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# Nursing Educators' and Nursing Leaders' Views on Practice Readiness in Novice Nurses

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This is to certify that the doctoral dissertation by

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Abstract

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MS, University of South Florida, 2011

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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## Abstract

A perceived discrepancy exists in understanding between nursing educators' and hospital nurse leaders' views on job performance expectations and the reality of current job performance that may contribute to the difficulty experienced by novice nurses during their transition period. Lack of clarity in expectations may lead novice nurses to change jobs or leave the nursing profession within the first year of practice. The purpose of this descriptive study, guided by Benner's novice to expert theory, was to determine whether a difference exists between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and competency levels, including leadership for novice nurses transitioning into practice, critical care nursing performance, teaching and collaboration, ability to plan and evaluate, interpersonal relations and communications, and professional development. Survey data were collected from 52 nursing educators and 52 hospital nurse leaders using the Schwirian's 6-dimension scale of nursing performance and analyzed using MANOVA and independent *t* tests. No differences were identified between hospital nurse leaders' and nurse educators' beliefs on the frequency and competency level in all areas examined for novice nurses transitioning into practice. Hospital nurse leaders' and nurse educators' expectations for novice nurses aligned. Further research should focus on ways to strengthen novice nurses' knowledge, critical thinking, and skills so they are better prepared to enter the transition period. Outcomes from this study may be used to improve education and transition to practice for novice nurses, which can result in positive social change.

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# Dedication

I would like to dedicate this dissertation to my family. To my beloved parents, Don and Marge Teal, I want to thank you for your love, support, continued guidance, and for always telling me that I can do anything. To my Uncle Hugh for encouraging me to obtain my doctorate degree and believing in me that I could do it. To my children, Kristie and Jason, for your support and encouragement during this process and for understanding my need to pursue my educational dreams. I hope my example can help you see that you can do and be anything you wish. To my grandchildren, Elijah and Isabella, thank you for the laugher and needed distraction that helped me when I needed a break. I hope my achievements will inspire you to achieve all your hopes and dreams that you desire.

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# Chapter 1: Introduction

## Introduction to the Problem

Transition to practice can be a difficult time for both new graduate nurses and for the hospital nurse leaders who hire these novice nurses and expect a certain level of competency. Novice nurses lack confidence in their new role regarding skill performance, which results in increased dependency until they are able to perform the skills proficiently (Dwyer & Hunter Revell, 2016). Hospital nurse leaders have a set level of expectations for newly hired nurses to be proficient at the onset of practice (Dwyer & Hunter Revell, 2016). Hospital nurse leaders are currently providing extensive orientations for new graduate nurses to ensure they are ready to meet the practice requirements necessary to provide safe and efficient care for patients in the hospital setting (Thomas, Bertram, & Allen, 2012). Nursing educators play a role in developing the formative knowledge and skills of these novice nurses. However, many novice nurses will learn to navigate their current practice and perfect their level of competency without the support of an intensive orientation or residency program (Mellor & Gregoric, 2016).

Transition to practice changed in 1994 with the introduction of computer adaptive testing (CAT) (Dyess & Sherman, 2009). Prior to 1994, nurses were considered graduate nurses and worked with a provisional license while they practiced with seasoned nurses for several months until their NCLEX board results were reported (Dyess & Sherman, 2009). The use of CAT allows successful NCLEX candidates to obtain their licensure within days of testing (Dyess & Sherman, 2009), which allows new graduates to enter practice earlier as a fully registered licensed nurse. Many novice nurses are not provided

a structured period of time that allows them to learn under the supervision of a seasoned nurse (Dyess & Sherman, 2009).

Nursing educators believe that new graduate nurses are prepared for the transition into practice, but they may only be prepared for successful completion of the NCLEX exam (Numminen et al., 2014). Numminen et al. (2014) found that novice nurse competence was assessed considerably higher by nursing educators than managers in all areas evaluated ($p < 0.001$). A systematic review by AL-Dossary, Kitsantas, and Maddox (2014) revealed that according to nursing hospital leaders, nurse managers, hospital nursing educators, and preceptors, the current preparation for transition to practice is inadequate. Kavanagh and Szweda (2017) studied entry-level competency and practice readiness in newly graduated nurses; they found that only 23% of these nurses were able to demonstrate entry-level competencies (Kavanagh & Szweda, 2017).

Kramer (1974) first reported the incongruence in understanding between job performance expectations and the reality of current job performance for novice nurses. Hospital nurse leaders expect new graduate nurses to be proficient at using cutting-edge technology when caring for patients with advanced acuity levels (Dwyer & Hunter Revell, 2016; Baldwin, Bentley, Langtree, & Mills, 2014). These expectations for new graduate nurses may not align with the views of nursing educators (Numminen et al., 2014). Consistent expectations for new graduate nurses for both nursing educators and hospital nurse leaders will assist in bridging the gap that currently exists between these two stakeholders. This study will add to the knowledge of whether differences in viewpoints exist regarding readiness to practice for new graduate nurses between nursing

educator and hospital nurse leaders. The results of this study have the potential for positive social change by providing data that will help nurse educators evaluate the need for curriculum changes. In addition, hospital nurse leaders can review the orientation and mentoring programs developed for new graduates to ensure that the areas not addressed in their nursing curriculum are provided to ensure safe practice. I cover the following topics in Chapter 1: background, problem statement, purpose of the study, research questions and hypothesis, theoretical framework, nature of the study, definitions, assumptions, scope and delimitations, limitations, significance, and a description of how this study will address the identified gap that exists between the major stakeholders.

## Background

The theory-practice gap was first documented by Armstrong (1974), who stated there are factors that complicate the theory-practice gap including different levels of education and exposure to different clinical experiences. Novice nurses may have the theoretical knowledge but not a vast amount of clinical experience (Armstrong, 1974). The American Association of Colleges of Nursing (AACN) developed the AACN essentials, a framework for developing nursing curriculum for baccalaureate through doctoral level nursing education (AACN, 2018). These essentials are used to assist nursing programs with designing and delineating the content and expected competencies for students enrolled in nursing education (AACN, 2018). The essentials outline nine areas of expected practice for graduates: (a) liberal education for baccalaureate generalist nursing practice; (b) basic organizational and systems leadership for quality care and patient safety; (c) scholarship for evidence-based practice; (d) information management

and application of patient care technology; (e) healthcare policy, finance, and regulatory environments; (f) interprofessional communication and collaboration for improving patient health outcomes; (g) clinical prevention and population health; (h) professionalism and professional values; and (i) baccalaureate generalist nursing practice (Price, Buch, & Hagerty, 2015; AACN, 2018).

Core competencies developed by the Quality and Safety Education for Nurses (QSEN) institute are also included in nursing education curriculums. QSEN is a project, funded by the Robert Wood Johnson Foundation, with the inherit purpose of preparing future nurses for practice so they have the necessary skill to address the knowledge, skills, and attitudes needed to provide safe quality care to the public (QSEN, 2018a). There are six core competencies identified by QSEN based on the Institute of Medicine's competencies: (a) patient centered care, (b) teamwork and collaboration, (c) evidence-based practice, (d) quality improvement, (e) safety, and (f) informatics (QSEN, 2018b). These competencies have been further divided to address prelicensure and graduate-level competencies (QSEN, 2018b). The prelicensure competencies assist nursing programs in developing and revising their curriculum according to these standards to ensure nurses are adequately prepared (QSEN, 2018b).

Nursing educators are faced with the challenge of developing a nursing curriculum that integrates the core competencies necessary to support new graduate nurses during their transition into active practice (Brown, Crookes, & Iverson, 2015). Educators design the nursing curriculum with clinical time to allow nursing students practice to develop core competencies to the expected level of performance for new

graduates (Baldwin et al., 2014; Brown et al., 2015; Institute of Medicine [IOM], 2003). The development of competent nurses who have achieved a level of competence and are work-ready is challenging for nursing educators (Brown et al., 2015). According to Benner (1982), nurses develop skills over time and with experience.

Current barriers that exist and impact the development of the essential skills in nursing students include the shortage of clinical sites, limited exposure to clinical skill-building opportunities, and lack of collaboration between nursing educators and hospital nurse leaders to provide the best experience for the development of essential skills (Papagiorgis et al., 2016; Radford, 2018; AL-Dossary et al., 2014; Berkow, Virkstis, Stewart, & Conway, 2009). Practice is an essential element needed for nursing students to develop skill competency (Benner, 1982; Brown et al., 2015; Papagiorgis et al., 2016). The clinical exposure that each student experiences is unique, but opportunities to perform and perfect skills may not be available to every student (Bennett, 2017). For example, some students may experience different areas in the hospital that are not offered to every student (Bennett, 2017). In addition, students experience delays in their development of organization and higher-level problem-solving skills until they are actively practicing (Bennett, 2017). The ability to organize care cannot be achieved if students are only expected to care for a few patients at a time or have a light workload compared to seasoned staff nurses who are providing care for a heavy workload of patients during their shift (Bennett, 2017). The shortage of clinical sites restricts nursing educators' ability to provide time in the facilities to experience and develop the skills that are expected once these novice nurses enter the workforce (Papagiorgis et al., 2016;

Radford, 2018). Finally, improved collaboration and communication between nursing educators and hospital nurse leaders regarding *best practices* for clinical rotations is needed and will lead to an overall improved clinical experience for students, resulting in enhanced clinical competence at the initial stage of the transition period (AL-Dossary et al., 2014; Berkow et al., 2009).

Hospital nurse leaders expect novice nurses to demonstrate proficiency of skills during the transition period (Berkow et al., 2009). However, hospital nurse leaders are reporting that new graduate nurses are not able to perform the required skills independently and therefore do not meet their expected level of competency performance (Brown & Crookes, 2016). Brown and Crookes (2016) identified the level of competency expected in new graduate nurses in a modified Delphi study. The study was conducted to improve clarity regarding the expected level of competency of new registered nurse (RN) graduates in Australia. The study surveyed experienced nurses and assessed if new graduates could practice independently when performing 30 skill areas. The researchers found that the expectations for competency in newly graduated RNs were not clear and that there is a need for well-defined guidelines. Brown and Crookes (2007) identified 30 skill areas necessary for new graduates to be considered work ready. Each skill was ranked utilizing Bondy's criteria on five levels: (a) independent, (b) supervised, (c) assisted, (d) marginal, and (e) the lowest level dependent. These researchers identified only four skill areas that the majority of respondents believed the new graduates were competent and could complete independently (Brown & Crookes, 2016). In the clinical monitoring and management skill area, which included use of assessment tools, only

52.58% of the respondents believed the new graduates would be able to perform independently (Brown & Crookes, 2016). Hospital nurse leaders can help by identifying and prioritizing the essential skills that need improvement to determine the greatest gaps in knowledge and abilities not being addressed in the nursing curriculum (Berkow et al., 2009). An identified expectation for level of competence for new graduate nurses among all stakeholders will assist in the development of a plan to combat the dissidence in current understanding of expectations for new graduate nurses. A clear understanding of expectations for new graduate nurses consistent between nursing educators and hospital nurse leaders will assist in bridging the gap that currently exists between these two stakeholders.

## Problem Statement

A discrepancy exists between nursing educators' and hospital nurse leaders' views of readiness to practice for new graduate nurses (AL-Dossary et al., 2014). According to Berkow et al. (2009), 90% of nursing educators state that new graduate nurses are prepared to enter the workforce. In contrast, hospital nurse leaders express that only 10% of novice nurses are adequately prepared (Berkow et al., 2009). There is a paucity of research on a common understanding between nursing educators and hospital nurse leaders on student preparation and the required expectations for novice nurses. It is well-established in the literature that these new graduate nurses experience difficulties during the transition period that begins after graduation and continues as they learn their new role as a nurse. These difficulties include anxiety, lack of confidence, and reality shock (AL-Dossary et al., 2014; Berkow et al.,2009; Dwyer & Hunter Revell, 2016).

Difficulty during the transition process may influence novice nurses to change jobs within the first year of practice (Dwyer & Hunter Revell, 2016). According to Snavely (2016), the exit rate for unsupported new graduate nurses is 30–50%.

The AACN's essentials of clinical resources includes clinical guidelines that outline essential competencies, including (a) critical thinking, (b) communication, (d) assessment, and (e) development of professional roles as the provider of care, which need to be developed in an environment with preceptors and professional mentors to facilitate the learning process (AACN, 2018; Martin, Godfrey, & Walker, 2015). Despite the use of these guidelines, novice nurses entering the workforce do not understand their responsibilities and expected performance in the clinical setting, resulting in a lack of proficiency and a compromise of patient safety (AL-Dossary et al., 2014, Bennett, 2017). Nurse residency programs have been used with some success to promote the development of competencies, but the absence of standardized residency programs may be one of the causes for the high turnover rate for novice nurses in the first year of practice (Al-Dossary et al., 2014; Spector & Echternacht, 2010). The current gap between nurse educators' and nurse executives' expectations relative to preparation for practice can be addressed with an examination of their views (AL-Dossary et al., 2014).

The dichotomy that exists between the stakeholders on theory-practice gap adversely impacts novice nurses' transition into practice. Further investigation may assist in bridging the divide in understanding between student preparation and the required expectations for novice nurses to make the transition more effective. Improvement in this transition period can begin by examining the viewpoints of the two major stakeholders—

nurse educators and hospital nurse leaders—in relation to the desired competencies (AL-Dossary et al., 2014).

## Purpose of the Study

The purpose of this descriptive quantitative study was to determine whether a difference exists between the beliefs of hospital nurse leaders and nursing educators about the frequency and competency levels in (a) leadership for novice nurses transitioning into practice, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communications, and (f) professional development for novice nurses transitioning into practice. I used descriptive and inferential statistics to determine whether differences existed between these two major stakeholders. I used surveys to develop an understanding of these stakeholders' current views on the desired level of performance for novice nurses. The results of this study will have a positive social impact by encouraging nursing educators to evaluate the current curriculum to determine needs for revision and as a reference for hospital nurse leaders to determine how to best structure content in hospital orientation programs for novice nurses.

The independent variables in the first five RQs were two groups: nursing educators and hospital nurse leaders. The dependent variables were the frequency and level of competency based on the performance measures in Schwirian's (1978) six-dimension scale of nursing performance (6-DSNP). The independent variable in RQ6 were the two groups: nursing educator and hospital nurse leaders, and the dependent

variable for RQ6 was the level of performance of professional development (Schwirian, 1979).

## Research Questions and Hypotheses

The research questions addressed in this study were the following:

RQ1: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice?

$H_0$1: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

$H_a$1: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

RQ2: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice?

$H_0$2: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

$H_a$2: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

RQ3: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice?

$H_0$3: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

$H_a$3: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

RQ4: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice?

$H_0$4: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

$H_a$4: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

RQ5: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice?

$H_0$5: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

$H_a$5: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

RQ6: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice?

$H_0$6: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

$H_a$6: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

## Theoretical Framework for the Study

Benner's (1982) from novice to expert theory was used as a framework for this study. In this theory, Benner (1982) described five stages that beginners transition through to develop skills from beginner to expert practitioners; the theory was developed from the Dreyfus model of skill acquisition, which can be used to help determine the differences between an experienced and novice nurse (Benner, 1982). Novice nurses are considered beginners without experience who can be relied on to apply discretionary

judgement (Benner, 1984). At the advanced beginner stage, nurses have some prior experience that can be applied to current patient situations, but they still rely on supportive cues (Benner, 1984). In the next stage of Benner's (1984) theory, nurses are considered proficient; proficient nurses can prioritize and evaluates patient situations in a holistic manner. The final stage is expert, where nurses' recognition and assessment skills are at the highest level and linked with intuition (Benner, 2004). Benner (1982) explained the attributes of each level of proficiency and the desired performance to attain each level. The epistemology assumption was that an exploration of the differences in these viewpoints, on both sides of this issue, would provide new knowledge regarding novice nurses entering the workplace. Benner's theory is described in greater depth in Chapter 2.

## Nature of the Study

This study was a nonexperimental quantitative descriptive study with a cross-sectional design. Data were collected by a survey using Schwirian's (1978) 6-DSNP to evaluate the desired competencies for novice nurses. For the study, I used a convenience sample of nursing educators and nurses working in the hospital in one the following roles: nurse manager, nurse preceptor, or hospital nurse educator. I collected demographic information as part of the survey, including academic preparation, years of practice as an RN, and level of experience in their current role as a hospital nurse leader or nursing educator. I used descriptive statistics to determine the characteristics of the sample population. To examine if differences exist between hospital nurse leaders and nursing educators regarding beliefs for novice nurses' readiness for practice, applying the first five dimensions in Schwirian's assessment tool, I used a multivariate analysis of

variance (MANOVA). I performed an independent *t* test to examine if differences exist between hospital nurse leaders' and nursing educators' beliefs about professional development performance in novice nurses' readiness for practice, the sixth dimension in Schwirian's assessment tool.

