2017

The Relationship Between Pre-Licensure Employment and Student Nurse Self-Efficacy

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This is to certify that the doctoral dissertation by

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Abstract

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MSN, Gonzaga University, 2010

BSN, Spring Arbor University, 2008

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

Walden University

May 2017

Abstract

Student nurses transitioning to acute care practice often feel unprepared to accept the responsibilities associated with their new role. Lack of self-efficacy in nursing practice contributes to high levels of stress and anxiety as the new nurse enters the workforce which causes turnover during the first year of practice. Little is known about how the type and amount of pre-licensure employment affects the self-efficacy in nursing practice of the student nurse. Using Bandura's social cognitive theory, the purpose of this quantitative study was to examine the relationship between type and amount of pre-licensure employment and self-efficacy in nursing practice of student nurses' in their final semester of college. The Casey-Fink Readiness for Practice Survey© was completed by 132 senior nursing students. Data were analyzed using correlation and multiple regression. No significant relationships were noted between the type or amount of work experience and self-efficacy. No significant relationship was noted between type of work experience and self-efficacy in managing a patient care assignment of 2, 3, or 4 patients. A significant positive relationship was revealed for amount of pre-licensure work experience and self-efficacy in management of a patient care assignment for 2, 3, and 4 patients ($r = .19$, $p = .02$) and healthcare experience was the best predictor of positive self-efficacy in managing a patient care assignment of 3 ($F = 4.60$, $p = .01$) and 4 patients ($F = 3.42$, $p = .04$). Findings of this study can influence positive social change in nursing by influencing the development of recommendations regarding the amount of pre-licensure employment which could improve a new nurse's self-efficacy in practice and reduce turnover in healthcare.

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Dedication

This dissertation is dedicated to my husband, Mark, who has provided me with endless support and encouragement through this journey. I also dedicate this dissertation to my daughters, Stephanie and Abigail, who willingly sacrificed time with me so that I could pursue my goals. Without the three of them, none of my achievements could have been possible.

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Chapter 1: Introduction to the Study

Introduction

This study investigated the relationship between (a) the type and amount of pre-licensure employment completed by student nurses in their final year of college and (b) their self-efficacy in nursing practice in their final semester of college. The transition to practice in an acute care setting is difficult and causes a significant amount of stress and anxiety for newly licensed nurses (Chandler, 2012; Cubit & Lopez, 2011; Draper, Beretta, Kenward, McDonagh, Messenger, & Rounce, 2014; Feng & Tsai, 2012). This difficulty leads to decreased job satisfaction and decreased retention among newly licensed nurses (Chandler, 2012; Feng & Tsai, 2012). Therefore, healthcare leaders and educators seek interventions that will decrease their stress and anxiety . Although many student nurses are employed during college, little is known about how it affects their transition to practice.

This study is expected to help understand the effect of pre-licensure employment on self-efficacy in nursing practice. Sharing these data with healthcare leaders and academic faculty could help them develop recommendations and policies to guide student nurses on their selection and completion of pre-licensure employment. The results of this study could also help nurse educators in understanding the impact of the newly licensed nurses' pre-licensure employment on orientation needs. Prediction of self-efficacy in nursing practice would assist nurse educators to anticipate the length of orientation and amount of support required during their transition. Additionally, human resources specialist could use predicted self-efficacy to provide support for nurse managers hiring

decisions when anticipating length of orientation, needed support, and current staffing needs. In sum, results of this study are expected to contribute to positive social change by providing student nurses with a recommendation for the type and amount of pre-licensure employment to support positive self-efficacy in nursing practice and lessen the stress and anxiety experienced during their transition to practice.

In this chapter, I cover the following topics: background of the study, problem statement, purpose statement, research questions and hypotheses, theoretical framework, terms, assumptions, scope and delimitations, limitations, and significance.

Background

Student nurses transitioning from college to acute care practice often feel unprepared to accept the responsibilities associated with their new role. Concern about student nurse readiness for practice stems from the growing complexity of healthcare, which requires that nurses have strong interpersonal and technical skills to coordinate patient care effectively and efficiently and to collaborate with the interprofessional team (Feng & Tsai, 2012). Student nurses' lack of self-efficacy in nursing practice contributes to high levels of stress and anxiety as they enter the workforce (Chandler, 2012; Cubit & Lopez, 2011; Draper et al., 2014; Feng & Tsai, 2012). This lack of self-efficacy in nursing practice often causes newly licensed registered nurses (RNs) to leave their initial position within the first year (Chandler, 2012; Feng & Tsai, 2012). Reducing turnover and retaining skilled licensed nurses is essential for healthcare administrators. The need for RNs is projected to increase by 16% over the next decade due to (a) the additional emphasis on preventative care, (b) an increase in chronic conditions, and (c) the

retirement and use of healthcare by Baby Boomers as there is a lack of experienced nurses to assume their vacated positions (United States Department of Labor, 2015; Friday, Zoller, Hollerbach, Jones, & Knofczynski, 2015). Therefore, healthcare leaders seek interventions to facilitate the successful transition of newly licensed registered nurses and thus promote retention.

Researchers have explored ways to ease the transition into practice and thus reduce the stress experienced by newly licensed registered nurses as they enter the workforce (Chandler, 2012; Cubit & Lopez, 2011; Draper et al., 2014; Feng & Tsai, 2012). Studies on the transition to practice of newly licensed registered nurses can be categorized based on whether the intervention occurred during or after college (Chandler, 2012; Cubit & Lopez, 2011; Feng & Tsai, 2012; Kenny, Nankervis, Kidd, & Connell, 2012; Newton, Cross, White, Ockerby, & Billett, 2011; Phillips, Esterman, Smith, & Kenny, 2013; Phillips, Kenny, Smith, & Esterman, 2012 Sedgwick & Rougeau, 2010). Post-graduation interventions demonstrated the importance of role socialization in easing the transition to practice and recommended the creation of support programs (Chandler, 2012; Cubit & Lopez, 2011; Feng & Tsai, 2012; Sedgwick & Rougeau, 2010). While few researchers have explored pre-graduation interventions, those completed showed the positive effects of clinical partnerships, paid work experience in healthcare, and paid non-healthcare work experience on socialization to teamwork, communication, financial independence, and increased post-graduation work opportunities (Kenny, Nankervis, Kidd, & Connell, 2012; Newton, Cross, White, Ockerby, & Billett, 2011; Phillips, Esterman, Smith, & Kenny, 2013; Phillips, Kenny, Smith, & Esterman, 2012). However,

there is a gap in the quantitative literature on the relationship between the type and amount of pre-licensure work experience and student nurses' self-efficacy in nursing practice.

Problem Statement

There is a paucity of research on the effect of pre-licensure employment on student nurses' self-efficacy in nursing practice. Although many student nurses are employed during college in either healthcare or non-healthcare roles, little is known about how the type and amount of pre-licensure employment affects the self-efficacy in nursing practice of the student nurse in the final semester of college. Studies designed to explore pre-licensure employment are predominantly qualitative (Cubit & Lopez, 2012; Draper et al., 2014; Haason, McKenna, & Keeney, 2013; Kenny et al., 2012; Phillips et al., 2012; Phillips, Kenny, Esterman, & Smith, 2013). Quantitative studies used small sample sizes and lacked generalizability (Friday et al., 2015; Phillips et al., 2013). This study sought to fill the gap by exploring how the type and amount of pre-licensure employment affects self-efficacy in nursing practice of student nurses as they prepare to transition into the workforce.

Purpose of the Study

Guided by Bandura's social cognitive theory, the purpose of this cross-sectional survey study was to examine the relationship between type and amount of pre-licensure employment and self-efficacy in nursing practice of student nurses' in their final semester of college. The independent variable, pre-licensure work experience, was defined as the type of paid employment the student nurse completed during the last year of academic

preparation. The independent variable, amount of pre-licensure work experience, was defined as the total hours of paid employment the student nurse completed during the last year of academic preparation. The dependent variable, self-efficacy in nursing practice, was defined as the student nurses' confidence in their ability to complete the tasks of a newly licensed registered nurse.

Research Questions and Hypotheses

This study was guided by four research questions.

Research Question 1: What is the relationship between the type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

H_O1: There is no relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1 1$: There is a relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 2: What is the relationship between the amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$2: There is no relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$2: There is a relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 3: What is the relationship between the type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$3: There is no relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$3: There is a relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 4: What combination of type of pre-licensure work experience and amount of pre-licensure work experience best predicts positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$4: Type of pre-licensure work experience and amount of pre-licensure work experience do not predict positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$4: A combination of type of pre-licensure work experience and amount of pre-licensure work experience predicts significant positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Theoretical Framework for the Study

Albert Bandura's social cognitive theory was established in 1977. This theory was originally referred to as the observational learning theory and the social learning theory. Bandura describes how individuals' self-judgment of their capabilities determines how they behave, their thoughts, and their emotional reactions (Bandura, 1989). This belief is called self-efficacy (Bandura, 1977; Bandura, 1989; Bandura, 1999). Perceived self-efficacy is determined by four sources: performance accomplishments or mastery of experiences, vicarious experiences, verbal persuasion, and physiological states or emotional arousal (Bandura, 1977; Bandura 1989).

Bandura hypothesized that self-efficacy shares a bi-directional relationship with performance accomplishment, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977; Bandura, 1989; Bandura, 1999). The theory explains how self-efficacy increases motivation for learning, which is accomplished through modeling (Bandura, 1977; Bandura, 1989; Bandura, 1999). Modeling allows the individual to

observe events and develop behavior patterns through personal performance feedback (Bandura, 1977). Therefore, positive modeling results in the acquisition of behavior patterns that result in favorable performance and self-efficacy. Conversely, negative modeling (also known as absent or low modeling) eventually results in lower or absent self-efficacy.

Bandura demonstrated that although mastery experiences, vicarious experience, verbal persuasion, and emotional arousal each impact self-efficacy, performance accomplishments or personal mastery experiences are the strongest predictors of self-efficacy (Bandura, 1977). The social cognitive theory provides a framework in which to evaluate the relationship between student nurses' self-efficacy in nursing practice during their final semester and the type and amount of pre-licensure work experience completed during the final year of nursing school (see Figure 1).

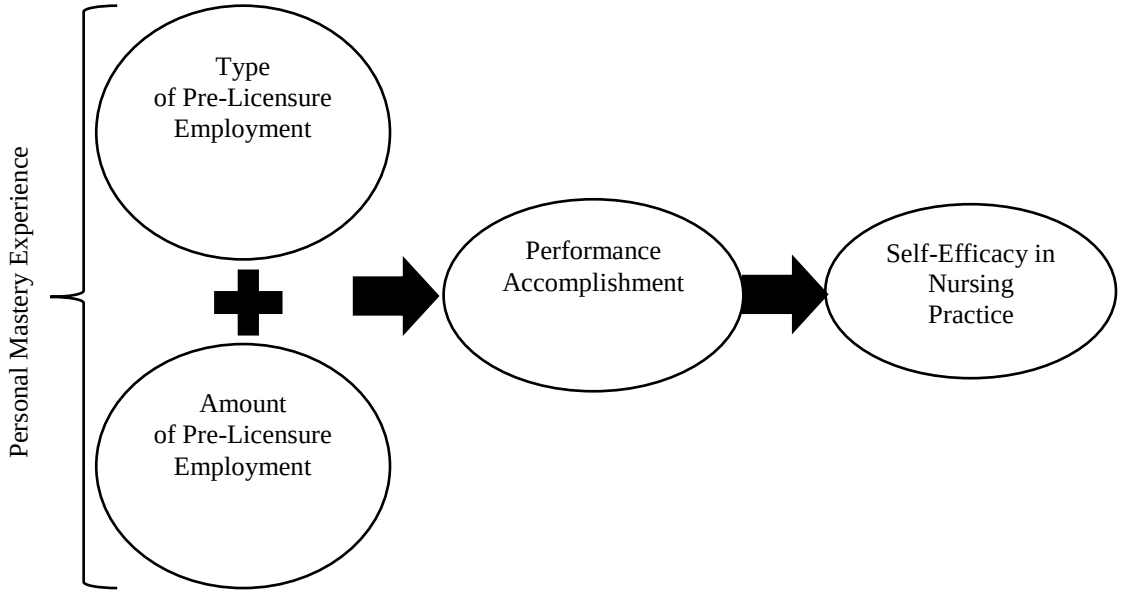

Figure 1. Pre-licensure employment effect on self-efficacy in nursing practice.

According to social cognitive theory (Bandura, 1977; Bandura, 1989; Bandura, 1999), the type and amount of pre-licensure employment would be considered personal mastery experience; it can lead to performance accomplishments that are linearly related to the student nurses' self-efficacy in nursing practice (see Figure 1).

Nature of the Study

This study used a cross-sectional survey design to measure the relationship between the independent variables, type and amount of pre-licensure employment, and the dependent variable, self-efficacy in nursing practice. The study used a convenience sample of undergraduate nursing students in their final semester in southwest Michigan. During one of their classroom sessions, I gave the candidates the survey, cover letter, and self-addressed, stamped envelope. I collaborated with faculty who attended the Southwest Michigan Nursing Placement Consortium to determine when I could recruit students.

As part of the survey, participants provided demographic information on the type and amount of pre-licensure employment completed during their academic preparation. Self-efficacy in nursing practice was measured using the Casey-Fink Readiness for Practice Survey© which is a valid and reliable tool consistent with Bandura's social cognitive theory Additional details on the methodology are given in Chapter 3.

Definitions

Academic preparation: Time spent at 2 and 4-year colleges or universities completing the education required to become a registered nurse (Cubit & Lopez, 2012). According to the United States Department of Labor (2015), the registered nurse may

earn an associate, baccalaureate, or diploma in nursing (United States Department of Labor, 2015). This preparation includes both classroom and clinical hours and requires 2–4 years to complete, depending on the program selected (United States Department of Labor, 2015). Once coursework and clinical hours are completed at an accredited college or university, students must pass the National Council Licensure Examination to become registered in the state (United States Department of Labor, 2015).

Newly licensed nurse: A novice registered nurse with less than 1 year of acute care nursing experience (Chandler, 2012, Cubit & Lopez, 2012; Phillips et al., 2012). Although these nurses have completed their educational requirements and board examination, they require additional support to further develop their nursing knowledge, skills, and critical thinking to meet the demands of patient care and promote safe outcomes (Cubit & Lopez, 2012; Feng & Tsai, 2012; Phillips et al., 2012; Sedgwick & Rougeau, 2010).

