioeconomic class had increased interest. They perceived work gave them personal satisfaction, improved self-concept, increased access to external reserves, increased level in their careers with greater adaptability. Lower socioeconomic class had increased divorce, parental conflict, and emotional distance from both parents. Conclusion was that socioeconomic class affects transition role
Brennan & McSherry (2007)	N=14 Health care assistants taking nursing courses Qualitative thematic content analysis Transition from health care assistant to RN	When going back to school to become an RN, health care assistants (HCAs) experienced culture shock. HCAs additionally found they had clinical issues with the new role. Whenever their comfort zone was disrupted, HCA students moved back into HCA role rather than student nurse role. Once past the culture shock, HCAs were comfortable with new role.
Cubit & Lopez (2011)	N=8 Beginning N=4 Middle N=4 End Qualitative descriptive Last semester graduate nurse transition into RN	Enrolled nurses felt that managers assumed they were qualified and experienced when they were not. In new role, they were stepping out of comfort zone. Felt like they were being taken advantage of, treated as if competent. They continued to need support, but assumed not to be needing.

Deasy et al. (2011)	N=116 4th year student nurses Quantitative Role transition from student nurse to nurse	The majority of students reflected on upcoming and ongoing transition throughout their last year. Only 35% were confident of nursing skills before starting course year; however, 57% were positive and confident after. Pre-registration stress increased as graduation approached. Need for support, positive about rostered preceptorship.
Fagerberg & Ekman (1998)	N=30 Swedish nursing students from three schools Qualitative phenomenological hermeneutic Transition from nursing student into nurse	Originally they *cared about others*, which was their reason for being in school. Through working with health care team, they developed theoretical and technical knowledge, which led to self-esteem, leadership, and an identity as a nurse.
Goetz (2007)	N=4 N=1 N=8 Hispanic RNs, graduate nurses, and nursing students Grounded theory Transition from student nurse into RN	Barriers: Students were unprepared for difficulty of courses, lacked adequate time management skills, had poor finances, struggled with family beliefs, felt they had inadequate academic prep, difficulty with nursing theory and practice, and lacked support. As they improved, they did so through finding voice. Felt that there was prejudice from the educational institution, which they had to deal with. They gained confidence through praise from family and other students. They gathered support through faculty, patients, and the nursing staff. Unsure and intimidated, culturally taught to do it themselves. Emotional, verbal, and psychosocial support—family, faith, prayer, and their community. Eventually, they found they could balance life, with cultural compromises and parental sacrifices.

Heitz et al. (2004)	N=9 Family nurse practitioner students Descriptive qualitative Transition from RN to FNP	Students found that the return to school created turbulence, which for the student was both an internal and an external obstacle. As their new role developed, it became both an internal and external positive force.
Holland (1999)	4 focus groups of diploma nurses enrolled in BSN program Ethnography Transition from diploma nurse into student nurse	These licensed nurses returned to school with an ill-defined transition. The difficulty lay in the dual role conflict, blurred boundary between profession and skills, ritualized transition, vocational image of the diploma nurse now becoming a BSN.
Hutchinson et al. (2011)	N=10 Nurses enrolled in BN program Qualitative Transition of nurses into student nurses	EENs who are licensed nurses have a dual identity, both student and nurse. They have trouble reconciling clinical and academic environment.
Lyon et al. (2010)	N=135 Student nurses Descriptive quantitative Student or worker transition into nursing student	Students in nursing programs from different backgrounds yielded different strengths. Health and science background had an easier early transition, while non-science students had stronger writing and interpersonal skills leading to a stronger long-term transition.

McManemy (2002)	N=16 African American RNs Phenomenology Role transition for African American students into RNs	Interested faculty applied role modeling, mentoring, and other socialization behaviors to help overcome various cultural influences and lead to caring behaviors.
Meinert (2008)	N=18 N=10 Nontraditional students who journaled and were interviewed Mixed-methods, descriptive Student nurses transitioning into RNs	There are dimensions of role transition, with inter and intra personal changes in relationships with peers, faculty, patients, and themselves. Caring feelings, high personal expectations, reality shock, and personal conflict were blocking forces. As the transition progressed, there was a necessity for cognitive restructuring, which faculty were instrumental in helping with the adaptation. This was because of knowledge conflict, cognitive resistance, and affective qualities.
Melrosse & Wishart (2013)	N=10 N=27 N=16 LPNs in RN programs 3 descriptive grounded theory studies LPN transitioning into RN student nurse	Going back to school, LPNs felt a lack of independence. As they transitioned, they developed independence through resisting, reaching out, and then re-imaging as RNs.
Newton et al. (2011)	N=60 2nd and 3rd year BSN students Transition from student to RN	This was a form of organized preceptorship, which is described as an enhanced transitional model. It created an organizational familiarity, social participation, and continuity for role transition into new nurses.

Ross & Clifford (2007)	N=30 RNs Qualitative Student nurse to RN	Students transitioning into RNs experience high levels of stress in which any form of support is critical.
Slone (2012)	N=11 Student nurses Phenomenological qualitative focused study Transition from student nurse to RN	In the transition from student nurse to RN, confidence building was created through skill repetition, prioritization practice, nurse role models, debriefing sessions. Having facilitated preceptors helped, with an experience of exposure to death and dying and networking with nurses helped a great deal.
Wheeler (2015)	N=8 LPNs Qualitative case study LPN into student nurse	LPNs returning to school found that acceptance individualized of changed role was important. Faculty support was crucial in its success. Comfort with program, confidence, perception of RN role, stressors, coping methods, and change in thinking were all important factors in this transition.
Wieland et al. (2007)	N=32 Nursing students Triangulated qualitative descriptive Transition from student nurse to RN	In the transition from student nurse to RN, improved confidence was an important factor. Other factors were a better connection with patients, more comfort as nurse, more efficient, organized, and improved nursing skills.

Jeffreys' Framework and the Nursing Endeavor Program

Jeffreys (2012) combined concepts from previous theories of education and psychology in order to develop her nursing undergraduate retention and success framework. Jeffreys' framework suggests there are eight factors with 42 concepts that correlate with student success. Jeffreys (1998) found education frameworks focused on academic institutional concepts and wanted to enlarge the conceptual base by including environmental concepts, such as finances, hours of employment, outside encouragement, and family responsibilities. Building on prior education research, Jeffreys (2012) suggested that concepts in application to nursing students may have a different outcome than that of the liberal arts and science disciplines. An example of a concept that is different for nursing students is that of transportation—nursing students must be able to report on time for clinical practice, often at great distance from the educational institution or their home and at hours when many modes of transportation assistance are not available (Jeffreys, 2012).

Student Profile Characteristics

Student profile characteristics are concepts that have to do with the student prior to beginning school and include age, gender, race/ethnicity, parent educational level, prior work experience, enrollment status, prior educational experience, and language (Jeffreys, 2012). These concepts are theoretically hypothesized to have a direct one-way influence on student affective factors, academic factors, and environmental factors, and a proposed reciprocal relationship with professional integration factors, suggesting that individual and professional efforts to increase integration and socialization may positively or negatively influence the student's view of these characteristics (Jeffreys, 2012).

Student Affective Factors

Student affective factors include cultural values and beliefs, self-efficacy, and motivation (Jeffreys, 2012). Student affective behaviors are hypothesized to be influenced by a one-way relationship with student profile characteristics and reciprocally influenced and influence professional integration factors and environmental factors. Student profile characteristics are hypothesized to positively or negatively impact the student affective factors of self-efficacy and motivation. Self-efficacy and motivation are hypothesized to impact professional integration and lead to improved ability to cope with environmental factors.

Academic Factors

The third group is academic factors and includes study skills, study hours, course attendance, class schedule, and general academic services (Jeffreys, 2012). Academic factors are hypothesized to be influenced by student profile characteristics and to have reciprocating relationships with academic outcomes, professional integration factors, and environmental factors.

Professional Integration Factors

Professional integration factors are a group of concepts that theoretically enhance student interaction with their profession and school. Jeffreys (2012) model includes nursing faculty advisement and helpfulness, professional events, memberships, encouragement from friends in class, peer mentoring and tutoring, and enrichment programs. Professional integration is hypothesized to influence and be influenced by student profile characteristics, student affective factors, academic factors, environmental factors, academic outcomes, psychological outcomes, and decisions to persist.

Environmental Factors

The fifth grouping of concepts is environmental factors, which are defined as those factors which may influence a student's performance, ability, and persistence, but are completely external to the institution's control (Jeffreys, 2012). They include financial status, family financial support, family emotional support, family responsibilities, family crisis, child care arrangements, employment hours, employment responsibilities, encouragement from outside friends, living arrangements, and transportation. Environmental factors are hypothesized to be related to student profile characteristics, suggesting that student profile characteristics do not change but are affected by them, for instance family financial support is related to parent educational level. Environmental factors are hypothesized to have a two-way relationship with student affective factors, academic factors, professional integration factors, and psychological outcomes (Jeffreys, 2012).

Academic Outcomes

Academic outcomes are concepts that include course grades, nursing GPA, and overall GPA. Through reinforcement of good study habits, these concepts are hypothesized to have two-way relationships with academic factors, professional integration factors, psychological outcomes, and decisions to withdraw or continue (Jeffreys, 2012).

Psychological Factors

Psychological factors are the two concepts of personal satisfaction and perceived stress. These concepts are hypothesized to influence and be influenced by professional factors, environmental factors, academic outcomes, and decisions to withdraw or continue (Jeffreys, 2012).

Outside Surrounding Factors

Outside surrounding factors include world, national, and local events; the health care system; nursing professional issues; job certainty; and politics, economy, and policy that may impact the student's ability or willingness to persist. These factors are hypothesized to influence a person's decision to continue through graduation and the licensing exam and to become a registered nurse (Jeffreys, 2012).

Jeffreys (2012) described many evidence-based interventions that would contribute to student success. The NEP as a program is directed at two student profile characteristics of underrepresented minority students and first generation students (parental education level) as well as the environmental factor of financial status and family financial support. The NEP is designed to apply many of Jeffreys (2012) recommended interventions as follows:

1. The NEP intervention of directed academic skill development through supplemental instruction and/or tutoring is supported by Jeffreys' academic factor's concept of study skills and the professional integration factor's concepts of peer mentoring and tutoring, faculty advisement and helpfulness, and enrichment programs.
2. The NEP intervention of intensive, intrusive academic advising is supported by Jeffreys' academic factor's concept of general academic service and the professional integration factor's concept of faculty advisement and helpfulness.
3. The NEP's consistent and required use of resources, including professors, supplemental instruction, and tutoring intervention is supported by Jeffreys' academic factor's concepts of study hours and course attendance and the professional integration factor's concepts of peer mentoring and tutoring, faculty advisement and helpfulness, and enrichment programs.

4. The NEP's intervention of weekly student group and monthly NEP cohort meetings is supported by the Jeffreys' academic factor's concept of course attendance and professional integration factor's concepts of faculty advisement and helpfulness, encouragement from friends in class, enrichment programs, and attendance at professional events.
5. The NEP requires weekly study hall and grade monitoring, which Jeffreys supports by professional integration factor's concepts including faculty advisement and helpfulness and the academic outcomes factor's concepts of course grades, nursing GPA, and overall GPA.
6. Another NEP intervention is immersion visits to campus resources, which Jeffreys supported through the academic factor's concept of general academic services.
7. An NEP intervention is cohorted (block scheduling) in all freshmen year courses and 50% of sophomore year courses, which Jeffreys suggests is supported through the professional integration factor's concept of encouragement from friends in class.
8. Another NEP intervention is optional attendance at professional and student nursing conferences, which is found as the professional integration factor's concept of attendance at professional events.
9. The NEP also has the intervention of faculty, staff, and peer mentoring, which Jeffreys suggests is supported by the factor of professional integration through the concepts of peer mentoring and tutoring and faculty advisement and helpfulness.
10. The NEP's final intervention of community and leadership building is found in Jeffreys' student affective factor's concepts of cultural values, self-efficacy, and motivation (Robin Jens, personal communication, 2016).

This preliminary evaluation of the effectiveness of interventions applied by the NEP will determine student perceptions of these interventions and their efficacy or not in assisting them with their role transition. This may allow potentially increasing some, eliminating some, or finding other factors that have never had interventions applied for which interventions may be designed.

Manuscript

The manuscript examines the current intervention research to determine if the significance, validity, and reliability of the research into current persistence interventions are well supported. A systematic literature review was performed to determine this and to make recommendations for further research. This manuscript is currently planned to be submitted to the Journal of Nursing Education for publication.

Manuscript

Intervention for Retention of Nursing Students: A Systematic Review of the Literature

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A PRELIMINARY EVALUATION OF AN ACADEMIC SUPPORT PROGRAM

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for submission to the University of Wisconsin-Milwaukee.

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Abstract

Background: There is a nursing shortage, which may be partially resolved through retaining and graduating a greater percentage of enrolled students from nursing programs. While nurse educators have rushed to address retention in nursing school programs through interventions, the quality of the empirical evidence merits examination.

Method: A systematic literature review of nursing educator intervention strategies, using PRISMA methodology as the search strategy, included 28 articles and dissertations. A modified Pennington and Spurlock (2010) methodology was used to evaluate rigor, reliability, and validity.

Results: Interventions found were changes in teaching methodology, professional day, remediation, mentoring and tutoring, a stipend, mastery control orientation, an orientation day, clinical contracts, and a retention program/specialist.

Conclusion: There were no randomized control studies. The sample sizes were small. There were few multi-site studies. Many of the interventions were not clearly specified. There was a lack of a description of confounding variables. These conclusions make it difficult to determine how much confidence should be placed in the findings.

Numerous studies of interventions used by nursing educators are directed at concepts that have been shown in research to suggest having a negative or positive relationship with retention. While many intervention studies have shown positive changes in the relationships of these concepts with retention, an analysis of this evidence is needed to discern how strong the evidence is. Many studies use different forms to measure the outcome of the intervention, making a comparison hard to evaluate. The educator, therefore, should determine if the studies have sufficient sample size, if they are replicable, and if they specify what the intervention is.

Background

The nursing profession is experiencing a nursing shortage, and nursing programs do not graduate sufficient new nurses to fill the shortage (Grant, 2016; "Nursing now," 2018; Rosseter, 2014). One way of increasing the number of students who graduate is to retain students within the programs through the application of interventions. Retention is, therefore, a priority for the nursing profession. Nursing educators have been searching for any means of increasing student retention in all nursing programs in order to increase the number of students graduating from these programs. Despite extensive investigation and application of various interventions, the actual percentage of students who graduate has minimally changed.

While numerous intervention studies were found through a literature search, an intervention may or may not be successful at increasing retention. While shown as successful in the literature, it is still necessary to examine each study for rigor and validity to determine if the intervention is appropriate for nursing.

Purpose

This systematic review was undertaken to examine interventions that increase student retention in order to determine intervention effectiveness. This will allow nurse educators to apply those interventions that are viable and useable to increase student retention**.**

Method

In an effort to develop and apply a systematic review protocol, rigorous standards were applied to these articles for empirical validity and rigor in a scientific format (Centre for Reviews and Dissemination [CRD], 2009; Cook, Sackett, & Spitzer, 1995; Pennington & Spurlock, 2010). As recommended by CRD (2009), a checklist structure with a systematic methodology for analyzing interventional study effectiveness was adopted. This is based on a modified checklist structure of questions developed by Pennington and Spurlock (2010), consisting of:

1. What is the study design?
2. What is the intervention?
3. What method was used to determine if the intervention was successful?
4. What were the findings?

Inclusion Criteria

The articles and dissertations included in this review were in the English language and described interventions applied to nursing students to improve retention. The interventions examined included any method used and applied with the primary aim of improving student retention. Participants were BSN, ADN, and LPN nursing students enrolled in a formal nursing program at any level. Studies were restricted to the years 2000 to 2015 in order to examine current interventions.

Exclusion Criteria

Interventions to increase nursing student retention was the only focus of this review. Therefore, studies that dealt with nursing students and retention or nursing students and attrition or nursing students with retention without an intervention were excluded. Additional studies that examined a possible correlation with a concept and retention were not found using the keywords, therefore, were not included.

Search Engines

An extensive literature search was conducted to find applicable interventions. Searches included both electronic databases and manual searches of reference lists. Databases included were the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Pub Med, ERIC, and ProQuest Dissertations and Themes databases using the EBSCO host comprehensive database reference system for the years 2000 to 2013, updated in June 2015 for the years 2013 to 2015 following the same procedure, and further updated in August 2017.

Search Terms

Search keywords used included *attrition, retention, persistence, nursing programs, interventions,* and *nursing students* and further linked by *and* in many combinations.

Quality Assessment

The assessment was a two-step process. In the first step, abstracts of the identified studies were skimmed for applicability and studies that did not include nursing student retention and interventions were excluded. The final identified studies were read carefully and findings identified and recorded in Table 1.

Results

Based on recommendations of Moher, Liberti, Tetzlaff, Altman, and PRISMA Group (2009), an initial search identified 2,900 records, of which 1,505 were duplicates. Of the remaining 1,395 articles 1,124 had no reference to interventions and were removed. Reviewing the abstracts of the remaining 271 articles, 237 did not mention any interventions, which left 34 articles to be included and evaluated for this study.

Types of Interventions

The interventions found in the review included evidence for a clinical contract in one case, evidence of a professional day or orientation day in two cases, paying a stipend in two cases, English as a second language in three cases, a retention specialist in three cases, remediation of study skills in six cases, and mentoring tutoring in 13 studies.

Hadenfeldt (2011) trialed a clinical contract for failing students in clinical. Prior to the intervention, all students were failing. Findings suggested that with the contract, 64% of the LPN students and 86% of the ADN students improved and passed their clinical.

One study taught mastery control orientation in clinical to increase student retention, which allowed students to continue in clinical until they were able to find patient care solutions (Gardner, 2006).

Gilmore and Lyons (2012) found that with the addition of an orientation day for their online students, retention levels in the second semester went from 80% to 100%. The addition of a professional day, where students from all levels and alumni came together to spend a day together talking and networking each semester, was used by a pediatric school of nursing in the United Kingdom to improve retention from 80% to 100% (Richardson & Brown, 2009).

Another intervention was that of paying a stipend to at-risk students which was 80% effective in the United Kingdom (Cameron, Roxburgh, Taylor, & Lauder, 2010, 2011). This intervention was applied in the United States and found effective, as the students stated that they liked the stipend (Evans, 2007).

Three studies utilized either some form of retention program or a retention specialist (Davis-Wolfe, 2014; Mooring, 2014; Schrum, 2014). Davis-Wolfe (2014) found that a student success and retention program significantly increased completion rates. Mooring (2014) studied the use of proactive advising based on faculty perceptions of crisis, with results suggestive of success. Schrum (2014) found that while students with a specialist had higher grades, those students dropped out at the same rate as students who did not work with a specialist.

Four interventions included remediation of study skills in several formats for at-risk students; all four found that the remediation was successful (Harding, 2012; Horton, Polek, & Hardie, 2012; Igbo et al., 2011; Khattab, 2011; Kinser, 2004; Miedema, 2008; Reinhardt, Keller, Summers, & Schultz, 2012). Igbo et al. (2011) used a summer school program, during which the students were assisted in written and oral communication, medical terminology, critical thinking, socialization, and career coaching. Khattab's (2011) multi-site study included students experiencing extra education, such as help with reading comprehension. Miedema (2008) offered a 4-week program to improve reading skills.