The independent variables were the type of stakeholder (nursing educator or hospital nurse leader). The dependent variables were the frequency and level of performance of leadership, critical care, teaching/collaboration, planning/evaluating, and interpersonal relations/communication. I used an independent *t* test to evaluate the independent variable type of leader and the dependent variable professional development.

## Definitions

*Competence:* "Having the capacity to perform or potential ability to function" (Johnson, Opfer, VanCura, & Williams, 2000, para. 5).

*Competency*: An outcome of performance of a skill that can be measured based on the desired level of performance (Becker et al., 2018).

*Hospital nurse leaders:* An RN who works in one of the following capacities in the hospital setting: a preceptor, a nurse manager, or a nursing educator.

*Novice nurse:* A newly licensed RN with less than 1 year of job experience (Phillips, Kenny, Esterman, & Smith, 2012).

*Nursing educators*: An instructor who prepares novice nurses for clinical practice. As per the National League for Nursing (2013), nurse educators should be able to (a) facilitate learning, (b) enable the development of socialization, (c) employ assessment and evaluation strategies, (d) play an active role in curriculum design and evaluation of

program outcomes and quality improvement in the nurse educator role, (e) engage in scholarship, and (f) work effectively in the education environment. In addition, nurse educators are required to have effective communication skills and be proficient at teaching and facilitating student learning (Poindexter, 2013).

*Preceptorship*: One-on-one process where learners obtain experience under the guidance of an experienced nurse (Henderson & Eaton, 2013). Novice nurses are able to identify and assimilate their new role from a colleague who acts a role model (Henderson & Eaton, 2013). The preceptee's abilities and progress are assessed by the preceptor (Henderson & Eaton, 2013).

*Readiness to practice*: The ability of new graduate nurses to have a general foundation and some job specific abilities to provide safe patient care, including (a) the ability to adapt to the future needs of the client; the ability to simultaneously balance doing, knowing, and thinking; and the ability to continually stay up-to-date with current nursing practice (Woods et al., 2015).

*Theory-practice gap:* A noted difference between theoretical knowledge and reality (El Haddad, Moxham, & Broadbent, 2017). The difference between what should happen, and actual outcomes encountered in practice (El Haddad et al., 2017).

*Transition to practice*: A 1-year period of time after a nurse completes all nursing courses and successfully completes the NCLEX exam (Phillips et al., 2012).

## Assumptions

The following assumptions were accepted as true for this study. It was assumed that the respondents to the survey met the screening requirements outlined in the

informed consent. An assumption of the study was that nurse educators desire to prepare nurses to practice and meet the competency expectations of hospital nurse leaders. The final assumption was that respondents would answer the questions honestly and completely.

## Scope and Delimitations

Using the data from this study, I examined if differences exist in views of nursing educators and hospital nurse leaders regarding new graduate nurses' level of preparedness. I used the six-dimension scale of nursing performance to measure the frequency and quality of expected performance of nursing skills using close-ended Likert scale responses rather than open-ended responses. Each survey was an assessment of a participant's views on the frequency and quality of expected performance of desired nursing behaviors in new graduate nurses. I considered the Casey-Fink nurse experience survey for this study, but the verbiage in the tool could not be modified to fit the population in this study; the authors did not allow revisions or modifications (UC Health, 2018). I considered Lewin's change theory for this study because it would address the change experienced by novice nurses during the transition period. However, this theory would not help to explain how novice nurses develop competency.

I analyzed my data using a MANOVA and an independent *t* test. A MANOVA can be used to determine significant difference between two groups or more and when there are more than two dependent variables with concurrent evaluation (Polit & Beck, 2018). The use of a MANOVA would be more accurate than running multiple ANOVAS (Field, 2013). I used the MANOVA to test the hypothesis for the first five research

questions that had two groups and two dependent variables considered at the same time (Polit & Beck, 2018). An independent *t* test was used to test the null hypothesis of RQ6, which compared the independent variable type of leader and the dependent variable professional development.

My target sample was nursing educators and hospital nurse leaders. I chose to evaluate nursing educators and hospital nurse leaders because only a few studies in the literature use these two stakeholders. Nonetheless, each of them plays an important role in the formation of fostered development of novice nurses. I considered including novice nurses, but this population was not included in my study because the data were not represented in my research questions and this population has been heavily researched previously. I considered a qualitative study for this research but did not choose this methodology because it would not answer the research questions regarding the differences between stakeholder expectations. I used a convenience sample in this study and generalizability depended on attainment of a true sample of the population.

## Limitations

I identified limitations for this study that could potentially impact the outcomes. First, the participants were a convenience sample of survey respondents and may not be a true reflection of the examined populations. The results of this study depended on participation of qualified respondents. The study also depended on accurate human responses to questions about their beliefs. The study depended on an adequate number of respondents and each comparison group needed to have an equal number. The results of the *t* test were assumed correct, but the results cannot be assumed 100% correct (Mertler

& Vannatta, 2013). For the MANOVA, there must be a correlation between the two dependent variables for the test to detect an effect (Field, 2013).

Several time and resource constraints may have influenced the data collection. The survey was initially scheduled to be available for a 30-day period. The results of the survey could have been limited by both the length of the survey and participants who had access to answer the survey questions. The survey contained 52 items that were scored twice and took up to 30 minutes to complete. Participants may not have completed the entire survey if it took too much time, resulting in incomplete survey data. Because of the recruitment strategies used in this study, I did not have an opportunity to remind participants to complete the survey.

Potential limitations included the design of this study. The evidence obtained in a nonexperimental study will not be as strong as the evidence that could be obtained with an experimental study (Polit & Beck, 2018). Interventions were not utilized in this nonexperimental study. The study was a cross-sectional design, which would not allow me to compare the results to a second sample of data from the same population. The use of a convenience sample may not be a true representation of the population studied and therefore the results cannot be generalized to the larger population (Polit & Beck, 2018). The modification of the Schwirian (1978) tool could affect the validity and reliability of the study results. Therefore, the tool had validity re-established. The Cronbach's alpha ranged from 0.84–0.90 for Schwirian's original tool, demonstrating high reliability. Content validity of the revised tool was established by a peer review panel to reassure that the changes made to Question 18 in the survey reflected the intended constructs

(Zamanzadeh et al., 2015). Peer review panel members were asked to rate the changes in terms of clarity and relevancy (Zamanzadeh et al., 2015). Validity was reconfirmed post hoc using confirmatory analysis to ensure the constructs were accurately measured in the modified Schwirian tool (Zamanzadeh et al., 2015). I verified the validity of the scores obtained using confirmatory factor analysis.

I ensured the survey was free from errors that could have resulted in the participants' misunderstanding questions. The items in this survey were reviewed for readability, clarity, and comprehensiveness to reduce participant error. Participant bias could have affected the reliability and was controlled by presenting the facts of the research proposal and not my opinion of the possible outcomes. Researcher error was limited by gathering data in multiple ways and multiple sites to vary the participants who took the survey. I used quantitative data to reduce the risk of researcher bias.

## Significance

Employers expect new graduate nurses to function in the clinical environment at the onset of their practice as RNs (Falk, Falk, & Jakobsson Ung, 2016). In 2000, the IOM published a report that addressed the need for improvements to the education of health professionals (Stafford, 2000; Sherwood & Zomorodi, 2014). The IOM suggested in this report that incorporating six core competencies in the curriculum would enhance the ability of new graduates to function and deliver patient-centered care: (a) patient centered care, (b) teamwork and collaboration, (c) evidence-based care (d) continuous quality improvement, (e) a mindset on safety, and (f) knowledge of informatics (Sherwood & Zomorodi, 2014). The expectations during the transition period for new graduates are not

fully understood by novice nurses (AL-Dossary et al., 2014). According to Benner (1982), beginners are expected to perform tasks in situations where they do not have experience. Novice nurses progress from a level of beginner to competent development of skills with experience during the transition period (Benner, 1982, Martin & Wilson, 2011). The ability to understand and address the differences in competency expectations of the major stakeholders has the potential for positive social change for three groups: (a) nurse educators, (b) nurse leaders, and (c) nursing students. Nurse educators could use the study results to review and revise curriculum to ensure that students are able to perform at the expected level of competency upon graduation. Nurse leaders may use the study results to develop orientation and residency programs to build on novice nurses' current skills and abilities. Based on clearer expectations from both stakeholders, novice nurses would be able to identify areas of practice they need to strengthen to be better prepared to transition into their new role. Nurses who feel competent during their transition to active practice will more positively impact the care outcomes for patients and will have decreased desire to leave the workforce.

## Summary

In summary, I reviewed the difficulties experienced by novice nurses at the onset of their new career as the background for this study. In the problem statement, I reviewed the dichotomy that exists between nursing educators and hospital nurse leaders regarding expectations for novice nurses; this dissidence may impact novice nurses' transition into practice. The purpose of this quantitative cross-sectional study was to examine if there is a relationship between nurse educators' and nurse leaders' views on the frequency and

competency level in novice nurses and to address the gap that exists between the views of these two stakeholders utilizing Benner's theory as a framework. An expanded understanding of the views of the major stakeholders may assist in bridging the divide that currently exists regarding successful transition to practice for novice nurses. I examined for differences in beliefs regarding novice nurses' ability to transfer into practice between hospital nurse leaders and nursing educators using Schwirian's six dimensions. This study has significance by providing clearer expectations for novice nurses regarding what is expected at the onset of practice. This will have a positive impact on patient outcomes and novice nurses' desire to continually improve and remain in the workforce. In Chapter 2, I provide a review of the literature regarding transition to practice for novice nurses and the current gap that exists between nursing educators and hospital nurse leaders.

# Chapter 2: Literature Review

## Introduction

A discrepancy exists between nursing educators' and hospital nurse leaders' views of new graduate nurses' readiness to practice (AL-Dossary et al., 2014). According to Berkow et al. (2009) 90% of nursing educators state that new graduate nurses are prepared to enter the workforce. In contrast, hospital nurse leaders express that only 10% of these novice nurses are adequately prepared (Berkow et al., 2009). The purpose of this descriptive study was to determine whether a significant difference exists between hospital nurse leaders' and nursing educators' beliefs about the frequency and competency levels in the following areas for novice nurses transitioning into practice: (a) leadership for novice nurses transitioning into practice, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communications, and (f) professional development.

Transition to practice continues to be a complex and difficult period for novice nurses during their first year of practice. New graduate nurses have been prepared to pass the NCLEX exam and perform at the most basic level as a nurse generalist (Falk et al., 2016). Although the stakeholders share a common understanding about the problems involved in the transition period, the theory-practice gap continues to be addressed inadequately. The dissidence in beliefs between nursing educators and hospital nurse leaders exists in multiple areas, including roles, responsibilities, and performance expectations (AL-Dossary et al., 2014; Mauro, Escallier, & Rosario-Sim, 2016). Few studies have been conducted that compare the ideals from the perspectives of the major

stakeholders. A review of the literature indicates that common expectations for novice nurses remain unclear at the onset of practice (El Haddad et al., 2017). Therefore, in this study, I will investigate and provide a comparison of beliefs regarding expectations for novice nurses in six areas of practice to contribute to the body of knowledge related to improving transition to practice for novice nurses, which will lead to positive social change. In Chapter 2, I discuss how I obtained the studies for this literature review, provide a review of the theoretical foundation and how this theory guided current studies, and review the literature related to key variables and concepts.

## Literature Search Strategy

I used the following databases to search the existing literature: CINAHL, MEDLINE, and ProQuest Nursing and Allied Health Source. Literature that included issues related to transition to practice were included in the sample. I used a thematic approach to organize and discuss the issues surrounding transition to practice and the theory-practice gap that exists. Key terms I used included *transition to practice, novice nurses, Benner, readiness to practice, newly licensed nurses, nursing educators* and *new graduates, transition to practice,* and *hospital nurse leaders*. The literature review was mainly limited to peer-reviewed articles written between 2010 and 2018. An exception was made to include seminal literature that demonstrated the history of the topic, theory related articles that provided a framework for the study, and articles that discussed Schwirian's (1978) 6-DSNP.

## Theoretical Foundation

Benner first published her novice to expert model in 1984 and applied the Dreyfus model of skill acquisition to nursing (Benner, 1982, 2004). According to Benner (1984, 2004), nurses progress through five stages—novice, advanced beginner, competent, proficient, and expert—as they gain knowledge and experience through practice (see Figure 1). This evolution of practice is described in distinct levels with common meanings that can be used to set expectations and evaluate nurses based on their level of practice (Benner, 1984, 2004). Benner's (1984) model identifies seven domains of nursing practice that outline nurses' responsibilities and expected competencies.

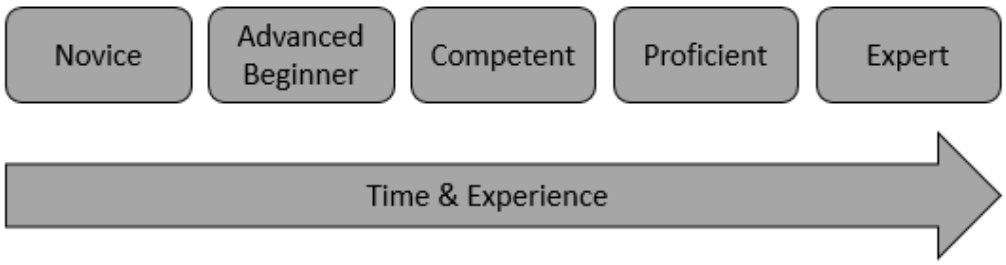


*Figure 1*. Benner's novice to expert theory (on the basis of Benner, 1982).

### Levels of Competency

Stakeholders need to comprehend how novice nurses gain understanding. Novice nurses need to have a strong foundation of knowledge at the onset of their career, which can be developed throughout the remainder of their profession (Benner, 1982; Bridges, Herrin, Swart, & McConnell, 2014). Novice nurses who previously functioned under a clinical instructor now have legal and professional responsibility for their patients

(Benner, 2004). These novice nurses need coaching to decrease their anxiety and to build confidence in themselves as they experience clinical situations unfamiliar to them (Benner, 2004). Application of Benner's theory will help to explain how novice nurses gain experience throughout their first year of practice. Educators and hospital nurse leaders need to have an understanding that novice nurses will progress through the five stages—novice, advanced beginner, competent, proficient, and expert—as they gain knowledge and experience through practice. Novice nurses are responsible for tasks outlined in each of the following roles identified by Benner (1984):

- Helping role: should give comfort and provide pain relief to patients, include patients in the plan of care, and provide informational support.
- Teaching role: should teach patients how to care for their current condition and provide rationales for interventions, should explore patients' understanding of their illness, and should assist patients to implement a plan of recovery.
- Diagnostic and monitoring: should identify changes in patients' conditions, including the ability to recognize early warning signs and symptoms; the nurse should anticipate patients' needs and possible problems.
- Effective management of change: should have skillful performance in emergent situations and respond appropriately, including utilization of emergency resources.

- Administration and monitoring of interventions: should administer medications accurately and implement therapies to prevent complications.
- Monitoring of quality practice: should provide safe care, assess appropriateness of orders, and work with physicians to ensure care is appropriate and timely.
- Evaluation of organization and role competencies: should be able to care for multiple patients, prioritize care, work well with other team members, display a caring attitude, and act as a resource to other nurses.

The six areas of assessment included in Schwirian's (1978) 6-DSNP can be identified in the roles outlined by Benner (1984). The leadership role assessed by Schwirian is included in the evaluation and role competencies described by Benner. The critical care nursing performance assessed by Schwirian is described in the effective management of change role described by Benner. Schwirian assesses for teaching and collaboration in her six dimensions, and Benner described this as nursing responsibilities in the teaching role. Schwirian assesses for nurses' ability to plan and evaluate, which is described in three of Benner's roles: effective management of change, monitoring of quality practice, and evaluation of organization and role competencies. Interpersonal relations and communications that Schwirian has included in her assessment are included in Benner's teaching and helping roles. Finally, Schwirian included an evaluation for professional development in her assessment tool that is evident in Benner's evaluation of organization and role competencies.