Pre-licensure employment: Part time or full time jobs held by student nurses' during the completion of nursing courses (Draper et al., 2014; Hasson et al., 2013; Kenny et al., 2012; Phillips et al., 2013). Students holding these jobs are paid for their work (Hasson et al., 2013; Kenny et al., 2012). Additionally, students completing employment prior to graduation gain autonomy and confidence (Draper et al., 2014).

Self-efficacy in nursing practice: An individual's belief that they can successfully complete the skills, task, and overall patient care associated with the nursing profession. Their confidence in their ability to complete the tasks of a registered nurse (Denler, Wolters, & Benzon, 2014; Bandura, 1977; Bandura, 1999; Bandura, 1989). Self-efficacy

is the result of an individual's experiences, observations, and physiological state (Denler et al., 2014; Bandura, 1977; Bandura, 1999; Bandura, 1989).

Student nurse: An individual actively enrolled in nursing courses at a college or university (Cubit & Lopez, 2012; Draper et al., 2012; Hasson et al., 2013; Kenny et al, 2012; Newton et al., 2011)). Enrollment may be part time or full time based on amount of academic credits per semester (Hasson et al., 2013).

Transition to practice: The first year of nursing practice following completion of nursing courses and board examination. The transition to practice is characterized as a traumatic process causing increased stress, anxiety, and frustration (Chandler, 2012; Cubit & Lopez, 2012; Draper et al., 2012; Feng & Tsai, 2012; Phillips et al., 2013). The transition to practice is indicated to cause decreased nursing job satisfaction and decreased retention (Chandler, 2012; Cubit & Lopez, 2012; Friday et al., 2015).

Assumptions

This study was subject to two assumptions. The first assumption was that the sample of student nurses who completed the Casey-Fink Readiness to Practice Survey© would be representative of the overall student nurse population. Studies have suggested that undergraduate nursing programs adhere to two selection criteria (Wolkowitz & Kelley, 2010). Colleges and universities review applicants' grade point averages and scores on standardized test which include the Scholastic Aptitude Test, American College Test, Nursing Entrance Test, or the Test of Essential Academic Skills (Newton, Smith, & Moore, 2007; Wolkowitz & Kelley, 2010). Thus, researchers can consider student nurses to be similar in intellectual ability.

The second assumption was that student nurses would respond to a self-efficacy-based survey distributed during a classroom session. Surveys are frequently used in healthcare to collect data on patients as well as on the nursing workforce (Reitz & Anderson, 2013). Postal surveys are appropriate for reaching a predominantly female population in higher education (Reitz & Anderson, 2013; United States Department of Health and Human Services, 2010). Thus, a postal survey is warranted for collecting data from student nurses in southwest Michigan about their self-efficacy in nursing practice in the last semester of their academic preparation.

Scope and Delimitations

The scope of the study was bound by student nurse participants in their final semester of college in southwest Michigan. Southwest Michigan student nurses were selected for inclusion because colleges and universities in this region coordinate their clinical placements through the Southwest Michigan Nursing Placement Consortium. The consortium provided an opportunity for me to coordinate a date and time to distribute the postal survey to their senior nursing students. Student nurses in other regions were not placed using this consortium. Additionally, students who completed college outside of southwest Michigan were too distant to complete the survey within the time constraints of the study.

The Casey-Fink Readiness to Practice Survey© was administered to approximately 250 student nurses. The survey included 20 self-efficacy questions that asked about clinical problem solving, learning techniques, professional identity, and trials and tribulations (Casey, Fink, Jaynes, Campbell, Cook, & Wilson, 2011). Additionally,

demographic information was collected to establish the type and amount of pre-licensure employment completed by participants in their last year of academic preparation. Results were analyzed using multiple linear regression.

Bandura's social cognitive theory was selected as the theoretical framework for the study as it compares the relationship of mastery experiences and self-efficacy. Review of the literature presented several other theories that were considered. Benner's novice to expert framework is frequently used in the literature to describe the transition of RNs through the phases of professional development. Individuals begin their nursing education as novices and advance to expert after approximately 7 continuous years of similar nursing experience (Benner, 1982). The novice to expert framework was not selected because the participants would be classified as advanced beginner and the purpose would shift to measuring the progress through the phases based on the type and amount of pre-licensure employment. Data collection using the novice to expert framework would be completed through interviews and observations and follow a qualitative approach. Kramer's reality shock theory is often referenced in research on the transition to practice of newly licensed nurses. Reality shock describes the stress and frustration experienced by newly licensed nurses as they enter practice and it provides recommendations for implementing and measuring programs to support nurses during this time (Kramer, Brewer, & Maguire, 2013). This theory was not selected as it is predominantly used to study post-graduation interventions related to the study population. Studies using the reality shock theory could use a survey to collect data, but it

would quantify the experiences of newly licensed nurses after graduation but not before graduation.

The delimitations of the study included studying performance as compared to the self-reported self-efficacy in practice of the student nurses. The performance of student nurses can be measured using simulation and observation of patient care. However, exploration of the relationship between performance and self-efficacy in practice was beyond the scope of this study. Results of this study could be used in future studies to explore the relationship between reported self-efficacy in nursing practice and actual performance.

This study used a cross-sectional survey design and a convenience sample of student nurses in southwest Michigan. Generalizability is achieved when the results of a study can be used to describe the larger population (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). Thus, the sample has to be large enough to achieve adequate power and the data must be randomly collected (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). Thus, the results from this study could be generalized to southwest Michigan. However, replication of the study in other regions of Michigan, as well as other states and countries, is needed to achieve full generalizability.

Limitations

One limitation of the study was the use of the cross-sectional design. Cross-sectional designs do not occur over time and comparison groups are not used. As a result, causality is difficult to establish (Frankfort-Nachmias et al., 2015). The researcher using this design must also be concerned about the possibility of response bias because data

could be substantially different should the non-respondents answer the survey (Creswell, 2009). Additionally, the study was limited due to the use of a convenience sample, which limits the generalizability as I am unable to estimate how representative the sample is of the larger population (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). Replication studies in other regions, states, and nations will be necessary for true generalizability. To decrease the effect of these limitations, I determined the needed sample size to achieve statistical significance through power analysis.

Significance

Healthcare is facing a significant nursing shortage. It is projected that 16-19% more nurses will be needed over the next decade to care for the aging population (American Association of Colleges of Nursing, 2014; United States Department of Labor, 2015). In addition to the 16-19% projected increase, another 525,000 nurses will be needed on top of the increase to replace Baby Boomer retirees (American Association of Colleges of Nursing, 2014). It is expected that healthcare leaders will hire newly licensed nurses to fill these positions, but this is concerning because the reported turnover rate in the first year of practice is 13% with an additional 37% actively considering a change in position (American Association of Colleges of Nursing, 2014; Chandler, 2012; Cubit & Lopez, 2011; Feng & Tsai, 2012; Sedgwick & Rougeau, 2010). Thus, healthcare leaders seek recommendations and policies to improve the transition to practice and retention of newly licensed nurses.

Although healthcare leaders and academic faculty acknowledge that the majority of nursing students are employed during their academic preparation, these groups have

not collaborated to understand the impact of that employment (Casey et al., 2011; Phillips et al., 2012; Phillips et al., 2013; Woods et al., 2015). Identifying the relationship between the type and amount of pre-licensure work experience and self-efficacy in nursing practice will contribute to positive social change by providing student nurses with a recommendation for the type and amount of pre-licensure employment to support positive self-efficacy in nursing practice and lessen the stress and anxiety experienced during their transition to practice.

Data collected from this study can be shared with healthcare leaders and academic faculty who can help develop recommendations and policies to guide student nurses in selecting and completing pre-licensure employment. The results of this study will also help nurse educators and human resource specialists understand the impact of newly licensed nurses' pre-licensure employment on hiring and orientation needs.

Summary

The study sought to relate the type and amount of pre-licensure employment completed in the last year of academic preparation to the self-efficacy in nursing practice of student nurses' in the final semester of college. Identifying the relationship is expected to offer insight for healthcare leadership, educators, and human resource specialists in the selection and orientation of newly licensed RNs. In turn, individualizing the orientation of newly licensed RNs, based on their perceived self-efficacy in nursing practice, may improve their satisfaction while decreasing turnover. The theoretical foundation for the study was Bandura's social cognitive theory, which assumes that personal, behavioral, and environmental factors influence each other bidirectionally.

A detailed description of the theoretical foundation follows in Chapter 2. The literature review will begin with an overview of self-efficacy with respect to personal, behavioral, and environmental factors. In Chapter 3, I cover the following topics: research design, methodology, and threats to validity. In Chapter 4, I cover the following topics: data collection and results. In Chapter 5, I cover the following topics: interpretation of the findings, limitations, recommendations, and implications.

Chapter 2: Literature Review

Introduction

The need for RNs is anticipated to increase by 16% over the next decade (United States Department of Labor, 2015; Friday et al., 2015). However, the transition to practice from academia to acute care practice continues to cause high levels of stress and anxiety for newly licensed nurses (Chandler, 2012; Cubit & Lopez, 2011; Draper et al., 2014; Feng & Tsai, 2012). Student nurses continue to feel unprepared to accept the responsibilities associated with their new role (Feng & Tsai, 2012). Thus, nursing leaders wanted to learn what interventions might decrease stress and anxiety and improve readiness for practice. Although many student nurses are employed during college, little is known how the type and amount of pre-licensure employment affects the self-efficacy in nursing practice of the student nurse in the final semester of college. Guided by Bandura's social cognitive theory, this study sought to examine that relationship.

In this chapter, I will describe newly licensed nurses' self-efficacy in nursing practice, their transition to practice, and the completion of pre-licensure paid employment by nursing students during their academic preparation.

Literature Search Strategy

The literature review was completed using the following library databases: CINAHL and MEDLINE, CINAHL Plus with Full Text, MEDLINE with Full Text, and ProQuest Nursing and Allied Health Source. The database search was limited to peer-reviewed articles written between 2010 and 2016 using the following search terms and combinations: self-efficacy and nursing student, nursing student and readiness for

practice self-efficacy and newly licensed nurse, self-efficacy and graduate nurse, self-efficacy and student nurse, self-efficacy and readiness to practice, self-efficacy and pre-licensure employment, self-efficacy and paid employment, self-efficacy and transition to practice, pre-licensure employment and newly licensed nurse, pre-licensure employment and graduate nurse, pre-licensure employment and student nurse, paid employment and student nurse, readiness for practice and student nurse, readiness to practice and graduate nurse, readiness to practice and newly licensed nurse, transition to practice and student nurse, transition to practice and graduate nurse, transition to practice and newly licensed nurse, and self-efficacy in nursing practice.

The remainder of the chapter will cover a review of the literature relating to the theoretical foundation, key variables, and concepts.

Theoretical Foundation

Bandura's social cognitive theory was established in 1977. This theory was originally referred to as the observational learning theory and the social learning theory. Bandura describes how an individual's self-judgment of their own capabilities determines how they behave, their thoughts, and emotional reactions (Bandura, 1989). This belief about one's ability to successfully complete a specific task to achieve a specific outcome is termed self-efficacy (Bandura, 1977; Bandura, 1989; Bandura, 1999). An individual's perceived self-efficacy is determined by four sources: performance accomplishments or mastery of experiences, vicarious experiences, verbal persuasion, and physiological states or emotional arousal (Bandura, 1977; Bandura 1989).

Self-efficacy shares a bi-directional relationship with performance accomplishment, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977; Bandura, 1989; Bandura, 1999). The theory explains how high or positive self-efficacy positively influences motivation for learning which is accomplished through modeling (Bandura, 1977; Bandura, 1989; Bandura, 1999). Modeling allows the individual to observe events and develop behavior patterns through personal performance feedback (Bandura, 1977). Therefore, positive modeling results in positive acquisition of behavior patterns which produce satisfactory performance and self-efficacy. Conversely, negative or absent modeling eventually results in negative or absent self-efficacy.

The concept of self-efficacy and subsequent bidirectional relationships of its sources has been used as the framework for many studies in nursing. Studies have used the concepts and relationships to predict self-efficacy as well as other research outcomes. For example, determining if the level of depression can be predicted from optimism and self-efficacy and predicting whether instruction and practice on intermuscular injections increases self-efficacy and competence (Chang, Want, Li, & Liu, 2011; Karabacak, Serbest, Kan Onturk, Eti Aslan, & Olgun, 2013). Studies have also used social cognitive theory concepts and relationships to improve self-efficacy of nurses. Typically, in these studies, researchers provide an intervention as an independent variable and measure self-efficacy as an outcome. For example, interventions have included three-day communication training, theoretical preparation and clinical practice, and expert role modeling through traditional reading and voiceover PowerPoint (Norgaard, Ammentorp, Kyvick, & Kofoed, 2012; Chesser-Smyth & Long, 2013; Franklin, Gubrud-Howe,

Sideras, & Lee, 2015). These studies measure the outcome, self-efficacy, at variable times. Some studies measure before, after, and at six months (Norgaard et al., 2012). While others measure pre-intervention and post-intervention (Chesser-Smyth & Long, 2013; Franklin, Grubrud-Howe, Sideras, & Lee, 2015).

Bandura's social cognitive theory provides a framework to consider the relationship of self-efficacy in nursing practice of student nurses in their final semester of academic preparation to the type of pre-licensure work experience and amount of pre-licensure work experience completed during the final year of nursing school. The social social cognitive theory considers type and amount of pre-licensure employment to be personal mastery experience leading to performance accomplishments which are linearly related to the student nurse's self-efficacy in nursing practice. The theory would propose that modeling provided by the mastery experience would be linearly related to the student nurse's self-efficacy. Furthermore, positive mastery experience would result in positive self-efficacy in nursing practice while negative or absent mastery experience would result in negative or poor self-efficacy in nursing practice.

Key Variables and Concepts

Self-Efficacy in Nursing Practice

Self-efficacy in nursing practice is the individual's belief that they possess the necessary knowledge, skills, and abilities to provide safe, quality patient care (Wolff, Regan, Pesut, & Black, 2010). Studies have found individuals with higher self-efficacy experience less stress during clinical practice. A study of 217 nursing students in China used the Perceived Stress Scale, Coping Behavior Inventory, and General Self-Efficacy

Scale to explore the coping strategy and the effects of self-efficacy of undergraduate nursing students under stress during clinical practice (Zhao, Lei, He, Gu, & Li, 2015). This study found nursing students with higher levels of self-efficacy used positive coping strategies when faced with stress from assignments and workload during their clinical experience (Zhao et al., 2015). Reportedly, individuals with higher self-efficacy in nursing practice are more likely to not perceive stress as a stressor and instead use problem solving skills (Zhao et al., 2015).