Eleven studies used a form of individual peer mentoring and tutoring, one study used a faculty tutor, all were voluntary, and all concluded that they were successful, with varying degrees of reliability and validity (Bryer, 2012; Bullard, 2010; Cantu & Rogers, 2007; Christiansen & Bell, 2010; Colalillo, 2007; Harding, 2012; Henderson et al., 2009; Henderson, Twentyman, Heel, & Lloyd, 2006; Higgins, 2004; Payne, 1995; Potolsky, Cohen, & Saylor,

2003; Robinson & Neimer, 2010; Sutherland, Hamilton, & Goodman, 2007; Walker et al., 2011). Almost all of these studies had small populations. The study with the second largest group, with 67 participants, did not have a comparison group. The largest study by Walker et al. (2011) had 898 participants from multiple sites in Texas, with results suggestive of decreased numbers of dismissals. One investigation of Hispanic students did not provide numbers; however, it suggested an increase to a 100% retention rate over several years.

Carpenter, Reddix, and Martin (2016) proposed pre/post lecture review sessions, with findings significant of success.

Jacobs (2016) applied five orientation workshops for beginning students, with no results reported.

Questions Regarding Rigor and Empirical Validity

Is the study of sufficient sample size? Pennington and Spurlock (2010) suggested using a sample of 80 as the minimum number of participants to give sufficient power. There was no specified sample size for two studies; in 32 studies, there was a specific sample size. Most sample sizes were small (less than 50), which would not be considered large enough. Fourteen studies, or 48% of the articles reviewed, had sufficient sample sizes.

Is the study replicable? Many studies provided limited information that would allow replication of the intervention (n=17). A smaller group (n=12) provided detailed information in such a way that these studies might be accurately replicated.

Does the study explicate exactly what the intervention is? Seven of the studies (24%) used poorly described interventions. The majority of the studies (n=24) used one single intervention. Only one study used multiple interventions; however, no information was given as

to bundling, no theoretical framework was described, and the study results were the faculty perceptions of the efficacy of the various interventions (Baker, 2010).

Is there an effective method of measuring their results? Fifteen of the studies used appropriate statistics that were adequately reported, which included significance, means, standard deviations, and confidence intervals.

What type of study is the evidence from? In one study, a randomized control matched-pair, quasi-experimental design was used (Gardner, 2006). A second study used a randomized quasi-experimental design (Payne, 1995). A third study had a quasi-experimental interrupted time series design (Davis-Wolfe, 2014). In seven additional studies, quasi-experimental formats were employed, with non-random assignment to control and experimental groups in three of them (Colalillo, 2007; Henderson et al., 2009; Henderson et al., 2006; Horton et al., 2012; Robinson & Neimer, 2010; Tsai, 2004; Walker et al., 2011). Outcomes were assessed using pre-test/post-test measures in two of these studies. Outcomes were assessed by the improvements in course grades or if students were able to pass tests in four studies. It is difficult to determine the effect of confounding variables without the use of control groups. Confounding variables were discussed to some extent in only five of these studies. The lack of control groups made it difficult to examine and determine which variables may have been masked or altered by something other than the intervention.

Are the studies generalizable? The majority of the studies reported both demographic and geographic information. Four studies reported results from multiple schools of nursing (Baker, 2010; Gardner, 2006; Khattab, 2011; Walker et al., 2011). One site in a single geographic area will limit any generalizability of results or accurate replication of the study if a different site, with a different population, is used.

Summary of the Evidence

One study recommended further research into stipends or remediation programs (Evans, 2007; Soroff, Rubin, Strikland, & Plotnick, 2002). Seven studies recommended trialing peer tutoring and mentoring programs for at-risk nursing students (Bryer, 2012; Bullard, 2010; Cantu & Rogers, 2007; Christiansen & Bell, 2010; Higgins, 2004, 2005; Miedema, 2008; Robinson & Neimer, 2010; Sutherland et al., 2007). Three orientation interventions were tested and recommended for further research and use (Gilmore & Lyons, 2012; Richardson & Brown, 2009). In another study, it was suggested that by allowing access to lecture podcasts, Hispanic (ESL) students would be more greatly successful, based on results from six students (Greenfield, 2010). Mastery training led students to be better in clinical, requiring further research (Gardner, 2006). Trialing a clinical faculty feedback plan for clinical success was suggested for further research (Hadenfeldt, 2011). Pre/post lecture review sessions were found to be effective (Carpenter et al., 2016).

Limitations

Other studies may have been conducted outside of the parameters that were used to develop the list of studies analyzed. It is noted that many of these studies were international in nature, and therefore, the findings may have limited applicability to individual situations. There is the possibility that the analyst has operative biases from working in the nursing education field. Some studies may have been overlooked, as they applied interventions to specific concepts that correlated with increased retention and did not use any of the keywords specified.

Critique and Recommendations

There is a need for randomized controlled designs to be used for intervention studies of BSN and other nursing students in the area of retention. There were no randomized experimental

control group studies. There were 16 quasi-experimental studies, of which only three had experimental and control groups. Larger sample sizes determined by power analysis should be used. Many of the sample sizes were small and, therefore, increased the risk of a Type II error. Multi-site studies would improve the generalizability, as well. Using an objective measure of retention rather than opinion would strengthen the results. Interventions need to be clearly described and the amount used and the length of time applied specified, so they may be replicated and further tested. The lack of description of confounding variables in these studies makes it hard to determine their validity. While recommendations were made by these studies, it is impossible to decide how much confidence should be placed in those recommendations due to many methodological challenges described in this analysis. Much of the evidence for interventions currently in use is weaker than it should be. Educators should seek better evidence.

Table 1

Evidence Table

Author	Study Design	Intervention	Methodology	Findings
Boath et al. (2016)	Mixed	Texting student mobiles with supportive messages	Survey and interviews	8% of students indicated that the texting was the main reason they continued. Messages increased sense of belonging.
Bryer (2012)	Descriptive	Peer mentoring	Continuation with significant increase in grades	8 had improved grades, 1 withdrew, 1 failed clinical, 1 failed course.
Bullard (2010)	Qualitative	Mentee/ mentor training for students to mentor	Student satisfaction with nursing	Concluded that the program worked based on student opinion.
Cantu & Rogers (2007)	Qualitative	Mentoring Hispanic students	Persistence	Successful.
Carpenter et al. (2016)	Quantitative	Pre/post lecture review session	Retention in nursing program	Retention without intervention 61%. Retention after first semester 86%. Retention after two semesters

		Pre/post exam review session Extra faculty sessions called recitation		90%.
Christiansen & Bell (2010)	Qualitative	Peer learning partnerships	Interview	Peer learning partnerships can support transition to nursing, help more experienced students gain confidence. Reduced feelings of social isolation in clinical settings, facilitated understanding of mentorship, heightened readiness for practice.
Colalillo (2007)	Descriptive	Formal mentoring, orientation, group mentoring with faculty facilitators	Passing NU101 Continuing in NU102	Retention rates improved 5% - 11%.
Davis-Wolf (2014)	Quasi-experimental interrupted time series	Student success and retention program with academic-social support-success counseling	Entry-level ADN completers 1996-2007	Male nurses increased completion rate from 53.6 pre to 72.7 post. Traditional students from 73.7 to 88.7. Nontraditional from 30.8 to 55.8.
Evans (2007)	Qualitative	Alcane grant stipend	Better outlooks	Additional stipend for at-risk students helped in their opinion.
Gardner (2006)	Quasi-experimental, randomized matched-pair clinical trial ADN	Mastery control intervention applied to experimental group and used in analysis of case studies	Post-test mastery scores and performance scores	Nurse educators should teach students to persist and expend effort to solve patient problems. Recognition should positively impact students. Mastery goal orientation can enhance student retention and intent to persist in challenging situations.
Gilmore & Lyons (2012)	Quasi-experimental	One day orientation	Persistence	80% persistence year before program, 100% persistence after.
Greenfield (2010)	Cohort	Podcasting of lecture made available to students	Improved grades	All students went from failing course to passing by end of course.
Greenfield (2010)	Case	Student could take taped case studies to study communica-	Student opinion working	Suggest using taped case studies for other students.

		tion		
Hadenfeldt (2011)	Quasi-experimental	PIP form for students in difficulty	Persistence	64% of LPN and 86% of ADN students with intervention persisted with plan vs failure previously.
Harding (2012)	Longitudinal Descriptive	Supplemental instruction for one course in study	Academic outcomes	Grades improved for students who participated, only one who participated not successful, 16 did not participate.
Higgins (2004)	Descriptive	Peer tutoring	Improved test scores	Peer tutoring significantly improved grades of at-risk students. Should continue, add at other facilities, find funding to pay, identify early.
Hoeve et al. (2017)	Qualitative	Mentoring	Completion of program	Feelings of lack of support from mentors led to attrition. Feeling of being welcome and working in a nice team important reason for completion.
Jacobs (2016)	Quantitative	5 pre-semester orientation success workshops	Beginning students lack confidence to succeed	Student confidence increased, but unable to determine retention at time of publication.
Igbo et al. (2011)	Quasi-experimental	CANDO PROGRAM Multi-disciplinary team approach to remediation of high-risk students	Completion	76% retention after compared to 69% retention before.
Khattab (2011)	Three case control studies	Extra educational opportunities for at-risk students during pre-nursing	Graduation	Graduation rates: MHCC 65.7%, SRCC 56.7%, WCCC 78%. No significant differences between NCLEX pass rate and graduation. No change despite intervention.
McNamara (2014)	Quantitative correlational retrospective	Tutoring and supplemental instruction	Do exam and course grades improve 1st year	Tutoring had a negative relationship. Supplemental instruction had no relationship.
Miedema (2008)	Quasi-experimental non-random assignment	Remediation program for at-risk students	Improvement in NET scores before and after	53.46% improvement after 4-week course in experimental group and 44.92% improvement in control group.
Mooring (2014)	Descriptive Non-experimental quantitative correlational	Aggressive academic advising	Persistence	Using five strategies in advising persistence increased to 100%.

	design			
Potolsky et al. (2003)	Quantitative	Tutoring	Grades	5 or more sessions significant predictor of grades. No significant differences after one semester.
Richardson & Brown (2009)	Quasi-experimental Quantitative study	Pediatric personal and professional day	Retention in program	Continue with program. Students have not asked for transfer as 20% formerly did.
Robinson & Niemer (2010)	Control trial Quasi-experimental	Peer mentor tutor program	GPA	Mentees significantly higher scores than control group (at-risk cohort), higher med-surg than control and class cohort. Benefits students support by peers. Passion for education grew in mentors. PMTP model should be used at beginning of program. Future research into outcomes recommended.
Schrum (2014)	Descriptive correlational	Retention specialist used	Course grades/attrition rate	Students who used retention specialist had higher course grades. Attrition rate the same. Greater number of students withdrew due to family crisis.
Sutherland et al. (2007)	Quasi-experimental control trial	Mentoring, tutoring	GPA, NCLEX ARMS	Students did better on grades than non-ARM students. Improvement needed in area of drawing on culturally-based resources for support. Seminars for success were strongly supportive. Students were retained in program, passed NCLEX same rate.
Walker et al. (2011)	Quantitative experimental	Using exam as diagnostic tool refers students to faculty coach and support website www.nursingstudentsupport.net	Retained students	Suggested increasing the number of flagged items so as to lower the at-risk. Dismissed number decreased from 10.6 to 4.5 and from 16.4 to 4.9.

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Chapter 3: Methodology

The purpose of this dissertation was to examine the role transition of underrepresented minority, first generation, low income students within the NEP into nursing students. This select group of students experiences transition phenomenon. A qualitative research design using a phenomenographical method was applied to examine role transition of underrepresented students. The researcher explored perceptions of underrepresented students in the NEP to perform a preliminary evaluation of the transitions involved in the students becoming student nurses. It was felt that analysis of their transition experiences could reveal previously unknown factors, as well as determine which current interventions are effective in assisting with their transition. This qualitative research design utilized face-to-face open-ended interviews. Data from these interviews provided a rich background of participant experiences, producing greater understanding of the process and factors by which some transitions are successful and others are not successful. A qualitative design was used to explore the transitions, as despite the use of interventions, based on known factors, there continue to be students who are unable to continue in the program. This chapter provides an outline of the philosophical foundation, theoretical framework, and research methodology used to guide the study. Included in this chapter is a manuscript describing the method of phenomenographic analysis.

Rationale for Qualitative Approach

Qualitative methodology is utilized frequently in research for a number of reasons. With the smaller sample size typical of qualitative research, there is time to develop a more in-depth exploration of individual experiences, with opportunities for greater analysis (Denzin & Lincoln, 2008; LoBiondo-Wood & Haber, 2014). Qualitative methods are used for the exploration of phenomena that have not been explored previously or for which there is little prior research

(Meleis, 2007). In this case, while the subject has been explored previously, it has not been examined through the lens of role transition.

A phenomenographical qualitative research design was chosen, as little research was found into role transition from pre-nursing student into nursing student, which is the gap, and the results of this study may reveal factors that affect the transition. Qualitative inquiry allows for the examination of these factors; the phenomenographical approach illustrates the variations of how students perceive role transition that leads to student success, giving both description and synthesis of the data (Dahlberg, Dahlberg, & Nystrom, 2008; Marton & Booth, 1997). Studies examining role transition from student nurse to registered nurse have been examined, as have those of registered nurse to advanced practice nurse, but these studies are limited to people who are already a part of the professional discipline (Cant, Birks, Porter, Jacob, & Cooper, 2011; Tracy, 2016).

This study will add to the literature by examining the transition from the role of pre-nursing student through to student nurse. The literature is predominantly focused on attrition, retention, or persistence, not role transition (Bean & Metzner, 1985; Cabrera, Nora, & Castaneda, 1993; Jeffreys, 2012; Tinto, 1975). Qualitative approaches are considered the appropriate method in this case, where little exploration of the application of the theory of role transition has been completed (LoBiondo-Wood & Haber, 2014; Meleis, 2007). Phenomenography has been used in the past to examine the perceptions of role transition from the registered nurse into a CRNA (Tracy, 2016). There have been qualitative studies of role transition of the student nurse becoming a registered nurse and some qualitative studies of the role transition of various health care workers into student nurses (Deasy et al., 2011; Hutchinson et al., 2011; Wheeler, 2015). However, no study was found using a phenomenographic

qualitative method to examine the role transition of underrepresented students from pre-nursing student into student nurses.

Using the phenomenographical method allows for exploration and discovery of various factors affecting a phenomenon (Barnard et al., 1999; Dahlberg et al., 2008; Sjostrom & Dahlgren, 2002; Tracy, 2016). Phenomenographical methods allow for the discovery of second order perspectives, or how phenomena are conceived, as opposed to the more traditional first order phenomenon of how something *is* (Sjostrom & Dahlgren, 2002). This allows for the discovery of how people think they have been affected, not how they have actually been affected. This method is useful to generate the descriptive data required to answer the research questions. A qualitative research descriptive design using the format of face-to-face, open-ended interviews was the approach chosen to find a better understanding of the perceived factors affecting the decision of underrepresented student nurses to remain in their program and to graduate.

For this study, the guiding theoretical framework is Meleis's (2010) role transition theory applied from precollege student to student nurse. Meleis's role transitions framework has been used to explore the transition from student nurse to practicing nurse, as well as the role of registered nurse to practicing CRNA. Meleis's role transition theory has not been applied to underrepresented students moving from the role of pre-nursing student into nursing student (Chick & Meleis, 1986; Meleis et al., 2000). In the case of role transition from registered nurse to CRNA, Tracy (2016) found that there are two steps—registered nurse to graduate student and graduate student to CRNA. There has been research into the role transition from student nurse to registered nurse, but little on the role transition from pre-nursing student into student nurse,

especially for first generation, economically disadvantaged, underrepresented student groups, which is the focus of this study.

Meleis et al. (2000) suggested that transitions have several experiential properties, including awareness of the transition, engagement in the transition, the changes and differences taking place, the timeline required, and the discovery that each transition has critical points. It is particularly important to explore this experience with this group of students, whose backgrounds are so different from traditional students, especially if from an underrepresented group, to compare and contrast those who continue their transition with those who stop out.

Research Setting

The setting for this study was a college of nursing in a large research university in a major metropolitan area in the Midwest United States that offered a 4-year BSN program. All participants were from the Nursing Endeavor program (NEP), a program designed to support first generation college students who are underrepresented or economically disadvantaged. The PI was employed by the college of nursing and had a private office. This office was capable of being locked and had access to a video camera. Student participants were interviewed in the private office. The lighting was typical institution lighting. There were some windows from which the university dorms could be seen, as well as a building. There were multiple desks in this office; however, other instructors are seldom present, as they are clinical faculty. While an interview was in progress, the door was locked and a sign placed on it that a meeting was in progress. If the interviewee was of the opposite sex, the door was left ajar with a large sign stating a meeting was in progress. The office was private at the time of the interviews.

Recruitment Process

Purposive sampling is a method used to selectively sample a population, based on the researcher's experience, to develop rich data about a subject (LoBiondo-Wood & Haber, 2014; Polit & Beck, 2010). A weakness of purposive sampling is that the group is then a select group, which may cause difficulties when trying to apply the findings to a larger population. As the sample consisted of students who volunteered to participate, there is also the question of their motivation, which may bias the results (Sjostrom & Dahlgren, 2002).

The first step was to present this proposal to the author's major professor and other experts on the PI's dissertation committee for approval to progress. Prior to recruitment and collection of any data, the ethics of the study must be evaluated for potential harm to the participants (LoBiondo-Wood & Haber, 2014; Polit & Beck, 2008). To affirm ethical consideration, permission to conduct this study was granted by the Institutional Review Board (IRB) of the Large Midwestern University. It is the IRB's role to safeguard all persons included in human research. The IRB utilizes an online format and form for applications; this was utilized, including all required information. All information was listed as required, along with contact information for both the major professor and the researcher.

The second step was to seek the approval and support from the program department. Once approved by IRB, the next step was asking the program director to help identify the names and phone numbers of students who were currently in the NEP or who have withdrawn. Students who are current students of the PI were excluded. Inclusion criteria included:

a) admitted or have been admitted to the NEP,

b) 18 years of age or older,

c) English speaking, and

d) able to be contacted by phone or email.

To contact the students who have left the program, who have graduated, or who are currently enrolled, the PI first discussed the research proposal with the program director and then confirmed the discussion by email (see Appendix A). The program director then sent an introductory email to all current or former members of the NEP alerting them to the opportunity to participate in the study (see Appendix B). The potential participants' names and phone numbers were identified from student files. All personal identifiers and contact information were kept in a locked cabinet or password-protected external hard drive at all times unless in use. Upon completion of the study, all paper with personal identifiers will be shredded, and electronic versions will be deleted after five years. With the names and phone numbers, the researcher contacted the students either online or by telephone, explained the study, and requested their participation in the study using Appendix C as either a script or as an email. This request included making an appointment for a direct personal interview using open-ended questions, through face-to-face means, for data collection. The participant had one week to respond to the PI to schedule a meeting for an interview. If there was no response after one week, the PI contacted the participant a second time by phone or email. After two weeks, with no response received, another participant was contacted instead. The participants selected a time for the interview. Upon reaching saturation, no further participants were contacted except to thank them for their interest and inform them their participation would not be needed. An email of thanks was sent and used to inform the study participants of the termination of the study.

The appointment interviews took place in the privacy of the PI's office. Prior to beginning the interview, the participant was informed of the purpose of the interview,

expectations of the participant, time needed, risks and benefits, voluntary participation, withdrawal without repercussion, protection of their confidentiality, the PI's contact information, and IRB contact information, if needed (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). Informed consent was obtained and a copy furnished to the participant, as well as demographic information obtained (see Appendix D).

Participants

Recognizing the need to increase the rate of graduating nurses among underrepresented groups, at the large Midwestern university in this study, the NEP was created to implement interventions designed to assist students from these underrepresented groups to graduate. This program is described as "an intensive and integrated learning community that supports selected first generation to college students who are also members of underrepresented groups and/or economically disadvantaged students to transition to college and through the Bachelor of Science in Nursing program" (Robin Jens, personal communication, 2014). With the application of these numerous evidence-based practice interventions, the number of students who persist through graduation is no higher than 50% (Robin Jens, personal communication, 2016). Once entered in the nursing program in their junior year, the students have a 100% graduation rate. The loss is in the freshman and sophomore pre-nursing years before entering the nursing major in the junior year. This select group was purposefully chosen, as these students all experience the role transition phenomenon. Eligible study participants were divided into two groups, active program participants and inactive program participants (dropped program) in representative percentage numbers. According to the U.S. Census Bureau (2013), 90% of nursing students are female and 10% are male. The PI attempted to maintain this percentage in selecting participants as allowed by the select group of program students and individuals willing to participate.