Application of Benner's theory will be useful to help determine the current stage of learning for novice nurses and will help hospital nurse leaders establish a learning plan that will help novice nurse develop nursing knowledge that must be developed during the transition period. I used this theory to aid in developing an improved understanding about the beliefs of these two stakeholders, where they agree or disagree on the level of competencies for novice nurses in transition. Novice nurses must adapt to their new environment and depend on adequate preparation by nursing educators to pass the NCLEX exam as well as retain the tools needed to have a successful transition into practice. Novice nurses also depend on the support and guidance of hospital nurse leaders who have set expectations and access to support that will ease the process during the transition period. Stakeholders need to understand how novice nurses will learn and adapt to their new environment. Benner's (1982) theory posits that novice nurses will gain proficiency in stages with time and experience. The use of deductive research on transition to practice in the literature has supported Benner's theory for the development of skills in novice practitioners. Benner's theory can be used as a guide for nurse educators and nurse hospital leaders to build a mutual understanding of what stage a novice nurse is in when entering professional nursing practice (Carlson, Crawford, & Contrades,1989; Schoessler & Waldo, 2006).

Notably, application of Benner's theory has been widely accepted and has influenced how the matriculation of knowledge is gained in the science of nursing. The following studies demonstrate confirmation that the novice to expert theory continues to apply. Chappell, Richards, and Barnett (2014) used Benner's theory as a framework to

establish the development of leadership skills in new graduate nurses by applying the novice to expert theory on experience over time. Chappell et al. (2014) used hierarchical regression modeling to assess predictors of the development of leadership skills in relation to the use of transition programs in this population. They found that nurses who participated in new graduate nurse transition programs, with a duration of at least 24 weeks, were 21 times more likely to remain employed compared to new graduate nurses who participated in programs that were 12 weeks or less.

Substantial examples exist that show Benner's theory in use. Dale et al. (2013) applied Benner's proficiency levels to develop an evaluation tool that would ensure advanced practice professionals were consistently meeting their job expectations. Benner's theory has also been applied to education. Carlson, Crawford, and Contrades (1989) used Benner's novice to expert model to help nursing educators and students see their ability to acquire clinical skills as a development process. Schoessler and Waldo (2006) used three theories, including Benner's novice to expert theory, to provide an understanding of the developmental experience of novice nurses. Their framework used reflection of the lived experiences of novice nurses in the first 18 months of practice (Schoessler & Waldo, 2006). The resulting process model can help new graduate nurses understand novice to expert skill acquisition, adult learning, and more about the transition process. The process model Schoessler and Waldo developed also allowed organizations to develop appropriate strategies to support this novice nurse population.

Articulation of knowledge in the first year of practice and the ability to function in a safe and effective manner when providing care are essential elements for novice nurses.

Ongoing debates between health and education providers continue regarding baseline requirements and the factors that determine practice readiness (El Haddad et al., 2017). Student nurses depend on clinical educators to provide practice education by exposing them to situations where they will gain clinical experience (Benner, 2004). I chose Benner's model because it provides a framework for the stages experienced by novice nurses as they develop proficiency, and it can be used to evaluate their current level of functioning (Benner, 1984, 2004).

Benner's theory establishes a set of standards for nursing educators and hospital nurse leaders in determining the level of preparedness for entry-level practice. Schwirian's 6-DSNP uses a survey to compare areas that are essential to practice for a novice nurse and will allow stakeholders to establish expectations in each area. The survey examines five expectations on frequency and quality of performance of essential nursing behaviors: (a) leadership, (b) critical care, (c) teaching and collaboration, (d) planning and evaluation, and (e) interpersonal relations and communication. The sixth area include in the survey examines the expectation for professional development performance (Schwirian, 1978). Expectations for novice nurses should be influenced by Benner's (1984) novice to expert theory to help mitigate the required standard level of performance.

## Literature Review Related to Key Variables and Concepts

In this literature review, I will examine current studies related to readiness to practice and dissidence in beliefs between nursing educators and hospital nurse leaders. I will include articles that are related to transition to practice including the theory practice

gap, competence, and transition programs. The following key terms are essential elements that pertain to the theory-practice gap problem.

**Theory-Practice Gap**

The theory-practice gap is an ongoing phenomenon that has been highly recognized in the literature and attempts to explain the difficulties that novice nurses experience in the beginning of their career (Armstrong, 1974: AL- Dossary et al., 2014; El Haddad et al., 2017; Innes & Calleja, 2018; Patterson, Boyd, & Mnatzaganian, 2017). The theory practice gap can be further explained as the disparity that is observed in novice nurses between the knowledge gained in the classroom and the performance in the clinical setting (Akram, Mohamad, & Akram, 2018; Berkow, 2009). The knowledge gained in the classroom should be used to maximize the novice nurse's performance in the clinical setting (Factor, Matienzo, & de Guzman, 2017). Akram et al. (2018) performed a descriptive quantitative cross-sectional study to identify nursing student's perception of the knowledge practice gap. In this study, the researchers identified that the clinical instructor plays a pivotal role in the student's connection of theory material presented in the classroom and the application of this knowledge in the clinical setting (mean 3.6, $t = 14.6$) (Akram et al., 2018). Akram et al. (2018) found that nursing instructors need to remain updated on current clinical practice and create a positive learning environment that fosters the development of clinical connections. Additional problems that are experienced during the theory-practice gap include problems with competence, confidence, building peer relationships, and job satisfaction (Innes & Calleja 2018; Spence Laschinger, Zhu, & Read, 2016). The identified problems are the result of a

lack of experience that builds the nurses ability to apply role-related knowledge, skills, and critically thinking when delivering patient care (Innes & Calleja, 2018). Novice nurses may be described as ineffective; however, this viewpoint may be based on unreal and unreasonable expectations (Brown et al., 2015).

**Readiness for Practice**

Nursing educators strive to prepare students that are *work ready* (Baldwin et al., 2014, El Haddad et al., 2017). El Haddad et al. (2017) states that *fitness to practice* or *work readiness* is unformulated and these researchers' question who the appropriate stakeholder is to define this construct. Nursing educators prepare novice nurses to successfully perform in the real-world setting (Missen et al., 2018). Nursing educators attempt to accomplish this by employing several teaching strategies to improve clinical judgement and performance in the clinical setting including reflective journaling, simulation, and shadowing nurses in the clinical setting that model the desired professional behaviors (Bennett, 2017, Bussard, 2015, 2018). Bennett (2017) found that nursing students practice in the clinical setting with a limited number of patients and are not exposed to opportunities that will help them learn to prioritize care. This absence of exposure to real life situations that require dealing with multiple patient care issues at the same time is an area that could be reviewed and addressed by nursing educators (Bennett, 2017). Radford (2018) conducted a study to determine if high fidelity simulation could be used as an alternative in a rural area where colleges of nursing were challenged by the decreased number of clinical opportunities in their area. This researcher found that simulation can assist students to improve their clinical judgement skills and confidence

with simulated patient scenarios (Liljedahl et al., 2016). Currently, the state board of nursing allows simulation to replace 50 % of traditional clinical hours (Radford, 2018). New graduate nurses are expected to perform skills at the onset of practice in a complex care environment, including the ability to interpret the patient's response, prioritize care, and proficiently communicate to the healthcare team (Bridges et al., 2014, Brown et al., 2015). It is important for novice nurses to be aware of their current level of competency, areas in their practice where they need to improve, and the importance of continuing education to maintain their current practice (Theisen & Sandau, 2013).

Educators develop program outcomes as a framework to ensure that novice nurses develop competencies that align with the expectations expected by the board of nursing, employers, and the community (Baldwin et al., 2014). Baldwin et al. (2014) suggested that more graduate attributes need to be added that more closely resemble the set of competencies required for novice nurses to enter the workplace prepared. Numminen et al. (2014) evaluated nursing program educational outcomes to determine if these outcomes met the requirements of nursing practice. The aim of the study was to find areas where competency differences existed utilizing the Nurse Competency Scale (Numminen et al., 2014). Numminen (2014) identified that educators and managers have different set benchmarks for the desired novice nurse competency (Numminen et al., 2014). The viewpoint of these two stakeholders was determined to be different with educators viewing competence from the standpoint of achieving a basic nursing education and managers viewing competence from the desired needs for the novice nurse to succeed in clinical practice (Numminen et al., 2014).

Hospital nurse leaders desire to have nurses that can seamlessly transition into the workforce (El Haddad et al., 2017). According to stakeholders, from the hospital nurse leaders' perspective, novice nurses need to be able to successfully perform the anticipated competencies with the desired outcomes in the real-world setting (Missen et al., 2018). Performance also requires that novice nurses are equipped with the necessary knowledge and critical thinking necessary to provide quality care to their patients (Bussard, 2018, Missen et al., 2016). When novice nurses start the transition process hospital nurse leaders and novice nurses assess and identify deficits in their competencies and knowledge and recognize that additional training is needed to meet their job performance requirements (Bridges et al., 2014, Numminen et al., 2014, Theisen & Sandau, 2013). Hospital nurse leaders attempt to improve the transition period by providing nurse residency programs, simulation, debriefing, nursing preceptors, and evaluation tools to accurately measure nursing performance (Theisen & Sandau, 2013). Meaningful collaboration by both nursing educators and hospital nurse leaders would improve the focus held by each stakeholder and hopefully result in collaboration to improve the dissidence that currently exists (El Haddad et al., 2017).

Novice nurse's readiness to practice has been examined employing tools that measure self-competency (Patterson et al., 2017, Roud, Giddings, & Koziol-McLain, 2005, Woods et al., 2015). Woods et al. (2015) used Casey-Fink's readiness tool in a descriptive quantitative study to compare the perceptions of third-year nursing students in their final semester. Woods et al. (2015) found that 88.8% of the students reported feeling prepared for practice. The students in this study stated that smaller clinical groups and

expanded clinical placement were beneficial measures for enhancing student confidence. Roud, Giddings, and Koziol-McLain (2005) used a modified version of Schwirian's (1978) 6-DSNP to quantify self-reported changes in the six domains of nursing skills that are essential to practice over time. Several studies have previously used Schwirian's tool to compare the performance of new graduates (Rafferty & Lindell, 2011, Roud et al., 2005). The outcome for Roud et al. (2005) was consistent with the previous research that used Schwirian's tool. The Cronbach's alpha or alpha coefficient was calculated to determine internal consistency (Roud et al., 2005). The Cronbach's alpha reported in this study was 0.60 – 0.74 (Roud et al., 2005). This study was limited by the use of one single cohort of new graduates (Roud et al., 2005).

Active involvement in the clinical setting is needed to practice skills and develop proficiency (Patterson et al., 2017). However, several studies examined the shortage of clinical sites that resulted in unmet clinical learning objectives (Radford, 2018, Parsh, 2010). Multiple nursing schools compete for clinical placement for their students due to limited availability (Radford, 2018). Alternatively, simulation can be used to replicate clinical situations that may not be encountered in the actual clinical setting (Radford, 2018). The use of simulation in several studies was determined to increase the student's confidence and could be used to offer common scenarios that would be encountered in the clinical setting (Radford, 2018, Woods et al., 2015).

**Competence in Nursing Practice**

Competence in nursing is an expectation of practice. It can take a novice nurse several years to gain the necessary situational experience needed to be considered a

competent practitioner (Benner, 1984). Novice nurses enter practice as advanced beginners and do not display the speed or flexibility of nurses at the proficient or expert levels (Benner, 1984). A competency assessment during the orientation period identifies the novice nurse's strengths and weaknesses (Numminen et al., 2014). Only one quantitative cross-sectional study was identified in the literature that used nursing educators and nursing managers to determine if educational outcomes met the needs of nursing practice and used the Nurse Competence Scale that was based on Benner's model (Numminen et al., 2014). Numminen et al. (2014) found that nursing educators rated the level of competency for novice nurses as higher than the nursing managers.

The expectations of a baccalaureate novice nurse have been outlined in an organizational framework called the Baccalaureate Big 5 (Martin et al., 2015). The Baccalaureate Big 5 incorporated the following essential elements: (a) nursing across the lifespan, (b) professional identity and communication, (c) leadership, (d) population health, and (e) use of evidence-based practice and quality improvement (Martin et al., 2015). The Big 5 is a framework can be used to guide for curriculum and as a framework for expectations of practice (Martin et al., 2015). Sortedahl, Persinger, Sobtzak, Farrell, and Jaeger (2017) surveyed hospital nurse leaders were surveyed to assess the following skills: change, communication, conflict, leadership, and self-awareness. Sortedahl et al. (2017) used a one-way ANOVA to determine statistical significance between the variables and found that the participants reported communication was ranked as the most important skill. The remaining skills ranked in the following descending order: self-awareness, change, leadership, and finally conflict (Sortedahl et al., 2017).

Collaboration between the stakeholders, nursing educators and hospital nurse leaders, is needed to ensure that novice nurses are adequately prepared and have the support during the transition into practice process to be successful (Berkow et al., 2009). The Nurse Executive Center [NEC] (2007) used the new graduate nurse performance survey to assist these two major stakeholders in the identification of specific nursing competencies that address the theory-practice gap. The researcher had stakeholders rate proficiency on 36 competencies and found that 25% of nurse leaders are satisfied with new graduate nurse performance. The new graduates experienced the greatest difficulty with management of responsibilities. The outcome of this study identified weaknesses in practice that can be addressed by both academia and health systems to develop ways to strengthen these areas of practice (NEC, 2007).

Missen, McKenna, Beauchamp, and Larkins (2016) assessed the perceptions of qualified nurses evaluating the abilities of new nurses for a variety of skills. This descriptive quantitative study used a survey to determine new nursing graduate abilities rated on a 5-point Likert scale (Missen et al., 2016). Results from this study demonstrated that the seasoned nurses determined that 35.5% of skills were rated as good or very good and 33.3% of skills were rated as adequate. However, 31.4% of skills were rated as poorly or very poorly performed (Missen et al., 2016). The identified areas of concern included critical thinking, problem solving, working independently, and assessment procedures (Missen et al., 2016). Missen et al. (2016) identified areas that nursing educators can examine and enhance in the nursing curricula to ensure adequate preparation is provided.

A qualitative study by Brown, Crookes, and Iverson (2015) used an analysis of the curriculum to document and identified 30 skill areas that included: communication, teamwork, leadership, and supervision. The researchers determined that inadequate time to demonstrate and practice these skills was a factor that limited skill development (Brown et al., 2015). These studies have added valuable information regarding deficiencies that need to be addressed in both nursing curriculum and improvement to the supportive methods used during the onboarding process. However, the current studies in the literature are deficient in examining the comparative views of both nursing educators and hospital nurse leaders in relation to skill expectations. The development of a common understanding for both stakeholders would help to clarify expectations for nursing educators, hospital nurse leaders, and for novice nurses that are entering practice.

**Transition Programs**

Transition programs have been developed to assist new graduate nurses during this period to make transition to practice successful (Innes & Calleja, 2018; Theisen & Sandau, 2013). Identified competencies that needed to be reinforced included: communication, leadership, organization, critical thinking, and stress management (Theisen & Sandau, 2013). Strategies that have been used to address these areas include nursing orientation, residency programs, simulation, debriefing, and the use of preceptors to facilitate the transition period (Theisen & Sandau, 2013). A study by Silvestre, Ulrich, Johnson, Spector, and Blegen (2017) reviewed the onboarding process and discovered that 26 of the 44 sites did not have a structured curriculum. Orientation programs cost facilities money to run and maintain but the research from this study indicated that the

cost savings for retention of each new hire is a worthwhile investment (Silvestre et al., 2017). One recommendation from this study is for hospitals to create partnerships with other facilities to decrease overall onboarding and orientation costs (Silvestre et al., 2017). Formal training programs to provide education for preceptors and mentors has been used to enhance and standardize the support that novice nurses will receive (Theisen & Sandau, 2013).

Innovative measures that have been implemented to improve the success of novice nurses include specialized classes, programs to ensure professional socialization, and pathways to assist novice nurses with their career goals and path for professional growth (Bridges et al., 2014, Mauro et al., 2016). A study by Laschinger et al. (2016) used a survey to determine factors that would help predict career satisfaction and decrease job turn-over rate for new nurses. Laschinger et al. (2016) determined from the qualitative portion of this study that job satisfaction is highly linked to working conditions. The researchers concluded that support for new graduates can influence job-related retention (Laschinger et al., 2016).