Stress experienced by student nurses during clinical practice also contributes to depression. Studies have found individuals with higher self-efficacy experience fewer symptoms of depression (Chang et al., 2011). A study of 314 nurses in Taiwan used the Center for Epidemiologic Studies-Depression Scale, General Self-Efficacy Scale, and Life Orientation Test-Revised to explore the relationship between self-efficacy, optimism, and depression. This study found 52.5% of the participants demonstrated mild to moderate depression. Additionally, this study identified a negative correlation between self-efficacy and depression (Chang et al., 2011).

The assumptions and relationships of Bandura's social cognitive theory have assisted nursing faculty to explore the impact of nursing curriculum to the self-efficacy of nursing students. A study of 146 student nurses in Ireland used the Personal Evaluation Inventory, Student Self-Evaluation Questionnaire, and focus group interviews to determine the effects of theoretical preparation and clinical practice on the development of self-confidence (Chesser-Smyth & Long, 2013). This study found clinical experience has the most influence over student nurse self-efficacy. Similarly, a study of twenty

nursing students in the United States used a modified National League for Nursing Student Satisfaction and Self-Confidence in Learning Scale to determine if expert modeling had a greater impact on student nurse competence and self-efficacy than voiceover PowerPoints or traditional reading assignments (Franklin et al., 2015). This study found voiceover PowerPoint and expert modeling are more effective than reading (Franklin et al., 2015). Additionally, observation of role models during the clinical experience increased nursing student self-confidence (Chesser-Smyth & Long, 2013). Conversely, a study of 100 nursing students in Turkey used the Self-Efficacy Scale and an intermuscular procedure checklist to determine the relationship between skill development and general self-efficacy (Karabacak et al., 2013). This study found all students exhibited a high level of self-efficacy and education on intermuscular injection technique had the same impact on all nursing students (Karabacak et al., 2013).

Overall, research has supported the assumptions of Bandura's social cognitive theory in the influence of academic preparation to the development of self-efficacy in nursing practice. However, completed studies often use general self-efficacy scales which do not measure items related to nursing practice (Chang et al., 2011; Chesser-Smyth & Long, 2013; Franklin et al., 2015; Karabacak et al., 2013). Thus, further exploration of student nurse self-efficacy in nursing practice using nursing specific instruments is warranted.

Readiness for Practice

Healthcare leaders in the acute care setting resoundingly voice how ill prepared student nurses are for the realities of nursing which includes high acuity patients, frequent

changes, and staffing shortages (American Association of Colleges of Nursing, 2014; Friday et al., 2015). Researchers have explored these concerns by initially defining readiness for practice and identify examples of readiness and lack of readiness (Missen, McKenna, & Beauchamp, 2015; Wolff et al., 2010). Studies explained readiness for practice to healthcare leaders means student nurses have a general foundation and job specific capabilities to include clinical technical skills and knowledge (Missen et al., 2015; Wolff et al., 2010). Healthcare leaders believe student nurses should be able to communicate with the healthcare team and provide safe patient care using evidence-based practice and critical think skills (Missen et al., 2015; Wolff et al., 2010).

Transition to practice program coordinators are part of healthcare leadership. Transition to practice program coordinators are responsible for the educational needs and support of newly licensed nurses hired to the acute care setting. Thus, transition to practice program coordinators work closely with newly licensed nurses and provide significant insight into this population's readiness for practice. A qualitative interview study conducted with 16 transition to practice program coordinators explained how newly licensed nurses do not demonstrate readiness for practice as they demonstrate deficits in clinical skills, clinical knowledge, and communication (Missen et al., 2015). Thus, healthcare leaders have provided support for transition to practice programs which bridge the gap in academic preparation and the realities of healthcare (Missen et al., 2015).

Student nurses have mixed beliefs regarding their readiness for practice. Student nurses believe they have the requisite nursing knowledge needed to begin their practice (Casey et al., 2011; Chappy, Jambunathan, & Marnocha, 2010; Guner, 2014; Woods,

West, Mills, Park, Southern, & Usher, 2015). However, nursing students do not feel confident and competent in their nursing skills and abilities (Casey et al., 2011; Woods et al., 2015; Chappy et al., 2010; Guner, 2014). A study of 429 undergraduate nursing students in the United States used the Casey-Fink Readiness for Practice Survey to explore student nurse perception of their readiness for practice (Casey et al., 2011). This study found students were confident in communicating with patients and families and asking others for assistance. However, nursing students were less confident in their ability to delegate tasks, handle a multiple patient assignment, call the physician, respond to a change in patient condition, and treat a patient who is dying (Casey et al., 2011). Similarly, a study of 113 nursing students in Australia used the Casey-Fink Readiness for Practice Survey to explore student perception of preparedness for practice (Woods et al., 2015). This study found although 88.8% of the participants felt prepared for practice, the majority did not feel confident in their ability to care for more than three patients (Woods et al., 2015). A similar study of 1804 nursing students in Turkey used a researcher developed questionnaire and focus group interviews to explore preparedness for practice and found 57.6% of the participants felt ready for practice (Guner, 2014). However, during interviews participants voiced their lack of clinical experience and decreased confidence in clinical skills (Guner, 2014).

Qualitative approaches have found nursing students believe increased clinical time, smaller class sizes, increased technical skill experience, and experiential experience would improve their readiness for practice (Casey et al., 2011; Chappy et al., 2014; Woods et al., 2015). Studies using the Casey-Fink Readiness for Practice Survey collect

narrative response to a question asking what can be done to help the student feel more prepared to enter the profession. Findings from 108 student responses identified students desired more clinical hours, simulation, or skill practice (Casey et al., 2011). Similarly, 83 responses to the same question on another study identified students desired longer and broadened clinical placements, additional simulation or clinical skills practice, and smaller clinical class size (Woods et al., 2015). Colleges and universities collect evaluations from nursing student alumni to determine opportunities for improving nursing curriculum. Analysis of 460 nursing student alumni evaluations revealed recent graduates desired increased clinical time, more technical skills, broader real-life experiences, and communication with physicians (Chappy et al., 2014).

Considering the desire of nursing students to have increased clinical exposure, multiple studies have explored the clinical experience of student nurses in their preparation for practice. A study of 144 nursing students in Australia described how students entering their first clinical experience felt unprepared for placement, nervous, anxious, and worried (Levett-Jones, Pitt, Courtney-Pratt, Harbrow, & Rossiter, 2015). Students voiced concern over patient safety as they feared making mistakes and working outside their scope of practice (Levett-Jones et al., 2015). To combat the concerns nursing students have when entering their initial clinical placement, some colleges and universities have implemented clinical partnerships and structured clinical placement orientation programs (Newton et al., 2011; Watt, Murphy, Pascoe, Scanlon, & Gan, 2011; Watt & Pascoe, 2013). Interviews with ten nursing students who completed all their clinical placements at a single acute care setting described feeling they could focus more

of their time on learning to care for patients as they were familiar with the environment, administration, and unit culture (Watt & Pascoe, 2013). Similarly, 28 nursing students in Australia were interviewed following two years of placement in a single acute care setting (Newton et al., 2011). Participants reported the continuity of clinical placement assisted them to become familiar with the organization and a sense of belonging (Newton et al., 2011). The increased familiarity and sense of belonging subsequently allowed the nursing students to focus on learning to care for patients. A key component to decreasing the stress and anxiety experienced by nursing students entering their clinical placements is to provide familiarity to the acute care setting through a structured orientation program. A study of 120 nursing students found a three-day orientation program prior to clinical placement significantly reduced student anxiety while increasing self-efficacy (Watt et al., 2011).

Despite the feelings of healthcare leaders and student nurses, there is a disconnect in the beliefs about readiness for practice with academic faculty. Study results released in 2008 captured healthcare leaders' perceptions of newly licensed nurse readiness for practice based on 36 critical nurse competencies. These perceptions were compared to academic leaders reports of program emphasis of each of the 36 competencies (The Advisory Board Company, 2008). The top five areas healthcare leaders felt newly licensed nurses could improve in preparation for practice were: delegation of tasks, ability to prioritize, ability to anticipate risk, conflict resolution, and ability to keep track of multiple responsibilities (The Advisory Board Company, 2008). Nursing school emphasis of these items was much less than the perceived need by healthcare leaders and

students. The study reported nursing schools ranked delegation of tasks as 30, ability to prioritize as 16, ability to anticipate risks as 12, conflict resolution as 31, and ability to keep track of multiple responsibilities as 28. Nursing schools top five areas of emphasis were: knowledge of pathophysiology, knowledge of pharmacology, interpretation of assessment data, decision making based on the nursing process, and recognition of changes in patient status (The Advisory Board Company, 2008).

Transition to Practice

Concerns regarding readiness for practice and the difficulties of the transition to practice have been of growing concern across the nation. The National Council of State Boards of Nursing began discussing the transition to practice of student nurses to the acute care setting in 2003 following reports highlighting the nursing shortage and impact on safe patient care (American Association of Colleges of Nursing, 2014; National Council of State Boards of Nursing, 2014). These reports predicted a 19% increase in nursing jobs. The predicted need is compounded by the 525,000 replacement positions that will open due to retirement of baby boomers (American Association of Colleges of Nursing, 2014). However, the ability to reduce the impact of the increased need is hindered by the inability of colleges and universities to recruit nursing faculty to increase nursing student enrollment (American Association of Colleges of Nursing, 2014). Thus, acute care settings face a significant nursing shortage.

Healthcare organizations rely on newly licensed nurses to fill open and vacated positions. Hiring newly licensed nurses can be discouraging for healthcare leaders as 13% of those hired change their job in the first year of practice and an additional 37% are

contemplating a job change (American Association of Colleges of Nursing, 2014). The retention and turnover is credited to the stress and anxiety experienced by student nurses as they transition to the acute care settings and their lack of readiness for the realities of nursing practice (Chandler, 2012; Cubit & Lopez, 2011; Draper et al., 2014; Feng & Tsai, 2012). A qualitative interview study conducted with seven newly licensed nurses in Taiwan found graduates experienced overwhelming chaos as they transitioned to practice due to a lack of knowledge and clinical experience which required them to learn many new skills while adapting to a new role (Feng & Tsai, 2012). The participants felt their transition was hindered by a lack of support and poor staffing (Feng & Tsai, 2012).

Due to the difficulties newly licensed nurses experience during their transition and the subsequent retention issues, researchers have explored perceptions of this population on approaches to improve the transition. Studies have described how newly licensed nurses learn best from performing new skills with the guidance and support of the healthcare team (Feng & Tsai, 2012). A qualitative study of 36 newly licensed nurses in the United States described the importance of providing a welcoming and supportive environment to promote a positive transition to practice. Participants shared how the use of constructive feedback and daily recognition of accomplishments improved newly licensed nurses transition to practice (Chandler, 2012). Similarly, a qualitative study of ten newly licensed nurses in Ireland explained how newly licensed nurses initially felt excited to begin their new roles. However, they quickly became overwhelmed by their new responsibilities, accountability, and desired increased preceptor support to facilitate their transition (Kumaran & Carney, 2014).

Adequate support of preceptors and the nursing team have been identified in several studies of the transition to practice. A qualitative study of 32 newly licensed nurses in Canada explored the use of preceptorship to improve the transition to practice. Participants shared how preceptors can positively or negatively influence the newly licensed nurses sense of belonging (Sedgwick & Rougeau, 2010). Positive preceptorships were described as providing realistic expectations, constructive feedback, and continuous support (Sedgwick & Rougeau, 2010). Newly licensed nurses felt their transition was inhibited when tension developed due to unrealistic expectations and a lack of preceptor support. The study highlighted the importance of promoting a sense of belonging, realistic expectations, preceptorship, and constructive feedback to support the newly licensed nurses' transition to practice. Similarly, a qualitative study of 282 newly licensed nurses in Australia described how poor job satisfaction is attributed to the nature of the workplace environment (Parker, Giles, Lantry, & McMillian, 2014). The study described how the newly licensed nurses felt their workplaces did not provide them with realistic expectations or support during their transition to practice which led to their decreased satisfaction and intent to resign (Parker et al., 2014).

In response to the growing concerns surrounding the transition to practice, in 2009, the National Council of State Boards of Nursing convened a Transition to Practice Committee to develop a transition to practice model. The Transition to Practice Committee presented the model in 2010 to the National Council of State Boards of Nursing's board of directors. The board of directors approved the committee to conduct a randomized, multisite study to examine the outcomes of establishing the transition to

practice program with graduate nurses (National Council of State Boards of Nursing, 2014). The study found hospitals with transition to practice programs had fewer errors, fewer negative safety practices, higher overall competence ratings, decreased job stress, increased satisfaction, and decreased intent to resign during the first year of practice (National Council of State Boards of Nursing, 2014). In comparison, graduate nurses in organizations without transition to practice programs were found to have more errors, reports of negative safety practices, feel less competent, have higher job stress, poor job satisfaction, and were twice as likely to leave their job in the first year of practice (National Council of State Boards of Nursing, 2014). Thus, numerous healthcare leaders have implemented transition to practice programs.

Transition to practice programs provide newly licensed nurses with increased knowledge of the practice environment, opportunity for skill practice, support, preceptorship, and constructive feedback. Transition programs have improved newly licensed satisfaction and retention (National Council of State Boards of Nursing, 2014). However, the retention is still not ideal in comparison to the increased nursing need. As a result, healthcare leaders and researchers continue to explore the turnover intention of newly licensed nurses. A study of 225 newly licensed nurses in South Korea used the Intention of Quitting Scale, Korean Occupational Stress Scale-Short Form, Self-Efficacy Scale, Nursing Work Index-Revised, and a clinical competence form to explore the relationship between turnover intention and clinical competence, job stress, and self-efficacy, along with nursing characteristics (Lee, Lim, Jung, & Shin, 2012). The study identified the mean turnover intention score as 7.51 on a 1-30 scale (Lee et al., 2012).

Turnover intention of newly licensed nurses was significantly related to number of beds in the hospital, place of work, period of job orientation (theory and practice), and instruction by a preceptor (Lee et al., 2012). Similarly, a study of 318 newly licensed nurses used the Nurse Competence Scale, Occupational Commitment Scale, Qualities of Empowered Nurse Scale, Practice Environment Scale of Nursing Work Index, and Hospital Ethical Climate Scale to explore the relationships between newly licensed nurse competence and individual and organizational variables in the work setting (Numminen, Leino-Kilpi, Isoaho, & Meretoja, 2015). The study found the strongest relationship existed between competence and empowerment. However, significant relationships between competence the practice environment, ethical climate of the work unit, and occupational commitment was identified (Numminen et al., 2015). Additionally, the higher the competence level was associated with positive perceptions of the work setting and occupational commitment (Numminen et al., 2015).