Data Collection Methods

A literature search was performed during the design phase of this study and then continued during the data collection and interpretation phase of the study and is covered in Chapter 2. The key words included *registered nurse role transition, student nurse role transition, role transition into student nurse,* and *student role transition into student nurse*. A bibliographic search of the English language publications indexed in five computerized databases was conducted, including cumulative Index to Nursing and Applied Health Literature (CINAHL), Educational Resources Information Center (Eric), the Medical Index (Medline), Psychological Literature (Psych Lit), and World Catalogue (Word Cat). The search was then amplified through references from the articles reference lists.

The literature review enabled the direction of this study to be formulated and was used as a guide for the directionality of the questions. Using open-ended questions in a directed format provides an in-depth exploration of selected topics and helps to ensure accuracy of the data through asking the same questions of different subjects (Charmaz, 2009; Fishbein & Azjen, 2010; Sjostrom & Dahlgren, 2002). The PI collected data through direct face-to-face interviews with video and/or voice recordings. Data were stored offline in a process designed by Tracy (2016). Data collection following this methodology, utilizing recorded face-to-face interviews, is suggested as being convenient and appropriate (Tracy, 2016). The data were transcribed using the bonded confidential transcription service Rev.com to transcribe the interviews verbatim. Tracy (2016) also described storage of saved video interviews directly to an external hard drive storage device as backup. This had been planned and was used for the first three interviews during the pilot study phase. Difficulty downloading the video recordings due to the size of the files and the potential lowering of security in order to change the format to audio only led the PI

and major professor to implement a change to audio only for the recordings and then transferring them to the external hard drive, as planned. Several participants were unable to meet with the PI face-to-face, and a telephonic only interview process was proposed and approved by both the PI's major professor and the IRB.

An informed consent (see Appendix E) was obtained from each student and a copy furnished to the student. The PI asked if the participant had any questions during the consenting process and answered questions prior to beginning the interview. Confidentiality and the option to withdraw from the proposed study were stated during the consenting process. All paper and electronic data related to the study were protected to safeguard identity, anonymity, and privacy and was kept confidential through being secured in either a locked filing cabinet in the PI's office or password-protected in the PI's electronic database to ensure privacy. Data were secured during transport for transcription by the PI. All identifying connections will be destroyed after the completion of the interview process, as per IRB human subject's protocol. No one other than the PI, the major professor, and the dissertation committee members will be able to access this information. A preliminary demographic survey was administered. All consents and demographic surveys will be destroyed (shredded if paper or deleted if electronic files) after five years.

The interview then took place and was recorded, the first three using an Apple I-Phone 7© video recording camera. These recordings were then transferred to the PI's computer and then to the two password-protected backup external hard drives. The recording was then deleted from the Apple I-Phone 7© and PI's computer. The first recorded interview was without problem; however, the second and third interviews were longer and it proved impossible to transfer the large files safely without potential risk of a breach of confidentiality, and the video portion was

also lost. It was decided to change to an audio-only format and discussed with two expert IT people, who recommended using the Zoom H2N audio recorder to produce a professional audio recording, so this was used for the remaining interviews. The IRB approvals were sought and obtained. No personal identifiers were used to identify these recordings; a code name was applied. These interview recordings are under password protection within the two external hard drives, under lock and key in the PI's office. The privacy element of interviews is to increase confidentiality in the hopes that the participants will be more likely to share their true perspectives if unlikely to be overheard (Tracy, 2016). All data were identified with a code name of the participant's choice. A list of names, phone numbers, and code names are retained both electronically and on paper. All documents are stored in a locked cabinet or password-protected on the PI's eternal hard drives or computer. Paper and electronic lists will be shredded or deleted upon publication of the dissertation. All data through the use of the code names will, therefore, be de-identified, except on the lists, which will be destroyed upon completion of the study. All de-identified data, interviews, and transcripts will be retained electronically on the two external hard drives, under password protection, for potential further study or for use as teaching materials for 5 years.

Interviews

Phenomenographic research normally uses a semi-structured interview to develop data (Sjostrom & Dahlgren, 2002). For the study, open-ended questions allowed participants to be directed into the same areas of discussion, but permitted greater depth and variety in their narrative (Barnard et al., 1999; Sjostrom & Dahlgren, 2002). There are typically a few entry questions that are identifiable for each participant, then as answers are obtained, discussion ensues providing varying results based on individuals (Sjostrom & Dahlgren, 2002). These

questions were created based upon questions first used by Tracy (2016). Interview questions were revised with understanding developed through the literature search. Expert opinions were sought from the manager of the program, as well as two of the semester coordinators for the college of nursing program. The full text of the revised and amended questions is available in Appendix F for students who are continuing in the program and Appendix G for students who have dropped out of the program.

The interviewer made it clear to the respondents that the interview was open-ended and that they are supposed to pause, think out loud, and not be sure of themselves (Sjostrom & Dahlgren, 2002). The interviewer did not assess the answers as right or wrong and attempted to get the respondent to articulate themselves as well as possible (Sjostrom & Dahlgren, 2002).

Data collection was completed through direct face-to-face meetings with video- or audio-only recordings. The PI maintained the participant's code names and is the only person to have access to recording and saving abilities, which should prevent potential tampering or sharing of the recordings. As each interview was completed, a written transcript was completed verbatim using the transcription service. If a participant missed a scheduled interview, an email or text was sent to them asking if they wished to withdraw or reschedule their interview. If there was no response within one week, they were deemed to have withdrawn and a new participant was contacted. A pilot study was used to confirm that appropriate steps were in place to ensure safety, confidentiality, and the smooth analysis of the data before the full study was begun.

With the approval of the dissertation committee and IRB, the theoretical basis for this dissertation was proposed to be a phenomenographical, qualitative approach. Data collection and analysis was performed to investigate the common experiences that underrepresented students in the program perceived to enable or hamper them in performing their role transition into student

nurses. A qualitative approach was used to gain an understanding of the pre-nursing student nurses' experiences during their role transition. In addition, the approach allowed for the development of deep data through descriptions of their experiences. In-depth interviews were the primary method of developing the data. Data collection continued until saturation was reached, and then two more interviews were conducted to ensure saturation was reached for each group, with an expected final total of approximately 10 to 25 participants. Rigor and credibility were ensured through periodic review of data and themes by both the PI's major professor and a qualitative expert. The PI was responsible for organizing and storing the data and ensured that the organization and method for data management and storage was in place prior to making any recordings (Mack et al., 2005; Tracy, 2016). Each participant's data were saved to a file and coded anonymously using the code name the participant chose, not their own, to ensure anonymity (Tracy, 2016). Every video, transcript, audio and/or digital recording, and set of notes will be labeled with a standard header indicating the archival number, date of data collection or recording, transcription, and entry (Tracy, 2016). The PI performed all archival tasks, and any files that were shared directly used the code name without any other identifiers to keep identities confidential (Tracy, 2016).

Pilot Study

A pilot study, included in the proposal submitted for IRB approval, was performed by interviewing four students (two successful and two unsuccessful) and completing analyses of collected data to determine if revisions to the plan were needed prior to continuing with the full study. Both open-ended and guided questions were used. The guided questions were preapproved by the researcher's major professor and the qualitative expert and based on factors identified through the literature. The researcher's major professor and the qualitative expert reviewed these

data to determine if rigor was maintained during the pilot study and made revisions, as appropriate. A determination was made at that time that the pilot study data was acceptable for inclusion in the full study. Study participants were identified by a code name and interviews were recorded and transcribed verbatim. All identified and de-identified data, interviews, transcripts, consent forms, demographic forms, and any other records were kept in either a locked filing cabinet if paper or on a password-protected computer if electronic in the PI's office. Any logistical issues discovered during the pilot study were addressed and the solutions incorporated into the full study design. An audit diary was kept of all revisions and dates, which is kept in the locked file cabinet in the PI's office.

Organizing Data Storage

Handwritten field notes made during the actual interviews and categorized as to observations; changes in method, questions, environment, or theoretical issues; and all recorded data were transcribed immediately following the interview. All field notes and any changes made were dated. This is suggested to expedite analysis and ensure that no details are lost and must then be saved to the PI's office computer, then to the external hard drives, deleting the interview from the computer (Sjostrom & Dahlgren, 2002; Tracy, 2016). During the transcription and analysis, further field notes were made while viewing or listening to the electronic data and were then saved to the hard drive (Tracy, 2016). The handwritten field notes were scanned and saved as both handwritten and transcribed electronic documents (Tracy, 2016). Scanned documents are made to allow sharing electronically of these documents (Tracy, 2016). The preliminary analyses were used to help guide the future interviews and should be used to amend the questions in the script (Sjostrom & Dahlgren, 2002). As each interview was completed, the data were transcribed and analyzed, and the script adjusted for any theories or categories that were gradually becoming

evident (Charmaz, 2009; Sjostrom & Dahlgren, 2002). Any copies of files that are shared were shared only with a recipient who will ensure the confidentiality and anonymity of the study participants (Tracy, 2016).

Recordings were completed and saved to two secure external hard drives using the PI's computer after the interviews took place. Video and audio recording allowed the PI to return to the individual recordings to examine them extensively to increase the depth of the information extracted. Following the same procedure described by Tracy (2016), a password-protected and encrypted external hard drive of at least 200 GB was used for storage, and a backup copy was made on another password-protected and encrypted external hard drive of the same size.

Upon publication of the study, participants will be contacted individually by the researcher to thank them for participating and ensure contact information was maintained. Current contact information is necessary so that participants were enabled to verify the information developed.

Data Analysis

Converting Raw Data

Burns and Grove (2008) and Gray, Grove, and Sutherland (2017) discussed the processes the researcher uses to record data and identify how decisions are made regarding factors and by which these are crosschecked. The PI recorded the first three interviews using an Apple I-Phone 7© camera with 128 GB data to make a recording to be saved on the PI's computer. The interviews were transcribed verbatim, as soon after the interview as possible, using Rev.com for transcription. Each transcript was read immediately to determine accuracy and changes made as needed. As the interviewer needed to be able to interpret immediately what the respondent was conveying to be able to determine if any further questioning or probing would be helpful, the

transcription was organized and interpreted using the NVivo system (Charmaz, 2009; Sjostrom & Dahlgren, 2002). Once the transcription and a quick analysis was completed, as there was no need for further follow up or additional questions, the deeper analysis phase began. In phenomenographic approaches, this consists of multiple steps (see Figure 1).

Familiarization. Familiarization was the process used to determine if any further questions needed to be asked. It also required reading and rereading the material before determining the sections that contained the most significant information (LoBiondo-Wood & Haber, 2014; Sjostrom & Dahlgren, 2002). It is suggested familiarization be done while viewing or listening to the recording (Forster, 2013). The data were analyzed using this process.

Compilation. Compilation consists of analyzing the answers from each informant for each question for the significant elements. Interview answers were compiled and grouped through NVivo, with significant information highlighted (Sjostrom & Dahlgren, 2002).

Condensation. Condensation is a process where the groups of answers are analyzed to determine a central part of the longer answers in the dialogue (Sjostrom & Dahlgren, 2002), or as Forster (2013) suggested, several usages of similar phrases are condensed to a single representative phrase. The grouped answers were analyzed to determine a condensed phrase, labeled as the condensed phrase.

Grouping. Grouping is the process of placing similar answers together (Forster, 2013; Sjostrom & Dahlgren, 2002). The data were analyzed to determine similar answers and then grouped.

Comparison. Comparison is the process where the preliminary groupings are reexamined to determine if there is duplication or if the groups are clearly separate (Sjostrom & Dahlgren, 2002). It is an examination to determine if these developing categories have

similarities or differences in order to clarify borders between them (Forster, 2013; Sjostrom & Dahlgren, 2002). During this phase, the preliminary groups may need to be revised or regrouped (Sjostrom & Dahlgren, 2002). Forster (2013) suggested that there be an additional phase called articulating at this point, whereby the researcher attempts to find the essence of the similarity of each group. The grouped data were reanalyzed to determine if they really formed separate groups, and if not from separate groups, several may be combined to make one definite group.

Naming (labeling). Naming/labeling was the process of applying a name to identify each categories essence (Andersson, Willman, Sjöström-Strand, & Borglin, 2015; Forster, 2013; LoBiondo-Wood & Haber, 2014). The grouped data was next named.

Trustworthiness

Every effort was extended to achieve trustworthiness in this study (Polit & Beck, 2008; Riessman, 2008). Trustworthiness was demonstrated through the application of Lincoln and Guba's evaluative criteria (in Melnyk & Fineout-Overholt, 2015). According to these criteria, there are four concepts that must be demonstrated by qualitative research: credibility, dependability, transferability, and confirmability (Melnyk & Fineout-Overholt, 2015).

Credibility

Credibility was demonstrated through the accuracy and validity of the documentation used to chart the researchers actions (Melnyk & Fineout-Overholt, 2015). Every effort was made to properly document each of the researcher's actions, opinions, biases; the appropriateness of the data; the adequacy of the database; verification of the findings through comparing to suggested concepts from Jeffreys' (2012) framework and Bean and Metzner's (1985) theory (triangulation); validation of the findings by crosschecking with colleagues; and properly documenting verification and validation in the discussion section of the dissertation (Melnyk &

Fineout-Overholt, 2015). The researcher's biases and opinions must be discussed through a process called reflexivity, where the investigator is aware of him/herself with regards to the informant (Munhall, 2012). This is done to ensure that the investigator is personally as aware as possible of factors that might affect the investigators judgement, so as to be as neutral as possible, allowing the same conclusion to be drawn from the same data by others (Melnyk & Fineout-Overholt, 2015). In phenomenographic studies, this is a process called bracketing, the investigator attempts to hold in abeyance any biases or feelings that may affect the interview and the observations (Harris, 2011). Triangulation was completed through having another member of the committee verify the PI's work and conclusions, as well as comparing the developed factors to the previously known information regarding persistence. Crosschecking was performed by the full committee. The researcher has to show that a specific way of describing the differences and similarities was supported empirically, and this was achieved by excerpts from the interviews supporting the categories (Sjostrom & Dahlgren, 2002).

Dependability

Dependability is demonstrated through careful documentation of such things as the context within which the research occurs, accounting for changes as they happen, sampling decisions, ethical considerations, providing evidence of the methods to reach conclusions, an audit trail reviewing what has been done, and evaluating where the study was and why (Melnyk & Fineout-Overholt, 2015). Gray et al. (2017) suggested the audit trail is one of the key elements enhancing the rigor of the study. An audit trail is important to allow an research scientist to reach similar conclusions (Polit & Beck, 2014). Video recording and written transcription allows for verification of the findings through an audit. Having multiple members of the committee review the PI's findings further increased the trustworthiness of the study.

Transferability

Transferability is demonstrated through information sufficient that a researcher would be able to determine if the findings are meaningful to other people in similar situations (Melnyk & Fineout-Overholt, 2015). The context of the research needs to be described in great detail, with assumptions identified, so that another researcher may review the results and determine if the results are applicable to their context. Having the data in electronic form allows for the future transferability of the study's findings if judged to be appropriate (Tracy, 2016).

Confirmability

Confirmability is demonstrated by providing substantiation of findings and interpretations that are grounded in the data (Melnyk & Fineout-Overholt, 2015). Peer debriefing is a method that was used to enhance external validation. As the pilot study was progressing, a peer qualitative expert independently coded the first interview transcript, doing a parallel compilation, condensation, grouping, and other steps, and then comparing with the PI's analysis, with the two revising, as appropriate. This step involved having several peers and the major professor from outside the study review field notes and written or oral summaries of the data and emerging themes (Polit & Beck, 2014). This is defined as investigator triangulation, with at least two investigators to examine the coding and make analytic decisions, seeking to increase the richness, comprehensiveness, and multiple ways of understanding, and is recommended being used in a process similar to quantitative integrator reliability (Denzin & Lincoln, 2008; Polit & Beck, 2008).

Another form of triangulation is demonstrated by obtaining feedback from the participant or another investigator, as suggested by Waltz, Strickland, and Lenz (2005), to strengthen the study. In this study, mind maps, similar in nature to concept maps, were used to present the

information derived from the interviews (Buzan, 2005; Whiting & Sines, 2012). Mind maps are a quick way to reduce a great deal of data to a single page, while making sense of the data (Buzan, 2005). Mind maps are ideal methods to present the phenomenographic data showing the thematic analysis for participants, so as to allow for their questions, clarification, explanations for items, the confirmation of the map, and if effective at capturing the sense of the theoretical meanings (Buzan, 2005; Torre, Durning, & Daley, 2013; Tracy, 2016; Whiting & Sines, 2012). Three random participants were presented with a suggested final copy of the map for discussion and to verify results which they did after examining the map (Tracy, 2016; Whiting & Sines, 2012). This entire process illustrated the validity and trustworthiness of this study's findings.

Research Steps

The research steps incorporated in this study (see Appendix H) were as follows:

1. Gained approval for proposal from PI's dissertation committee.
2. Applied for and received permission from IRB to perform research study for both the pilot study and main study.
3. Discussed with program director, gained written authorization, and obtained names, phone numbers, and emails of students.
4. Contacted students to discuss participation, purpose of study, voluntary nature of participation, and invited them to make appointment for interview (See Appendix I).
5. Began pilot study interviews.
6. Obtained informed consent for interview.
7. Obtained demographic information.
8. Performed first three interviews using Apple I-Phone 7© video recording camera and the remainder of the interviews using Zoom H2N, password-protected, with 128 GBs

data, saving to PI's computer and two external hard drives, then deleting from the PI's computer after each interview.

9. Transcribed each interview verbatim immediately after interview using Rev.com transcription service.
10. Used the NVivo to organize the data.
11. If follow-up questions for clarification needed to be asked, met with students or discussed on telephone.
12. Proceeded with deep analysis: Familiarization, compilation, condensation, grouping, comparison, and naming are the steps that were employed.
13. Charted each step as taken.
14. An expert qualitative researcher independently coded the first interview transcript to compare compilation, condensation, grouping, and all other steps.
15. The PI and the expert qualitative researcher compared analysis, revising as appropriate.
16. As the naming analysis took place, guided questions were changed, as indicated, to clarify points and themes prior to any subsequent interviews.
17. After the pilot study, the interview process continued, making needed changes, as needed.
18. Saturation was reached when there were no further groupings or themes developing; at this stage, two more students were interviewed to confirm saturation, and then the study was complete.
19. Discussed mind maps (See Appendix J) of the transition findings with three student participants, the maps as structured by Buzan (2005).

20. Conclusions were written up and the remaining chapters of the dissertation written.
21. In the future, will present findings and conclusions to dissertation committee and defend same before committee.
22. Upon completion of the study and write up, the data that contain any personal identifiers will be destroyed after five years.

Research Positionality

The PI is currently a doctoral student at a large Midwestern university in a nursing program. He teaches undergraduate and graduate students, both face-to-face and online. After many years of working in industry, he experienced being financially disadvantaged while in nursing school. He is a first generation doctoral student, as no member of his close family has received a PhD. He is predominately white, with a very small percentage of North American Indian, descent. He is older than traditional students. He is male. Because of his background, while teaching several students from the program, he recognized universal moments of their experience with his own experiences and became interested in why some students persist in their studies to become nurses and some do not. Reflecting upon his background and experiences added to his ability to interview and increased the depth and rigor of this project.