Other types of support that are documented in the literature include programs that provide preceptors and mentors during the transition period (AL-Dossary et al., 2014, Gueorguieva et al., 2016, Mauro et al., 2016, Nielsen et al., 2016). Nielsen, Lasater, and Stock (2016) conducted a qualitative study that used the Lasater clinical judgement rubric as a framework for evaluation during the orientation process. The use of this rubric allowed novice nurses to visualize and track their progress (Nielsen et al., 2016). The researchers also suggested the use of this tool for assessment of pre-licensure students to

improve the student's ability to build their clinical judgement and clinical reasoning skills (Lasater et al., 2016). Many novice nurses will begin their practice in a specialty area that will require additional support. A literature review by Innes and Callaja (2018) explored the support that is offered to these novice nurses. These researchers found successful transition to specialty areas should be supported by transition programs that will help the novice nurse build confidence and competence (Innes & Callaja, 2018). Several factors are also crucial to the success of these novice nurses including a dedicated resource person, an environment of overall support, a positive work culture, socialization into the workplace, and use of simulation and repetition of skills (Innes & Callaja, 2018). These measures provide the resources, mentoring, and support for novice nurses to improve and succeed in their new positions. However, despite these interventions, the theory-practice gap continues to effect novice nurses at the start of their careers.

## Summary and Conclusions

In Chapter 2, I provided a review of the theoretical foundation including application to current studies and a literature review related to key variables and concepts. The literature reviewed supports the fact that there is a dissidence in beliefs between nursing educators and hospital nurse leaders for readiness to practice for the novice nurse. However, the congruence between nursing educators and hospital nurse leaders' views on level expectations on skills readiness for practice that would promote success for novice nurse during their transition into practice is not known.

Research has focused on the novice nurse's view or a unilateral view of nursing managers. Communication between the nursing educators and hospital nurse leaders is

deficient and must be improved so that both stakeholders are able to make appropriate changes that will support novice nurses' ability to be successful (AL-Dossary et al.,2014; Berkow et al., 2009). My study could fill a gap in the literature by providing comparative views of nursing educators and hospital nurse leaders on the desired competencies for novice nurses entering practice to address the gap in the literature. The following dependent variables: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development will be evaluated in conjunction with the independent variable, nursing educators' beliefs and hospital nurse leaders' beliefs about novice nurse performance. The outcome of this study may be used to develop policy changes for transition programs in the clinical setting and curriculum changes in the academic setting. Chapter 3 provides a review of the research methods including the design, population, sampling, recruitment, data collection, instrumentation, data analysis plan, and threats to validity.

# Chapter 3: Research Method

## Introduction

The purpose of this quantitative descriptive study was to determine whether a significant difference exists between hospital nurse leaders' and nursing educators' beliefs about the frequency and competency levels of novice nurses transitioning into practice in the following areas: (a) leadership, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communications, and (f) professional development. In Chapter 3, I present a review of the research design and a formal description of the components that comprise the methodology, including threats to validity.

## Research Design and Rationale

Using a descriptive, nonexperimental design, I gathered survey data to compare the beliefs of nursing educators and hospital nurse leaders. The survey I used was a modified Schwirian's 6-DSNP, which allowed me to gather data about the beliefs of these two major stakeholders. I used a MANOVA to test for differences in the means of hospital nurse leaders' beliefs and nursing educators' beliefs on the two dependent variables that were the frequency and level of performance needed by novice nurses transitioning into practice as outlined in the first five dimensions in Schwirian's assessment tool (Polit & Beck, 2018; Schwirian, 1978). Schwirian's sixth dimension only assesses the level of performance needed for professional development; therefore, I conducted an independent *t* test on this last dimension to test for significance (Polit & Beck, 2018).

The independent variables were nursing educators and hospital nurse leaders. The dependent variables were the frequency and level of competency based on the performance measures in Schwirian's 6-DSNP survey. The frequency of the nursing behavior was scored using a four-point Likert scale with the following values: 1 = never, not expected in this job; 2 = seldom; 3 = occasional; and 4 = frequently. The expected level of performance was measured on a Likert scale with the following values: 1 = not very well, 2 = satisfactory, 3 = well, and 4 = very well.

Table 1

*Dependent, Continuous Variables on the Schwirian's Six-Dimension Tool*

| Variable name | # of questions |
|---|---|
| Leadership | 5 |
| Critical care | 7 |
| Teaching, collaboration | 11 |
| Planning, evaluating | 7 |
| Intrapersonal relations, communication | 12 |
| Professional development | 10 |

A survey is the best research method to gather data on stakeholders' beliefs that cannot be observed (Schwirian, 1978). Using a survey allowed me to collect data from a large group of participants who met the qualifications for this study. Surveys are a cost-effective method of gathering convenience data from the intended population and allowed me to generalize my findings from this sample to the larger population with the expectation of adding information to the science of nursing to help address a gap in the literature.

# Methodology

## Population

The population of interest for this study was nursing educators and hospital nurse leaders. Hospital nurse leaders were further defined as nursing educators working in the hospital setting, nursing managers, and preceptors for novice nurses. The sample was drawn from participants that responded to my survey flyer that was sent to them my email or in response to the flyer that was posted on a social media site. In addition, respondents to the study were asked to refer and share the link to the study with qualified RNs.

## Sampling and Sampling Procedures

I used a nonprobability sampling approach for this study. I gained access to this population through two methods: convenience and snowball sampling. First, I obtained a convenience sample by recruiting qualified participants by email and through a social media site. The second method involved peer-to-peer recruitment using a snowball sampling technique.

The calculated sample size was 49 nursing educators and 49 hospital nurse leaders based on G*Power analysis to determine sufficient sample size. I used Faul, Erdfelder, Lang, and Buchner's (2007) G*Power 3.1.9.2. to determine the sample size using a medium 0.15 effect, the significance level of alpha 0.05, the power 0.80, which yielded a sample size of 98 participants (Cohen, 1988).

Inclusion criteria were the following: nurses working in an academic setting as nurse educators or nurses working in the hospital as nurse managers, nurse hospital

educators, or nurse preceptors who work with novice nurses entering the beginning stage of practice. All participants were RNs with at least 1 year of experience in their current job role. Retired RNs were excluded from the study. Eligibility to participate in the study was verified through screening questions and an electronic informed consent at the beginning of the electronic survey (Appendix D).

## Procedures

**Recruitment.** I emailed my flyer to licensed registered nurses that were obtained from the Ohio and Florida board of nursing. The list of licensed nurses is available to the public upon request from both states. The flyer for my study was also posted on a social media site to recruit participants. All participants were asked to share the flyer with the link to the study with their peers who would also meet the study requirements. I collected demographic information from each potential participant, including (a) type of participant, i.e., either nursing educator or hospital nurse leader, (b) gender, (c) age, (d) ethnicity, (e) education, (f) years of practice as an RN, and (g) length of time in current nursing position (Appendix E).

**Participation.** All participants were provided an electronic informed consent prior to beginning the online survey. Completion of the survey was voluntary, and informed consent was implied when the participant completed the survey. The informed consent stated the participant could withdraw from the study at any time prior to completing the study. The consent included a description of the study as a part of the fulfillment of a dissertation for Walden University, identified me as the researcher, and explained the benefits and risks of participation. Participants' anonymity was guaranteed,

and names were not collected. The next part of the survey included eligibility screening questions and a demographics questionnaire (Appendixes D and E). If the participant did not meet the eligibility screening questions, the survey ended. If the participant did meet the inclusion criteria reviewed in the eligibility screening, then the questionnaire advanced the demographic questions including (a) type of participant, i.e., either nursing educator or hospital nurse leader, (b) gender, (c) age, (d) ethnicity, (e) education, (f) years of practice as an RN, and (g) length of time in current nursing position (Appendix E). The last part of the questionnaire advanced to a modified version of the Schwirian's 6-DSNP (Appendix C).When all questions were answered, a final screen thanked the participant for their input and included my name, phone number, and email address if they had questions about their participation in the study (Appendix F).

**Data Collection**. I recruited participants by posting my research flier with information about my study and the link to the survey on a social media site and I sent my flyer by email to registered nurses in Ohio and Florida. In addition, I asked all participants to share the link with other possible participants who would qualify for this study. I collected data from the survey using a secure internet-based survey company. The data were collected anonymously. Participants were able to opt out of the survey by ending their participation any time prior to selecting a final submission button at the end of the survey. Participants could access the survey at any time or place of their choosing within the time period when the survey was open and available. The data obtained from this survey are stored in a password-protected account. Once data collection was completed, the data were transferred to SPSS and stored on a password-protected

computer that will be maintained for 5 years from the date of my doctoral degree completion. When this period has expired, the data will be deleted. Follow up is not warranted for this study design.

**Instrumentation and Operationalization of Constructs**

I modified Schwirian's 6-DSNP for my survey. The 6-DSNP has established reliability and validity. The Cronbach's alpha ranged from 0.84–0.90. Schwirian developed this pioneering tool to quantify observable nursing performance. The 6-DSNP is a 52-item inventory rated on a 4-point Likert scale. The first 42 items are scored twice: once for the frequency of the behavior being evaluated and the second evaluation representing the quality desired for each behavior. This nursing performance tool was developed by Schwirian in 1978 to be used for self-performance appraisals or evaluation by employers. The tool has been found to be highly reliable in evaluation of all six dimensions that were intended and is suitable for evaluation and research (Schwirian, 1978). I obtained written permission from Schwirian to use and modify her scale as needed for my study. A copy of Schwirian's original tool is included in Appendix A. A copy of the modified tool I used in this study is in Appendix B.

The language in some items of the tool was modified to appropriately reflect the population being assessed. For example, the question in Column A was revised from *How often does this nurse perform these activities in his/her current job?* to *How often does the novice nurse perform these activities in his/her current job?* The question in Column B was revised from *How well does the nurse perform these activities in his/her current job?* to *How well should the novice nurse perform these activities in his/her*

*current job?* Terminology in the tool was updated. For example, the terms in Question 18, *Gomco, respirator*, and *cardiac monitor* were deleted, and *IV pump* and *PCA pump* were added to Question 18. This tool, with these minor modifications, allowed me to examine if differences existed between two major stakeholders, and the use of quantitative methods allowed me to identify the degree to which these stakeholders' beliefs are in alignment on a Likert scale. Construct validity was re-established through expert review by five peers, and validity was reconfirmed post hoc using confirmatory analysis. The Cronbach's alpha for the original 6-DSNP ranged from 0.84 to 0.90 when used in Schwirian's (1978) initial research when the tool was used for employer appraisals.

Historically, various modifications have been made to the Schwirian instrument without affecting the validity and reliability of this tool. The term *Gomco* was deleted from Question 18 and replaced with the term *suction machines* in a study by Mrayyan and Al-Faouri (2008). The term *infusion devices* was added to the tool previously in a study by Rafferty and Lindell (2011), with a reported Cronbach's alpha ranging from 0.91 to 0.92 (Rafferty & Lindell, 2011). In a study by Roud et al. (2005), modifications were made to the verbiage to ensure applicability, readability, and appropriateness, and they used a four-step procedure for content validation. Five experts in this study were responsible for the changes (Roud et al., 2005). The reported reliability coefficient measuring internal consistency, Cronbach's alpha, ranged from 0.62 to 0.74 (Roud et al., 2005).

Schwirian's (1978) initial research developed an appraisal tool to evaluate the frequency and quality of nursing performance that was used in her study of graduate nurses as a self-evaluation and by their employers to provide a quantitative comparison. Other studies also used this tool in the same manner, investigating nursing behaviors examined by both graduates and their employers (Bellinger & McCloskey, 1992; Failla, Maher, & Duffy, 1999). Roud et al. (2005) used Schwirian's tool to evaluate and quantify self-reported changes over time in a cohort of newly graduated nurses.

Schwirian's 6-DSNP tool has established reliability and validity. Cronbach's alpha was used to establish reliability estimates and ranged from 0.84 to 0.90 (Schwirian, 1978). Construct validity was verified by expert review and validity was established when use of Schwirian's tool (1978) identified low and high nursing performers in subsequent field testing. The 6-DSNP is a useful tool for measuring performance in periods of transition for both nurses self-reporting and performance evaluation by employers (Battersby & Hemmings, 1991, Dyess & Parker, 2012, Rafferty & Lindell, 2011, Schwirian, 1978;).

**Data Analysis Plan**

The data analysis was completed using IBM SPSS Statistics software, version 25 (IBM Corp., 2017). The data were entered into SPSS, version 25, where the variable will be named, typed as numeric, width and decimal places set, labeled, responses set, missing values coded as –999, column size set and type of variable set (scale, ordinal, nominal). Once the data were entered, frequency tables were run to check for missing values and

incorrect or impossible values (Osborne, 2013). Then, box plots were produced to check for significant outliers.

The demographic data were analyzed using descriptive statistics (Sheskin, 2011). The demographic data included data on status of nursing educator or hospital nurse leader (nominal); gender (nominal); age (ratio); ethnicity (nominal); education as ASN, BSN, master's degree, DNP, or PhD (nominal); years of practice as an RN (ratio); and length in current position (ratio). Nominal data are presented in tables with frequency and percent (Sheskin, 2011). Ratio data are presented in tables with means and standard deviations (Sheskin, 2011).

The survey was a modification of Schwirian's 6-DSNP tool that allowed me to gather data about the beliefs of these two major stakeholders. The use of a MANOVA allowed me to determine whether significant differences exist between nursing educators' beliefs and hospital nurse leaders' beliefs and level of performance of leadership, critical care, teaching and collaboration, planning and evaluating, and interpersonal relations and communication (Schwirian, 1978: Sheskin, 2011). The use of MANOVA was used to test the null and alternative hypothesis for the first five questions in this research study. The following assumptions were met normal distribution, linearity, homogeneity of variances, and homoscedasticity. This quantitative analysis was aligned with the following five research questions and hypothesis;

RQ1: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice?

$H_0$1: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

$H_a$1: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

RQ2: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice?

$H_0$2: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

$H_a$2: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

RQ3: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice?

$H_0$3: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

$H_a3$: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

RQ4: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice?

$H_0 4$: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

$H_a 4$: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

RQ5: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice?

$H_0 5$: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

$H_a 5$: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

RQ6: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice?

$H_0$6: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

$H_a$6: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

## Threats to Validity

It is essential that the researcher ensures the accuracy and consistency of the research instrument that is being used in a study. Validity is the accurate measurement of a concept that is under investigation (Heale & Twycross, 2015). Reliability measures accuracy and the ability to have consistent results with repeated measures (Heale, & Twycross, 2015). Schwirian's 6-DSNP tool aligned with the research questions in this study and has a history of established validity and reliability (Schwirian, 1978). Schwirian's tool demonstrated highly reliability with a Cronbach's alpha coefficient from 0.84 to 0.90 for nursing performance on the subscale as evaluated by employer appraisals (Schwirian, 1978). These results demonstrate the usefulness of the tool to assess nursing performance. The following is a review of threats to validity in my study.

**External Validity**

Replication of a study is one way to assess for external validity (Lehmann & Bengart, 2016). The use of Schwirian's 6-DSNP tool have been used successfully in several studies (Rafferty & Lindell, 2011, Roud et al., 2005). Two factors posed a threat to the external validity: the number of participants in the study and the need to receive an adequate number of responses from each group identified in the study and the sampling method. A sample size that does not meet power analysis calculations or an uneven amount of responses between the two groups would alter the external validity and my ability to generalize the results to the larger populations that are represented in the study. An adequate number of participants were needed in each group to adequately represent each group and to ensure effect and equal representation of each type of group in the study. Post hoc analysis could help to improve the external validity by isolating the differences between group means if the number of responses from each group is not equal. The second concern was the use of a convenience sampling technique in this study may not be a true representation of the generalized population. Random selection would minimize this threat. However, this method was not chosen to ensure an adequate sample was achieved to ensure demonstration of significance.

**Internal Validity**

Examination of internal validity helps to ensure accuracy and strength of the evidence (Bolarinwa, 2015). The data obtained were reviewed for accuracy and completeness. The use of a MANOVA helped me determine the strength of the evidence by determining the significance between two groups. Confounding variables can

influence the outcome of a study and can make difficult to make a clear causal link (Skelly, Dettori, & Brodt, 2012). Confounding variable were not assessed but could have affected the study outcome. Additional identified threats of internal validity included changes in the environment where the participant completes the survey, physical or mental changes in the participants, instrumentation or survey construction, absence of randomization, and absence of consistency within groups. The survey was available for the participants to take at their convenience but, were limited by the time frame of availability for the study.