A final consideration in the transition to practice of newly licensed nurses is how these individuals professionally develop over the first year of practice. A model of this development will assist healthcare leaders in further supporting newly licensed nurses during their transition to practice. A qualitative study of 330 newly licensed nurses in Sweden found a central theme of mastering the professional role and sub-processes of evaluating and re-evaluating educational experience, developing professional self-efficacy, and developing clinical competence (Pennbrant, Nilsson, Ohlen, & Rudman, 2013). The participants indicated the sub-processes were impacted by social values and norms, healthcare organization, management of new nurses, co-workers, family, friends,

patients, and significant others (Pennbrant et al., 2013). The study provides support for the provision of supportive learning environments with realistic expectations.

Pre-Licensure Employment

Many student nurses are employed during college for a variety of reasons (Casey et al., 2011; Woods et al., 2015). However, little is known about why nursing students are employed during college, what and how much work they are completing, and what impact this employment has on their transition and readiness to practice. According to Phillips et al. (2012), a qualitative study of 67 newly licensed nurses in Australia found over 90% worked at least 15 hours a week while completing their academic nursing preparation. Reasons for working during academic preparation vary and have been reported as financial independence and autonomy, confidence and experience, future opportunity and ease of transition. Many students are reportedly working in a variety of roles in healthcare.

Nursing faculty have voiced concern regarding low academic performance of students who are employed. Conversely, healthcare leaders, nurse educators voice concern over the preparation practice gap and believe nursing students employed in healthcare during their academic preparation are better prepared for transition to practice. Studies exploring this concept typically categorize employment as healthcare related or non-healthcare experience making it difficult to determine the impact of specific roles within and outside of healthcare. The United States Department of Labor (2015) identifies 47 different healthcare jobs which includes RN. A study of 392 newly licensed nurses in Australia used a researcher developed instrument to identify predictors of

successful transition from student to RN. The study also aimed to identify whether a type pre-licensure paid employment impacted the transition to practice (Phillips et al., 2013). The researchers categorized the nurses into four groups based on their completed pre-licensure employment: hospitality/retail, enrolled nurse, other healthcare worker, and non-worker. The study found transition scores were significantly higher for nurses who completed pre-licensure employment than those who did not complete pre-licensure employment. However, institutional factors such as assistance with complex patients, orientation to role, and respect from colleagues were stronger predictors of positive transition scores (Phillips et al., 2013).

A secondary analysis of the qualitative results was completed to determine if the pre-licensure employment choice impacted how the newly licensed nurses were perceived during their transition to practice. The analysis revealed newly licensed nurses who had completed pre-licensure employment in a healthcare setting felt less supported and criticized by their co-workers (Phillips et al., 2013). Similarly, a study of 32 newly licensed nurses in Ireland who had worked in the healthcare setting during their academic preparation found the nurses felt more confident in regards to their nursing skills and prepared for the realities of nursing practice due to their time spent in the acute care setting (Hasson et al., 2013). However, the nurses felt their prior healthcare employment led their co-workers to provide them with less supervision and guidance due to the assumption they had acquired the basic skills during their prior employment (Hasson et al., 2013).

Considering many nursing students seek paid pre-licensure employment, many healthcare organizations, colleges, and universities have developed programs in the acute care setting to provide healthcare experience in the hopes of improving the transition to practice. Nurse externships are an example of these experiential experience programs. A longitudinal 12-month study of 46 newly licensed nurses in the United States used the Casey-Fink Graduate Nurse Experience Survey© to determine the impact of offering a pre-licensure extern program in conjunction with a post-licensure transition to practice program in comparison to providing the transition to practice program alone (Friday et al., 2015). The study found combination of programs had no impact on transition factors or retention rates (Friday et al., 2015).

Like the United States, nurse externship programs are the pre-registration nursing program in the United Kingdom. Pre-registration programs provide experiential experience in the acute care setting to nursing students. A qualitative interview study of 17 newly licensed nurses in the United Kingdom who completed a pre-registration nursing program during their academic preparation. The study aimed to understand the impact of the program on employability, career progression, and workforce development (Draper et al., 2014). The study found employers of these students felt the program adequately prepared newly licensed nurses to achieve the competencies and expectations of the nursing profession (Draper et al., 2014). Employers consider the pre-registration program as a method to increase the employability of newly licensed nurses and subsequently aids in developing the workforce (Draper et al., 2014). Many of the newly

licensed nurses who participated in the pre-registration program advanced in their career quicker than those without the experience (Draper et al., 2014).

Despite the perceived benefits of pre-licensure employment, externships, and registration programs newly licensed nurses continue to experience difficulty during the transition to practice. Although pre-licensure employment provides nursing students with the opportunities to practice nursing skills and become acquainted with the practice environment, they continue to need support and encouragement during their transition to practice. A qualitative study of eight enrolled nurses in Australia found newly licensed nurses who had worked as enrolled nurses during their academic preparation felt they were stepping out of their comfort zone and being taken advantage of. The newly licensed nurses felt they needed the same support as all other newly licensed nurse (Cubit & Lopez, 2012).

Although healthcare leaders and academic faculty are aware nursing students are completing pre-licensure employment. Little effort has been made between these groups to develop recommendations or policies to guide student choices. The lack of effort could be attributed to the differences in opinion regarding the benefits and impacts of this employment on the preparation and transition to practice (Kenny et al., 2012). One study completed in Australia convened an action research group who engaged in planning, action, observation and reflection of nursing student employment. The action research group showed significant interest in paid employment models and acknowledged the positive implications the employment could have on recruitment and retention of nurses (Kenny et al., 2012). Concern was expressed by the group in regards to the possible use

of these students as cheap labor by acute care settings. Despite the insights of this group, recommendations and policies have yet to be made in Australia as leaders feel addition research in regards to the impact pre-licensure has on student outcomes.

Summary and Conclusions

In summary, review of the literature described the transition to practice and interventions implemented to improve the retention and satisfaction of newly licensed RNs. Among these interventions was the completion of pre-licensure employment in the healthcare setting. Literature described how use of positive role modeling and observation promoted positive self-efficacy. Subsequently, positive self-efficacy decreased overall stress and promoted use of positive coping behaviors. However, self-efficacy studies in nursing often used general self-efficacy tools that do not relate the nursing skills acquired during college to self-efficacy in nursing practice. Little research had been conducted regarding pre-licensure employment's effect on self-efficacy in nursing practice.

This study filled a gap in the literature by seeking to relate the type and amount of pre-licensure employment completed in the last year of college to the self-efficacy in nursing practice of student nurses' in the final semester of college. Identifying the relationship between the type and amount of pre-licensure work experience and self-efficacy in nursing practice will provide insight for healthcare leadership, educators, and human resource specialists in the selection and orientation of newly licensed RNs. In turn, individualizing the orientation of newly licensed RNs based on their perceived self-efficacy in nursing practice may improve their satisfaction while decreasing turnover.

In Chapter 3, I provide a detailed description of the research methods, which include design, population, sampling, recruitment, data collection, instrumentation, data analysis plan, and threats to validity.

Chapter 3: Research Method

Introduction

Guided by Bandura's social cognitive theory, the purpose of this cross-sectional survey study was to examine the relationship between type and amount of pre-licensure employment and self-efficacy in nursing practice of student nurses in their final semester of college.. The independent variable, pre-licensure work experience, was defined as the type of paid employment the student nurse completed during the last year of academic preparation. The independent variable, amount of pre-licensure work experience, was defined as the average hours of paid employment the student nurse completed per week during the last year of academic preparation. The dependent variable, self-efficacy in nursing practice, was defined as the confidence of the student nurse in her or his ability to complete the tasks of a newly licensed RN.

In this chapter, I cover the following topics: research design, a detailed description of the methodology, a discussion of the study's threats to validity and include ethical procedures.

Research Design and Rationale

This study used a quantitative approach to examine the relationship between the independent variables, type and amount of pre-licensure employment, and the dependent variable, self-efficacy in nursing practice of student nurses' in their final semester of academic preparation. Data were collected using a cross-sectional survey that was distributed to southwest Michigan nursing students. The survey collected demographic

data and information about the student's pre-licensure employment; it included questions to evaluate the student's level of self-efficacy in nursing practice.

The quantitative, cross-sectional survey design was most appropriate to examine the research questions because it provided empirical data to explain the relationship between pre-licensure employment and the level of self-efficacy in nursing practice of student nurses. Use of a postal survey provided the best response rate for the studied population (Frankfort-Nachmias et al., 2015; United States Department of Health Services, 2010). Additionally, the use of a hand-delivered postal survey ensured distribution to the appropriate population in a timely manner. This was essential because the data were to be collected during students' final semester of college.

Methodology

Population

This study used student nurses in southwest Michigan in their final semester of academic preparation. Access to the population was gained through the Southwest Michigan Nursing Placement Consortium, held quarterly at Western Michigan University. Five colleges and universities routinely participate: Glenn Oaks Community College, Kalamazoo Valley Community College, Kellogg Community College, Southwestern Michigan College, and Western Michigan University. Potential participants included 23 from Glenn Oaks Community College, 39 from Kalamazoo Valley Community College, 135 from Kellogg Community College, 32 from Southwestern Michigan College, and 48 from Western Michigan University. Therefore, the Southwest Michigan Nursing Placement Consortium provided 277 potential participants.

Sampling and Sampling Procedures

A convenience sample of Southwest Michigan nursing students was used to complete the study. This sampling approach was most appropriate for the study as there was limited time available for data collection. Student nurses eligible for the study were in their final semester of academic preparation in Southwest Michigan. This provided a single semester for data collection. Thus, it would have been difficult to use other sampling approaches to reach an adequate sample prior to the graduation of the nursing students. The sample of nursing students was drawn from Southwest Michigan by distributing a postal survey, informed consent, and stamped addressed envelope for returns to all possible participants during one of their classroom sessions. The date and time for the distribution of the survey was coordinated through contact with the nursing directors and course faculty participating in the Southwest Michigan Nursing Placement Consortium.

Nursing students in Southwest Michigan who were in their first through third semesters of academic preparation were excluded from the study. First, the study was focused on examining the self-efficacy in nursing practice of nursing students as they prepare to transition to practice to provide recommendations to future students about the completion of pre-licensure employment. Second, these students were at varying levels of nursing competence due to their level of academic preparation. Additionally, there was less opportunity to complete pre-licensure employment which could have impacted their self-efficacy in nursing practice. Thus, these students were excluded to ensure the sample

included nursing students preparing for their transition to practice who were actively in their final academic course.

Adequate sample size for the study was calculated using G*Power. First, I determined the desired power, alpha level, and effect size (Field, 2013; Frankfort-Nachmias et al., 2015). Researchers are recommended to use a power of 80% and an alpha of .05. Additionally, researchers should review available literature to select an effect size (Field, 2013; Frankfort-Nachmias et al., 2015). Effect can be entered as small, r =.10, medium, r = .30, or large, r = .50 (Field, 2013).

There is limited research in regard to the topic. However, review of the literature did identify a study that used a medium effect size to understand the development of self-confidence in nursing students in Ireland (Chesser-Smyth & Long, 2013). Therefore, a medium effect size of .15 was selected. When using G*Power to determine sample size for multiple regression, I had to select an effect size, probability level, statistical power, and number of predictors. Using an alpha of .05, power of 80%, 2 predictors, and an effect size of .1, the sample size should be at least 68 participants. Based on the possible participants in the region, it could be possible to achieve adequate power.

Procedures for Recruitment, Participation, and Data Collection

Participants for the study were recruited by introducing the study and distributing the survey, informed consent, and a stamped addressed envelope to nursing students in Southwest Michigan during one of their classroom sessions. The dates and times of the distribution were coordinate with the nursing directors and course faculty of the five colleges and universities participating in the Southwest Michigan Nursing Placement

Consortium. The Casey-Fink Readiness for Practice Survey was used to collect demographic information as well as ask questions focused on examining students' overall self-efficacy in nursing practice. Demographic questions solicited in the survey were adapted from the original version, with permission from the authors, to include the independent variables: type of pre-licensure employment and amount of pre-licensure employment completed in the last year (Casey et al., 2011). The types of pre-licensure employment included for selection in the survey will be occupation groups developed by the United States Department of Labor: Bureau of Labor Statistics (United States Department of Labor, 2015). In addition, the demographic section of the adapted Casey-Fink Readiness for Practice Survey collected nursing students' age, gender, ethnicity, and marital status.

The survey was distributed with the informed consent. The body of the informed consent identified me; it described the use of the study in completion of a dissertation for Walden University, how the participants were selected, and the purpose of the study. The consent included a list of the possible benefits and risks to participants. Additionally, anonymity and confidentiality were guaranteed as name and student identification were not be collected in the survey. Participants were provided with my name, phone, and email address if questions arise. Lastly, the letter detailed how return of the survey using the provided stamped and addressed envelope implied consent to participate in the study.

Data was collected in the study through return of the completed survey, via the United States Postal Service to my home address. Subsequently, individual responses to the administered survey were entered into IBM SPSS Statistics software and saved on my

personal home computer. The data stored on this personal computer was not accessible without the account's username and password. Thus, confidentiality of the data was maintained. Return of the postal survey completed the participants time in the study.

Instrumentation and Operationalization of Constructs

The study used the Casey-Fink Readiness to Practice Survey© developed by Kathy Casey, MSN, RN and Regina Fink, PhD, RN, FAAN, AOCN in 2008 (see Appendix A). The Casey-Fink Readiness for Practice Survey© is a copyrighted instrument. Permission for use of this survey was obtained by visiting the UC Health website (see Appendix C). Despite approval through the UC Health website, the demographic section of the survey required adaptation to effectively collect data to measure the independent variables, type and amount of pre-licensure employment. Permission to adapt the demographic section was obtained by email from Regina Fink, RN, PhD, AOCN, FAAN (see Appendix B). Subsequently, the demographic section of the Casey-Fink Readiness for Practice Survey© was restructured to determine if the nursing student worked during the past year, the type of employment completed in the last year, the number of hours worked per week, the school attended, and the type of program as well as nursing students' age, gender, ethnicity, and marital status. Types of employment listed in the demographic section were identified from the United States Department of Labor: Bureau of Labor Statistics website which lists occupation groups and healthcare occupations along with coinciding labor statistics (United States Department of Labor, 2015).