This is a phenomenographic study designed to discover the differences and similarities between the lived experiences of students making the role transition from pre-nursing student into nursing student, who are first generation to college students from underrepresented groups of students and/or economically disadvantaged students. The study was limited to a second order perspective, as opposed to a more traditional first order perspective. In a second order perspective, the respondent is not reporting on the world as it is, but on the historical world as experienced, and each respondent has a unique experience (Sjostrom & Dahlgren, 2002).

The study included students in a nursing program at one school. This was a small, purposeful sample of first generation college students who were also underrepresented students and/or economically disadvantaged students. These students have had many interventions implemented based on traditional research; therefore, they are not representative of either the general student nurse population or underrepresented groups population. These interventions have not been uniformly successful. Analysis of the students' experiences may reveal specific interventions that do not facilitate student success.

Summary

Chapter 3 provided an examination of this study's philosophical foundation, theoretical framework, and methodology. The purpose of this dissertation was to explore and discover previously unknown factors affecting the role transition of pre-nursing student, first generation to college, who are also from underrepresented groups and/or economically disadvantaged students into nursing students. A qualitative research design using a phenomenographical approach was chosen, as this approach has not been applied previously to examine this role transition of the underrepresented group students. This type of study allows for the discovery of how people think they have been affected, not how they have actually been affected. In the literature review, no examination was found of using a phenomenographic qualitative method to examine the role transition of underrepresented groups of students from pre-nursing student into student nurses. This study adds to the literature by examining the transition of persons from the role of underrepresented groups of pre-nursing student into student nurse.

Qualitative in-depth interviews were employed by the researcher to explore the views of first generation to college students who are also underrepresented group students and/or economically disadvantaged students affecting their successful transition into their new role as

student nurses. This study used a pilot study of three students to verify the method and logistics used. The participant sampling used face-to-face interviewing. Credibility and dependability were shown through the use of the strategies discussed, which included triangulation of findings by experienced qualitative researchers and participant confirmation of findings. It is this researcher's hope that this study will be of use to first generation to college students who are also underrepresented group students and/or economically disadvantaged students and their nursing schools as they transition into becoming nursing students.

Manuscript

The Phenomenographic Methods Philosophy

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Abstract

Phenomenography is not as well known, nor as accepted, as a qualitative method as phenomenology is. Each is useful in its own way; however, the names are so similar as to potentially be confusing. Phenomenology focuses on explaining the unchanging meaning of a phenomenon, the essence of a single theory of the phenomenon (Dahlberg, Dahlberg, & Nystrom, 2008). Phenomenographic methods focus on exploration, identification, and understanding of all the ways of experiencing and dealing with the phenomenon (Marton & Booth, 1997). Both qualitative methods are discussed, leading to a better understanding of the use of each method in research.

Just as with medications that have very similar names but are used to treat very different illnesses, phenomenology is not the same as phenomenography. The phenomenographic method, while not as well known or used, has experienced an increasing use as a method to allow experiences to be categorized and placed in a descriptive structure (Forster, 2013). The differences are in purpose, the types of perspective used to reach different types of conclusions that are the object of their study (Sjostrom & Dahlgren, 2002). Phenomenology searches for the essence of the phenomena the most unchanging meaning for the phenomenon is the central issue (Sjostrom & Dahlgren, 2002). Phenomenology is a first order perspective, a description of experience from the participant's perspective, using a philosophical method to develop a single theory of what the phenomenon is (Dahlberg, Dahlberg, & Nystrom, 2008; Friberg, Dahlberg, Petersson, & Ohlen, 2000; Gray, Grove, & Sutherland, 2017; Marton & Booth, 1997).

As a first order perspective, phenomenology asks the question: How does the person experience the world? (Marton & Booth, 1997; Sjostrom & Dahlgren, 2002). The researcher's focus is on the object of research (a phenomenon) and his/her experience is bracketed (Marton & Booth, 1997). Participants experience the phenomenon, and the focus is to understand the phenomenon, what makes the phenomenon, to see it (Dahlberg et al., 2008). First order statements yield ways of experiencing the world or the phenomenon (Marton & Booth, 1997). A first order statement might be "the phenomenon of learning is…" (Marton & Booth, 1997). Marton and Booth (1997) suggested that learning presented as a first order perspective is the transfer of the discipline's knowledge in ready-made concepts directly into a student's head. Phenomenology is concerned with a single theory to understand the phenomenon, one essence, one main interpretation (Dahlberg et al., 2008).

Phenomenography uses both a first order and a second order perspective (reality), which flows from how the phenomenon is perceived in all of the ways of experiencing and of dealing with the phenomenon (Marton & Booth, 1997; Sjostrom & Dahlgren, 2002). Phenomenography was developed in the 1970s in Goteborg, Sweden as a way to describe meaningful learning (Dahlgren & Fallsberg, 1991). Phenomenography uses empirical methods to study participants' perspectives of the world and devise categories describing variations of experience, aiming to uncover niches of individual experiences (Andretta, 2007; Marton & Booth, 1997; Marton, Watkins, & Tang, 1997). Phenomenography is a method to discern and describe different ways that phenomena are experienced in the world (Sjostrom & Dahlgren, 2002).

Phenomenography includes a second order perspective, the object of research is the underlying way of experiencing the world's phenomenon and situations (Marton & Booth, 1997). The question is: What are the critical aspects of experiencing the world that make people able to handle the world more or less efficiently (Marton & Booth, 1997)? Second order perspective delves into how sense is made of experiences, describing different ways of experiencing phenomenon and dealing with them (Sjostrom & Dahlgren, 2002). Phenomenography interviews participants with probing questions, seeking to find consistency of perceptions and differences rather than a single hierarchy (Marton & Booth, 1997).

Marton et al. (1997) explored the dimensionality of learning and the relationship between memorization and understanding with a sample of high school students in Hong Kong. Deep learning and shallow learning are both used, with shallow learning defined as students memorizing the information, and deep learning described as when they seek to understand the meaning of the information (Marton et al., 1997). Marton et al.'s findings suggest that the experience of committing to memory (first order learning) preceded the process of experiencing

understanding (second order learning). In a second order perspective, learning is focused on how the students relate to the knowledge taught and then how they use the knowledge they now know (Marton & Booth, 1997). First order learning is, therefore, shallow learning, the transfer of knowledge, the phenomenon of the transfer; while, second order learning is examining the process of students who seek to understand the knowledge content (Andretta, 2007).

Phenomenographic studies accept that people are different, they do things differently, they learn differently, and they have learned differently (Marton & Booth, 1997). Phenomenographic research is a way of experiencing something, the object of which is the variation in ways of experiencing (Abhayawansa & Fonseca, 2010; Marton & Booth, 1997). Phenomenography aims to identify these different ways in which people experience the same phenomenon in the world around them (Abhayawansa & Fonseca, 2010).

Phenomenography methodologically identifies conceptual thought describing variations in understanding, and the analyst needs to identify these concepts and conclusions (Barnard, McCosker, & Gerber, 1999). Phenomenography presents different understandings and conceptualizations, not one essence, categorized and described (Dahlgren & Fallsberg, 1991). As data are sorted, categories appear that stand out related to the phenomenon telling about something distinct about a particular way of experiencing the phenomenon (Marton & Booth, 1997). Categories should stand in logical relationships and be parsimonious (Marton & Booth, 1997). Marton and Booth (1997) recommended focusing on examining pieces of the phenomenon experience as categories, with a limited number of categories. While traditionally done manually, it has been found that using a Leximan computer tool for categorizing the conceptualizations was more efficacious, allowing the sorting of large amounts of data without

bias (Penn-Edwards, 2010). Forster (2013) suggested using Akerlid, which focuses on the whole to develop categories of experiences; this phenomenographic method is not widely used.

Harris (2011) discussed frameworks that have been designed and used by Marton and Booth (1997) for the analysis of data in formulating and finding the conceptions. The first framework examines what and how each of the concepts is formulated using a first level analysis, then applying a second level; it examines how well it applies to the action, the direct object, and the indirect object (Harris, 2011; Marton & Booth, 1997). What is learned, what is the outcome of learning, how is the approach used, and how it is learned are the various ways that the *what* and the *how* are approached (Harris, 2011; Marton & Booth, 1997).

The second framework examines the concepts through what it terms referential aspects and structural aspects (Harris, 2011; Marton & Booth, 1997). When something is experienced, it is experienced from a structural aspect, which is discernment of the whole from context and discernment of the parts and the relationships within and to the whole (Marton & Booth, 1997). Referential aspects are the meaning the participant gives to the experiences; the example given is of a deer, the structural parts being the whole body of the deer, the meaning or referential part being the relaxed stance (Marton & Booth, 1997). The second level applied examines internal and external horizons (Harris, 2011; Marton & Booth, 1997). In the context of the deer example, the external horizon suggested is that of the forest, as well as other times one has seen deer, i.e. at the zoo or in the backyard (Marton & Booth, 1997). The internal horizon is the deer itself, its positioning (Marton & Booth, 1997). This allows the examination of the parts (Marton & Booth, 1997).

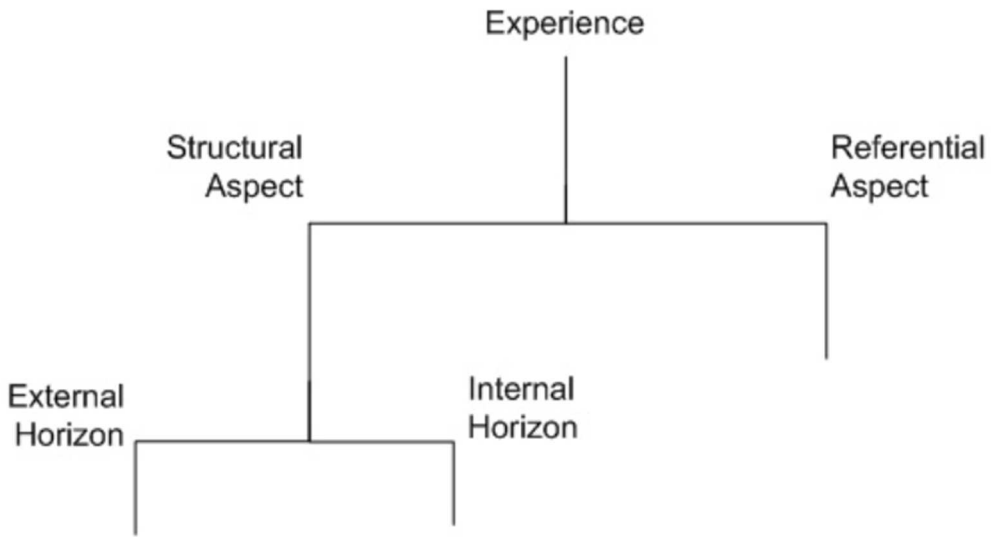

Figure 1. Component of experience (Marton & Booth, 1997, p. 88).

Harris (2011) found that of the 50 phenomenographic studies included in her analysis some primarily used what/how, some primarily used referential/structural, and some used both. Harris's findings showed that each one of the frameworks has been used and, therefore, may be used scientifically in the future in phenomenographic studies.

In analyzing phenomenographic data, the researcher must find the internal structure (structural aspect) and the intertwined meaning (referential aspect) of the object researched. All these data form one pool of meanings, and the researcher must focus on a single aspect examining the many variations while holding the other aspects frozen. Some of the data are individual, some are group. The researcher must find statements contextually compared to all interviews and contextually compared to only that interview. Aspects need to be inspected one at a time, resulting in identification of a number of qualitatively different ways one and the same situation has been experienced with ways of variations on the experience. Now, the researcher must put all biases aside and examine the statements from the second order perspective that they

do have logic and that logic needs to be determined. This leads to categories of description, which have strength when examined collectively. These categories of description are representations of the different ways in which a phenomenon is experienced. The logical relationships between these different ways of experiencing are termed the outcome space of that phenomenon. Phenomenographic analysis is performed to reveal these qualitatively different ways of experiencing these phenomena. Phenomenography offers a way to describe intended or actual outcomes.

Phenomenological methods are a way to develop an understanding of a phenomenon to describe the experience from a participant's point of view, a first order perspective of *what is*. Phenomenographic methods are a way of experiencing an internal relationship between the person and the world (Linder & Marshall, 2003). They are both a first and a second order description of how participants view the phenomena, how they deal with it, and what helps or what hinders (Sjostrom & Dahlgren, 2002).

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Chapter 4: Qualitative Recruitment, Interpretation, and Analysis

Internet and Telephonic Devices Research

The Internet has grown in acceptance as a part of daily life, connecting over 4.9 billion users through both traditional computers and, more recently, through hand held telephonic devices (Statista, 2018). Students, especially millennial students, are more comfortable using computers and handheld devices to make contact than using traditional telephone methods (DesMarais, 2017). The PI planned on using a recruiting process where the individual participants were contacted through telephonic verbal messages. With a poor response rate, it was adjusted to using email and text in addition to verbal telephone messaging. This phenomenographic study then proposed using audio/video recordings of participant interviews. It was necessary to change this to audio-only recordings due to technological problems for interviews. This chapter adds to the growing body of qualitative methods for research through a discussion of the PI's experiences in recruiting and interviewing participants and the changes from the original plan.

Study Description

The purpose of this methodological article is to describe experiences with using both email and texting compared to traditional methods in contacting potential participants for a face-to-face interview. A pilot study was used to test the recruitment and collection of data techniques of the study, which examined perceived factors affecting the transition of pre-nursing students into nursing students using phenomenographic methods. The University of Wisconsin-Milwaukee (UWM) IRB approvals were obtained prior to the start of the study for the use of telephone and internet media for recruitment purposes and for audio-visual and traditional recording of the interviews. Prior to interviews taking place, consent was obtained from the

participants. Approval was also obtained from the UWM NEP and the UWM College of Nursing for recruitment information, which included emails and phone numbers, when available. Recruiting for face-to-face interviews has traditionally been done through face-to-face, mail, or telephone contact.

Design

A qualitative phenomenographic study was designed using traditional telephonic methods to contact the proposed participants, with the additional ability to contact them via email, if needed, and then audio/video recording of the face-to-face interviews. A similar U.S. phenomenographic study of the role transition of advanced practice nurses into CRNAs utilized synchronous and asynchronous online methods of recruitment and audio/video recording with great success (Tracy, 2016). As this population was deemed to be local, it was theorized that it would be possible to have similar results using online recruitment and actual face-to-face interviews.

This researcher then designed a phenomenographic qualitative study that combined online recruitment techniques in addition to more traditional telephonic means, with face-to-face interviewing and audio-visual recording on site, to examine perceived factors affecting the role transition of pre-nursing student into nursing students. Nineteen participants were recruited from the NEP, including both students who had remained in the program and students who stopped out or dropped out of the program. Semi-structured interviews were used, as suggested by Sjostrom and Dahlgren (2002). There were pre-planned questions, with the flexibility of an unstructured interview allowing for greater breadth of depth of data and the development of rich, dense data. Open-ended questions allowed participants to be directed into the same areas of discussion, but also permitted greater depth and variety in their narrative (Barnard et al., 1999;

Sjostrom & Dahlgren, 2002). Burns and Grove (2008) and Gray et al., (2017) recommended the processes the researcher used to record data and identify how decisions are made regarding factors and by which these are cross checked and analyzed. The conceptual framework, as outlined by Tracy (2016), was used to design the framework of this study.

Technology Selection

Originally, the researcher wished to utilize a Skype product both for recruitment and for audio and video recording of the interviews, following a method that had been successfully used by Tracy (2016). After consultation with the researcher's committee, it was determined to forgo this method, as there was no way to determine the ability of the students who had dropped out of the NEP program to utilize the Skype technology, which might bias the results. It was decided that as the participants would most likely all be from a small geographic area, it would be feasible to use a more traditional method of face-to-face interviews with telephonic contact.

Prior to the pilot study, the researcher reviewed options with several IT experts at the university who recommended using the Apple I-Phone 7© system for video and audio. This was based on several criteria. First, this technology needed to be available to the researcher at a low cost. The researcher already had an Apple I-Phone 7© that was sufficient for use, so the cost was negligible. Second, the technology needed to be simple to use, and the IT experts trained the researcher in the steps needed. Third, for audio-video, it was necessary to have synchronous recordings made so that it would be possible to analyze the behavior in context with the participant's speech. The recordings needed to be able to be played back multiple times for interpretation purposes. Fifth, the Apple I-Phone 7© technology needed to be able to be downloaded to the researcher's computer and transmitted securely. In trials, there were no problems, so the first interview was done in this manner. This was a relatively short interview, as

the student was one who had dropped out and changed majors. There were no problems encountered during downloading to the researcher's computer and transmission to the transcriptionist.

The second interview was somewhat longer, and after finishing recording on the Apple I-Phone 7©, it was not possible to transfer the recording to the researcher's computer. After utilizing several different approaches, one was found that allowed the file to be made into an MP3 file, which was then transferred to the researcher's computer and transmitted to the transcriptionist. It should be noted that during this process, the video recording was lost. The third interview was also long, and once again, it was not possible to download the Apple I-Phone 7© file. This time, in order to create an MP3 file, it was necessary to use a web-based product, but again, the video was lost during the process. Once completed, the file downloaded to the researcher's computer and was then transmitted to the transcriptionist. The IT consultant stated that when the Apple I-Phone 7© is used for video, it creates a very large file, the video portion of which is a problem and often will not download. The audio portion can be changed in form, but the video must remain on the Apple I-Phone 7©, which is not secure. In discussion with the IT experts, it was decided by the researcher that the many steps involved in order to download the data created a vulnerability in keeping the data secure, so a different method would need to be used. This was a problem for other recording systems, as cost was an issue. This problem was discussed with the PI's major professor and led to a decision to use audio only.

After discussion with the IT experts, it was determined that the best system for audio-only recording was to make audio MP3 recordings using a Zoom H2n recording device system. The Zoom H2n produces recordings that are professional grade and are very accurate. The IRB was amended and approved, so the researcher made an audio MP3 recording using a Zoom H2n

recording device system for the fourth participant in the pilot study, which was successful, allowing both downloading without incident and transmission to the transcriptionist without a problem. In discussing this with the researcher's major professor, it was decided to use this system exclusively.

Recruitment

Purposive sampling is a method used to selectively sample a population based on the researcher's experience to develop rich data about a subject (LoBiondo-Wood & Haber, 2014; Polit & Beck, 2010). A weakness of purposive sampling is that the group is then a select group, which may cause difficulties when trying to apply the findings to a larger population. As the sample will also consist of students who volunteer to participate, there is a question of their motivation, which may bias the results (Sjostrom & Dahlgren, 2002). This was discussed during the design and proposal stage. The NEP students are required to have computers for use during their courses, with many of their books currently available only online. One concern was if students who had dropped the program still would have a computer, which was why it was decided to do face-to-face interviews. Sampling bias was considered to be minimal for this population.

Scheduling

Scheduling individual interviews was difficult for many reasons. The participants are at an age where their social life often changed. The researcher found that recruiting participants who had various work schedules, as well as in some cases being in continuing courses, made it more difficult for the students to schedule their interviews. The researcher texted and emailed participants the night before scheduled interviews; however, participants were often no shows. Therefore, there were many reschedules due to changes in availability with student work

schedules and social lives. The participants were allowed to select the time of their face-to-face interviews to allow for greater flexibility in scheduling.

Conducting Interviews

An advantage to video recording is it allows for the possibility of examining the body language that only a visual record will furnish (Tracy, 2016). The interviews were all planned to be done face-to-face in the researcher's office and to be recorded using an Apple I-Phone 7© video recording camera. This recording would then be transferred to the researcher's computer and then to the two password-protected backup external hard drives. The recording would then be deleted from the Apple I-Phone 7© and the PI's computer. During the pilot study, it was found that the file created using the audio-visual recording was too large. In consultation with several IT experts, with no way to guarantee confidentiality of the data converted to another format for transmission, a decision was made that the study would rely on the traditional method of using audio-only recording. The IT experts recommended an excellent system for audio-only recording, which was to make audio MP3 recordings using a Zoom H2n recording device system. During the interviews, there were limited changes in expression and body language by the participants and no way to download from the Apple I-Phone 7 ©consistently and safely; therefore, the video recording was eliminated.