**Construct Validity**

Construct validity is defined as how meaningful a research tool is in practical use and measures the intended construct so that the researcher can make conclusions based on the study results (Bolarinwa, 2015; Heale, & Twycross, 2015). Construct validity related to my ability to accurately obtain the beliefs about competency levels for novice nurse from the major stakeholders that participate in this study. Construct validity was previously established for the Schwirian's 6-DSNP tool (Schwirian, 1978). Modifications to the tool could have threatened the established construct validity. However, construct validity was re-established by expert review and validity was re-confirmed post hoc using confirmatory analysis. The original 6-DSNP tool, (Appendix A), and the modified 6-DSNP tool can be found in Appendix B. Rafferty et al. (2011) used a modified version of Schwirian's instrument with a reported Cronbach's alpha ranging from 0.91 to 0.92. Rafferty (2011) also modified Question 18 in the survey to update the terminology.

## Ethical Procedures

Potential ethical concerns for my study were identified. The study was submitted for approval to the Walden University Institutional Review Board (IRB). The approval process ensured the protection of human participants. No data were collected until IRB approval was obtained. I completed human research protection training. No vulnerable populations were used in this study. This study had minimal to no potential risk to the participants that volunteer for this study. There were no potential conflicts of interest identified or ethical concern regarding data collection methods described in this study.

An informed consent was used to obtain each participant's consent to partake in this study. The informed consent explained the purpose of the research study, the benefits of participation, level of risk for each participant, measure taken for the participant's confidentiality, the participant's ability to withdraw from the study at any time prior to survey submission, and finally how to contact me if any questions or issues arose after participation in the study. I ensured the anonymity of the participants would be maintained.

## Summary

In this chapter, the use of Schwarian's 6-DSNP tool to appraise novice nursing performance was reviewed. A one-way MANOVA with global effects and an independent *t* test were the statistical methods that were used to determine if there was a difference in beliefs in the two major stakeholders in this research study. The use of these statistical method aligned with the purpose of this research and helped me answer the null and alternative hypothesis in this study. The threats to validity were reviewed for

transparency. Finally, measures to ensure the ethical procedures were followed during this study were reviewed. Chapter 4 provides a review of the data collection, results, and a summary of the answers to the research questions.

# Chapter 4: Results

## Introduction

The purpose of this descriptive quantitative study was to determine whether a difference exists between hospital nurse leaders' and nursing educators' beliefs about the frequency and competency levels of novice nurses transitioning into practice, in the following areas: (a) leadership, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communications, and (f) professional development. The following are the research questions and hypotheses for this study:

RQ1: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice?

$H_0$1: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

$H_a$1: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

RQ2: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice?

$H_0$2: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

$H_a$2: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

RQ3: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice?

$H_0$3: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

$H_a$3: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

RQ4: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice?

$H_0$4: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

$H_a4$: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

RQ5: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice?

$H_05$: There is no difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

$H_a5$: There is a difference between hospital nurse beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

RQ6: What is the difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice?

$H_06$: There is no difference between hospital nurse leaders' beliefs nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

$H_a6$: There is a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

In Chapter 4, I present a review of data collection, changes in the data collection methods, descriptive and demographic characteristics of the sample, statistical assumptions, a review of the research questions and hypothesis testing, and the analyses of the research questions and hypotheses testing. I also review the data analysis and a summary of the study findings.

## Data Collection

Data collection via an online survey website began on February 1, 2019 and concluded on March 19, 2019. Because the survey was anonymous, participants did not receive a follow-up email. Based on 142 potential participants who responded to the survey, only 104 participants returned the completed survey and met the study qualifications, resulting in a 75% response rate. The study flier was emailed to 4,021 possible participants; 36 emails were undeliverable due to an inaccurate email address, yielding a 4% response rate. Thirty-eight of the responses were not included as they did not meet the criteria for inclusion because participants were retired from nursing, had less than 1 year in their current position, or they did not complete the entire survey.

Initially, the survey was scheduled to be posted for only 30 days. However, the survey was extended by an additional 19 days to ensure that the required number of participants was reached. I had planned to recruit participants at two nursing conferences, but I was not able to recruit at either of these conferences because IRB approval was not obtained in time. I submitted a change in procedures to the IRB and received approval to recruit participants by email. I requested the list of names and email addresses of all the RNs from the Florida Board of Nursing and the Ohio Board of Nursing; such lists were

available and free to the public upon request. These potential participants were invited to complete the survey after receiving the study flier by email. In addition, I applied for and received IRB approval to post my flier on a social media site with a link to the survey.

## Verification of Validity and Reliability

### Construct Validity

Because changes were made to the Schwirian tool, construct validity was re-established by a panel of experts. Six experts responded to a survey in December 2018, with a 100% response rate (Appendix M). These experts reviewed the changes made to the tool to ensure the instrument retained construct validity. It is recommended that at least five experts be consulted when re-establishing construct validity (Zamanzadeh et al., 2015). The experts' quantitative and qualitative viewpoints were analyzed for the relevancy, clarity, and comprehensiveness of the changes made to the items to ensure construct validity of the revised instrument.

The expert panel members were asked to rate the revised instrument items in terms of relevancy and clarity to the underlying study construct. The item content validity indexes (I-CVIs) were computed to determine the proportion of agreement on the relevance of each item on a scale from zero to one. The I-CVI results indicated that all revisions were relevant and clear (Table 2). The scale level content validity index (S-CVI) for these changes demonstrated universal agreement among the experts and therefore all changes were considered appropriate (Zamanzadeh et al., 2015).

Table 2

*Calculation of Item and Scale Level Content Validity Index Results*

| Item | # relevant ratings | # not relevant ratings |
|---|---|---|
| 2 | 6 | 0 |
| 3 | 6 | 0 |
| 5 | 6 | 0 |
| 6 | 6 | 0 |
| 8 | 6 | 0 |
| 9 | 6 | 0 |

*Note*. Relevant ratings were those rated 3 or 4; not relevant ratings were those rated 1 or 2. Number of content experts = 6.

**Content Validity**

Content validity was re-established by a panel of experts that included participants similar to the potential study subjects. These content experts had previous research experience, work in nursing education, and followed the recommendations Zamanzadeh et al. (2015) outlined to ensure adequate representation of the intended population. The qualitative responses were used to correct grammar and wording. The quantitative responses were used to calculate the content validity ratio (CVR) that confirmed that the changes made to the instrument were necessary for operating a construct in survey items. The expert panel scored the verbiage of the mechanical devices and the addition of the word *novice.* The formula used was $CVR = (N_e – N/2)/(N/2)$ (Zamanzadeh et al., 2015). The number of panelists that stated this change was *essential* was represented as $N_e$ in this calculation and N was the total number of panelists. All panelists were in perfect agreement on these verbiage changes as demonstrated by the CVR results that indicated the verbiage changes should remain (Table 3).

Table 3

*Content Validity Ratio Results for Verbiage Changes*

| Items | $N_e$ | CVR | Interpretation |
|---|---|---|---|
| 1 | 6 | 1 | Remained |
| 4 | 6 | 1 | Remained |
| 7 | 6 | 1 | Remained |

*Note*. CVR = ($N_e$ – N/2)/(N/2) (N = 6). Items with CVR bigger than 0.49 remained in the instrument.

The data were downloaded from the survey website and entered into SPSS for analysis on my personal computer, which is password protected. I created subscales for each of the frequency and competency levels evaluated for each of the research questions. I created a frequency subscale for the question that addressed the level of professional development. The frequency tables were examined and there were no missing, incorrect, or impossible values. Box plots were run to check for significant outliers (Appendix N). Outliers were identified, but all data collected were restricted to the limits of the Likert scales. Therefore, I used the original data without alteration.

**Reliability**

Since the tool was revised, it is important to re-establish reliability or indicate if the revised tool is free from random error and that the revised tool items in the tool measure the underling attribute, internal consistency (Pallant, 2016). Nunnally (1978) established that a Cronbach's alpha of .70 is the minimum level that should be achieved to ensure a tool is reliable, unless the sample size is small. The reliability with each sample can change and reinforce the need to re-establish reliability of the tool (Pallant, 2016). The revised tool had a high level of internal consistency, as determined by a Cronbach's alpha of .886.

**Justification for Use of Parametric Test with Likert Scale**

Results obtained with parametric tests are more powerful than nonparametric measures (Sullivan & Artino, 2013). Likert scales are helpful in identifying attitudes that cannot be observed (Willits, Theodori, & Luloff, 2016). A 4-point Likert scale was used in this study. According to Willits et al., (2016) four items are minimally needed for internal consistency but, there is no set rule regarding the maximum number of choices that need to be included in the scale. According to Norman (2010) researchers need to address three concerns to provide justification for using a parametric measure with ordinal data obtained from a Likert scale including adequate sample size, normal distribution, and normality concerns with ordinal data. There is no evidence to support that non-parametric measures are better than parametric measures with smaller sample sizes (Norman, 2010). There were 104 participants that responded to this study (N=104), meeting the required assumption for justification and the MANOVA assumption requirement for adequate sample size (Norman, 2010, Sullivan & Artino, 2013). I determined that the data were approximately normally distributed by observing scatter plots (Appendix F). The assumption of normality must be met for parametric tests but, even when normal distribution is violated, parametric tests generate the *right answer* (Norman, 2010, Sullivan & Artino, 2013). The final justification addresses normality concerns with ordinal data (Norman, 2010). Norman (2010) addresses the concern that normality cannot be assumed with ordinal data. Normally, data obtained from a Likert scale would be considered ordinal data. However, the Likert scale used to evaluate each research question consists of a sum of many values across several questions in the tool

and are therefore considered to be interval data and not ordinal (Norman, 2010). Justification for use of parametric measures is therefore satisfied in this study.

## Results

### Descriptive Statistics

The data collected yielded 104 participants that were actively working as RNs and were in their current position for at least 1 year. The sample included 52-nursing educators working in academia (50%) and 52-hospital nurse leaders that were working as nurse manager (11.54%), nurse educator in the hospital (13.46%), or novice nurse preceptor (25%). The sample included 96 female participants (92.3%) and 8 male participants (7.7%). There was a significant statistical association between gender and the two RN groups as assessed by Fisher's Exact Test ($p$=.135). The following races were represented in the sample: White (84.6%), Hispanic/Latino (2.9%), Black (7.7%), and Other (4.8%). There was no significant statistical association by ethnicity and the two RN groups as assessed by Chi-square test ($x^2$ = 3.044, df = 3, $p$ = .385). The following educational levels were represented in the sample: diploma (3.8%), associate in science (9.6%), bachelor's in science (19.2), master's (46.1%), Doctorate of Nursing Practice (DNP) (14.4%), and PhD (6.7%). There was a significant statistical association between educational level and the two RN groups as assessed by Chi-square test ($x^2$ = 47.704, df = 5, $p$ = .000). The participants ranged in age from 23 to 70 years with a mean age of 52 (SD 11.250). There was a statistically significant difference in means between the age of the participants and the two RN groups as assessed with independent $t$-test ($t$102) =2.464,

$p$ =.015. The participant's demographic information is summarized in Table 4. The mean and standard deviation for each type of participant is displayed in Table 5.

Table 4

*Participant Demographics*

| | N | % |
|---|---|---|
| Gender | | |
| Male | 8 | 7.7 |
| Female | 96 | 92.3 |
| Ethnicity | | |
| White | 88 | 84.6 |
| Hispanic/Latino | 3 | 2.9 |
| Black | 8 | 7.7 |
| Other | 5 | 4.8 |
| Age | | |
| 23–30 | 21 | 2 |
| 31–40 | 21 | 20.2 |
| 41–50 | 25 | 7.7 |
| 51–60 | 31 | 4.8 |
| 61–70 | 25 | 2 |
| Education level | | |
| Diploma | 4 | 3.8 |
| Associate's degree | 10 | 9.6 |
| Bachelor's degree | 20 | 19.2 |
| Master's degree | 48 | 46.2 |
| DNP | 15 | 14.4 |
| PhD | 7 | 6.7 |

Table 5

*Descriptive Statistics*

| | Position | Mean | *SD* | *n* |
|---|---|---|---|---|
| Leadership | | | | |
| How well | Nurse educator | 13.79 | 3.460 | 52 |
| | Hospital nursing leader | 13.37 | 3.871 | 52 |
| | Total | 13.58 | 3.660 | 104 |
| How often | Nurse educator | 16.71 | 2.476 | 52 |
| | Hospital nursing leader | 16.38 | 2.369 | 52 |
| | Total | 16.76 | 2.417 | 104 |
| Critical care | | | | |
| How well | Nurse educator | 18.67 | 5.268 | 52 |
| | Hospital nursing leader | 18.25 | 5.455 | 52 |
| | Total | 18.46 | 5.341 | 104 |
| How often | Nurse educator | 23.54 | 4.099 | 52 |
| | Hospital nursing leader | 22.37 | 4.078 | 52 |
| | Total | 23.50 | 4.111 | 104 |
| Teach, collaboration | | | | |
| How well | Nurse educator | 29.00 | 7.713 | 52 |
| | Hospital nursing leader | 26.94 | 8.837 | 52 |
| | Total | 27.97 | 8.318 | 104 |
| How often | Nurse educator | 36.17 | 6.109 | 52 |
| | Hospital nursing leader | 34.40 | 6.325 | 52 |
| | Total | 36.26 | 6.251 | 104 |
| Plan, evaluate | | | | |
| How well | Nurse educator | 19.98 | 5.389 | 52 |
| | Hospital nursing leader | 18.33 | 5.487 | 52 |
| | Total | 19.15 | 5.475 | 104 |
| How often | Nurse educator | 25.10 | 40695 | 52 |
| | Hospital nursing leader | 24.23 | 3.978 | 52 |
| | Total | 24.66 | 4.028 | 104 |
| Interpersonal relations, communications | | | | |
| How well | Nurse educator | 36.73 | 7.766 | 52 |
| | Hospital nursing leader | 35.48 | 8.647 | 52 |
| | Total | 36.11 | 8.202 | 104 |
| How often | Nurse educator | 43.62 | 5.892 | 52 |
| | Hospital nursing leader | 42.87 | 5.141 | 52 |
| | Total | 43.24 | 5.515 | 104 |
| Professional development | | | | |
| How well | Nurse educator | 30.38 | 6.814 | 52 |
| | Hospital nursing leader | 29.83 | 7.496 | 52 |
| | Total | 30.10 | 7.155 | 104 |

**Comparison of Sample to Population**

Because the nurses examined in this study hold various positions, I was unable to determine the total number of nurses in each stakeholder position for this population. The sample size obtained in this study met the required sample population to demonstrate significance, according to the G Power calculated. According to the Bureau of Labor Statistics, there are 2,955,200 RN positions in the United States (2019). From this population of Registered Nurses, 61% work in the hospital setting and 3% of these RNs work in the educational setting (Bureau of Labor Statistics, 2019). The sample represented in this study was small in comparison to the total population of nursing educators in academia and hospital nurse leaders, nursing managers, hospital nurse educators, and nursing preceptors.

**Statistical assumptions for MANOVA**

The data obtained for this study were tested to ensure the figures conformed to the ten assumptions for this statistical test. The first three assumptions that were met relate to the design of the study: (a) there must be two or more dependent continuous variables, (b) the independent variable is categorical and have two or more independent groups, and (c) there must be independence of observations (Laerd Statistics, 2015). In this study, there were two dependent variables measured on a continuous scale for each research question assessed using a MANOVA. The independent variable, type of stakeholder, was categorical and had two independent groups (nursing educators in academia and hospital nurse leaders). Each participant responses in this research study were counted once, therefore meeting the requirement for independence of observations.

The remaining assumptions include: (a) absence of outliers, (b) univariate and multivariate normality, (c) no multicollinearity, (d) linearity of the dependent variables, (e) adequate sample size, (f) multivariate homogeneity of variance -covariance matrices and, (g) homogeneity of variances (Laerd Statistics, 2015). All of the following assumptions were met.

**Outliers.** Outliers were identified by inspection of box plots (Appendix N). These outliers were determined to be genuinely unusual values that were not due to data entry errors. I was not able to determine if these errors were due to inaccurate entry by the participant. The presence of outliers in the data introduces bias in the mean values of the data that could over or underrepresent the identified research values (Kawak & Kim, 2017). Outliers in the data can be left in place, modified, or replaced however, any corrections should be addressed prior to data analysis (Kawak & Kim, 2017). The participants were restricted to provide answered based on a Likert scale therefore, no true outliers were possible, therefore all data points were retained for this study.