In addition to the demographic section, the Casey-Fink Readiness for Practice Survey includes two sections. The first section includes 20 questions using a Likert scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly agree* (Casey et al., 2011). These questions identify the nursing student's confidence and comfort in their readiness to practice. This section also asks the student to identify their top three skills they are uncomfortable with at the time of the survey (Casey et al., 2011). The remaining section asks two open-ended questions to determine the students reason for selecting nursing as their future profession and any opportunities that to improve their academic preparation.

The study examined the relationship between the type of pre-licensure employment and amount of pre-licensure employment completed in the final year of academic preparation to nursing students' self-efficacy in nursing practice. Self-efficacy in nursing practice is the student's belief, confidence, and comfort in their abilities to complete the tasks, skills, and patient care required of the nursing profession (Denler et al., 2014; Bandura, 1977; Bandura, 1999; Bandura 1989). The Casey-Fink Readiness for Practice Survey© was developed to determine senior nursing students' overall confidence and comfort and subsequent readiness to practice. Therefore, the intended population and measured concept is consistent with the study.

The Casey-Fink Readiness for Practice Survey© has demonstrated reliability and validity. First, Kathy Casey, RN, MSN and Regina Fink, RN, PhD, AOCN, FAAN used an expert panel to review the instrument and reach consensus about included items (Casey et al., 2011). Second, the developers used exploratory factor analysis of the items

on a sample of 162 bachelor of nursing students at a single nursing program. Initial analysis using Kaiser criterion identified up to eight factors. However, for interpretation purposes, the developers divide the questions into a four-factor set of correlated subscales: clinical problem solving, learning techniques, professional identify, and trials and tribulations (Casey et al., 2011). Through factor loading, this solution accounted for 48.2% of the variance across the 20 survey items.

The exploratory factor analysis was followed by a confirmatory factor analysis to validate the initial findings with a second sample group of 267 bachelor of nursing students from three nursing programs. This analysis found an overall Cronbach's alpha of 0.69 for the 20 confidence and comfort questions asked in the second section of the survey (Casey et al., 2011). Each of these subscales includes two to seven of the 20 items. Similar to the exploratory factor analysis, the confirmatory analysis found the clinical problem solving subscale demonstrated $\alpha = .80$, learning techniques $\alpha = .50$, professional identify $\alpha = .65$, and trials and tribulations $\alpha = .63$ (Casey et al., 2011). Additionally, the analysis demonstrated the four factors provided an adequate fit for the data, $x^2/df = 2.00$, $CFI = .86$, $RMSEA = .06$ (Casey et al., 2011).

One section of the Casey-Fink Readiness for Practice Survey© requires the nursing student to identify their comfort in caring for 2, 3, and 4 patients using a Likert scale: 1 = *not confident*, 2 = *somewhat confident*, 3 = *neutral*, 4 = *somewhat confident*, and 5 = *very confident* (Casey et al., 2011). This section of the survey was evaluated by the developers using variances. The analysis found items measuring comfort caring for two patients $s^2 = .42$, caring for three patients $s^2 = .72$, and caring for four patients $s^2 =$

1.13. The descriptive statistics identified most students were comfortable with two and three patients as $M = 4.7$ for two patients and $M = 4.1$ for three patients. The items caring for four patients was selected less often as $M = 3.2$ (Casey et al., 2011).

Data Analysis Plan

Specific quantitative analysis was aligned to the following four research questions and hypotheses. Data analysis was completed using IBM SPSS Statistics software.

Research Question 1: What is the relationship between the type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

H_O1: There is no relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1 1$: There is a relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 2: What is the relationship between the amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0 2$: There is no relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation

to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$2: There is a relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 3: What is the relationship between the type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$3: There is no relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$3: There is a relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 4: What combination of type of pre-licensure work experience and amount of pre-licensure work experience best predicts positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$4: Type of pre-licensure work experience and amount of pre-licensure work experience do not predict positive self-efficacy of student nurses in their final

semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$4: A combination of type of pre-licensure work experience and amount of pre-licensure work experience predicts significant positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

First, descriptive statistics for the demographic questions were calculated. Descriptive statistics provided the means, standard deviations, and range scores for each of the variables. I then calculated and summarized the Casey-Fink Readiness for Practice scale scores. Subsequently, scale scores were tested for the assumptions of multiple linear regression which included normal distribution, the independence of the residuals, homogeneity of variances, and a linear relationship between the independent and dependent variables (Green & Salkind, 2014). To conclude, multiple linear regression was used to answer the four research questions. Multiple linear regression begins by quantifying the relationship the predictor variable or variables has with an outcome. The analysis then determines if the variable or variables predict the outcome (Field, 2013). Multiple linear regression and descriptive statistics can be completed using IBM SPSS Statistics software. Thus, these approaches to quantitative analysis were used to answer the questions related to the relationship and prediction of the outcome, self-efficacy in nursing practice, to the predictor variables, type and amount of pre-licensure employment.

Threats to Validity

External threats to validity for the study were related to the selected population and setting. The study was completed by nursing students in southwest Michigan. Data collected from the survey cannot be generalized to groups outside southwest Michigan as they may demonstrate different characteristic than the studied group (Creswell, 2009). Therefore, to generalize the findings, replication studies in different settings will be required.

The study's primary threat to internal validity was a result of the sampling technique and included population. The study used a convenience sample of student nurses in their final semester of academic preparation in southwest Michigan. Thus, it is possible those students who hold a higher level of self-efficacy in nursing practice will be more inclined to complete a self-reported survey to examine their confidence and comfort with nursing practice. Therefore, collected data could be biased as it would not reflect the relationship of the type and amount of pre-licensure employment to those with lower levels of self-efficacy in nursing practice. Random selection of participants is an option to reduce this threat (Creswell, 2009). However, I must also achieve an adequate sample to demonstrate significance.

Threats to construct or statistical conclusion validity occur when adequate power is not achieved or when statistical assumptions are violated. Multiple regression has several underlying assumptions. First, I must ensure the residuals are independent of each other (Field, 2013; Green & Salkind, 2014). Second, multiple regression requires homogeneity of variances (Field, 2013; Green & Salkind, 2014). Third, there must be a

linear relationship between the independent and dependent variables (Field, 2013; Green & Salkind, 2014). Finally, the dependent variable must be normally distributed in the group (Field, 2013; Green & Salkind, 2014). Thus, to avoid violation of these assumptions, histograms were reviewed to ensure normal distribution of residuals while scatterplots were reviewed for homogeneity and linearity of the variables (Field, 2013). Additionally, should violation of assumptions be identified, bootstrapping was completed to analyze confidence intervals and significance tests of the parameters (Field, 2013).

Ethical Procedures

In addition to developing the research plan, I must identify potential ethical issues that may result during their study. First and foremost, the study was submitted and approved by Walden University's Institutional Review Board (Approval No. 01-19-17-0552234). This step ensured the protection of human participants and review of any ethical issues that may have be present.

Most importantly, I must protect the participants, develop trust, promote the integrity of research, and guard against misconduct and impropriety (Creswell, 2009). For this study I obtained informed consent of the participants to engage in the study. The informed consent included identification of myself, explanation of how the participants were selected, purpose of the research, benefits of participating, level and type of participant involvement, risk to participant, confidentiality, ability to withdraw at any time, and person to contact if issues arise (see Appendix D). The informed consent did not require a handwritten signature of the participant. Additionally, the consent included

a statement describing that return of the survey using the stamped addressed envelope for return implied consent.

The study was completed through distribution of the survey during one of the students' classroom sessions at a time coordinated with the college or university's nursing directors and course faculty who participate in the Southwest Michigan Nursing Placement Consortium. Thus, I ensured prospective colleges and universities provided a letter of cooperation. The informed consent included identification of myself, explanation of how the participants were selected, purpose of the research, benefits of participating, level and type of participant involvement, risk to participant, confidentiality, ability to withdraw at any time, and person to contact if issues arise.

After the study, I ensured anonymity of the participants was maintained. Data from the study will be kept for at least five years and ensure it does not fall into the hand of others. Data will be stored in my personal hard drive secured by a username and a password. In addition, I will be responsible to ensure an accurate account of the collected data in the results of the dissertation and subsequent dissemination of findings.

Summary

The transition to practice provokes stress, anxiety, and a variety of difficulties for the student nurse. These difficulties are attributed to the acuity of the patient population and the lack of time spent in the clinical setting to practice the skills and processes of providing patient care. Thus, multiple studies have been conducted to determine interventions to support newly licensed nurses during and following their transition to practice. However, many nursing students are actively employed during their academic

preparation. At times, this employment is in a direct effort to gain healthcare experience and reduce the stress and anxiety they are experiencing as a student by improving and enhancing self-efficacy. However, there is little research conducted to identify the relationship between the type and amount of pre-licensure employment completed and the self-efficacy of student nurses as they prepare to transition to practice. This study examined these relationships and determined if a specific combination of a type and amount of employment contribute to higher levels of self-efficacy by providing a convenience sample of student nurses in Southwest Michigan with the Casey-Fink Readiness for Practice Survey© via their academic email addresses. Subsequently, data from the participants was analyzed using descriptive statistics and multiple linear regression to identify possible predictors and relationships.

In Chapter 4, I provide a detailed review of the study's data collection and results.

Chapter 4: Results

Introduction

Guided by Bandura's social cognitive theory, the purpose of this cross-sectional survey study was to examine the relationship between type and amount of pre-licensure employment and self-efficacy in nursing practice of student nurses' in their final semester of college. Quantitative analysis was completed for the following four research questions.

Research Question 1: What is the relationship between the type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

H_O1: There is no relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1 1$: There is a relationship between type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 2: What is the relationship between the amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0 2$: There is no relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation

to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$2: There is a relationship between amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 3: What is the relationship between the type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$3: There is no relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$3: There is a relationship between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

Research Question 4: What combination of type of pre-licensure work experience and amount of pre-licensure work experience best predicts positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

$H_0$4: Type of pre-licensure work experience and amount of pre-licensure work experience do not predict positive self-efficacy of student nurses in their final

semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

$H_1$4: A combination of type of pre-licensure work experience and amount of pre-licensure work experience predicts significant positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice as measured by the Casey-Fink Readiness for Practice Survey.

In this chapter, I cover the following topics: data collection and results.

Data Collection

The data collection began on January 25, 2017 and concluded February 24, 2017. Of the 277 potential participants, 138 returned the survey providing a 49.8% response rate. The researcher entered responses from the returned surveys into IBM SPSS Statistics. The returned surveys were scanned and converted to a portable document format and saved on my password-protected personal laptop. I validated the entered data by cross checking every fifth survey to the IBM SPSS Statistics database. Subsequently, the original surveys were shredded and disposed.

Review of returned surveys identified some of the participants provided ranges for the average hours per week of paid employment they completed. Thus, whenever a returned survey provided a range of hours, I consistently used the highest amount of time provided for the statistical analysis. Additionally, a few participants marked either two self-efficacy scores or made a mark in between two scores. When this was identified on a survey, I used the lowest score of two for the statistical analysis.

Participants were primarily single or married White females in associate degree programs with an average age of 28.7 years (*SD* = 7.38; range = 19–62 years old). Participant demographic information are summarized in Table 1.

Table 1

Participant Demographics

Variable	*n*	%
Gender		
Female	115	83.3
Male	23	16.7
Marital status		
Married	63	45.7
Single	66	47.8
Divorced	9	6.5
Ethnicity		
White	122	88.4
Black	2	1.4
Hispanic	4	2.9
Asian	2	1.4
Other/multiple	6	4.3
I do not wish to provide	2	1.4
Type of program		
ADN	127	92.0
BSN	11	8.0

Note. *N* = 138.

G*Power was used to determine adequate sample size. An a priori power analysis using an alpha of .05, power of 80%, 2 predictors, and an effect size of .1 revealed the sample size needed was 68. However, the sample size exceeded the minimum with 138 participants recruited for the study.

Results

Descriptive Statistics

Most participants (92.8%) reported working an average of 24.7 hours a week (*SD* = 12.94; range = 2–90 hours a week) during the past year. Fifty-eight percent of those working reported having multiple jobs in the previous year. Of those working, the majority reported having healthcare experience (see Table 2). The top five non-healthcare areas the participants reported working were food preparation or service (*n* = 18), sales (*n* = 16), farming (*n* = 8), offices (*n* = 8), and community or social services (*n* = 7). The top five healthcare areas the participants reported working were nursing assistant (*n*=59), licensed practical nurse or vocational nurse (*n* = 47), nurse extern (*n* = 17), home health aide (*n* = 13), and medical assistant (*n* = 8). The top five skills/procedures senior nursing students are uncomfortable performing independently include responding to an emergency, code, or changing patient condition (*n* = 51), intravenous (IV) starts (*n* = 42), chest tube care (*n* = 42). EKG/telemetry monitoring and interpretation (*n* = 36), and tracheostomy care/suctioning (*n* = 36).

Table 2

Pre-Licensure Work Experience

Variable	*n*	*%*
Healthcare experience		
No	25	18.1
Yes	113	81.9
Non-healthcare experience		
No	123	89.1
Yes	15	10.9

Note. *N* = 138.

Statistical Assumptions

This study used an adapted Casey-Fink Readiness for Practice Survey. The developers of the instrument validated construct validity using exploratory factor analysis (Casey et al., 2011). Although the initial analysis using Kaiser criterion identified up to eight factors, the developers divide the questions into a four-factor set of correlated subscales: clinical problem solving, learning techniques, professional identify, and trials and tribulations which accounted for 48.2% of the variance across the 20 survey items (Casey et al., 2011). Confirmatory factor analysis found an overall Cronbach's alpha of 0.69 for the 20 confidence and comfort questions asked in the second section of the survey (Casey et al., 2011). Using the collected data, reliability for the 20 survey items was confirmed (Cronbach's $\alpha = .72$).

One section of the Casey-Fink Readiness for Practice Survey© requires the nursing student to identify their comfort in caring for 2, 3, and 4 patients using a five point Likert scale (Casey et al., 2011). The analysis of the variances demonstrated items measuring comfort caring for two patients $s^2 = .42$, caring for three patients $s^2 = .72$, and caring for four patients $s^2 = 1.13$. Using the collected data, the variances for comfort caring for two patients was $s^2 = .60$, caring for three patients $s^2 = 1.10$, and caring for four patients $s^2 = 1.42$.