Transcription

Verbatim transcription was performed for this study using Rev.com transcription services. Originally, the researcher was going to transcribe personally using the Dragon Naturally Speaking Premier 13.0 system by Nuance Communications Inc. in English for transcription. It was discovered that it required many hours of work to transcribe each interview, and the cost of having the interviews professionally transcribed was very reasonable. Each

transcription was read in conjunction with the audio-taped interview and confirmed by the researcher, requiring minimal corrections. The time required was 24 hours, and the transcriptions were then returned as a word document.

Recruitment and Interviewing Lessons

During the pilot study portion of the study, the recruitment process was begun primarily through using the telephone. Multiple telephone calls and messages were made to many proposed participants, with no response. This led to making the change to using the internet as well, so multiple emails were sent out attempting to find participants willing to be interviewed, which led to one response, a student who contacted the researcher by return email. After that, there were again multiple emails sent and then multiple phone calls, to which there were no responses. As the study progressed, there was a consistent lack of response from potential participants through these methods. There were no responses to face-to-face contact, no responses to letters, two responses to emails, and no responses to direct telephone contact or discussion.

After many attempts using different methods of contact, it was determined to try texting, a different method of telephone contact based on observation of the researcher's teenage daughter, who would never answer a phone call or emails, but would immediately answer a text. When texting was used, there were three immediate interested participants. These methods seemed to be a valid means of contacting participants and were then subsequently used. After 11 interviews, there were several months during which time no one responded. Then combinations of multiple emails, as well as texts, were sent out attempting to find participants willing to be interviewed, without response. After the last text, the researcher followed one day later with

direct voice telephonic contact and eight additional students responded; the remaining interviews were then arranged.

Eleven participants who were successful in the nursing program from the NEP were recruited, because as pre-nursing students, this program enabled them to become nursing students and graduate. Eight participants were also recruited from the NEP that had flawed transitions and dropped out before the major, which is in the same percentage of the *N* as the students who stayed in.

Several participants lived out of state and yet wanted to participate. It was suggested that it should be possible to do the interview over the telephone; while not as effective, it would allow for further collection of data. The IT experts were consulted, and the audio MP3 recordings using a Zoom H2n recording device system were found to be acceptable. The major professor was consulted and approved using this means of contact. The IRB was notified and the change made in the approval. The participants were then successfully interviewed and the data downloaded and sent for transcription.

Limitations

A number of limitations were discovered during the course of data collection, some expected and some unexpected. The group of participants was a select group who are in one program at one college of nursing and, therefore, limited. The method selected to video the participants was acceptable, as long as the interview did not go on very long. This limitation, as well as the security issue, ended up with the researcher changing the method of recording and losing the ability to view the interviews more than one time. It was assumed, the students remained in the area where the interviews took place, and it was never considered that

participants might live out of state or at a distance, where it became difficult to have a face-to-face interview, an advantage to a wholly computer-driven study.

Lessons Learned and Conclusions

The most effective way to recruit participants in a group of this nature was a combination of Internet (email), text, and phone call. The participants are at various stages of life, and one method may work for one potential participant, but not for another. This is a viable method of recruitment for participants, but only when used in combination. Flexibility is required at all times. As with internet and cell phones, while the phone number may be local, the person may be anywhere on the planet. While the use of the Apple I-Phone 7© did not work as expected in this study, in the future, a method may be found by the IT experts to keep the data and data transmission secure. The audio MP3 recordings using a Zoom H2n recording device system were very effective in recording data. Finally, it cannot be stressed as to how important it is to work through a pilot study and perform the research methods to be able to overcome potential problems before they destroy the project.

Chapter 5: Results

Bachelor of Science (BSN) registered nurses are successful students who have attended a 4-year program of study in nursing, graduated, and taken a licensing exam to become a registered nurse. In the United States, there is a shortage of registered nurses, especially BSNs. It is recognized that patient perceptions of receiving the best care include knowing that a member of their care team comes from like cultures or ethnicities (National Advisory Council on Nurse Education and Practice, 2000). In this group of diverse nurses, there is an even greater shortage, as these nurses are in smaller percentages than what their demographic is in the greater population (Humes, Jones, & Ramirez, 2011). This group of first generation, underrepresented, or financially disadvantaged students drop out in greater percentages, most especially in the first two years during their role transition from pre-nursing students into nursing students (Robin Jens, personal communication, 2017). Qualitative inquiry is used in the examination of such factors, and the phenomenographical approach illustrates the variations of how students perceive role transition, which leads to student success.

Meleis's (2007) Theory of Role Transition, as applied to the process by which pre-nursing students transition into nursing students, has allowed a greater understanding of this process and several factors that are either new or are revealed in a new light. Several interventions that are in place should be increased or applied to all students. This study has led to a greater understanding of the factors that facilitate and those that inhibit student ability to transition and has been shown to be appropriate for this role.

While phenomenographic studies have been performed to develop strategies that lead to successful role transitions from student nurse to registered nurse, nothing was found exploring the transition from pre-nursing student into nursing student, which is the time span where the

greatest number of students drop out. Further, nothing was found examining this transition from the standpoint of first generation, underrepresented groups, or those who are financially disadvantaged, a group who drop out in greater numbers. Pre-nursing courses are from a different curriculum than traditional college level courses, and the factors that affect student role transition may likewise be different.

This study adds to the literature by examining the transition of persons from the role of underrepresented, first generation, or financially disadvantaged pre-nursing student through to student nurse and identify the factors that facilitate or inhibit this specific group of students. The researcher's motivation was to identify those factors, both previously identified and new factors, to allow nursing programs to better understand the transition and perhaps better facilitate students through this transition. The literature has been predominantly focused on attrition, retention, or persistence, and not on role transition.

Qualitative approaches are considered the most appropriate method to examine in this case, where little exploration or application of the theory of role transition has been completed. Phenomenography has been used in the past to examine the perceptions of role transition of a registered nurse into a CRNA. There have been qualitative studies in role transition of the student nurse becoming a registered nurse and some qualitative studies in the role transition of various health care workers into student nurses.

Methodology

Design

A qualitative descriptive phenomenographic design was utilized, incorporating online and telephone recruitment with face-to-face interviews and some telephone interviews, exploring the perceived experiences of participants in the NEP going through their transition into a student

nurse. Studies using phenomenographic methods to examine the role transition of student nurses into registered nurses have been performed, as well as advanced practice registered nurses into CRNAs, but these studies are limited to individuals who are already part of the professional discipline (Deasy et al., 2011; Slone, 2012; Tracy, 2016). Little research was found into the role transition from pre-nursing student into nursing student. The results of this study may reveal specific factors that affect the transition. No study was found examining the role transition of underrepresented students from pre-nursing student into student nurse. This group is specifically targeted to be increased due to health care disparities. This group also has a high attrition rate during the first and second years, as the students transition into nursing students. Using the phenomenographic method allows for exploration and discovery of various factors affecting this phenomenon.

The primary researcher was a doctoral student overseen by two experienced researchers, one who is a qualitative expert. The dissertation committee also included a BSN educator expert. Following approval from the dissertation committee and from the university's IRB, further approval came from the director of the NEP to utilize information from the program for study recruitment.

Theoretical Framework

The theoretical framework for this study is that of Meleis et al.'s (2000) role transition from precollege student to graduate student nurse. Meleis et al.'s role transitions framework has been used to explore the transition from student nurse to practicing nurse, as well as the role of registered nurse into practicing CRNA (Slone, 2012; Tracy, 2016). Meleis et al.'s role transition theory has not been applied to first generation, underrepresented, or financially disadvantaged students moving from the role pre-nursing student into nursing student.

Sampling

Purposive sampling is a method to selectively sample a population based on the researcher's experience and knowledge in selecting participants who are able to provide rich data about a phenomenon (Polit & Beck, 2014). Purposeful sampling was used during the selection so that the interviews would yield rich data regarding the participants' experiences in their role transition. The PI chose the sample based on the criterion of the participant having been in the NEP and either continued in the program once successfully transitioned or else dropped out of the program due to an unsuccessful role transition. To contact the students who had left the program, graduated, or were currently enrolled, the PI discussed the research proposal with the program director and sought written authorization. The names and phone numbers were identified from files, and attempts were made to contact former and current students. Potential participants received an invitation from the program director to participate and were then contacted by the PI through email, text, or direct phone call to be invited to participate. If they were interested in participation, an interview was scheduled. The participants were given a copy of the consent and the IRB protocol during the interview and signed the consent, as well as filling out generic demographic information. The final sample consisted of 19 participants, 11 who stayed in program and eight who stopped out of the program. Of the 11 who stayed in, one was male and 10 were female. Of the eight who stopped out, two were male and six were female.

Data Collection

Data on first generation, underrepresented, or financially disadvantaged students who had participated in the NEP were collected through direct face-to-face interviews at mutually agreed upon times. Using the same open-ended questions and a directive format provides an in-depth exploration of selected topics and helps ensure accuracy of the data through asking the same

questions of different subjects. Individual interviews were guided by five basic questions: (1) Tell me about your role as a pre-nursing student. (2) Thinking about your transition from high school student worker to nursing student, how was it? (3) Thinking about your role transition into nursing student, what helped your transition? (4) What blocked your transition? (5) What told you that you had made it? or What told you that you had not made it? The interviews concluded when all questions had been answered.

The PI collected data through direct face-to-face interviews with some video and voice recordings. Data collected by the PI were completed through the direct face-to-face meetings with video and/or audio recordings. The PI maintained the participants' code names and was the only person to have access to recording and saving abilities. As each interview was completed, a verbatim written transcript was completed. The PI took notes during the interviews, and these notes were added to the transcript afterwards.

Pilot Study

A pilot study was used to confirm the appropriate steps were in place to ensure safety, confidentiality, and smooth analysis of the data before beginning the full study. Rigor and credibility was insured through periodic review of data and themes by both the PI's major professor and the qualitative expert. The PI was responsible for organizing and storing all data. A pilot study, included in the proposal submitted for IRB approval, was performed by interviewing four students (two who stayed in the program and two who stopped out of the program) and completing analysis of collected data to determine if revisions to the plan were needed prior to continuing with the full study. The researcher's major professor and the qualitative expert reviewed these data to determine if rigor was maintained during the pilot study and if any

revisions were needed and concluded that all four interviews would be included in the final study.

Data Analysis

Burns and Grove (2008) discussed the processes a researcher uses to record data and identify how decisions are made regarding factors and by which these are crosschecked. The interviewer interpreted immediately, using the NVivo system, what the respondent was saying based on verbatim transcripts to determine if any further questioning or probing would be helpful. As there was no need for further follow up or additional questions upon completion of this quick analysis, a deeper analysis began.

In phenomenographic approaches, this process consists of multiple steps: (1) Familiarization is the process used to determine if any further questions need to be asked; (2) Compilation consists of analyzing the answers from each informant for each question for the significant elements; (3) Condensation is the process where the groups of answers are analyzed to determine a central part of the longer answer in the dialogue; (4) Grouping is the process of placing similar answers together; (5) Comparison is the process where the preliminary groupings are reexamined to determine if there is duplication or if groups are clearly separate; and (6) Naming or labeling is the process of applying a name to identify each category's essence. This step-by-step process continued after each interview.

Trustworthiness. Every effort was extended to achieve trustworthiness in this study. Trustworthiness is demonstrated through four concepts that must be present in qualitative research: credibility, dependability, transferability, and confirmability.

Credibility. Credibility is demonstrated through the accuracy and validity of the documentation used to chart the researchers actions (Melnyk & Fineout-Overholt, 2015). The

researcher's actions, opinions, biases, the appropriateness of the data, the adequacy of the database, verification of the findings through comparing to suggested concepts from Jeffreys' (2012) NURS framework and Bean and Metzner's (1985) theory (triangulation), validation through crosschecking with colleagues, and properly documenting verification and validation has been done (Melnyk & Fineout-Overholt, 2015).

In this phenomenographic study, a process called bracketing was used, in which the investigator attempts to hold in abeyance any biases or feelings that may affect the interview and the observations (Harris, 2011). Triangulation was performed through having another member of the committee verify the PI's work and conclusions, as well as comparing the developed factors to the previously known information regarding persistence. Crosschecking was performed by the full committee. The researcher showed that a specific way of describing the differences and similarities is supported empirically, accomplished by using excerpts from the interviews supporting the categories (Sjostrom & Dahlgren, 2002).

Dependability. Dependability is demonstrated through careful documentation of such things as the context within which the research occurs, accounting for changes as they happen, sampling decisions, ethical considerations, providing evidence of the methods to reach conclusions and an audit trail reviewing what has been done, and evaluating where the study is and why (Melnyk & Fineout-Overholt, 2015). Gray et al. (2017) suggested the audit trail is one of the key elements enhancing the rigor of the study. An audit trail is important to allow an independent person to reach similar conclusions (Polit & Beck, 2014). Video recording and written transcription allows verification of the findings through an audit. Having multiple members of the committee review the PI's findings further increased the trustworthiness of the study.

Transferability. Transferability is demonstrated through information sufficient that a researcher would be able to determine if the findings are meaningful to other people in similar situations (Melnyk & Fineout-Overholt, 2015). The context of the research needs to be described in great detail, with assumptions identified, so that another researcher may review the results and determine if the results are applicable to their context. Having the data in electronic form will allow for the future transferability of the study's findings if judged to be appropriate (Tracy, 2016).

Confirmability. Confirmability is demonstrated by providing substantiation of findings and interpretations that are grounded in the data (Melnyk & Fineout-Overholt, 2015). The PI peer debriefing is a method that was used to enhance external validation. As the pilot study progressed, a peer qualitative expert independently coded the first interview transcript, doing a parallel compilation, condensation, grouping, and other steps and then comparing with the PI's analysis, with the two revising, as appropriate. Several peers and the major professor from outside the study reviewed field notes and written or oral summaries of the data and emerging themes (Polit & Beck, 2014). This is defined as investigator triangulation, with at least two investigators to examine the coding and make analytic decisions, seeking to increase the richness, comprehensiveness, and multiple ways of understanding, and is recommended to be used in a process similar to quantitative integrator reliability (Denzin & Lincoln, 2008; Polit & Beck, 2008).

Another form of triangulation is demonstrated by obtaining feedback from the participant or another investigator to strengthen the study (Waltz et al., 2005). In this study, mind maps, similar in nature to concept maps, were used to present the information derived from the interviews (Buzan, 2005; Whiting & Sines, 2012). This is a quick way to reduce a great deal of

data to a single page, while making sense of the data (Buzan, 2005). Mind maps are an ideal method to present the phenomenographic data showing the thematic analysis for participants, so as to allow for their questions, clarification, explanations for items, the confirmation of the map, and if effective at capturing the sense of the theoretical meanings (Buzan, 2005; Torre et al., 2013; Tracy, 2016; Whiting & Sines, 2012). Three random participants were presented with a suggested final copy of the map for discussion and to verify results, as suggested by Tracy (2016) and Whiting and Sines (2012). This entire process illustrated the validity and trustworthiness of this study's findings.

Results

Each interview contained factors hampering and factors assisting in the successful or unsuccessful role transition of pre-nursing student into nursing student. The interviews provided valuable points of view regarding answers to the two major research questions. Major themes or factors were identified and the findings presented in a manner suggested by the research questions and factors. Direct quotes have been used to provide support for the named themes. The quotes have been de-identified using the letter N for those continuing through admission to the nursing major (*N*=11) and the letter S (*N*=8) for those who stopped out of the program. The program director, often referenced by students, was de-identified by the letters PD.

Research Question One: What factors do participants perceive facilitated a successful transition?

Participants perceived that interventions included in the NEP program, suggested by Jeffreys, facilitated their transition. This theme had to do with the role of the NEP in helping the transition of the pre-nursing students. The students in both groups perceived benefits from the NEP's interventions, based on Jeffreys, of extra coaching, mentoring, tutoring, training, and

orientation, as well as other interventions included. The students in both groups perceived the NEP as being highly beneficial in these areas. These are also many of the factors that are suggested in the literature as being helpful to nursing student success.

1. The NEP intervention of directed academic skill development through supplemental instruction and/or tutoring is supported by Jeffreys' (2012) academic factor's concept of study skills and the professional integration factor's concepts of peer mentoring and tutoring, faculty advisement and helpfulness, and enrichment programs.

N-1 stated, "…also PD and just keeping up with courses, grades, … advisor meetings and things like that."

S-1, who left the NEP remarked,

> I think being in the NEP Program was really helpful. …I felt like they really did like cater to first generation students, like people who really didn't get it. … like when we came early in the summer and did the orientation … that was very helpful to like … meet some of the professors that we were going to have. …And make them a lot more approachable, … having like somewhere else to study. …just meeting other people who, like I said, lived in the dorms. Even people who didn't live in my community, most of them still live in Sandburg.

Despite leaving the program, S-4 still received help with their transition, "Cause after having multiple meetings with the advisor for NEP, after having meetings with her and having conversations with her, it motivated me to actually organize my schedule, to manage my time."

The NEP intervention of intensive, intrusive academic advising is supported by Jeffreys' academic factor's concept of general academic service and the professional integration factor's concept of faculty advisement and helpfulness (Jeffreys, 2012).

Several students felt that without intensive and intrusive advising they would not have been able to continue in the program. N-5 stated,

> We would like talk. We first, we had these scheduled meetings where we had to meet. And then, I, like in the first couple of months, and then after that, everybody felt more comfortable with her. And you can just like pop in her office and you would be like, Oh, PD, I'm having a good day today. Like, you know, I met like so and so. Or PD, I'm having a terrible day today. I got my anatomy test back and it was terrible. And then, she would be harsh sometimes. She would be like, Okay, well, what are you gonna do about it? Like, we've talked about this a million times. And you would be like, Okay, I'm gonna go talk to my professor. Or, you know, she'd be like, if there was something else and she would talk you through it.

N-8 had this to say,

> And then hearing, talking to fellow pre-nursing students who were applying for the same semester, I remember like, talking about the application with people and like, I knew with NEP, you know, my status was, was okay. Like, I was gonna be fine, but I still remember talking to people and they were like, yeah I got a 4.0 and I got an A on all my exams. It's like, I got a C … I remember just second guessing my position. I was like, do I deserve this? Like, I even went to PD after I got my letter and I was like, PD I don't think I deserve to be in the program. … it was a lot of second guessing myself and she took time to sit down with me and tell me why I deserved it. … so that was definitely a barrier, studying with people and knowing that, you know, I was working as hard as they were, but they were still pulling better grades than me. So, it's always been like, a self-confidence thing, which I've been working on. But that was definitely a barrier.

2. The NEP's consistent and required use of resources, including professors, supplemental instruction, and tutoring intervention is supported by Jeffreys' (2012) academic factor's concepts of study hours and course attendance, and the professional integration factor's concepts of peer mentoring and tutoring, faculty advisement and helpfulness, and enrichment programs.

All of the students agreed that their advisors were extremely helpful in laying out the requirements and that mandatory requirements for study groups and where to sit had aided them a great deal. N-2 stated, "PD here in the College of Nursing, my academic advisors (helped)." N-5 stated:

> It wasn't like a mandatory role, but we had to sit in the front of the classroom, you know? And they gave you sense of a kind of release. If you ever got sleepy, you can't sleep up there. You know, if there ever was a question, like you could raise your hand, like right here, and like still answer. When I first started, I was like, Okay, PD sure, like, yeah, this is gonna work. And I think it's one … like I was … I don't remember which classes I mostly struggled, but I'm sure one of them was probably anatomy. And just like being up there made it easier, at the end of the classroom, you know, push the professor, like, I don't know that walking distance seemed like such a long distance. … And I know they meet in the library. Now, I don't remember. But they would sit and they would like go over either the lecture, not over the whole lecture, but like over the main points."