**Univariate normality.** The dependent variable for each group of the independent variable should be approximately normally distributed (Laerd Statistics, 2015). Normal Q-Q plots were visually assessed and were found to be approximately normally distributed (Appendix O). In each of the Q-Q plots the distribution of scores were in a reasonably straight line, suggesting an approximately normal distribution (Pallant, 2016).

**Multivariate normality**. The data sets were assessed for multivariate normality using Mahalanobis distances, a calculation used to determine the distance from the mean (Field, 2013). The total sample size evaluated was N=104 with 52 evenly divided into

each group, meeting the minimum requirement for robustness according to Tabachnick and Fidell (2013) which stated a sample size of at least 20 is needed in each group to demonstrate *robustness*. The results of the Mahalanobis distances demonstrate the two of the groups did not exceed the critical limit, two groups exceeded the limit by only one violation, and one group exceeded the limit with two violations (Table 6). Because the cases that violated the Mahalanobis critical limit were minimal, these scores were not initially removed. According to Barnett and Lewis (1978) in a sample that is greater than N=100, Mahalanobis values greater than 15 are problematic. A Cook's distance was calculated on both variables that demonstrated a Mahalanobis critical limit that was greater than fifteen. The Cook's distance for Planning/Evaluation was 0.162. The Cook's distance for IPR communication was 0.105. None of the Cook's distances were significant, because all the calculated Cook's distances were less than one (Field, 2013).

Table 6

*Mahalanobis Distances for Dependent Variables*

| Items | Distance | Violated cases | Cook's Distance | Multivariate Normality |
|---|---|---|---|---|
| Leadership | 13.796 | 0 | | Met |
| Critical care | 13.980 | 1 | | Acceptable |
| Teaching and collaboration | 13.643 | 0 | | Met |
| Planning and evaluation | 18.214 | 1 | 0.162 | Acceptable |
| Interpersonal relations and communications. | 17.601 | 2 | 0.105 | Acceptable |

*Note*. The number of dependent variables = 2. Critical Value for 2 dependent variables for Mahalanobis distance = 13.82. (Tabachnick & Fidell, 2013).

**Multicollinearity.** Correlations that are too high or too low can alter the results of a MANOVA, therefore screening to detect multicollinearity was essential (Laerd Statistics, 2015). Moderate correlation with no multicollinearity was detected between each group of dependent variables, as assessed by Pearson correlation (Table 7).

Table 7

*Pearson Correlations to Rule Out Multicollinearity*

| | Pearson correlation | Sig (2-tailed) |
|---|---|---|
| Leadership | .204 | .038 |
| Critical care | .257 | .009 |
| Teaching and collaboration | .397 | .000 |
| Plan and evaluation | .293 | .003 |
| Interpersonal relations and communications | .234 | .017 |

*Note*. Correlation is significant at the 0.05 level (2-tailed)

**Linearity of dependent variables.** Scatterplot were examined for each pair of dependent variables (Appendix F). A positive relationship, a positive direction, was identified in each scatterplot. In addition, there was a linear relationship identified between each dependent variable group, as assessed by scatterplot. The ability to detect differences when using a MANOVA would be decreased if the variables are not linearly related (Laerd Statistics, 2015).

**Sample Size.** According to Polit and Beck (2018) statistical power is necessary for the researcher to detect true relationships between the study variables. The sample size obtained in this study was N= 104, equally divided into two groups of 52 hospital nurse leaders and 52 nursing educators in academia. Priori G Power calculation for this

study demonstrated that 98 participants were needed to demonstrate significance for this study. This initial G*Power calculation was determined with an alpha of 0.05, a power of 0.80, and (f=0.15) for a medium effect size. The sample size attained in this study, N= 104 was greater than the total sample size recommended by the initial G Power calculation. A retrospective power analysis was performed using G* Power 3.1.9.2. A medium effect size was achieved at 0.153.

**Multivariate homogeneity of variance-covariance.** Box's test of equality of covariance was performed for each group of dependent variables (Table 8). There was homogeneity of variance-covariances matrices for all groups of dependent variables ($p$>.001).

Table 8

*Box's Test of Equality of Covariance Matrices*

| | Boxes M | *Sig*. |
|---|---|---|
| Leadership | 2.986 | .404 |
| Critical Care | .307 | .960 |
| Teach and collaboration | 5.390 | .153 |
| Planning and evaluation. | 1.292 | .738 |
| Interpersonal relations and communications | 3.676 | .308 |

*Note*. Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. a. Design: Intercept + RN2groups

**Homogeneity of Variances**. There should be equal variances between the groups of independent variables, for each dependent variable (Laerd Statistics, 2015). The Levene's test of equality for equal variances was performed to check each group for this

assumption. There was homogeneity of variances between each group (p>.05), as assessed by Levene's test of homogeneity of variance (Table 9).

Table 9

*Levene's Test of Equality for Equal Variances*

| | Levine Statistic | *d*/1 | *d*/2 | *Sig.* |
|---|---|---|---|---|
| Leadership How often | .044 | 1 | 102 | .834 |
| Leadership How well | 1.627 | 1 | 102 | .205 |
| Critical care How often | 1.625 | 1 | 102 | .205 |
| Critical care How well | 0.011 | 1 | 102 | .917 |
| Teach and collaborate How often | 0.086 | 1 | 102 | .770 |
| Teach and collaborate How well | 1.692 | 1 | 102 | .196 |
| Planning and evaluation How often | 0.198 | 1 | 102 | .657 |
| Planning and evaluation How well | 0.008 | 1 | 102 | .928 |
| Interpersonal relations and communications How often | 0.252 | 1 | 102 | .617 |
| Interpersonal relations and communications How well | 0.046 | 1 | 102 | .831 |

*Note*. Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Design: Intercept + RN2groups

## Statistical Analysis Findings by Research Question

**One-way multivariate analysis of variance**. A one-way between groups MANOVA was performed to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and competency levels including: (a) leadership for novice nurses transitioning into practice, (b) critical

care nursing performance, (c) teaching/collaboration, (d) ability to plan/evaluate (e) and interpersonal relations/communications and addressed the first five questions in the study.

Research Question 1

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice?

*$H_01$*: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of leadership nursing performance needed by novice nurses transitioning into practice.

A one-way MANOVA was run to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and competency levels of leadership for novice nurses transitioning into practice. The differences between hospital nurse leaders and nursing educators on the combined dependent variables on leadership were not statistically significant, using an α level of .05, F (2,101) =.338, *p*=.714;Wilks's $\Lambda$ = .993, partial $\eta^2$ = .007. Therefore, the null hypothesis was retained.

Research Question 2

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice?

$H_0$2: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of critical care nursing performance needed by novice nurses transitioning into practice.

A one-way MANOVA was run to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and competency levels of critical care nursing performance needed by novice nurses transitioning into practice. The differences between hospital nurse leaders and nursing educators on the combined dependent variables on critical care were not statistically significant, using an $\alpha$ level of .05, F (2,101) =1.060 , *p*=.350,Wilks's $\Lambda$ = .979, partial $\eta^2$ = .021. Therefore, the null hypothesis was retained.

Research Question 3

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice?

$H_0$3: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of teaching and collaboration performance needed by novice nurses transitioning into practice.

A one-way MANOVA was run to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of teaching and collaboration performance by novice nurses transitioning into practice. The differences between hospital nurse leaders and nursing educator on the combined dependent variables on teaching and collaboration were not statistically

significant, using an α level of .05, F (2,101) =1.331, *p*=.269,Wilks's Λ = .974, partial $\eta^2$= .026. Therefore, the null hypothesis was retained.

Research Question 4

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice?

$H_0$4: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice.

A one-way MANOVA was run to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of ability to plan and evaluate needed by novice nurses transitioning into practice. The differences between hospital nurse leaders and nursing educators on the combined dependent variables plan and evaluate were not statistically significant, using an α level of .05, F (2,101) =1.424, *p*=.245,Wilks's Λ = .973, partial $\eta^2$ = .027. Therefore, the null hypothesis was retained.

Research Question 5

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice?

$H_0$5: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of interpersonal relations and communications performance needed by novice nurses transitioning into practice.

A one-way MANOVA was run to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and level of interpersonal relations and communication performance by novice nurses transitioning into practice. The differences between hospital nurse leaders and nursing educators on the combined dependent variables interpersonal relations and communications performance were not statistically significant, using an α level of .05, F (2,101) =.436, $p$=.648,Wilks's Λ= .991, partial $\eta^2$ = .009. Therefore, the null hypothesis was retained.

Research Question 6

**Independent-sample t test**. An independent sample *t*-test was performed to determine whether there was difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the competency level of professional development for novice nurses transitioning into practice. This test addressed the sixth research question in the study. All assumptions for the Independent sample t-test were met. The participants were restricted to provide answers based on a Likert scale consequently, no true outliers were possible, therefore all data were retained for this study. The scores for professional development were normally distributed for both hospital nurse leaders and nurse educators, as assessed by Shapiro-Wilk's test ($p$<.05). There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p$=.770).

What is the difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice?

$H_0$6: There is no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the level of professional development performance needed by novice nurses transitioning into practice.

An independent sample *t* test was conducted to determine whether there were differences between hospital nurse leaders' beliefs and nursing educators' beliefs about the level of professional development for novice nurses transitioning into practice. There were no statistically significant differences in means between hospital nurse leaders' beliefs and nursing educators' beliefs on the dependent variable professional development ($t102$) =.397, $p$ =.692 therefore, the null hypothesis was retained.

## Summary

From the data collected in this study, I found that there was no significant difference in the beliefs of hospital nurse leaders' and nursing educators' beliefs about the frequency and competency levels of: (a) leadership for novice nurses transitioning into practice, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communications, and (f) the competency level of professional development for novice nurses transitioning into practice. Therefore, the null hypothesis, which stated that there would be no difference between hospital nurse leaders' beliefs compared to nursing educators' beliefs about the frequency and level of performance needed by novice nurses transitioning into practice,

was retained. In Chapter 5, I provided an interpretation of the findings including a review the limitations of the study, recommendations, implications, and final conclusions.

# Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

The purpose of this descriptive quantitative study was to determine whether a difference exists between hospital nurse leaders' and nurse educators' beliefs about the frequency and competency levels of novice nurses transitioning into practice, in the following areas: (a) leadership, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communication, and (f) professional development. Previous literature reported a dissidence between these two groups of stakeholders regarding expectations for novice nurses (AL Dossary et al., 2014). The results in this study revealed no differences between hospital nurse leaders' and nurse educators' beliefs on the frequency and competency level for leadership, critical care, teaching and collaboration, planning and evaluation, interpersonal relations and communication, and competency level of professional development for novice nurses transitioning into practice.

## Interpretation of the Findings

### Comparison of Findings to Existing Literature

It has been widely published that the transition to practice period can be difficult for novice nurses entering the nursing profession (AL-Dossary et al., 2014, Armstrong, 1974, El Haddad et al., 2017, Innes & Calleja, 2018). One factor documented in the literature that complicates the transition to practice period is the dissidence in the beliefs held by hospital nurse leaders' and nurse educators' regarding expectations for readiness to practice among novice nurses (AL-Dossary et al., 2014; Berkow et al., 2009). Another

factor is the lack of collaboration between nursing educators and hospital nurse leaders to provide the best experience for the development of essential nursing skills (AL-Dossary et al., 2014, Berkow et al., 2009, Papagiorgis et al., 2016, Radford, 2018). Brown et al. (2015) stated that expectations for common skills must be clearly defined between the stakeholders to adequately develop and provide support for novice nurses (Brown et al., 2015).

It is a priority for nurse educators to prepare students who are *work ready* (Baldwin et al., 2014, El Haddad et al., 2017, Missen et al., 2018). Educators develop program outcomes as a framework to ensure that novice nurses reach competencies that align with the expectations of the board of nursing, employers, and the community (Baldwin et al., 2014). Bennett (2017) identified that students need to have broadened opportunities to help them learn to prioritize care. Novice nurses are expected to perform skills proficiently and effectively communicate to the healthcare team (Bridges et al., 2014; Brown et al., 2015). Graduate skill proficiency should closely align with employer competencies (Baldwin et al., 2014). Numminen et al. (2014) conducted a study to find areas where competency differences existed using the Nurse Competency Scale. They found that educators and managers have different set benchmarks for novice nurse competency. Educators assessed novice nurse competency slightly higher than managers in all areas examined (Numminen et al., 2014). In my study, I found no difference between hospital nurse leaders (a population that included nursing managers) and nurse educators in all competency areas examined.

Two studies in the literature review were identified as studies that also used the Schwirian tool. Roud et al. (2005) performed a longitudinal study of self-reported changes in new graduate nurses. Rafferty and Lindell (2011) surveyed nurse managers and compared accelerated baccalaureate students to traditional baccalaureate nursing students using the Schwirian tool, with results supporting the accelerated programs. The populations and methods used in these two studies were not comparable to my study. In another study, Sortedahl et al. (2017) surveyed hospital leaders to examine five essential classroom topics for nursing students including communication and leadership. Using a one-way ANOVA, the researchers identified communication as the most important skill (Sortedahl et al., 2017). The skill competencies in my study were not ranked and therefore could not be compared to this study. However, this study used parametric measures with survey data, as demonstrated in my study.

The purpose of my study was to determine whether a difference exists between hospital nurse leaders' and nurse educators' beliefs about the frequency and competency levels of novice nurses transitioning into practice, in the following areas: (a) leadership, (b) critical care nursing performance, (c) teaching and collaboration, (d) ability to plan and evaluate (e) interpersonal relations and communication, and (f) professional development. My results showed there was no significant difference between hospital nurse leaders' beliefs and nurse educators' beliefs about the frequency and competency levels examined in this study, so there was no dissidence as identified previously in the literature on novice nurse expectations (AL Dossary et al., 2014, Berkow et al., 2009). This study addressed the gap in the literature by providing comparative views of nurse

educators and hospital nurse leaders on the desired competencies for novice nurses entering practice. These findings extend the knowledge of the discipline of nursing by providing evidence that these two stakeholders' beliefs about the frequency and competency levels for novice nurses transitioning into practice align.

Collaboration between hospital nurse leaders and nurse educators is needed to address all factors that contribute to the practice gap and difficulties experienced by novice nurses during the transition to practice period. Nurse educators need to perform periodic curriculum reviews and seek feedback from hospital nurse leaders regarding essential content for practice. Hospital nurse leaders need to review hospital transition programs to make sure they support the needs of novice nurses. Collaboration and continued communication will strengthen both stakeholders' ability to understand how they can best meet the needs of novice nurses transitioning into practice.

**Theoretical Findings**

I used Benner's (1982) novice to expert theory to guide this study. Benner posits that nurses progress through five stages of skill acquisition—(a) novice, (b) advanced beginner, (c) competent, (d) proficient, and (e) expert—with time and experience. Benner's theory was applicable as it establishes that novice nurses entering practice should be assessed at the novice level and allowed to progress and improve their practice with time and experience. Novice nurses may need additional time to develop skill competence if they had little or no exposure to these skills in nursing school. Benner's theory provides a consistent guide for stakeholders to set realistic expectations for novice nurses entering practice. This theory provides a benchmark for achievement that novice

nurses can use to assess their progress in developing competency in practice. Schwirian's (1978) 6-DSNP tool was developed to predict successful nursing performance. The results of my study support Benner's theory by providing new evidence applicable to the evaluation of novice nurses.

## Limitations of the Study

The results of this study are limited in generalizability since the study participants for this study were recruited using a convenience sample of nursing educators and hospital nurse leaders that anonymously responded to my survey (Polit & Beck, 2018). The results of this study were dependent on participation of qualified respondents and accurate human responses to questions about their beliefs. The data were screened for missing, incorrect, or impossible values. However, the study is limited by the fact that I, as a researcher, am not able to identify partially random or inattentive responses (Meade & Craig, 2012). Although to strengthen the results, the data were also screened for repeating patterns and consecutive item responses that were identical, these were not identified. According to Meade and Craig (2012) data quality is decreased when there is lack of environmental control and the study can be limited by inattentive or careless responses. Because I found statistically significant differences between my two groups in age and educational level therefore, there is a limitation because of the differences between the two groups which could have influenced by my study findings. The modification of the Schwirian tool could have affected the validity and reliability of the study results. However, I followed the process to reestablish construct and content validity as recommendations by Zamanzadeh et al. (2015).