Analysis of the underlying assumptions for multiple linear regression were completed using IBM SPSS Statistics software. Review of the correlation matrix found no multicollinearity in the data as the variance inflation factor was 1.00 and there were no substantial correlations between the predictors (see Table 3) (Field, 2013). The Durbin-

Watson statistic was found to be 1.94 and validated the assumption of independence was met (Field, 2013). The distribution in the histogram is symmetrical and bell-shaped (see Figure 1). Additionally, the P-P plots demonstrate dots on or near the diagonal (see Figure 2). Thus, review of the histogram and P-P plots signify the assumption of normality is met (Field, 2013). Review of the scatterplot for average number of hours worked per week and self-efficacy demonstrated some funneling at lower levels of hours worked (see Figure 3). The scatterplot for non-healthcare experience and self-efficacy demonstrated a high number of plots at lower levels of self-efficacy (see Figure 4). The assumption of homoscedasticity might have been violated (Field, 2013). Thus, bootstrapping was performed as the use of bootstrap confidence intervals and significance values do not rely on homoscedasticity (Field, 2013).

Table 3

One-Tailed Pearson Correlations

	Self-Efficacy Score
Self-efficacy score	1.000
Healthcare experience	.088
Non-healthcare experience	-.088
Average number of hours	.014

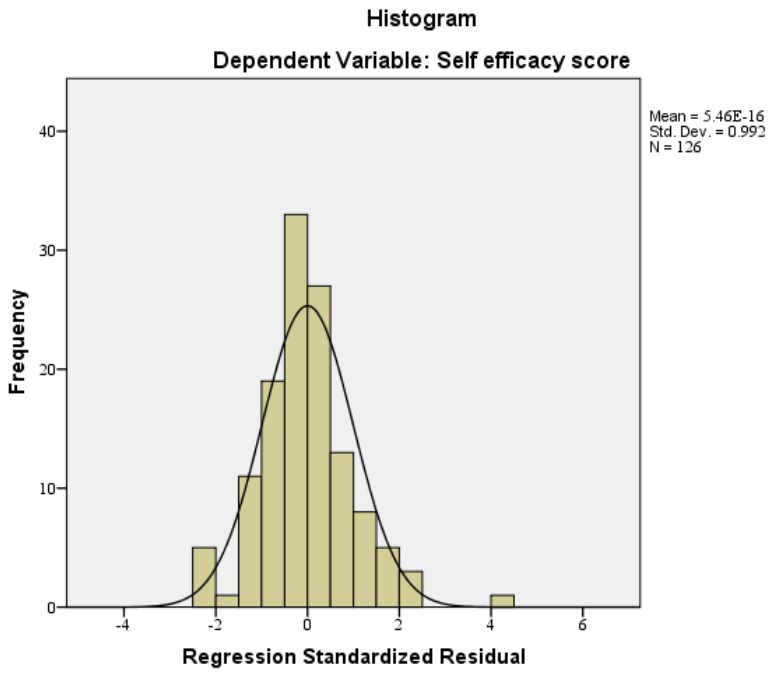

Figure 2. Histogram of regression standardized residual

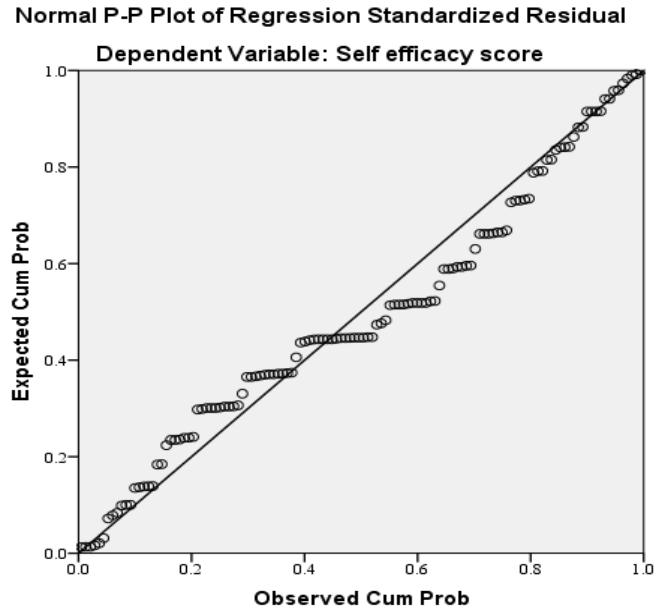

Figure 3. P-P plot of regression standardized residual

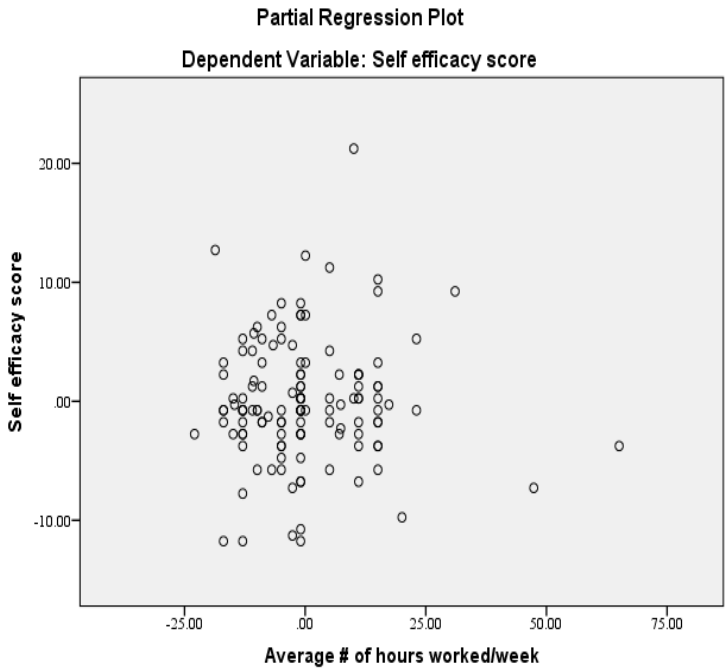

Figure 4. Partial regression plot for average hours

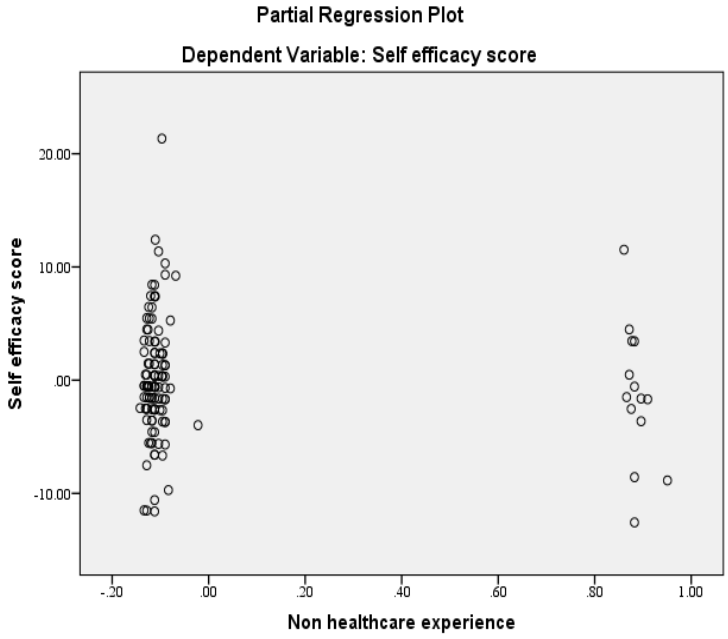

Figure 5. Partial regression plot for non-healthcare experience

Statistical Analysis Findings by Research Question

Independent samples *t*-test, Pearson's correlation, and multiple linear regression analysis were conducted to evaluate how type of pre-licensure employment and amount of pre-licensure employment predict overall self-efficacy in nursing practice.

Research Question I

What is the relationship between the type of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

The null hypothesis stated there would be no relationship between these two variables; the alternate hypothesis stated that there would be a significant linear correlation.

H_o: $\rho = 0$. No significant correlation exists

H_A: $\rho \neq 0$. Significant correlation exists

Independent *t*-test analyses were conducted using an alpha of .05 to determine the relationship between types of pre-licensure work experience and self-efficacy in nursing practice. Bootstrapping was performed as review of scatterplots indicated the assumption of homoscedasticity might have been violated. There was no significant difference in the self-efficacy scores of those who completed pre-licensure work experience and those who chose not to work $t(10.77) = 1.05$, $p = .33$. There was no significant difference in the self-efficacy scores for those with healthcare pre-licensure work experience those without healthcare experience $t(136) = -1.28$, $p = .20$. There was no significant difference in the

self-efficacy scores for those with non-healthcare pre-licensure work experience and those without non-healthcare experience $t(136) = .77$, $p = .44$. Thus, the null hypothesis was accepted. Table 4 shows the independent *t* test findings.

Table 4

Independent t Test for Type of Pre-Licensure Work Experience

	Mean		*SD*			
	No	Yes	No	Yes	ρ	Levene's Test for Equality of Variances
No experience	56.56	54.9	5.24	4.77	.33	.92
Healthcare experience	55.24	56.71	5.39	5.15	.22	.69
Non-healthcare Experience	56.56	55.47	5.13	5.91	.51	.63

Research Question 2

What is the relationship between the amount of pre-licensure work experience and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

The null hypothesis stated there would be no relationship between these two variables; the alternate hypothesis stated that there would be a significant linear correlation.

H_o: $\rho = 0$. No significant correlation exists

H_A: $\rho \neq 0$. Significant correlation exists

The analysis revealed a weakly positive relationship between amount of pre-licensure work experience and self-efficacy in nursing practice. However, this relationship was not significant ($r = .01$, $p = .44$). Thus, the null hypothesis was accepted.

Research Question 3

What is the relationship between the type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

The null hypothesis stated there would be no relationship between these three variables; the alternate hypothesis stated that there would be a significant linear correlation.

H_o: $\rho = 0$. No significant correlation exists

H_A: $\rho \neq 0$. Significant correlation exists

The analysis found a small positive relationship between type and amount of pre-licensure work experience and self-efficacy in nursing practice. However, the analysis was not significantly related to self-efficacy in nursing practice, $F(2, 123) = .49$, $p = .61$, $R = .09$, Adj. $R^2 = .01$. Thus, the null hypothesis was accepted.

Research Question 4

What combination of type of pre-licensure work experience and amount of pre-licensure work experience best predicts positive self-efficacy of student nurses in their final semester of academic preparation to enter nursing practice?

The null hypothesis stated these two variables do not predict positive self-efficacy in nursing practice; the alternate hypothesis stated that there would be a significant linear regression.

H_o: $\rho = 0$. No significant correlation exists

H_A: $\rho \neq 0$. Significant correlation exists

The model did not significantly predict self-efficacy in nursing practice as the *F*-ratio was .49, (p = .61). The regression analysis demonstrated non-healthcare experience did not significantly or positively predict self-efficacy in nursing practice, b = -1.46 [-5.27, 2.13], p = .38. Additionally, the data analysis demonstrated self-efficacy in nursing practice is not significantly predicted by amount of pre-licensure work experience, b = .00 [-.07, .11], p = .92. Thus, the null hypothesis was accepted.

Additional Statistical Analysis

A subset of the self-efficacy comprehensive score includes questions related to the senior nursing students' self-efficacy in managing a patient care assignment with two, three, and four patients. Independent samples *t*-test, Pearson's correlation, and multiple linear regression were completed to determine if there were relationships between the types and amount of pre-licensure work experience and self-efficacy in managing a patient care assignment. The null hypothesis was there would not be a relationship between type or amount pre-licensure work experience and self-efficacy in managing a patient care assignment. The alternative hypothesis was there would be a relationship between type or amount of pre-licensure work experience and self-efficacy in managing a patient care assignment.

Two-patient assignment. The independent *t*-test analysis identified there was no significant difference in the self-efficacy in managing a patient care assignment of two patients for those with healthcare pre-licensure work experience (M = 4.49, SD = .71) and those without healthcare experience (M = 4.24, SD = 1.01); t(29.57) = -1.16, p = .26. Similarly, the independent *t*-test analysis identified there was no significant difference in

the self-efficacy in managing a patient care assignment of two patients for those with non-healthcare pre-licensure work experience (M = 4.20, SD = .94) and those without non-healthcare experience (M = 4.47, SD = .75); $t(134) = 1.28$, p = .20. The Pearson correlation analysis found a positive relationship between amount of pre-licensure work experience and self-efficacy in managing a patient care assignment of two patients. However, this relationship was not significant (r = .12, p = .09). Additionally, the model did not significantly predict self-efficacy in managing a patient care assignment of two patients, as the F-ratio was 2.26, p = .11. Thus, the null hypothesis was accepted for type and amount of pre-licensure work experience.

Three-patient assignment. The independent t-test analysis identified there was no significant difference in the self-efficacy in managing a patient care assignment of three patients for those with healthcare pre-licensure work experience (M = 3.69, SD = 1.00) and those without healthcare experience (M = 3.36, SD = 1.22); $t(135) = -1.42$, p = .16. Similarly, the independent t-test analysis identified there was no significant difference in the self-efficacy in managing a patient care assignment of three patients for those with non-healthcare pre-licensure work experience (M = 3.2, SD = 1.15) and those without non-healthcare experience (M = 3.68, SD = 1.03); $t(135) = 1.68$, p = .10. The Pearson correlation analysis found a positive significant relationship between amount of pre-licensure work experience and self-efficacy in managing a patient care assignment of three patients (r = .19, p = .02). Thus, the alternative hypothesis was accepted for amount of pre-licensure work experience while the null hypothesis was accepted for type of pre-licensure work experience. Additionally, the model significantly predicted self-efficacy

in managing a patient care assignment of three patients, as the *F*-ratio was 4.60, *p* = .01. The multiple linear regression for non-healthcare pre-licensure work experienced revealed, *b* = -.60 [-1.16, -.04], *p* = .04. The multiple linear regression for average hours worked a week revealed, *b* = .01 [.00, .03], *p* = .04. Thus, the presence of healthcare experience is a better positive predictor of positive self-efficacy.

Four-patient assignment. The independent *t*-test analysis identified there was no significant difference in the self-efficacy in managing a patient care assignment of four patients for those with healthcare pre-licensure work experience (*M* = 2.85, *SD* = 1.18) and those without healthcare experience (*M* = 2.56, *SD* = 1.23); *t*(133) = -1.12, *p* = .27. Similarly, the independent *t*-test analysis identified there was no significant difference in the self-efficacy in managing a patient care assignment of four patients for those with non-healthcare pre-licensure work experience (*M* = 2.27, *SD* = 1.03) and those without non-healthcare experience (*M* = 2.87, *SD* = 1.19); *t*(133) = 1.86, *p* = .07. The Pearson correlation analysis found a positive relationship between amount of pre-licensure work experience and self-efficacy in managing a patient care assignment of four patients. However, the relationship was not significant (*r* = .13, *p* = .07). Thus, the null hypothesis was accepted for type and amount of pre-licensure work experience. Additionally, the model significantly predicted self-efficacy in managing a patient care assignment of four patients, as the *F*-ratio was 3.42, *p* = .04. The multiple linear regression for non-healthcare pre-licensure work experience demonstrated, *b* = -.70 [-1,25, -.17], *p* = .01. The multiple linear regression for amount of pre-licensure experience demonstrated, *b* =

.01 [-.01, .04], p = .22. Thus, the presence of healthcare experience is a better positive predictor of positive self-efficacy.