N-11 stated, "NEP helped me a lot, because they had those mandatory study hours in … Cunningham Hall and, you know, we had to go to tutoring for all the science classes."

3. The NEP's intervention of weekly student group and monthly NEP cohort meetings is supported by the Jeffreys' (2012) academic factor's concept of course attendance and professional integration factor's concepts of faculty advisement and helpfulness, encouragement from friends in class and enrichment programs.

The students enjoyed being part of a cohort, allowing them to make friends and study buddies. They also agreed that the program had taught them how to be college students. N-2 stated, "Being in the Nursing Endeavor Program, … we have other students just like myself who, you know, kind of come from all walks of life and we, you know, come together." N-3 stated,

> I also had the Nursing Endeavor Program, who really kind of showed me the way and what was, what you should do as a college student. … They gave us a lot of resources and if it wasn't for them I don't even think that I would have made it through my first semester honestly … because it was that hard of a transition for me." N-4 stated, "So right now, I met them from the pre-nursing program, so they were my cohort … they're my roommates now. So we live in an apartment … they're like my little … coaches. They just talk me through everything."

4. The NEP requires weekly study hall and grade monitoring, which Jeffreys (2012) supports by professional integration factor's concepts, including faculty advisement and helpfulness and the academic outcomes factor's concepts of course grades, nursing GPA, and overall GPA.

Students seemed to be of two minds about this concept. They found the time required to be a problem, while later being able to see the necessity for it. N-3 stated:

> I will say that a lot of the habits that I learned that first semester carried through and did prepare me for progression into the major and eventually into nursing practice … which I

think really left a mark on me as a student because now, I'm doing my master's degree with the NEP students.

N-6 stated,

> There's one specific connect meeting where it kind of just all came together for me. It was a PowerPoint, … she had like a PowerPoint and it was on all these different aspects of things. And I just remember watching it and taking notes, and she showed us a video, I think that's when it all clicked for me, I don't remember specifically what it was, but I walked out of that meeting like, okay. I know what I'm doing now.

N-7 stated,

> You could see where it was frustrating but it was really helpful. Then, just, I don't know, we had like weekly meetings that we had to do as well, just to keep us on track. … They were helpful but also frustrating, but being able to look back on it, everything was meant to help us, but in that moment, you're frustrated. You have all this other stuff to do.

5. Another NEP intervention is immersion visits to campus resources, which Jeffreys (2012) supported through the academic factor's concept of general academic services.

For the NEP, the immersion takes place during the orientation they give the students prior to the commencement of studies. All of the students felt that a robust orientation was called for, adding suggestions for increased orientation. N-5 stated,

> People would like take you … I didn't think it was such a big deal, but it was … they walked us one day through campus and showed us like the Writing Center, the Learning Center. And just walking you in made it a big deal because like all the students that were there were like, Okay, when you need something, you go to this desk and you ask for this. And they'll tell you. So I think even that like eased the nerves. Like okay, I'm like, If

I ever need to write a paper, I know exactly where to go. I know which desk to go to. Like I'm not gonna make a fool out of myself in this room where everybody else knows what they're doing and I don't.

6. An NEP intervention is cohort/block scheduling in all freshmen year courses and 50% of sophomore year courses, which Jeffreys (2012) suggests is supported through the professional integration factor's concept of encouragement from friends in class.

The students all spoke highly of being in a cohort, enabling them to feel more comfortable and proceed. N-7 stated,

For me it did, because going right, like, straight from high school into college, you're accepted in the Nursing Endeavor Program right away … as long as you meet all the requirements, which was really helpful to me, because I had close friends going through the whole entire four years of college. This made it easier because then I had study buddies and other people to help me. PD, the director of the program, she told us what we needed to do to stay on top of stuff. That was really helpful. It was just, I don't know, it was helpful, because even though everything was hard, we still had each other to rely on. It made it a little easier."

7. Another NEP intervention is optional attendance at professional and student nursing conferences, which is found as the professional integration factor's concept of attendance at professional events (Jeffreys, 2012).

There were no statements indicating that this facilitated or inhibited students.

8. The NEP also has the intervention of faculty, staff, and peer mentoring, which Jeffreys (2012) suggests is supported by the factor of professional integration through the concepts of peer mentoring and tutoring and faculty advisement and helpfulness.

N-5 stated,

I don't know if I mentioned this, but PD assigned us a mentor within the Nursing Department. And, my mentor was … like she was never always there, you know, you only reached out to her when you needed, but she was there and she actually turned out to be like one of my professors.

9. The NEP's final intervention of community and leadership building is found in Jeffreys' (2012) student affective factor's concepts of self-efficacy and motivation, and the professional integration factor's concept of encouragement from friends in class (Robin Jens, personal communication, 2016).

N-5 stated,

She would always like push us towards other students. Like, okay, say you're ... 'Cause it was me and PD another student. … She was always good at all the subjects I was bad in, and then I was good in the subjects she was bad in. So like PD would be like, Oh, why don't you study with her, she does so well? And then she would tell her, Why don't you study with N5 like she does so well? So like she pushed you to like grow into like different people.

Both groups of students felt that increasing their self-efficacy, for example their belief in their ability to execute behavior necessary to perform (Bandura, 1977), and increasing their sense of responsibility, for example their ability to act independently making decisions without authorization (Brown, 1993), were key factors in their transition into pre-nursing students. This theme was found in each participant's interview, illustrating how important it was to their individual success. Each participant's growth was shown through their discussion of

transitioning into adulthood, managing time and school, and creating a schedule as a pre-nursing student (Meleis et al., 2000). Participants who stayed in the program felt they transitioned into the role in the first or second semesters through this increase in self-efficacy and responsibility. Those who dropped out of the NEP felt that if they were to do the transition over again, they would have no problem, as they now have the skills needed. N-2 stated,

> Some people (took) longer than others, but for me, I like to be proactive and take the initiative, so it's a little bit easier for me, … I did understand back then when I was transitioning it was gonna be a challenge, that's what happens when you're going from high school to college or being a teenager to now transitioning into adulthood, so again, keeping in mind that it's helping me out, managing my time and school and all those things, helping me develop, as a young adult or a pre-professional young adult in this world. In high school, it's more structured, and in college, it's completely different. You're completely responsible for taking the initiative and advancing your education. Well, living on my own, I think between freshman and sophomore year, I went back home after that first year and, you know, my family life wasn't so great, … my parents' relationship was very tumultuous, by far, that was very challenging, to all of a sudden have to find somewhere to live, because I wasn't going to allow that home relationship to interfere or affect what I was doing here at college.

S-7 remarked,

> So, adjusting to being an adult, it was a lot, but it was okay. I eventually got the hang of it and then created my own routine, which made it easier as I got older. I matured and I learned what works for me and learned from my mistakes that I made. It was kind of stressful, but I don't regret it. I was becoming an adult. Because I was adjusting to new

classes and I was adjusting to waking up early and I'm on my own. I wouldn't say that when I was in high school, my mom woke me up every morning. I had an alarm clock, but sometimes I would be moving a little slow, so she would like give me that extra push. So, when you're on your own, like I said, I stayed in a dorm, so I was just a full blown adult on my own. And then it wasn't like my mom would send me money, so I had to work. So I had a campus job. So I'm adjusting to that."

The theme of an attitude of determination, their will power, resolve, and purposefulness, which both groups identified with, had to do with motivation. This was not needed in high school, but grew as students proceeded to become pre-nursing students. The stop outs who continued in nursing or transferred identified this theme as what kept them persisting; both groups identified this attitude as enabling them to continue. N-4, stated,

Just stay determined to whatever I want to do, and I really didn't think like that in high school, I didn't think like that first, the first year of college. It was a lot harder then, and so it started to feel like, okay, this is real life. This is real college.

S-7 remarked,

I have never really imagined another career path for me. I have a heart to help people. I'm very genuine about helping people. I take care of my parents, I'm a personal caretaker for them and … they're in their 60s and I'm only 21. So, they're older. My dad's paralyzed on his whole right side of his body from an accident. He had brain surgery and I know he's in a nursing home and he also tells me about his stories he had with … different health care professionals, and me helping him currently is just, I have a heart to help people and just be there for people. So, I never really wanted to be anything

else. So that helps in my transition from high school to pre-nursing because I've always wanted to do it.

S-3 stated,

> High school's over. Now, you still have a lot of free time and nothing is really that urgent. But in nursing school … you have to balance a marriage and kids and … I was still working. It's very serious. Time management is huge. … you have to stay on task. It's a big change. It's a life change. I would say it was extremely difficult. I made a pact with myself that I would start and I would not stop until I was finished. No matter how long it took.

Research Question Two: What factors do participants perceive impeded or hindered their transition?

Academic rigor. Both groups of students perceived that pre-nursing courses were more difficult than ordinary courses offered at UWM. The students who were able to continue in the NEP typically identified the pre-nursing curriculum as being the problem, while the students who stopped out or transferred identified two specific courses, Anatomy and Physiology (A&P) and Algebra. The group who continued in the NEP felt that the difficulty was expected. The students who had flawed transitions were surprised with how difficult the courses were. This matches findings that others have of shock as hampering the transition into pre-nursing students. Students who stopped out identified being surprised at how their study skills were inadequate and hampered them in their transition. N-1 stated,

> It was kind of tough. … the classes were different. You get more independence, but then also it's tough to be on track at times. In high school, everything's kind of given to you and set and you know what you're supposed to do, and in pre-nursing, some of the

courses, it was a little tough to figure out what their motivates were, what they were really looking for in tests, assignments. So it was a pretty difficult role switch, but we got through it.

N-2 specifically named A&P, "That's a lot of people's experience at the time 'cause … anatomy and physiology has the highest drop rate." S-1 remarked,

> My anatomy class, it was just I didn't know how to study for it. … I didn't get it. When I would try to get help, I still didn't get it. So I'd ask for help and they'd explain it to me a million ways, and I still didn't get it.

S-7 discussed Algebra,

> I struggled with the Algebra course. I would blame it on my professor. I know we're not supposed to place blame for like a grade, but I feel like I was treated unfairly. I passed all my other courses with A's and B's, but I had a problem with the professor and it was a foreign professor and it was kind of difficult. So, I met with the board, like the directors of the math department. I met with him for like my finals and stuff to study with him to try to help pass the class and I didn't pass the class. So that made my transition difficult, because I was really working hard and over half the class had dropped her course. And I didn't know if I should drop the course because … my program picked my courses for me.

S-1 stated,

> Initially it was pretty hard for me … but now looking back I think if I took it now, being so far along, it wouldn't have been as hard as I thought it was because now I know how to study. But as a first semester student … and someone who's never had to study like

that … That was really hard. It was just a lot to manage, especially at that time in my life. I was new to college. So, nobody really prepared me for what I was gonna go through.

Isolation. A major factor that many of the participants felt inhibited them during their transition was isolation. This affected both groups; the students who were able to continue in the NEP felt isolation just as strongly as the participants who were not able to continue in the NEP. Students felt isolated in general, felt left out of groups, or would not make the effort to become a member of the group. N-5 was very direct, "I'm not gonna lie, I felt like pretty isolated." S-8 stated,

> Because part of what happened then was, I remember again, that case study, that assignment, … everybody chose their group, and … obviously we were … 12, like as of that time, I think. The assignment was meant to be in group, why am I the only one … you know what I mean? Like - Well, it doesn't matter to me … work, but again, it wasn't, … maybe the … coordinator …probably didn't know what was going on, or maybe they didn't… they thought it, maybe she felt like as a student …figure it out then. … so, again, I was standing alone. Today I'd have been like, oh, I should have gone to the coordinator and tell her …"Hey, I don't have a partner," … but then I felt, I saw it as you are supposed to be working with me, but maybe because I'm being looked at differently, that's why you're not. So I didn't take it to her because it felt like it's a student thing.

S-6 said, "Man, I didn't like anyone in my program. They're all kind of like … They were like really kiss ups to the teacher, so I'm not that type of person."

Living at home. Both groups identified problems with their living at home, either from their parents not understanding what they were going through or personal problems that existed due to their being in school and living at home. S-2 stated,

> When I was younger, I didn't … I felt overwhelmed with …the amount of things I had to do at home … there was some stress at home. … I wanted to be more social than I was…. My mom was not supportive at all. She didn't wanna talk to me for about a week because I wanted to move out of the house. … for me, all the stress at home and the stress of commuting was something that was a real damper…. It made it extra, extra hard… But my parents never really understood how much work I had to put into it, and they would kind of yell at me sometimes 'cause I got into a habit of … staying on campus longer. And they kind of were always questioning about why I didn't come home right away and if something else was going on, if I was doing drugs.

Discussion and Implications

This study was designed as a preliminary evaluation of the NEP through student perceptions of facilitating and hindering factors in their role transition from pre-nursing student into student nurse. This study approached this evaluation by exploring the factors involved in the role transition of pre-nursing student into student nurse while in the NEP, which applies various evidence-based interventions from Jeffreys (2012) to a select group of first generation, underrepresented, or financially disadvantaged students to assist in a successful transition into nursing students. This study is the first study to examine these factors using phenomenographic methods. In her transitions theory, Meleis et al. (2000) suggested various factors exist that facilitate or inhibit the transition from one state, such as a pre-nursing student, into a nursing student. Success as a nursing student presupposes a successful transition. While other research has identified and suggested interventions leading to general student success and, in some cases, nursing student success, there has been limited investigation into the role transition of pre-nursing student into student nurse. This study identifies some of the factors suggested in the

literature and identifies other factors influencing pre-nursing students' transition into a nursing student.

The results of this study have implications for nursing schools and special programs created to increase nursing student success and retention, especially for first generation, underrepresented, or financially disadvantaged students. Both groups felt that increasing leaderships skills through increased self-efficacy and a sense of responsibility were key factors in their success and ability to continue in the program.

Increasing self-efficacy is a part of Jeffreys' (2012) framework and enables the pre-nursing students to be successful. Those who described or developed self-efficacy skills stayed in the program, while those who did not left the program and had a flawed transition. Meleis (2007) suggested the ability to develop self-confidence (efficacy) led to successful transition.

Increased motivation as part of Jeffreys (2012) framework leads to stronger leadership skills, which students perceived as an attitude of determination. In high school, it was not necessary, but now that they were in the nursing program, it became obvious why students continued despite various setbacks and obstacles. Those with a future orientation, evidenced by an attitude of "this is my future career," had a successful transition. Those who had an *in the moment* orientation and saw themselves only as students had a flawed transition.

Unsurprisingly, the factors of extra coaching, mentoring, training, tutoring, orientation, and counseling were found to facilitate progress by both groups. The flawed transition group acknowledged that while these factors did facilitate the transition, they did not take full advantage of these opportunities and would likely do it differently if they were doing things over. The students who remained in the NEP acknowledged that all of these factors had facilitated their transition, but were especially focused on the orientation and extra counseling as being

important to them. Each of these are interventions proposed in the literature as being helpful in student success (Bean & Metzner, 1985; Jeffreys, 2012). Meleis (2007) suggested that it is the role of nursing to facilitate healthy transitions, meaning not only for patients, but also for pre-nursing nursing students.

Both groups discussed feelings of isolation as hindering their transitions, which was especially prevalent in the group who stopped out. Students acknowledged peer support from other students who were in the NEP as being very helpful to them. Students who stopped out discussed having greater difficulty developing these relationships. This is a factor proposed as having some effect on student success (Bean, 1985; Jeffreys, 2012). Tinto (2000) suggested the formation of learning communities as contributing to student success. While the students did not suggest that this is how the NEP functioned, the cohort program has similarities.

Another hindering factor was that students acknowledged that the pre-nursing courses were very difficult compared to other courses of study. Those who stayed in the NEP expressed an expectation that the courses were going to be difficult, while the students who stopped out found the level of difficulty unexpectedly higher that what they had expected. The students who did stop out acknowledged that the difficulty and their failure to adjust had contributed to their inability to continue in the NEP. A number of students who stopped out felt it hindered their transitions to unexpectedly discover that they had never had to study like that before. Several pointed out they had taken college prep courses and that they had high grades in high school. Jeffreys (2012) suggested that some students might be overconfident of their abilities, which might contribute to problems. Meleis (2007) suggested that preparation and knowledge are factors involved in transitions. Lack of knowledge and preparation would inhibit the transition.

A final hindering factor was difficulty adjusting to their new role by their family, which was exacerbated by living at home. Students were over protected, criticized when having to study, and in the middle of parental or personal family/marriage problems, which all interfered with their ability to transition into a pre-nursing student. The literature suggests family emergencies and family support as being factors that influence student success, but does not consider the impact of living at home. Both students who stayed in the NEP and those who dropped out of the program had problems with this. Meleis (2007) suggested that community conditions and interactions with caregivers (parents) facilitated or hindered transitions.

There were three surprising findings in addition to the factors discussed. Of the students who dropped out of the NEP, five of the eight returned to nursing and are continuing without currently being in the NEP. While this may not be counted in the statistics of students who continued in the NEP, it still counts as students continuing in nursing and changes the rate of students who dropped out of nursing. This would suggest the success rate of the NEP program in continuing nursing students is 82%, not the previously suggested 50%, and would suggest a high rate of success for this program.

Of the eight students who stopped out or transferred to a different major, two students mentioned that they had been previously diagnosed as having ADHD, and when they graduated from high school, had been told that as adults, they would no longer need their medications. One of the students, in consultation with a neurologist, resumed taking medication and promptly returned to nursing. The other student made no statements regarding resuming medications, but was doing well as a business major.

The third finding is the intervention of optional attendance at professional and student nursing conferences. This is based on Jeffreys' (2012) professional integration factor and

concept of attendance at professional events. None of the students stated that this was something that had facilitated or hindered their staying in the NEP. The NEP students regularly attend professional events, and it may be grounds for future investigation.

Limitations

The inclusion criteria for this study consisted of being a current member or former member of the NEP with a telephone or email address on record with the NEP. Both those who were successful in their transition, as shown by staying in the program, and those who had a flawed transition and stopped out or dropped the program were included. Students chose to participate or not, dependent on their acknowledging their email or answering their phone or phone texts, which may have created a self-selection bias. The difficulty in locating and including these students may be partially due to this student self-selecting, especially for students who stopped out, where there are possible elements of embarrassment and anger. Students who remained in the program are also dealing with the ongoing rigor of their courses, and time may be a huge issue.

This was a phenomenographic qualitative study, designed to discover the differences and similarities between the lived experiences of first generation, underrepresented, and/or economically disadvantaged students enrolled in the NEP making the role transition from pre-nursing student into nursing student. The study is limited to a second order perspective, as opposed to a more traditional first order perspective. In a second order perspective, the respondent is not reporting on the world as it is, but on the historical world as experienced, and each respondent has a unique experience (Sjostrom & Dahlgren, 2002).

A further limitation of this study is the assumption that all students were full-time students and, therefore, did not have any different reaction to factors that might have been created through part-time studies.

The findings may not be generalized to include other transitional support programs. However, the findings may be transferable to similar settings. Future research may address these limitations.

Conclusion

This study answered two research questions designed to reveal the factors facilitating and those hampering the role transition of first generation, underrepresented, and/or low income pre-nursing students in the NEP into nursing students. The individual interviews provided rich data to answer those questions and identified other factors not previously suggested as important in assisting the role transition into pre-nursing students. The identification of factors leading to flawed transition may lead to new additional interventions that may improve the role transition of pre-nursing student. The stories the participants shared helped form a rich description of their experiences in the NEP as they moved into their new role as pre-nursing students. The findings of this study offer schools of nursing new ways of examining the experience of pre-nursing students and their role transition. Further research is needed to confirm the findings, as well as quantitative research to verify these findings and further develop possible new interventions.

Chapter 6: Synthesis

This study was completed in order to examine, compare, and contrast factors perceived as affecting the role transition of pre-nursing student into nursing students by first generation, low income, and/or underrepresented students in the NEP, who stayed in or who stopped out, using online and telephonic recruitment and face-to-face recorded interviews. The aim was to discover those factors facilitating or hampering pre-nursing students in this transition. Meleis's (2010) model of role transition provided the theoretical framework.