## Recommendations

Future researches could compare nurse educators' expectations from different types of hospitals, community vs. magnet status. It would be interesting to note if expectations for novice nurses change based on the level of the facility. Another study, that could lead to improved novice nurse preparation, is to determine if hospital nurse leaders' and nurse educators' expectations are different based on the level of education, associate's degree versus bachelor's degree. This study could be duplicated with a larger sample size to provide more information that may demonstrate improved generalizability. Other additional research should include studies that will clearly identify benchmarks determined by employers as skills that that must be completed independently by novice nurses at the beginning of practice. Brown and Crookes (2016) identified 30 skill areas graduates need to achieve and perform independently at the onset of practice. Delineation of these skills in nursing programs would provide clearer end of program expectations that are grounded on real world expectations that are projected by their future employers as suggested by Baldwin et al. (2014) and Missen et al. (2018). These benchmarks should be consistent in nursing school and at the onset of practice for the novice nurse (Numminen et al., 2014). Future studies that address the barriers to development of competent practice in nursing school would identify clinical concerns that nursing educators need to address to improve a novice nurse's independent skill proficiency. As Bennett (2017) previously recommended, real-world situations are necessary for students to build critical thinking skills.

The performance of full-time instructors verses adjunct instructors could be examined for differences in consistency of educational/clinical experience provided and actionable feedback given to students. This study would be beneficial in identifying inconsistencies in these two types of educators and their ability to prepare the students to meet the student learning outcomes. A final study that could contribute to improvement of transition to practice for novice nurses would focus on the effectiveness of current evaluation tools used to define and document the nursing student's present competency level in the clinical setting. Assessment tools should provide students with actionable feedback that will guide their ability to understand their weaknesses and guide their path to improvement. This type of study would ensure that all students understand what they need to do to be successful and prepared to handle *real world* situations and graduate with the necessary skills and preparation to be *fit to practice* (El Haddad et al., 2017, Missen et al, 2018).

## Implications

### Positive Social Change

The findings of this study have the potential for positive social change by providing new evidence that these two major stakeholders beliefs are in alignment on the frequency and competency level for the skills identified for: (a) leadership for novice nurses transitioning into practice, (b) critical care nursing performance, (c) teaching /collaboration, (d) ability to plan/evaluate (e) interpersonal relations/communication, and (f) the competency level of professional development for novice nurses transitioning into practice. This study may also provide feedback, to these major stakeholders, that efforts

to improve alignment of expectations have been successful and may result of positive social change by decreased job turn-over rate and decrease in novice nurses prematurely leaving nursing practice (Snavely, 2016).

Hospital nurse leaders can use this evidence to confirm that their expectations for novice nurses are in alignment with nursing educators on the six areas evaluated in this study (AL-Dossary et al., 201, El Haddad et al., 2017, Mauro et al., 2016, Schwirian, 1978). This new information will help hospital nurse leaders focus their attention on other factors that impact the success of novice nurse during the transition period including orientation, internships, and programs to strengthen preceptor's skills (Baldwin et al., 2014, Bennett, 2017, Theisen & Sandau, 2013). Hospital nurse leaders should continue to facilitate conversations with colleges of nursing to discuss how novice nurses can be better prepared to enter practice and meet the grown needs to their patient population.

Nursing educators can identify that measures implemented to improve alignment with hospital nurse leaders' beliefs have been successful. Nurse educators must also facilitate the communication process to continue open conversations that will continue to support alignment between these two stakeholders (Bridges et al., 2014, Brown et al., 2015). The curriculum must also be reviewed to ensure the graduates will be able to pass the NCLEX exam that demonstrates the ability to provide safe care to the community (Baldwin et al., 2014, Falk et al., 2016, Numminen et al., 2014). In addition, nurse educators must continually evaluate their curriculum to ensure it meets the standards required for the community stakeholders that they serve.

Benner's theory gives, hospital nurse leaders, nurse educators, and novice nurses a consistent framework to evaluate entry level practice competency and evaluate future performance (Benner, 1984). Benner's theory sets a standard that novice nurses need to be evaluated at the novice level and have opportunities to practice so they are able to master skills (Benner, 1984). The use of this theory can assist stakeholders by providing a consistent framework for skill performance and evaluation and may result in a positive social change.

## Conclusion

In conclusion, this descriptive quantitative study examined whether there was a difference between hospital nurse leaders' beliefs and nursing educators' beliefs about the frequency and competency levels for six areas of practice for novice nurses. The data from this study suggest that the expectations held by these two stakeholders are in alignment. The results obtained will provide updated knowledge regarding the viewpoints between nursing educators and hospital nurse leaders. The dissidence that was previously recognized by hospital nurse leaders and nurse educators was not identified in this study.

Both hospital nurse leaders and nursing educators need to continue to work together to improve the education and transition period for novice nurses entering practice for the first time. Nursing educators need to continually improve and update the curriculum to ensure the program outcomes meet the needs of major stakeholders in the hospital. Hospital nurse leaders need to continually improve the transition programs provided to ensure that the novice nurses entering the workforce are supported and have the resources to bridge the theory-practice gap successfully. Communication between

these two stakeholders must continue to improve and focus on the interventions that need to be provided in both arenas to support novice nurses and ultimately the patients that we serve. This new insight could highlight the need for stakeholders to continue to identify and address other factors that impact novice nurse's ability to successfully transition into the nursing profession.

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Appendix A: Original Schwirian 6-DSNP Tool



**SIX DIMENSION SCALE OF NURSING PERFORMANCE**

Patricia M. Schwirian, Ph.D., R.N.
The Ohio State University College of Nursing
1585 Neil Avenue - Columbus, OH 43210

**Instructions:** The following is a list of activities in which nurses engage with varying degrees of frequency and skill.

1. **IN COLUMN A:** please enter the number that best describes how often the nurse performs the activities in the performance of his/her current job.

2. **IN COLUMN B:** for those activities that the nurse does perform please enter the number that best describes how well he/she performs them.

**PLEASE USE THE KEY AT THE TOP OF EACH COLUMN**

| **COLUMN A**<br>How often does this nurse perform these activities in his/her current job? | **COLUMN B**<br>How well does this nurse perform these activities in his/her current job? |
|---|---|
| 1- Not expected in this job | 1- Not very well |
| 2- Never or seldom | 2- Satisfactorily |
| 3- Occasionally | 3- Well |
| 4- Frequently | 4- Very Well |

| | Column A | Column B |
|---|---|---|
| 1. Teach a patient's family members about the patient's needs. | | |
| 2. Coordinate the plan of nursing care with the medical plan of care. | | |
| 3. Give praise and recognition for achievement to those under his/her direction | | |
| 4. Teach preventive health measure to patients and their families. | | |
| 5. Identity and use community resources in developing a plan of care for a patient and his/her family. | | |

| | Column A | Column B |
|---|---|---|
| 6. Identify and include in nursing care plans anticipated changes in patient's conditions. | | |
| 7. Evaluate results of nursing care. | | |
| 8. Promote the inclusion of patient's decision and desires concerning his/her care. | | |
| 9. Develop a plan of nursing care for a patient. | | |
| 10. Initiate planning and evaluation of nursing care with others. | | |
| 11. Perform technical procedures: e.g. oral suctioning, tracheostomy care, IV therapy, catheter care, dressing changes. | | |
| 12. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background and sensory deprivation. | | |
| 13. Identify and include immediate patient needs in the plan of nursing care. | | |
| 14. Develop innovative methods and materials for teaching patients. | | |
| 15. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare. | | |
| 16. Seek assistance when necessary. | | |
| 17. Help a patient communicate with others. | | |
| 18. Use mechanical devices: e.g., suction machine, Gomco, cardiac monitor, respirator | | |
| 19. Give emotional support to family of dying patient. | | |
| 20. Verbally communicate facts, ideas, and feelings to other health care team members. | | |
| 21. Promote the patients' rights to privacy. | | |
| 22. Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members. | | |
| 23. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel. | | |
| 24. Explain nursing procedures to a patient prior to performing them. | | |

| | Column A | Column B |
|---|---|---|
| 25. Guide other health team members in planning for nursing care. | | |
| 26. Accept responsibility for the level of care under his/her direction. | | |
| 27. Perform appropriate measures in emergency situations. | | |
| 28. Promote the use of interdisciplinary resource persons. | | |
| 29. Use teaching aids and resource materials in teaching patients and their families. | | |
| 30. Perform nursing care required by critically ill patients. | | |
| 31. Encourage the family to participant in the care of the patient. | | |
| 32. Identify and use resources within the health care agency in developing a plan of care for a patient and his/her family. | | |
| 33. Use nursing procedures as opportunities for interaction with patients. | | |
| 34. Contribute to productive working relationships with other health team members. | | |
| 35. Help a patient meet his/her emotional needs. | | |
| 36. Contribute to the plan of nursing care for a patient. | | |
| 37. Recognize and meet the emotional needs of a dying patient. | | |
| 38. Communicate facts, ideas, and professional opinions in writing to patients and their families. | | |
| 39. Plan for the integration of patient needs with family needs. | | |
| 40. Function calmly and competently in emergency situations. | | |
| 41. Remain open to the suggestions of those under his/her direction and use them when appropriate. | | |
| 42. Use opportunities for patient teaching when they arise. | | |

**The following PROFESSIONAL DEVELOPMENT behaviors should be evaluated in terms of quality only--i.e. COLUMN B.**

| | Column A | Column B |
|---|---|---|
| 43. Use learning opportunities for ongoing personal and professional growth. | | |
| 44. Display self-direction. | | |
| 45. Accept responsibility for own actions. | | |
| 46. Assume new responsibilities within the limits of capabilities. | | |
| 47. Maintain high standards of performance. | | |
| 48. Demonstrate self-confidence. | | |
| 49. Display a generally positive attitude. | | |
| 50. Demonstrate a knowledge of the legal boundaries of nursing. | | |
| 51. Demonstrate knowledge in the ethics of nursing. | | |
| 52. Accept and use constructive criticism. | | |

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**Further information regarding the development, use and scoring of the Six Dimension Scale of Nursing Performance can be found in: Schwirian, P.M. (1978). Evaluating the performance of nurses: A multi-dimensional approach. Nursing Research, 27, 347-351.**

*pms 7/22/91*

Appendix B: Revised Schwirian 6-DSNP Tool

**SIX DIMENSION SCALE OF NURSING PERFORMANCE**

Patricia M. Schwirian, Ph.D., R.N.
The Ohio State University College of Nursing
1585 Neil Avenue - Columbus, OH 43210

**Instructions:** The following is a list of activities in which nurses engage with varying degrees of frequency and skill.

1. **IN COLUMN A:** please enter the number that best describes how often the nurse performs the activities in the performance of his/her current job.

2. **IN COLUMN B:** for those activities that the nurse does perform please enter the number that best describes how well he/she performs them.

**PLEASE USE THE KEY AT THE TOP OF EACH COLUMN**

| **COLUMN A**<br>How often does the novice nurse perform these activities in his/her current job? | **COLUMN B**<br>How well should the novice nurse perform these activities in his/her current job? |
|---|---|
| 1- Not expected in this job | 1- Not very well |
| 2- Never or seldom | 2- Satisfactorily |
| 3- Occasionally | 3- Well |
| 4- Frequently | 4- Very Well |

| | Column A | Column B |
|---|---|---|
| 1. Teach a patient's family members about the patient's needs. | | |
| 2. Coordinate the plan of nursing care with the medical plan of care. | | |
| 3. Give praise and recognition for achievement to those under his/her direction | | |
| 4. Teach preventive health measure to patients and their families. | | |
| 5. Identity and use community resources in developing a plan of care for a patient and his/her family. | | |

| | Column A | Column B |
|---|---|---|
| 6. Identify and include in nursing care plans anticipated changes in patient's conditions. | | |
| 7. Evaluate results of nursing care. | | |
| 8. Promote the inclusion of patient's decision and desires concerning his/her care. | | |
| 9. Develop a plan of nursing care for a patient. | | |
| 10. Initiate planning and evaluation of nursing care with others. | | |
| 11. Perform technical procedures: e.g. oral suctioning, tracheostomy care, IV therapy, catheter care, dressing changes. | | |
| 12. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background and sensory deprivation. | | |
| 13. Identify and include immediate patient needs in the plan of nursing care. | | |
| 14. Develop innovative methods and materials for teaching patients. | | |
| 15. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare. | | |
| 16. Seek assistance when necessary. | | |
| 17. Help a patient communicate with others. | | |
| 18. Use mechanical devices: e.g., suction machine, IV pump, PCA pump. | | |
| 19. Give emotional support to family of dying patient. | | |
| 20. Verbally communicate facts, ideas, and feelings to other health care team members. | | |
| 21. Promote the patients' rights to privacy. | | |
| 22. Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members. | | |
| 23. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel. | | |
| 24. Explain nursing procedures to a patient prior to performing them. | | |

| | Column A | Column B |
|---|---|---|
| 25. Guide other health team members in planning for nursing care. | | |
| 26. Accept responsibility for the level of care under his/her direction. | | |
| 27. Perform appropriate measures in emergency situations. | | |
| 28. Promote the use of interdisciplinary resource persons. | | |
| 29. Use teaching aids and resource materials in teaching patients and their families. | | |
| 30. Perform nursing care required by critically ill patients. | | |
| 31. Encourage the family to participant in the care of the patient. | | |
| 32. Identify and use resources within the health care agency in developing a plan of care for a patient and his/her family. | | |
| 33. Use nursing procedures as opportunities for interaction with patients. | | |
| 34. Contribute to productive working relationships with other health team members. | | |
| 35. Help a patient meet his/her emotional needs. | | |
| 36. Contribute to the plan of nursing care for a patient. | | |
| 37. Recognize and meet the emotional needs of a dying patient. | | |
| 38. Communicate facts, ideas, and professional opinions in writing to patients and their families. | | |
| 39. Plan for the integration of patient needs with family needs. | | |
| 40. Function calmly and competently in emergency situations. | | |
| 41. Remain open to the suggestions of those under his/her direction and use them when appropriate. | | |
| 42. Use opportunities for patient teaching when they arise. | | |

**The following PROFESSIONAL DEVELOPMENT behaviors should be evaluated in terms of quality only--i.e. COLUMN B.**

| | Column A | Column B |
|---|---|---|
| 43. Use learning opportunities for ongoing personal and professional growth. | | |
| 44. Display self-direction. | | |
| 45. Accept responsibility for own actions. | | |
| 46. Assume new responsibilities within the limits of capabilities. | | |
| 47. Maintain high standards of performance. | | |
| 48. Demonstrate self-confidence. | | |
| 49. Display a generally positive attitude. | | |
| 50. Demonstrate a knowledge of the legal boundaries of nursing. | | |
| 51. Demonstrate knowledge in the ethics of nursing. | | |
| 52. Accept and use constructive criticism. | | |

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**Further information regarding the development, use and scoring of the Six Dimension Scale of Nursing Performance can be found in: Schwirian, P.M. (1978). Evaluating the performance of nurses: A multi-dimensional approach. Nursing Research, 27, 347-351.**

*pms 7/22/91*

Appendix C: Quantification of Content Validity for Modified Schwirian Survey

1. The survey question has been changed from *How often does the nurse perform these activities in his/her current job?* to *How often does the novice nurse perform these activities in his/her current job?*

Is the addition of the word ***novice*** necessary to clarify the type of nurse observed in this study?

- Not necessary
- Useful but not essential
- Essential

2. The survey question has been changed from *How often does the nurse perform these activities in his/her current job?* to *How often does the novice nurse perform these activities in his/her current job?*

Please score the relevancy of this modification

- Not relevant
- Item needs some revision
- Relevant but need minor revision
- Very relevant

3. The survey question has been changed from *How often does the nurse perform these activities in his/her current job?* to *How often does the novice nurse perform these activities in her/her current job?*

Please score the clarity of this revised question

- Not clear
- Item needs some revision
- Clear but need minor revision
- Very clear

4. The survey question has been changed from *How well does the nurse perform these activities in his/her current job?* to *How well does the novice nurse perform these activities in his/her current job?*

Is the addition of the word ***novice*** necessary to clarify the type of nurse observed in this study?