Summary

In summary, independent *t*-test, Pearson's correlation, and multiple linear regression analysis were completed to determine if relationships exist between type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy in nursing practice. The analysis of healthcare experience as the source of pre-licensure work experience and the comprehensive self-efficacy in nursing practice score revealed a significant relationship does not exist. Similarly, the analysis of non-healthcare experience as a source of pre-licensure work experience and the comprehensive self-efficacy in nursing practice score provided a significant relationship does not exist. The analysis of amount of pre-licensure work experience and the comprehensive self-efficacy in nursing practice score revealed a small non-significant positive relationship. The regression model for type and amount of pre-licensure work experience did not predict self-efficacy in nursing practice. Thus, the null hypothesis was accepted for all the research questions.

Additional independent *t*-test, Pearson correlation, and multiple linear regression were completed to determine if relationships exist between pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy in nursing practice related to the size of the patient care assignment. This analysis revealed no significant relationships exist between healthcare and non-healthcare as the source of pre-licensure work experience and the self-efficacy in care of two, three, and four patients.

The analysis of amount of pre-licensure work experience and self-efficacy in patient care demonstrated positive relationships for two, three, and four patients. However, amount of pre-licensure experience and self-efficacy in patient care was only significant for the care of three patients as it was not significant for care of two and four patients. Additionally, the model for two patients did not predict self-efficacy in patient care. However, the models for three and four patients did demonstrate healthcare experience as the best predictor of positive self-efficacy in the size of the patient care assignment.

In Chapter 5, I will interpret the findings of this analysis, discuss the limitations of the study, the recommendations for future research, the potential impact of these findings, including the implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this cross-sectional survey study was to examine the relationship between type and amount of pre-licensure employment and self-efficacy in nursing practice of student nurses in their final semester of college. Although many student nurses are employed during college in healthcare or non-healthcare roles, little is known how the type and amount of pre-licensure employment affects the self-efficacy in nursing practice of student nurses as they prepare to transition into the workforce . Studies designed to explore pre-licensure employment are predominantly qualitative (Cubit & Lopez, 2012; Draper et al., 2014; Haason, McKenna, & Keeney, 2013; Kenny et al., 2012; Phillips et al., 2012; Phillips, Kenny, Esterman, & Smith, 2013). The quantitative studies used small sample sizes and lacked generalizability (Friday et al., 2015; Phillips et al., 2013). This study filled a gap by exploring how the type and amount of pre-licensure employment affects the self-efficacy in nursing practice of student nurses as they prepare to transition into the workforce.

This study used a cross-sectional survey design to measure the relationship between the independent variables, type and amount of pre-licensure employment, and the dependent variable, self-efficacy in nursing practice. The study used a convenience sample of undergraduate nursing students in southwest Michigan in their final semester of academic preparation. During one of their classroom sessions, I gave the students the survey, informed consent, and stamped, self-addressed envelope. I determined the date

and time of recruitment by collaborating with faculty who attended the Southwest Michigan Nursing Placement Consortium.

This study provided several key findings. First, there is no significant relationship between healthcare as the pre-licensure work experience and comprehensive self-efficacy in nursing practice score. Second, there is no a significant relationship between non-healthcare as the pre-licensure work experience and the self-efficacy in nursing practice comprehensive score. Third, a small, positive, nonsignificant relationship is present between the amount of pre-licensure work experience and the self-efficacy in nursing practice score. Additionally, the overall regression model did not predict self-efficacy in nursing practice. Fourth, there is no a significant relationship between healthcare as pre-licensure work experience and self-efficacy in managing a patient care assignment of two, three, or four patients. Fifth, there is no significant relationship between non-healthcare as pre-licensure work experience and self-efficacy in managing a patient care assignment of two, three, or four patients. Sixth, the amount of pre-licensure work experience was positively related to self-efficacy in managing a patient care assignment of two, three, and four patients. However, the analysis was significant only for the care of three patients as it was non-significant for care of two and four patients. However, the models for three and four patients did reveal that healthcare experience is the best predictor of self-efficacy in managing a patient care assignment.

In this chapter, I cover the following topics: interpretation of findings, limitations of the study, recommendations, and implications.

Interpretation of the Findings

Described in the second chapter, a gap was identified in the literature regarding the effects of type and amount of pre-licensure employment for senior nursing students. This study addressed the gap using multiple regression, Pearson's correlation, and independent samples *t*-test to explore the relationship of type and amount of pre-licensure employment to self-efficacy in nursing of senior nursing students in southwest Michigan.

The first three hypotheses addressed the relationships between type and amount of pre-licensure work experience and self-efficacy in nursing practice. Correlations using independent *t*-test indicated the completion of pre-licensure work experience in a healthcare role did not have a significant relationship to self-efficacy in nursing practice. Similarly, the independent t-test indicated completion of pre-licensure work experience in a non-healthcare setting did not have a significant relationship to self-efficacy in nursing practice. Correlation using Pearson's r indicated a small, positive, non-significant relationship between amount of pre-licensure work experience and self-efficacy in nursing practice. Thus, the null hypothesis was accepted for the first three research questions.

These findings are consistent in the literature as studies have found self-reported self-efficacy in nursing skills, such as delegation of task, communication with patients, and use of evidence based practice, is generally high in all nursing students (Karabacak et al., 2013). Generally, student nurses enter their academic preparation with high levels of self-efficacy and success (Karabacak et al., 2013). Thus, nursing students have been found to work harder and persist longer (Karabacak et al., 2013). Similarly, studies of

nurses have demonstrated self-efficacy increases as experience increases (Welsh, 2014; Woods et al., 2015). Considering all nursing students have had the same amount of clinical experience, it would be assumed their self-efficacy levels would be similar (Woods et al., 2015). Additionally, it has been identified student nurses believe they have the essential nursing knowledge to begin their practice (Casey et al., 2011; Chappy, Jambunathan, & Marnocha, 2010; Guner, 2014; Woods, West, Mills, Park, Southern, & Usher, 2015).

The fourth hypothesis compared the type of pre-licensure work experience and amount of pre-licensure work experience to predict self-efficacy in nursing practice. The regression models indicated type and amount of pre-licensure work experience do not predict self-efficacy in nursing practice. Thus, the null hypothesis was accepted.

Additional correlation and regression were completed to determine the relationship of type of pre-licensure work experience, amount of pre-licensure work experience, and self-efficacy in management of a patient care assignment for two, three, and four patients. Correlations using independent samples *t*-test indicated there was no significant relationship between completion of pre-licensure work experience in healthcare to self-efficacy in management of a patient care assignment for two, three, and four patients. Similarly, correlations using independent samples *t*-test indicated there was no significant relationship between completion of pre-licensure work experience in a non-healthcare setting to self-efficacy in management of a patient care assignment for two, three, and four patients. Correlations using Pearson's r for amount of pre-licensure work experience and self-efficacy in management of a patient care assignment for two,

three, and four patients were positive. However, the relationship was only significant for the care of three patients. Subsequently, the model using healthcare experience was predictive of positive self-efficacy in management of patient care of both three and four patients.

This is consistent with the literature which supports observation of expert role models in the clinical setting increases self-confidence of nursing students (Chesser-Smyth & Long, 2013; Franklin et al., 2015). Although nursing students have equal amounts of clinical experience as part of their academic preparation, those working in healthcare have additional exposure to expert role models. However, studies have confirmed nursing students struggle with managing a multiple patient assignment of more than three patients (Casey et al., 2011; Woods et al., 2015). Additionally, nursing students have voiced feeling a lack of clinical experience and decreased confidence in clinical skills (Guner, 2014).

Bandura's social cognitive theory posits a triadic reciprocal causation (Bandura, 1999). Specifically, internal personal factors such as cognitive, affective, and biological events, behavioral patterns, and environmental events influence each other bidirectionally (Bandura, 1999). Individuals select their environments and learning in these environments occurs through modeling (Bandura, 1999). Additionally, those with higher levels of self-efficacy demonstrate flexibility and resourcefulness which allows them to manage their environments effectively (Bandura, 1999). When individuals evaluate their self-efficacy, they base their decision on their performance mastery experiences, vicarious experiences, verbal persuasion, and physiological state.

Review of the results of this study lends support to Bandura's social cognitive theory. First, nursing students selected their environments by deciding to become nurses. Second, being a member of a nursing program which is a few months from graduating demonstrates academic achievement, success, and positive performance mastery experience. Third, nursing students have equal amounts of modeling during the clinical experiences in their academic preparation. Therefore, regardless of type and amount of pre-licensure work experience, senior nursing students demonstrate positive self-efficacy which may project to their nursing practice.

Limitations of the Study

The results of this study are limited in generalizability as the participants were recruited using a convenience sample of senior nursing students in southwest Michigan. Additionally, although bachelor of nursing students were included for recruitment, the number who participated from the bachelor of nursing program was small (8%). Thus, regions where a higher number of bachelor programs are provided may achieve different findings. Therefore, replication of this study would be needed to achieve generalization.

Recommendations

The nature of the completed study lends itself to replication in other regions to promote generalization of the results to a larger population. Due to the small participation of bachelor of nursing students, I would recommend replication of the study using bachelor programs to promote comparison and generalization of results. This study identified healthcare experience can predict positive self-efficacy in managing the patient care assignment for three and four patients. Thus, I would recommend future studies be

completed to explore the relationship between types of healthcare pre-licensure work experience and self-efficacy in management of the patient care assignment. This exploration could provide further recommendations for nursing students in the selection of pre-licensure work experience in healthcare.

Implications

The results of this study have the potential to provide positive social change at the individual and organizational level. Although healthcare leaders and academic faculty acknowledge many nursing students are employed during their academic preparation, these groups have not collaborated to understand the impact of this employment (Casey et al., 2011; Phillips et al., 2012; Phillips et al., 2013; Woods et al., 2015). Results of this study identified healthcare as the source of pre-licensure work experience predicts positive self-efficacy in managing a patient care assignment of three and four patients. Thus, healthcare leaders and academic faculty could begin collaborating, using these findings, to build recommendations and policies to guide student nurse completion of pre-licensure employment. Furthermore, collaboration among these individuals around the findings of this study may prompt changes to the structure of clinical experiences provided in the healthcare setting. Changes in the structure of clinical experiences could provide increased opportunity for students to receive modeling from experienced nurses and apply their newly acquired knowledge and skills to a larger patient assignment prior to program completion. Thus, these recommendations could potentially impact the individual student nurse as well as colleges of nursing and healthcare organizations. Results of this study also have the potential to provide positive social change in regards

to the orientation of newly licensed nurses in the acute care setting. Knowledge regarding their previous work experience could be used by healthcare leaders and nurse educators to individualize their orientation by providing a gradual increase in number of patients to promote self-efficacy in managing the patient care assignment through modeling with an experienced nurse preceptor.

Conclusion

In conclusion, it is widely known the transition to an acute care setting from academia is difficult and causes a significant amount of stress, anxiety, and shock for newly licensed nurses (Chandler, 2012; Cubit & Lopez, 2011; Draper, Beretta, Kenward, McDonagh, Messenger, & Rounce, 2014; Feng & Tsai, 2012). Subsequently, this leads to decreased job satisfaction and decreased retention of newly licensed nurses (Chandler, 2012; Feng & Tsai, 2012). This is of growing concern considering the projected 16% increase need for RNs over the next decade due to additional emphasis on preventative care, increase in chronic conditions, and retirement and use of healthcare by the baby boomers (United States Department of Labor, 2015; Friday, Zoller, Hollerbach, Jones, & Knofczynski, 2015). Thus, healthcare leaders and educators seek interventions that will decrease the stress, anxiety, and shock experienced by newly licensed nurses.

Although many student nurses are actively employed during their academic preparation, before this study, little was known how this employment effects their self-efficacy in nursing practice. This study identified healthcare pre-licensure work experience is the best predictor of positive self-efficacy in managing a patient care assignment of three and four patients. Thus, results will be shared with healthcare leaders

and academic faculty to assist with building recommendations and policies to guide student nurse selection and completion of pre-licensure employment. Findings of this study will also aid nurse educators to individualize the orientation of newly licensed nurses based on their prior work experience to assist them with improving their self-efficacy in managing the full patient assignment. Additionally, nurse educators coordinating transition to practice programs can use the results of this study to provide content and application opportunities related to managing care for an increased number of patients over time with modeling from an experienced nurse preceptor. Thus, this study support positive social changes for nursing students, colleges, and acute care facilities by providing recommendations for the implementation of policy and guidelines for the completion of pre-licensure work experience and the subsequent transition to practice of newly licensed nurses.

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Appendix A: Adapted Casey-Fink Readiness for Practice Survey ©2008

Please circle the response that represents your individual profile.

Section I: Demographics

1. **Age: _____years**

2. **Gender:**
   a. Female
   b. Male

3. **Ethnicity**
   a. Caucasian (white)
   b. Black
   c. Hispanic
   d. Asian
   e. Native American
   f. Other
   g. I do not wish to include this information

4. **Marital Status:**
   a. Married
   b. Single
   c. Divorced
   d. Widowed

5. **School of nursing attended:**
   a. Glenn Oaks Community College
   b. Kalamazoo Valley Community College
   c. Kellogg Community College
   d. Southwest Michigan Community College
   e. Western Michigan University

6. **Type of nursing program enrolled:**
   a. Associate Degree in Nursing
   b. Bachelor of Science in Nursing

7. **Have you worked in the past year?**
   a. Yes
   b. No (if not, please skip to Section II: Self-Efficacy in Nursing Practice)

8. What work experience have you had in the past year?

Non-healthcare work experience:

a. Architecture or engineering
b. Arts or design
c. Building or grounds cleaning
d. Business or financial
e. Community or social service
f. Computer or information technology
g. Construction or extraction
h. Education, training, or library
i. Entertainment or sports
j. Farming, fishing, or forestry
k. Food preparation or serving
l. Installation, maintenance, or repair
m. Legal
n. Life, physical, or social science
o. Management
p. Media or communication
q. Military
r. Office or administration support
s. Personal care or service
t. Production
u. Protective service
v. Sales
w. Transportation or material moving
x. Other_____

Healthcare work experience:

a. Athletic trainer
b. Dental assistant or hygienist
c. Diagnostic medical sonographer
d. Dietician or nutritionist
e. EMT or paramedic
f. Exercise physiologist
g. Home health aide
h. Licensed practical or vocational nurse
i. Medical or clinical laboratory technician
j. Medical assistant
k. Medical record or health information technician
l. Medical transcriptionists
m. Nuclear medicine technologist
n. Nursing assistant or orderly
o. Occupational therapy assistant or aide
p. Optician (dispensing)
q. Pharmacy technician
r. Phlebotomist
s. Physical therapy assistant or aide
t. Psychiatric technician or aide
u. Radiation therapist
v. Recreational therapist
w. Respiratory therapist
x. Surgical technologist
y. Veterinarian assistant or animal care taker
z. Other_____

9. Average # of hours worked per week during the last year:_____hours

Section II: Self-Efficacy in Nursing Practice

List <u>three</u> skills/procedures you are <u>most</u> *uncomfortable performing* independently at this time?