Participants were selected from students currently or formerly in the NEP program, providing deep descriptive data to answer the research questions. This dissertation incorporates six chapters. Chapter 1 describes the problem and presents the questions. Chapter 2 presents a literature review and includes a manuscript of an examining current interventions. The focus of Chapter 3 is a discussion of the methodology and includes a manuscript on the method of phenomenographic analysis. Chapter 4 describes the experiences of the researcher. Chapter 5 describes the qualitative methods and the results. Chapter 6 is a synthesis of the previous five chapters and includes recommendations to administrators of the NEP, educators, and future researchers.

Synthesis

The review of literature included theses, dissertations, articles, and books from the past 20 years (1996 to 2016). The purpose was to explore significant literature published on the topic of role transition in student nursing. The role transition from student nurse to registered nurse was well researched, while the role transition from pre-nursing student to nursing student was not. Many dissertations performed research, which through the individual's committee are peer-reviewed for accuracy and science, but never published other than through ProQuest, therefore

were included. All relevant research and findings are summarized in Table 1 (See Chapter 2). Studies were coded for relevance and evaluated per Polit and Beck (2008, 2010). All the relevant research documents were read and reread for appliction to the role transition of pre-nursing student into nursing student. The synthesis, implications, and suggested future research has been included in the discussion section.

Factors Facilitating Pre-Nursing Student Role Transition

All of the interventions included in the NEP were developed to facilitate successful student transition from pre-nursing student into student nurse. Meleis (2007) suggested that it is the role of nursing to facilitate healthy transitions, meaning not only for patients, but also for pre-nursing nursing students. The students in both groups perceived the NEP as being highly beneficial for their transition. The NEP incorporates interventions that have been suggested in the literature as being successful at helping programs retain students and leading to their success. In addition to a general recognition of benefitting from inclusion in the NEP, some students made further comments, noting the specific interventions of extra coaching and mentoring and tutoring, training, and orientation that are a part of the NEP.

The NEP intervention of intensive, intrusive academic advising may be described as extra coaching. As a part of the NEP process, students meet with the manager of the program weekly to review their progress and to determine a timeline for further work the following week. This timeline is a skill that students need to have; however, based on the comments many students made, students entering the NEP as freshmen sometimes lack this skill. The extra coaching was perceived as facilitating their adjustment more quickly into the nursing culture (Jeffreys, 2012). Students who dropped out of the program suggested they had not taken full advantage of the extra coaching.

The NEP also has the intervention of faculty, staff, and peer mentoring or tutoring. The NEP pairs students with mentors, arranges for additional tutoring, and makes students aware of existing programs for each course for students who are struggling. Various students who were successful discussed how these programs had facilitated their transition, while several of the students who had dropped out of the program pointed out they had not taken advantage of them. The literature strongly suggests that mentoring and tutoring is helpful (Jeffreys, 2012). In the literature review, there were 11 studies that found mentoring and/or tutoring had been successful in increasing retention (Bryer, 2012; Bullard, 2010; Cantu & Rogers, 2007; Christiansen & Bell, 2010; Colalillo, 2007; Harding, 2012; Henderson et al., 2009; Henderson et al., 2006; Higgins, 2004; Payne, 1995; Potolsky et al., 2003; Robinson & Neimer, 2010; Sutherland et al., 2007; Walker et al., 2011). The NEP is not the only program successfully utilizing this method of assisting students.

The NEP interventions of directed academic skill development through supplemental instruction and/or tutoring; consistent and required use of resources, including professors, supplemental instruction, and tutoring intervention; weekly study hall and grade monitoring; and student group and monthly NEP cohort meetings are all directed at training in study skills. The NEP helps students with study skills, directs them to campus assistance for various activities (such as the UWM writing center), connects the students in study groups, and in general, tries to help prepare them for the rigors of the pre-nursing courses. Many of the students who stayed in the NEP commented on how much help they had received in this area. Interventions, including remediation of study skills, have been successful in preparing unprepared students for nursing programs (Harding 2012; Horton et al., 2012; Igbo et al., 2011; Jeffreys, 2012; Khattab, 2011; Kinser, 2004; Miedema, 2008; Reinhardt et al., 2012).

Another NEP intervention is immersion visits to campus resources, which occurs during the student's orientation. The NEP has an orientation for students enrolled in the program, and many of the participants who stayed felt that this had been one of the most worthwhile parts of the program, while those who stopped out suggested that it might be better if it had been longer. Jeffreys (2012) suggested that a good orientation is a good contributor to student success. Gilmore and Lyons (2012) suggested that an orientation day increased their second semester retention by 20%. Orientation was perceived as making a strong difference by all of the student participants.

The NEP's final intervention of community and leadership building led to the development of self-efficacy to enhance leadership skills. Both groups of students perceived that two interrelated factors were key in their transition into pre-nursing students: increasing their self-efficacy, for example belief in their ability to execute behavior necessary to perform (Bandura, 1977), and their increasing sense of responsibility, for example the ability to act independently making decisions without authorization (Brown, 1993). Meleis (2007) suggested the ability to develop self-confidence led to successful transition. In each participant's interview, this theme was found, illustrating how important it was to their individual success. Each participant's growth was shown through their discussion of transitioning into adulthood, managing time and school, and creating a schedule as a pre-nursing student, as suggested by the transitions theory (Meleis et al., 2000). Participants who stayed in the program felt they transitioned into the role in the first or second semesters through this increase in self-efficacy and responsibility. Those who dropped out of the NEP felt that this growth was slower, and if they were to do the transition over again, they would have no problem now that they have the ability

and confidence needed. This is supported by the fact that five of the eight students who stopped out returned to nursing school.

Leadership skills also require a high degree of motivation, which the students perceived as supportive of their being able to transition into a pre-nursing student through the theme of an attitude of determination, defined as their will power, resolve, and purposefulness (Brown, 1993). This was not needed in high school, but grew as students transitioned into pre-nursing students. Meleis (2007) highlighted positive attitudes as facilitating transitions. Attitudes are formed from the underlying beliefs of the individual, in this case, the stronger the determination, the more likely the student is to be successful (Fishbein & Azjen, 2010). The students who stopped out, but continued in nursing or transferred, identified this theme as what kept them persisting; both groups identified this attitude as enabling them to continue.

In order to develop a sense of community, the NEP intervention of cohort/blocked scheduling in all freshmen year courses and 50% of sophomore year courses led to close relationships between members of the cohort and a sense of community. Both groups of students made very positive comments regarding their sense of community, which continues to this day, according to a number of them.

Factors Hampering Pre-Nursing Student Role Transition

Academic Rigor. Both groups of students perceived their pre-nursing courses as more difficult than ordinary courses offered at UWM. Meleis (2007) suggested that preparation and knowledge are factors involved in transitions and not being aware of the difficulty would hamper the transition. Nursing courses are recognized in the nursing education literature as being more difficult than those of other majors, leading to greater stress and lower retention (Jeffreys, 2012). The students who were able to continue in the NEP typically identified pre-nursing courses, in

general, as being the problem, while the students who stopped out or transferred identified two specific courses, Anatomy and Physiology (A&P) and Algebra. The group who continued in the NEP, while perceiving them as difficult, had expected them to be difficult. The students who stopped out were surprised with how difficult the courses were.

Several students who had stopped out perceived their relying on their former study skills as hampering them in their transition. Meleis (2007) suggested that preparation and knowledge were important for a successful transition, in this case the knowledge of the difficulty was something these students needed early on, so they could prepare. This is a similar perception to that of health care assistants transitioning into pre-nursing students, the feeling of shock as hampering this transition into pre-nursing students (Brennan & McSherry, 2007). This is a quality that Jeffreys (2012) identified as "supremely efficacious (overly confident)" (p. 66), suggesting these students are unaware of the importance of tasks, overlook them, or merely overestimate their abilities. In many cases, student comments suggested that they had not taken advantage of the NEP program until it was too late and their situation was not salvageable.

Isolation. A major factor that many of the participants perceived hampered them during their transition was the factor of isolation. This affected both groups; the students who were able to continue in the NEP felt isolation just as strongly as the participants who were not able to continue in the NEP. Students perceived feelings of being isolated, in general, or either felt left out of study groups or would not make the effort to become a member of the group. Meleis (2007) suggested that feeling connected would overcome this; perhaps early introduction of group work with students assigned to groups, so there would be no self-selection, might help. This factor had been a problem in another program and overcome through monthly family pot luck dinners (Gardner, 2005b).

Living at home. Both groups identified perceived problems with living at home, either from their parents not understanding what they were going through or personal problems that existed due to their being in school and living at home. Jeffreys (2012) suggested that a safe learning environment was most important. Living at home may prove a difficulty if the students' parents do not adjust to their new role. Meleis (2007) suggested that community conditions and interactions with caregivers facilitated or hampered transitions. Jeffreys (2012) also suggested that family crisis can impact a student's ability to remain on track, which was perceived by several students as being a problem for them. Socialization into the profession is another potential problem for students living at home. Several students complained of not being able to fully participate in learning activities due to parental requirements, something suggested by Jeffreys (2012), as well as by Tinto (1998).

Recommendations for NEP Administrators

This study was designed as a preliminary evaluation of the NEP program, with a focus on identifying factors that facilitated or hindered student transition from pre-nursing student to student nurse. Based on collected data, recommendations are made to NEP administrators.

1. Find and apply a method to increase self-efficacy of pre-nursing students. One method of increasing self-efficacy might be requiring pre-nursing students to work as CNAs, based on student suggestions. Several schools of nursing do this intervention successfully.

N-2 suggested, "They … had their CNA license, so they had quite a bit of experience already in the health care field, which I didn't … but eventually I did that third and fourth year … I think that … would've helped." N-3 added,

So, for myself I was never a CNA, so I didn't even have that basic knowledge. … a lot of my peers did and so they were like, yeah I love nursing, … it's gonna be so great. And I went into it like, I have no idea what nursing is but I'm gonna give it a go anyway.

2. Possibly increasing orientation. One suggestion might be to add more presentations from older students, or greater depth. Several students suggested shadowing nursing students during orientation might be a method to learn how difficult the courses are going to be. Students all felt that orientation was important, the literature supports its importance, and it may be done outside of the regular curriculum. Additionally, the introduction of the need to work as a group or cohort could be discussed in greater depth.

As S-3 stated,

On the very first day when you show up, they do bring up current nursing students, and they talk to you and give you a little bit of advice for, you know, maybe five minutes. It would've been wonderful and so resourceful to have a longer presentation, and maybe a couple of different nursing students say, you know, this is what I would do, what worked for me.

S-5 stated,

They don't know what they don't know. And the more training that they can have in any way, shape, or form, even for IT purposes, is huge, it really, really is. So, I think it's more of a collective failure on everyone's part for education standards.

S-8 suggested,

So it's more like students realizing, like, it's not a competition. No, it's not. … And is one thing that is killing, or that is bringing most of the people who are not succeeding

down. You know, so trying to look at this person more, and look at the other person less. Trying to, all of you trying to work with this person that you think is smarter and leaving the other person behind. No.

S-2 suggested, "Shadowing a nursing student would be an awesome idea. I don't know if you guys take these ideas and implement them, but I think like shadowing somebody's day."

3. Continue with the current NEP program, all of the students interviewed appreciated it, and those who used it to its fullest were successful, those who did not were not.

S-4 stressed,

I myself didn't take advantage of all those resources, all those people who were there to help me reach my goal. And that landed me in the position where I am today. But I see … my other NEP friends who are in the same cohort as me. They took advantage of those opportunities and those advantages and whatnot, and that landed them … they're still in NEP to this day, and that helped them move forward into their careers.

S-7 said, "So with that being said, I just feel like I need a little more support to be a pre-nursing student. Like I said, I was first generation; I was the first person out of my family to go to college."

4. A possible method to overcome isolation might be through monthly potlucks for the families (Gardner, 2005c) and introducing group work earlier in the curriculum.

N5 said,

I think being connected to some, a group, whatever kind of group it is that is going through the same or similar than what you are. Because I think, I didn't think venting was that important, but it is. Because like if I was working at McDonald's, I felt like everybody would be like, Okay, like your life is so easy. And I'm like, But it's not. … so

you can't talk to them. And being at home, I couldn't talk to my parents. But yet, these concerns were still like inside of me and I just felt like I couldn't.

N-8 indicated,

Definitely, like, especially for me, being a first generation, I had all my family's support before I left, and then it got hard once I got here (lacking support). … so if they have a supportive family, like, while they're home before they come here that would really … make a difference too."

5. Encouraging students to continue on needed medications.

S-2 stated,

On a whole other tangent, I found out just recently, … when I was a kid, I was diagnosed with ADD-Attention deficit disorder, and I just recently, last year some time, got all set up on medication for that. … It's a mild case, but I basically talked to my neuropsychologist, and she said … all those behaviors, that kind of quitting behavior. She said that could've just been you not managing … It could have been, all been a part of that, so on a more medical aspect, that's what it could have been.

6. The determination of NEP success has always been the number of students who continue in the NEP through graduation. The NEP was designed to help underserved minority, financially disadvantaged, first generation students graduate from a nursing program to increase diversity in the nursing workforce. It is suggested that students who drop out, stop out of the NEP who go on in a different nursing program, or return to the College of Nursing program without being in the NEP, will still increase the percentages of minority nurses, which is the purpose of the NEP, and these students should be counted as contributing to the success of the program and included as such.

7. High schools are independent of the college of nursing, and it would be difficult to encourage a course in the high school. A successfully admitted nursing student could easily talk with high school students about the nursing program and its level of difficulty and potentially invite interested high school students to shadow a nursing student.

N-10 said,

I think a high school course would have been very beneficial as to what to expect as a first year college student. Many students do not make it past the first year of college, and I think a course on what college will be like or how to best prepare to become a college student would serve as a great tool to transition from a high school student to a college student. This course could be optional, or possibly mandatory, for first year students that could be part of college orientation or something like that.

Recommendations for Educators

Recognizing that the data presented and recommendations presented to NEP administrators are specific to the NEP suggestions can be made to educators of other nursing programs. While there are difficulties in generalizing the data from this study for all nursing programs, it is possible to state that the evidence-based interventions suggested by Jeffreys' work, applied in the NEP, are successful in facilitating the students' growth into student nurses when measured through Meleis Theory of Role Transitions. Many of these same interventions could be included in similar programs at other nursing schools, potentially increasing diversity in the registered nurse population more quickly.

Recommendations for Further Research

There were many recommendations for further study discussed during the course of the investigation and findings related to the study's research questions. The following recommendations for future research are based on the findings of this study.

1. Expand the study to include any and all past and current NEP students to further validate the findings. It is unlikely that this can be accomplished due to the difficulties with this preliminary evaluation; however, additional students may be available for interview, increasing the *N* and, therefore, the strength of the evidence.
2. An expanded quantitative study of the NEP students, targeting the specific interventions used by the NEP, supported by Jeffreys', using a scale based on the data from this study.
3. Surveying other nursing schools to determine if they have a program similar to the NEP and then interviewing students from those schools of nursing to see if they have similar transitions.
4. Conducting a longitudinal study, whereby students journal their experiences in role transition each week and then collate this information using NVivo.
5. Compare and contrast the role transitions of students who are CNAs as a measure of self-efficacy and those who are not to determine if having a student participate in a CNA course actually improves their transition.

Conclusion

This study explored the role transition of first generation, low income, and/or underrepresented students in an NEP into pre-nursing students to identify those factors perceived as facilitating and those factors perceived as hindering the role transition. The NEP was created

using evidence-based student success strategies recognized by Jeffreys. Meleis's theory of role transition was used as the theoretical framework. The stories of role transition shared by the participants and their perceptions of the experiences illustrated the first years of pre-nursing by identifying many factors facilitating and hindering role transition. The study's findings offer insight into role transition of the pre-nursing student into nursing student, with the potential for educators to incorporate new ways to promote role transition. Areas for future research have been identified and additional research is suggested in order to confirm this study's findings.

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Appendix A

Confirmation of Discussion and Study Permission from NEP

James Colin Bumby email

Carrie W Von Bohlen

College of Nursing

Send email

Wed 4/12/2017,

Thank you for meeting with me today. During our discussion we agreed that I would send you the email form that you would use to notify the NEP students of their opportunity to participate in this study. This is the attached Appendix F. We also discussed the general terms of how the study will work, and how I will be going about contacting the students. You had suggested that you would send me the names of the students, with their ID numbers so I could access their information through Paws, tomorrow. This would also include the names of the students who had dropped out, again, with what information you have.

During our discussion, you had mentioned one student who had been in the NEP, transferred out, and now returned to the Nursing Program Major this year (not as part of the NEP, any more). She would be one student who I would be interested in interviewing, except that I believe from your description that she is currently a student in my NURs 352 class, which would exclude her. I am wondering if I might interview her after the class is completed, if that exclusion would continue? I will rely on Kim to let us know.

Any rate, my next step will be to begin the process of contacting the NEP students tomorrow, once I have received the information. Thank you. I will keep you updated.

James C. Bumby, RN, MSN, Doctoral Candidate

Clinical Instructor

UW-Milwaukee College of Nursing

Cunningham Hall 541

Office Phone: 262-227-1357

Attached email

JB

Appendix B

Letter to Students from NEP Regarding the Research Project

James Colin Bumby

On Apr 12, 2017, at 1:20 PM, Carrie W Von Bohlen <cvb@uwm.edu> wrote:

Hello!

I have been requested to notify you that you will be contacted shortly by email or phone by a PhD nursing student named James C. Bumby (jcbumby@uwm.edu), who is performing a research project that is seeking voluntary participation. The study you will be invited to participate in a research study of students who began their college education as a member of the College of Nursing Nursing Endeavor Program.

The purpose of this research study is to describe and identify factors affecting the role transition into a Bachelor of Science Nursing Student for first generation, member of an underrepresented group, and/or economically disadvantaged students. These identified factors shall be used to give input to the program construction and identification of future participants. All participation is strictly voluntary, there are no penalties for not participating or early withdrawal and all participation and interviews will be kept confidential. James will be contacting you soon and answer any questions you may have, and you may accept or decline this participation.

Sincerely,

Carrie von Bohlen

Appendix C

Email to Students Introducing the Research Study

To current and past members of the Nursing Endeavor Program (NEP).

Subject: Voluntary participation in a study of the NEP

We wish to notify you that you will be contacted shortly by email or phone by a PhD student named James C. Bumby, who is performing a research project that you may participate in if you wish. The study you will be invited to participate in is a research study of students who are in the College of Nursing Nursing Endeavor Program or who once were. The purpose of this research study is to describe and identify factors affecting the role transition into a Bachelor of Science Nursing Student in a College of Nursing Endeavor Program for first generation, member of an underrepresented group, and/or economically disadvantaged students. These identified factors shall be used to improve the program. All participation is strictly voluntary, and there are no penalties for not participating or early withdrawal. All participation will be kept confidential. This is to notify you that he will be contacting you soon. Other details will be explained by James, at that time.

Sincerely

NEP Director.

Appendix D

Modified Demographic Data Sheet – Prelicensure (DDS-P)

Please mark one choice for each item unless otherwise indicated:

1. Number of college credits this semester:

_ 3 or 4 _ 5 to 8 _9 to 11 _12 or 13 _Over 13

2. **Select all the courses** that you are taking **NOW**:

_ Medical-surgical nursing (adult health)

_ Psychiatric nursing (mental health)

_ Maternity nursing (pregnancy, childbirth)

_ Pediatric nursing (child and adolescent)

_ Critical care nursing

_ Community health

_ Leadership

_ Tran cultural nursing

_ Professional issues

_ Research

_ Physical assessment

_ Nursing theory

_ Other

3. Your current nursing courses are taught:

_ On campus

_ On campus and online

_ Totally online

_ On campus and clinical setting

_ On campus, clinical setting, and online

4. Current grade average in your nursing courses this term:

_ 90 to 100 _ 85 to 89 _ 80 to 84 _ 75 to 79 _ 70 to 74

_ Below 70 _ No grades obtained

5. How many nursing courses did you already complete in this degree program?

_ None _ 1 _ 2 _ 3 _ 4 _ 5 _ 6 or more

6 Prior educational background:

_ General equivalency diploma (GED)

_ U.S. high school diploma

_ Foreign high school diploma

_ Non-nursing college degree

7 Are you the first member of your family to attend college?

_ Yes _ No

8. Sex:

_ Female _ Male

9. Age:

_ Under 25 _ 25 to 29 _ 30 to 34 _ 35 to 39 _ 40 to 44

_ 45 to 49 _ 50 to 54 _ 55 to 59 _ 60 and over

10. Which of the categories best describes you?

_ American Indian or Alaskan Native

_ Asian (Chinese, Filipino, Japanese, Korean, Asian Indian, or Thai)

_ Other Asian

_ Black or African American

_ Hispanic or Latino

_ Native Hawaiian or Other Pacific Islander

_ Multiracial

_ Other

11. Is English your first language?

_ Yes _ No

12. Do you speak a language other than English fluently?

_ Yes _ No

13. Marital status:

_ Single

_ Single living with partner

_ Married

_ Divorced/Separated

_ Widowed

14. Number of dependent children living with you:

_ None _ 1 _ 2 _ 3 _ 4 _ 5 or more

15. Number of hours weekly you are employed **ON CAMPUS**:

_ None _ 1 to 10 _ 11 to 20 _ 21 to 30 _ 31 to 40 _ Over 40

16. Number of hours weekly you are employed **OFF CAMPUS**:

_ None _ 1 to 10 _ 11 to 20 _ 21 to 30 _ 31 to 40 _ Over 40

17. Where do you currently live?

_ Campus dormitory

_ Campus apartment

_ Off-campus housing with other students

_ Off-campus housing with family

_ Live alone off-campus

_ Other

18. How long does it take to commute to campus?

_ Less than 15 minutes

_ 15 to 30 minutes

_ 31 to 60 minutes

_ 60 to 90 minutes

_ 90 minutes to 2 hours

_ Over 2 hours

_ Does not apply

19 Do you use child-care services?

_ No, I do not need child-care services

_ On-campus daycare

_ Private daycare

_ Private babysitter

_ Family member provides child care

(Jeffreys, 2012)

Appendix E

Consent to Participate in Research

University of Wisconsin – Milwaukee
Consent to Participate in Research

Study title: A Phenomeonographic investigation of student perception of increasing RN workforce diversity

Person Responsible for Research: Jim Bumby

Study description: The purpose of this research study is to describe and identify factors affecting the role transition into a Bachelor of Science Nursing Student in a College of Nursing Endeavor Program for first generation, member of an underrepresented group, and/or economically disadvantaged students. Approximately ten to twenty-five subjects will participate in this study. If you agree to participate, you will be asked to participate in a face-to-face video and audio recorded conference with the researcher to discuss your role transition into a Bachelor of Science Nursing Student. This will take approximately one hour of your time.

What will I be asked to do if I participate in the study: If you agree to participate you will be asked to meet with the researcher in his office in Cunningham 541. Identifying information such as your name, email, and a contact number will be collected only for research purposes. All responses will be treated as confidential and all reasonable efforts will be made so that no individual participant will be identified with his or her name or answers. The researcher will remove your identifying information and all study results will only be reported without any identifying information so that no one viewing the results will ever be able to match you with your responses. The interview will be audio/video taped in order to allow for a deeper understanding of the subjects responses. Data from this study will be saved on a non-networked, password-protected drive and stored in a locked file cabinet at the researchers' office. All information collected about you during the course of this study will be kept confidential to the extent permitted by law. We may decide to present what we find to others, or publish our results in scientific journals or at scientific conferences. Information that identifies you personally will not be released. Only the primary investigator, Jim Bumby and his dissertation committee members will have access to your information. However, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records. All identifiers collected for this study will be destroyed when the study is complete. The data will be stored in the PI's password-protected two external hard drives for ten years for future use.

Risks/Benefits: Risks that you may experience from participation are considered minimal. There is no cost for participation. There are no benefits to you other than to further research on the role transition of students in the CONNEP program into successful graduated student nurses.

Voluntary Participation: Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin-Milwaukee. If you withdraw or

withdraw early, we will destroy all information we collect about you. If you refuse to take part in the study, it will not affect your grade or class standing. There are no known alternatives available to you other than not taking part in this study.

Who do I contact for questions about this study: For more information about the study or the study procedures or treatments, or to withdraw from the study, contact: Jim Bumby, RN, MSN at jcbumby@uwm.edu.

Who do I contact for questions about my rights or complaints towards my treatment as a research subject: Contact the UWM IRB at (414) 229-3173 or irbinfo@uwm.edu

11. Signatures

Research Subject's Consent to Participate in Research:
To voluntarily agree to take part in this study, you must sign on the line below. If you choose to take part in this study, you may withdraw at any time. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read or had read to you this entire consent form, including the risks and benefits, and have had all of your questions answered, and that you are 18 years of age or older.

_____
Printed Name of Subject/ Legally Authorized Representative

_____ _____
Signature of Subject/Legally Authorized Representative Date

Research Subject's Consent to Audio/Video/Photo Recording:

It is okay to audiotape/videotape me while I am in this study and use my audiotaped/videotaped data in the research.

Please initial: ____Yes ____No

Principal Investigator (or Designee)
I have given this research subject information on the study that is accurate and sufficient for the subject to fully understand the nature, risks and benefits of the study.

_____ _____
Printed Name of Person Obtaining Consent Study Role

_____ _____
Signature of Person Obtaining Consent Date

Appendix F

Phenomenographic Questions for Those Who Stayed in the NEP

1) Thanks for meeting with me today. I'm interested in knowing more about you so the purpose of our time today will be for me to learn a bit about you're becoming a pre-nursing student. We will meet for about an hour to an hour and a half and I will be recording the conversation. I will be asking a number of questions, and there are no right answers—I just want to learn more about you. Please take your time answering and if there are any questions or a need to take a break, please let me know. Every question does not need to be answered; if there is discomfort there is no need to share. Can we get started?
2) How would you describe your new role as a pre-nursing student?
3) Describe your role transition from high school student or worker to pre-nursing student? What was this transition like?
4) At what point did you feel that you had completed your transition from high school student or worker to pre-nursing student?
5) How did you come to that decision or realization? (What made you decide this and why?).
6) What barriers do you think slowed you down during your transition from high school student or worker to pre-nursing student during your first six months in your new role?
    - From six months to one year?
    - The first year to two years?

7) Tell me what helped you through your transition from high school student or worker to pre-nursing student?

8) What could have been done during your training to help you become better prepared or positively influence your training to better prepare you for being a pre-nursing student?

9) What positive forces affect the high school student or worker to pre-nursing student role transition?

10) Do you have any questions I can answer at this time? Thank you for your time today.

Appendix G

Phenomenographic Questions for Those Who Dropped Out of the NEP

1) Thanks for meeting with me today. I'm interested in knowing more about you so the purpose of our time today will be for me to learn a bit about you're becoming a pre-nursing student. We will meet for about an hour to an hour and a half and I will be recording the conversation. I will be asking a number of questions, and there are no right answers—I just want to learn more about you. Please take your time answering and if there are any questions or a need to take a break, please let me know. Every question does not need to be answered, if there is any discomfort there is no need to share an answer. Can we get started?
2) How would you describe your former role as a pre-nursing student?
3) Describe the role transition from high school student or worker to pre-nursing student? What was your transition like?
4) At what point did you feel that you had completed, or were not going to complete your transition from high school student or worker to pre-nursing student?
5) How did you come to that decision or realization? (What made you decide this and why?).
6) What barriers do you think slowed you down during your transition from high school student or worker to pre-nursing student during your first six months in your new role?
    - From six months to one year?
    - The first year to two years?
7) Tell me what helped you through this transition from high school student or worker to pre-nursing student?

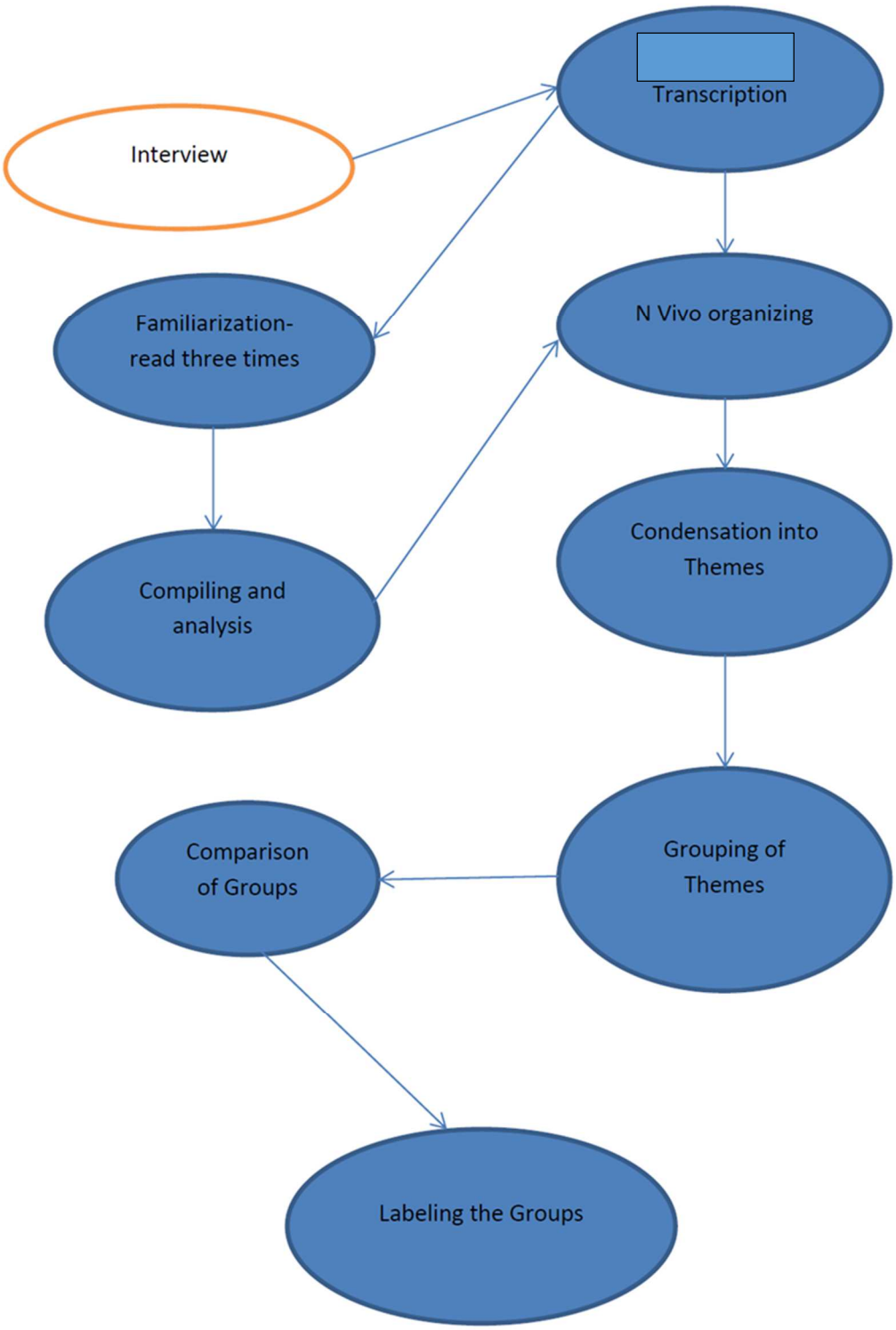
8) What could have been done during your training to help you become better prepared or positively influence your training to better prepare you for being a pre-nursing student?

9) What positive forces affect the high school student or worker to pre-nursing student role transition?

10) Do you have any questions I can answer at this time? Thank you for your time today.

Appendix H

Flow Chart Phenomenographic Method Used in Research Study



Appendix I

Email Request for Participation in Research Study

To whom it may concern:

We are inviting you to participate in a research study of students who are in the College of Nursing Nursing Endeavor Program or who once were. The purpose of this research study is to describe and identify factors affecting the role transition into a Bachelor of Science Nursing Student in a College of Nursing Endeavor Program for first generation, member of an underrepresented group, and/or economically disadvantaged students. These identified factors shall be used to improve the program.

Approximately ten to twenty-five subjects will participate in this study. If you agree to participate, you will be asked to participate in a face-to-face video and audio recorded conference with the researcher to discuss your role transition into a Bachelor of Science Nursing Student. This will take approximately one hour of your time.

What will I be asked to do if I participate in the study: If you agree to participate you will be asked to meet with the researcher in his office in Cunningham 541. Identifying information such as your name, email, and a contact number will be collected only for research purposes. All responses will be treated as confidential and all reasonable efforts will be made so that no individual participant will be identified with his or her name or answers. The researcher will remove your identifying information and all study results will only be reported without any identifying information so that no one viewing the results will ever be able to match you with your responses. The interview will be audio/video taped in order to allow for a deeper understanding of the subjects responses. Data from this study will be saved on a non-networked, password-protected drive and stored in a locked file cabinet at the researchers' office. All

information collected about you during the course of this study will be kept confidential to the extent permitted by law. We may decide to present what we find to others, or publish our results in scientific journals or at scientific conferences. Information that identifies you personally will not be released.

Voluntary Participation: Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin-Milwaukee. If you withdraw or withdraw early, we will destroy all information we collect about you. If you refuse to take part in the study, it will not affect your grade or class standing. There are no known alternatives available to you other than not taking part in this study.

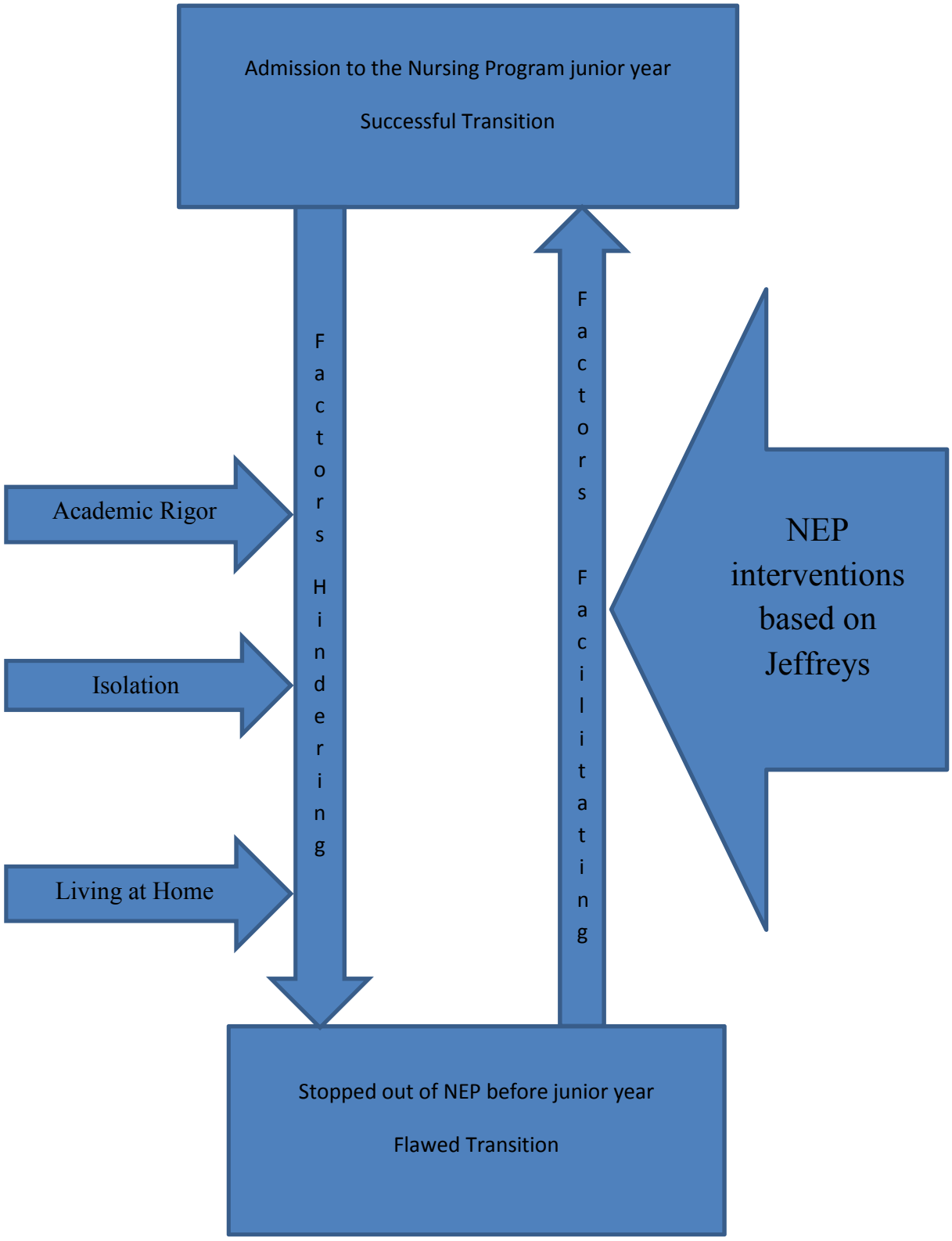
Who do I contact for questions about this study: For more information about the study or the study procedures or treatments, or to withdraw from the study, contact: Jim Bumby, RN, MSN at jcbumby@uwm.edu.

James C. Bumby, RN, MSN, Doctoral Candidate
Clinical Instructor

College of Nursing 50 CELEBRATE INNOVATE TRANSFORM 1965 - 2015

UW-Milwaukee College of Nursing
Cunningham Hall 541

Appendix J: Mind Map Used in Research Study



CURRICULUM VITAE

James C. Bumby, MSN, RN
Clinical Instructor
UWM College of Nursing

EDUCATION

2018

2007	MSN	University of Phoenix Phoenix, AZ	Nursing Education
1995	ADN	Cardinal Stritch University Glendale, WI	Nursing
1973	BA	University of Wisconsin Madison, WI	History

Dissertation: **A PRELIMINARY EVALUATION OF AN ACADEMIC SUPPORT PROGRAM**

Professional Positions Held

2011- IAS University of Wisconsin Milwaukee
2007-2011 Columbia College of Nursing, Clinical Instructor
1996-2011 Staff Nurse, Columbia Campus, Columbia St Mary's
1995-1997 Staff Nurse, Mequon Care Center

Other Professional Positions

2006-2010 Practice team Rep for Cardiovascular, Columbia St Mary's
2006-2010 Co-Chair, Practice Team, Columbia St Mary's
2006-2010 Practice Team rep to Central Partnership Council, Columbia St Mary's
2000-2010 Unit Based Council, 2 West Columbia Hospital
2000-2010 Practice Council Rep, 2 West, Columbia Hospital
2000-2010 Unit based Partnership Council rep, 2 West, Columbia Hospital

Professional Memberships

2007--- Wisconsin League of Nurses,
2007--- National League of Nurses,
2007 --- Sigma Theta Tau International, Honor Society of Nursing

Committee Service

2016 College of Nursing Civility committee

Reports of Scholarship

Bumby, J., Lakdhar, Z., Peterson, M., Zuschlag, D. (2005) Hispanic Culture and Healthcare, *Columbia St Mary's Learning Institute*, UoP

Unpublished Papers

2017 Unpublished manuscript: Interventions for persistence of nursing students: A systematic review of the literature
2010 Fidelity to Intervention: Reasoned Action Frame
2009 Review of Handwashing
2009 Effect of application of marking on use of alcohol hand rubs