Select from list below.

1._____

2._____

3._____

4. _____I am independent in all skills listed below

<u>List of skills</u>

Assessment skills
Bladder catheter insertion/irrigation
Blood draw/venipuncture
Blood glucose monitoring device
Central line care (dressing change, blood draws, discontinuing)
Charting/documentation
Chest tube care
EKG/Telemetry monitoring and interpretation
Giving verbal report
Intravenous (IV) medication administration
Intravenous (IV) starts
IV pumps/PCA pump operation
Medication administration
NG tube/Dobhoff care
Pulse oximetry
Responding to an emergency/CODE/changing patient condition
Trach care/suctioning
Wound care/dressing change/wound vac Other_____

Please answer each of the following questions by placing a mark inside the box/circle:

What is your current level of confidence in managing a patient care assignment on an adult medical-surgical unit:

NOT CONFIDENT **VERY CONFIDENT**

	1	2	3	4	5
Caring for 2 patients					
Caring for 3 patients					
Caring for 4 patients					

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
1. I feel confident communicating with physicians.	☐	☐	☐	☐
2. I am comfortable communicating with patients from diverse populations.	☐	☐	☐	☐
3. I am comfortable delegating tasks to the nursing assistant.	☐	☐	☐	☐
4. I have difficulty documenting care in the electronic medical record.	☐	☐	☐	☐
5. I have difficulty prioritizing patient care needs.	☐	☐	☐	☐
6. My clinical instructor provided feedback about my readiness to assume an RN role.	☐	☐	☐	☐
7. I am confident in my ability to problem solve.	☐	☐	☐	☐
8. I feel overwhelmed by ethical issues in my patient care responsibilities.	☐	☐	☐	☐
9. I have difficulty recognizing a significant change in my patient's condition.	☐	☐	☐	☐
10. I have had opportunities to practice skills and procedures more than once.	☐	☐	☐	☐
11. I am comfortable asking for help.	☐	☐	☐	☐

12. I use current evidence to make clinical decisions.	□	□	□	□
13. I am comfortable communicating and coordinating care with interdisciplinary team members.	□	□	□	□
14. Simulations have helped me feel prepared for clinical practice.	□	□	□	□
15. Writing reflective journals/logs provided insights into my own clinical decision-making skills.	□	□	□	□
16. I feel comfortable knowing what to do for a dying patient.	□	□	□	□
17. I am comfortable taking action to solve problems.	□	□	□	□
18. I feel confident identifying actual or potential safety risks to my patients.	□	□	□	□
19. I am satisfied with choosing nursing as a career.	□	□	□	□
20. I feel ready for the professional nursing role.	□	□	□	□

Thank you for completing this survey!

Appendix B: Permission to Adapt Casey-Fink Readiness for Practice Survey

FR Fink, Regina
9/12/2016 8:20 PM

RE: Casey-Fink Readiness for Practice Survey: Dissertation Adaptation
To: khristina.grimm@waldenu.edu Cc: caseykt@aol.com

Khristina—
That is fine if you wish to change the demographics to fit your needs. Thanks for your inquiry. Please note Kathy Casey's new email address.
Best of luck with your research.
Regina

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From: khristina.grimm@waldenu.edu [mailto:khristina.grimm@waldenu.edu]
Sent: Sunday, September 11, 2016 6:17 PM
To: kathy.casey@sclhs.net; Fink, Regina <Regina.Fink@ucdenver.edu>
Subject: Casey-Fink Readiness for Practice Survey: Dissertation Adaptation

Hello Kathy Casey and Regina Fink,
My name is Khristina Grimm and I am a PhD Nursing student at Walden University. I am currently developing my proposal for dissertation. I plan to complete a cross-sectional survey study of senior nursing students in Southwest Michigan to determine the relationship between the type of pre-licensure employment and amount of pre-licensure employment completed to self-efficacy in nursing practice.

I have read your article "Readiness for Practice: The Senior Practicum Experience" in the Journal of Nursing Education. I have also reviewed the reliability and validity statistics for the Casey-Fink Readiness for Practice Survey. I believe this instrument would work wonderfully to measure my independent and dependent variables with some adaptation of the provided demographic section.

I am writing to inquire if it would be acceptable to modify the demographic section of the Casey-Fink Readiness for Practice Survey to solicit only types of employment identified by the United States Department of Labor, amount of pre-licensure employment completed per week in hours, and grade point average. The other sections of the survey would remain as developed.

I greatly appreciate your consideration.

Thank you in advance,
Khristina L. Grimm, MSN, RN-BC

Sent from Mail for Windows 10

Appendix C: Permission to Use Survey

Casey-Fink Readiness for Practice Survey©

Thank you for your interest in using the *Casey-Fink Readiness for Practice Survey©* instrument.

This survey was developed by two investigators:
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You have been granted permission to use this newly developed survey designed to examine senior nursing students' perceptions of readiness for professional practice. Please note that this tool is copyrighted and should not be changed in any way. Attached is a copy of the instrument for you to use.

We have published a report of the research we conducted in the development of this instrument:

Casey K, **Fink RM**, Jaynes C, Campbell L, Cook P, Wilson V. Readiness for Practice: The Senior Practicum Experience. Journal of Nursing Education. 2011; 50(11):646-652.

The survey consists of three sections. The first section asks for demographic data and information about the student's senior practicum experience: total hours, clinical setting, preceptor, and course content information.

The second section focuses on the student's comfort with both clinical and relational skill performance. Participants are asked to identify the top three skills/procedures they are uncomfortable performing independently. Next, students are asked about their level of confidence in managing multiple patient assignments. Lastly, students are presented with a list of twenty items asking for a self-report about level of comfort/confidence in performing key nursing activities using a Likert scale (1=strongly disagree, 2 = disagree, 3= agree, 4 = strongly agree). This comfort/confidence questionnaire was used to identify the four domains of readiness offered during the senior practicum course in development of readiness for practice.

The third section consists of two open-ended questions asking respondents' reasons for choosing nursing as a profession and what they think could be done to help them feel more prepared to enter nursing practice.

Psychometric Analysis of the Casey-Fink Readiness for Practice Survey

Content validity of the survey was addressed using an expert consensus development process.

Construct validity involved an initial exploratory factor analysis (EFA) of all Casey-Fink Readiness for Practice Survey items on the development sample, followed by a confirmatory factor analysis (CFA) to revalidate the EFA findings in a second, independent sample. EFA was conducted using PASW 18, and CFA was conducted using AMOS 18 (SPSS, Inc.: Chicago, IL).

Exploratory factor analysis (EFA) of all items was completed on the development sample obtained by surveying 162 students at one BSN education program in Denver, Colorado. **EFA Findings.** The initial solution using the Kaiser criterion suggested up to eight factors, but the most interpretable solution was a four-factor set of correlated subscales. Factor loadings for individual scale items under the final solution are given in Table 1.This final solution accounted for 48.2% of the variance across all survey items. Subscales were named *clinical problemsolving*, *professional identity*, *trials and tribulations*, and *learning techniques*. Subscales contained from two to seven items. Although the *learning techniques* scale included only two items, related to the use of simulation and the use of reflective writing as part of the nurse's training experiences, these two items did load together on a single factor and appeared to provide valid data. Therefore, this two-item subscale was retained in the final solution. All items on the other three scales related to aspects of the nurse's clinical interactions with patients, supervisors, co-workers, and systems of care. Cronbach's alphas for the obtained subscales ranged from .50 (for the two-item *learning techniques* subscale) to .80 (for the seven-item *clinical problemsolving* scale). The other two subscales had results in the .60-.70 range, which is not ideal but is acceptable for research use (Peterson, 1994). Correlations between subscales in this orthogonal solution ranged from r = .04 to .51 , with significant inter-correlations among the *clinical problem-solving*, *professional identity*, and *trials and tribulations* scales, all three of which had non-significant relationships with the *learning techniques* subscale.

Confirmatory Factor Analysis (CFA) of all items to revalidate the exploratory factor analysis findings was completed in a second independent validation sample consisting of 267 BSN students recruited from three BSN programs in Colorado. **CFA Findings.** In the independent validation sample, the same four factors provided an adequate but not excellent fit for the observed data, χ^2/df= 2.00, *CFI* = .86, *RMSEA* = .06. The two items on the *learning techniques* subscale again failed to correlate strongly with each other, although efforts to incorporate them into other subscales failed to improve model fit and they appeared to group together on their own subscale despite their low inter-correlation. Items on the *trials and tribulations* subscale had the smallest factor loadings, suggesting that this factor may not be as unitary a construct as the other three subscales of the measure. It is possible that nurses experience these *trials and tribulations* items as separate challenges to practice, rather than as a group of consistent stressors. Therefore, an alternate scoring approach would be to score

these items individually rather than combining them into a subscale. Nevertheless, Cronbach's alpha for this subscale remained at .65 in the validation sample, so it also may be reasonable to consider *trials and tribulations* variables together by combining them into a single subscale score. Modifications to the model failed to improve overall fit, including deleting the *learning techniques* subscale or forcing the *trials and tribulations* subscale to be uncorrelated with other subscales. Four sub-scale factors identified:

Clinical Problem Solving (α = .80)

1. I feel confident communicating with physicians
7. I am confident in my ability to to problem solve
12. I use current evidence to make clinical decision.
13. I am comfortable communicating and coordinating care with interdisciplinary team members.
16. I feel comfortable knowing what to do for a dying patient
17. I feel comfortable taking action to action to solve problems
18. I feel confident identifying actual or potential safety risks to my patients

Learning Techniques (α = .50)

14. Simulations have helped me feel prepared for clinical practice.
15. Writing reflective journals/logs provided insights into my own clinical decision–making skills

Professional Identity (α = .65)

2. I feel comfortable communicating with patients and their families.
6. My clinical instructor provided feedback about my readiness to assume RN role
11. I am comfortable asking for help
19. I am satisfied with choosing nursing as a career
20. I feel ready for the professional nursing

Trials and Tribulations (α = .63)

3. I am comfortable delegating tasks to the nursing assistant.

4. I have difficulty documenting care in the electronic medical record

5. I have difficulty prioritizing patient care needs

8. I feel overwhelmed by ethical issues in my patient care responsibilities

9. I have difficulty recognizing a significant change in my patient's condition

Additional Analyses of Items Measuring Comfort with Varying Caseloads

Three items related to students' comfort managing caseloads of varying sizes (comfort managing caseloads of 2, 3, or 4 patients) were examined based on their variance, because items with limited variance may not be useful in discriminating among students with varying levels of readiness for practice. Across both the development and validation samples the items measuring comfort managing 2 patients ($s^2 = 0.42$) and 3 patients ($s^2 = 0.72$) had limited variability, with most students reporting a high level of comfort managing both of these caseload sizes ($M = 4.7$ for the 2-patient caseload and $M = 4.1$ for the 3-patient caseload, on a 1-5 Likert-type scale with 5 indicating the highest level of comfort caring for this many patients at once). The item measuring comfort managing 4 patients simultaneously had greater variability, $s^2 = 1.13$, and a lower mean, $M = 3.2$. Therefore the 4-patient caseload item may have the greatest validity in differentiating between students with higher versus lower readiness to manage the typical patient caseloads seen in practice settings.

Factor Loadings in Exploratory Factor Analysis Solution for Development Sample

	Component			
Scale Item	*1 – Clinical Problem Solving*	*2 – Learning Techniques*	*3 – Professional Identity*	*4 – Trials and Tribulations*
Feel confident communicating with physicians	**.574**	-.153	.331	.180
Feel comfortable communicating with patients and their families	.337	.205	**.510**	-.294
I am comfortable delegating tasks to the nursing assistant	.336	.508	.112	-**.491**
I have difficulty documenting care in the electronic medical record	-.291	.226	-.374	**.581**
I have difficulty prioritizing patient care needs	-.311	.144	-.136	**.731**
My clinical instructor provided feedback about my readiness to assume an RN role	.317	-.093	**.537**	-.049
I am confident in my ability to problem solve	**.744**	-.022	.318	-.155
I feel overwhelmed by ethical issues in my patient care responsibilities	-.057	.048	-.126	**.604**
I have difficulty recognizing a significant change in my patient's condition	-.401	.095	-.243	**.405**
I have had opportunities to practice skills and procedures more than once	.335	.140	.345	-**.411**
I am comfortable asking for help	.393	-.161	**.576**	-.241
I use current evidence to make clinical decisions	**.637**	.156	.219	-.277
I am comfortable communicating and coordinating care with interdisciplinary team members	**.796**	.042	.278	-.328
Simulations have helped me feel prepared for clinical practice	-.010	**.600**	.162	.274
Writing reflective journals/logs provided insights into my own clinical decision-making skills	.155	**.746**	.037	.044
I feel comfortable knowing what to do for a dying patient	**.561**	.290	.058	-.134
I feel comfortable taking action to solve problems	**.732**	.188	.460	-.297

I feel confident identifying actual or potential safety risks to my patients	**.652**	.145	.444	-.415
I am satisfied with choosing nursing as a career	.042	.073	**.767**	-.133
I feel ready for the professional nursing role	.409	.299	**.709**	-.184
Cronbach's alpha for subscale	.80	.50	.65	.63

Note. Bolded factor loadings indicate which subscale each item was assigned to in the final solution.

Correlations Between Subscales in the Exploratory Factor Analysis Solution

	Clinical problem solving	*Learning techniques*	*Professional Identity*	*Trials and Tribulations*
Clinical problem solving	1	.116	.511**	-.486**
Learning techniques	.116	1	.120	.036
Professional identity	.511**	.120	1	-.433**
Trials and tribulations	-.486**	.036	-.433**	1

* $p < .05$, ** $p < .01$, *** $p < .001$