- Not necessary
- Useful but not essential
- Essential

5. The survey question has been changed *from How well does the nurse perform these activities in his/her current job?* to *How well does the novice nurse perform these*

*activities in his/her current job?*

Please score the relevancy of this modification

- Not relevant
- Item needs some revision
- Relevant but need minor revision
- Very relevant

6. The survey question has been changed from *How well does the nurse perform these activities in his/her current job? to How well does the* novice *nurse perform these activities in his/her current job?*

Please score the clarity of this revised question

- Not clear
- Item needs some revision
- Clear but need minor revision
- Very clear

7. Question 18 asks the participant to evaluate how well and how often the novice nurse uses mechanical devices. The verbiage in the tool has been updated to current terminology used and has been changed FROM:

18. *Use mechanical devices: e.g., suction machine, Gomco, cardiac monitor, respirat*or

TO

18. *Use mechanical devices: e.g., suction pump, IV pump, PCA pump*

Are these changes necessary to update the terminology used in this question?

- Not necessary
- Useful but not essential
- Essential

8. Question 18 asks the participant to evaluate how well and how often the novice nurse uses mechanical devices. The verbiage in the tool has been updated to current terminology used and has been changed FROM:

18. *Use mechanical devices: e.g., suction machine, Gomco, cardiac monitor, respirator*

TO

18. *Use mechanical devices: e.g., suction pump, IV pump, PCA pump*

Please score the relevancy of this modification

9. Question 18 asks the participant to evaluate how well and how often the novice nurse uses mechanical devices. The verbiage in the tool has been updated to current terminology used and has been changed FROM:

18. *Use mechanical devices: e.g., suction machine, Gomco, cardiac monitor, respirator*

TO

18. *Use mechanical devices: e.g., suction pump, IV pump, PCA pump*

Please score the clarity of this revised question

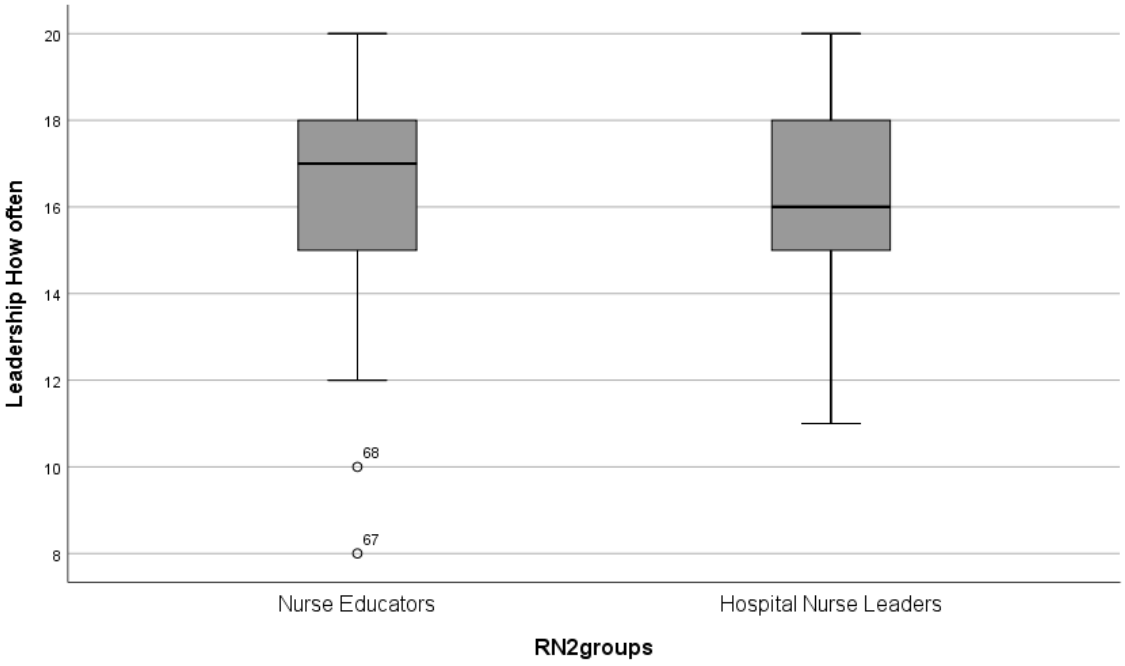
- Not clear
- Item needs some revision
- Clear but need minor revision
- Very clear

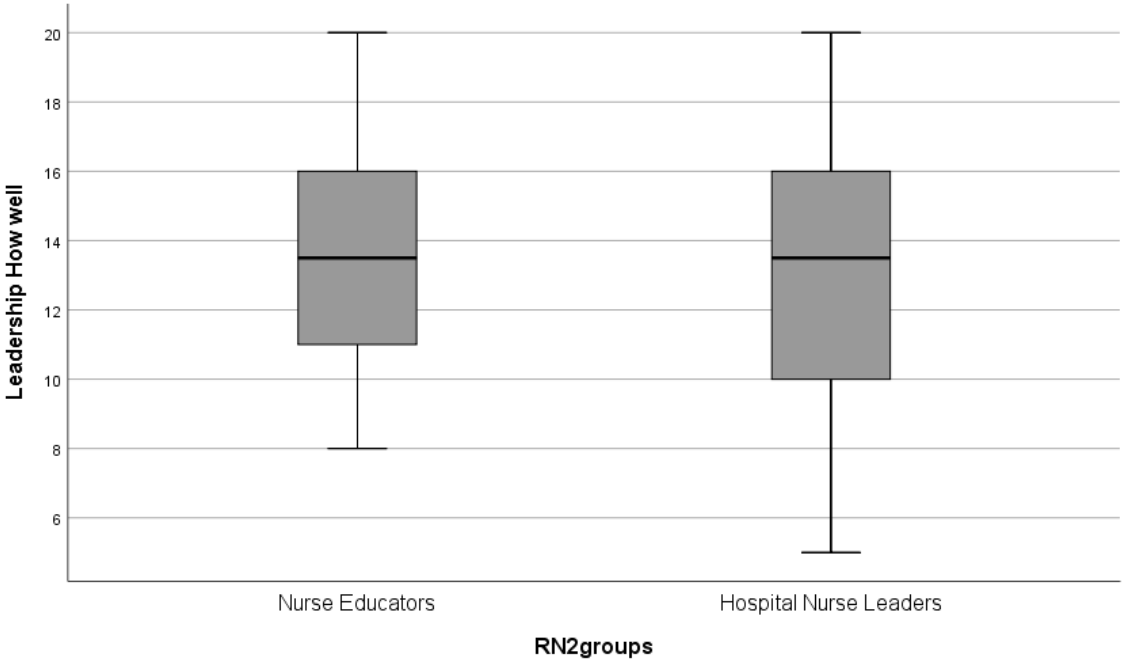
Thank you, I appreciate your assistance.

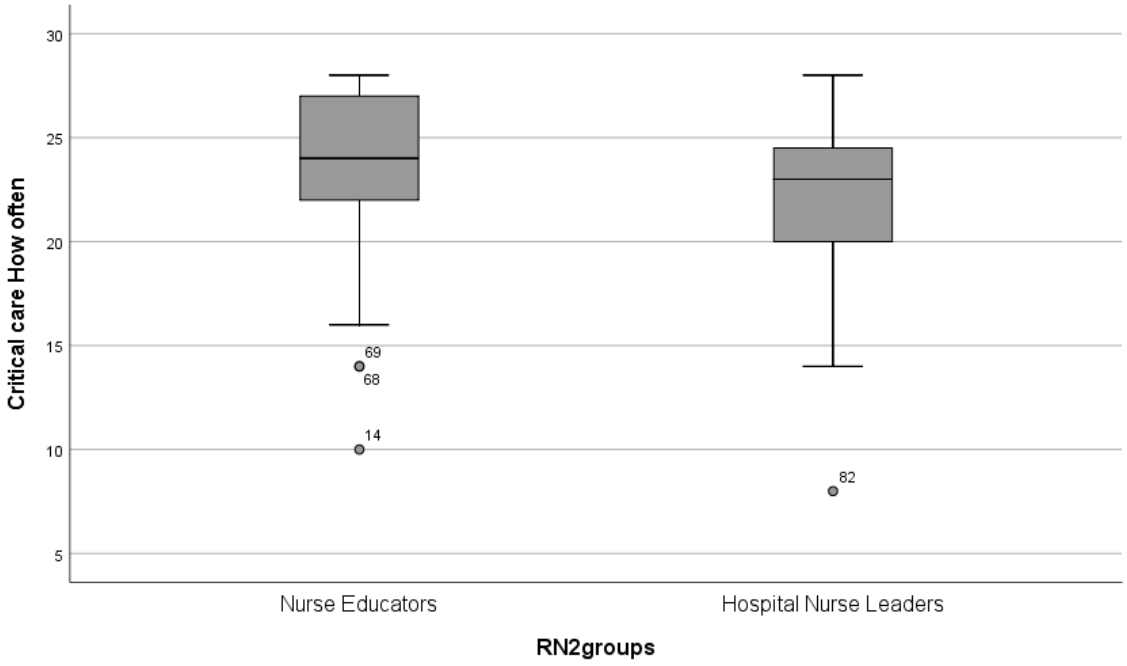
Diane Robinson

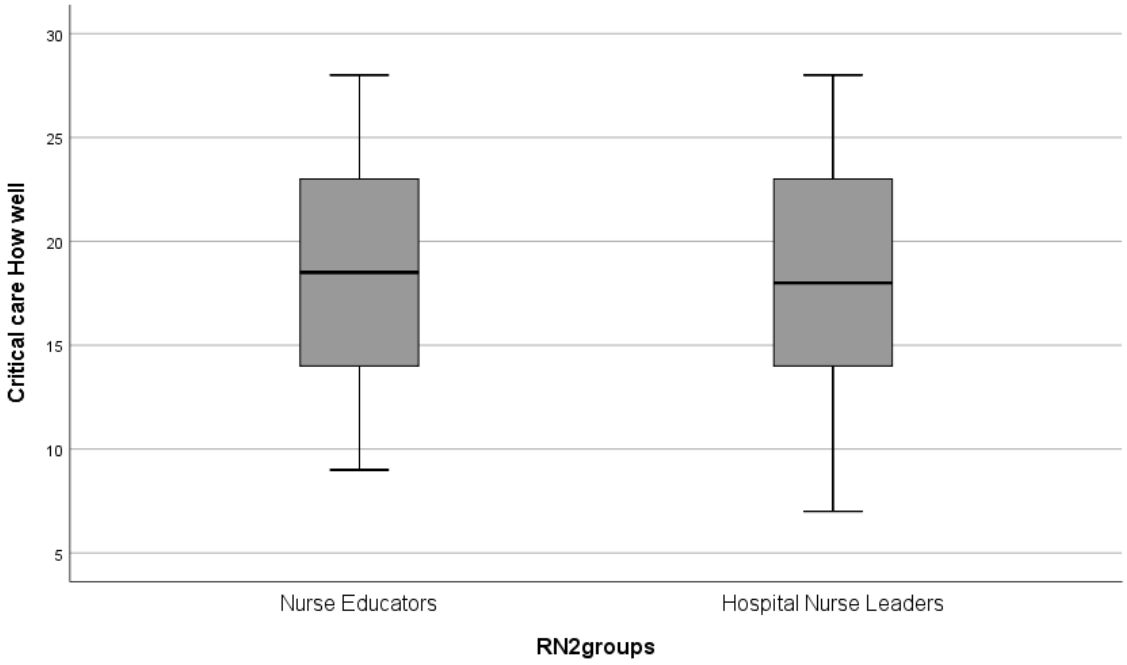
If you have any questions you can contact me at diane.robinson@waldenu.edu

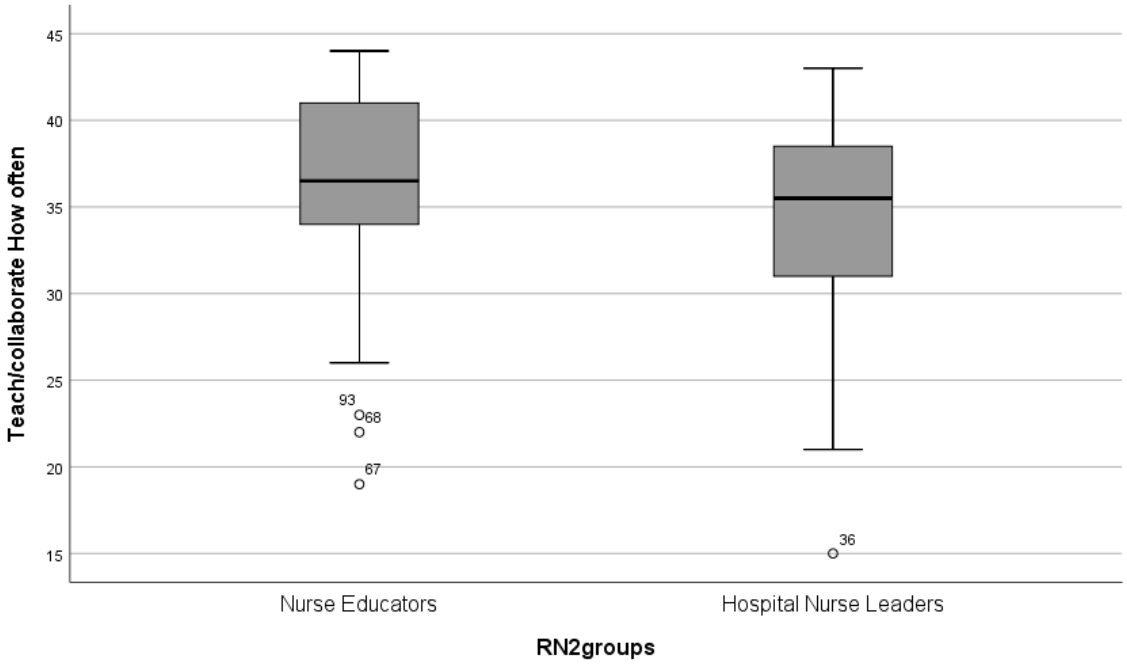
# Appendix D: Box Plots

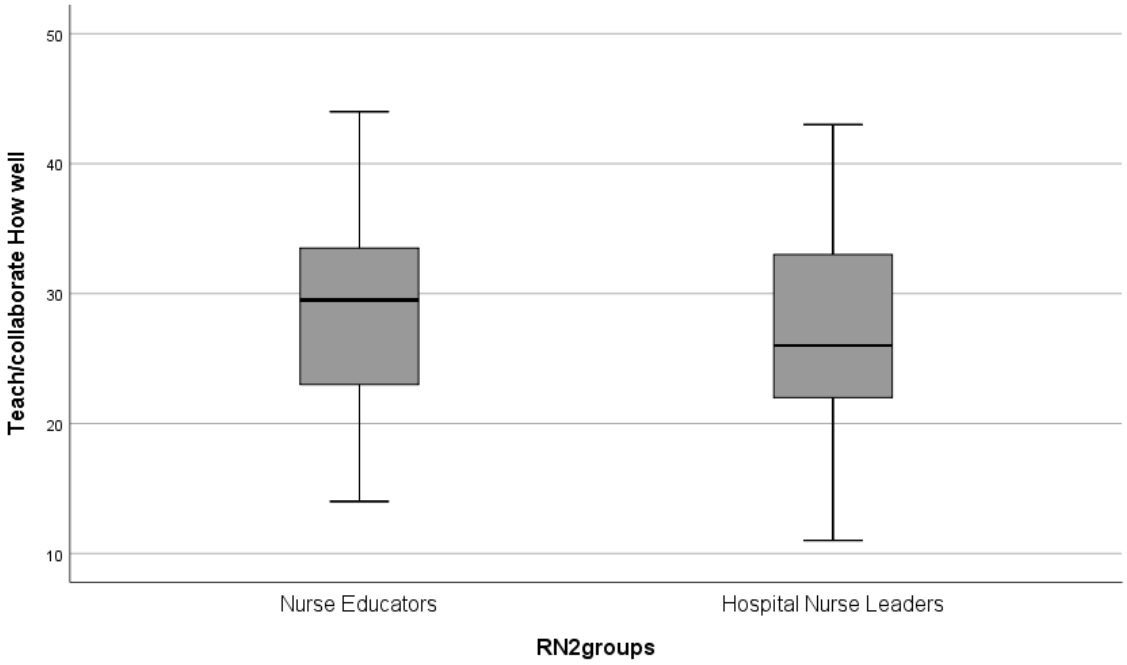


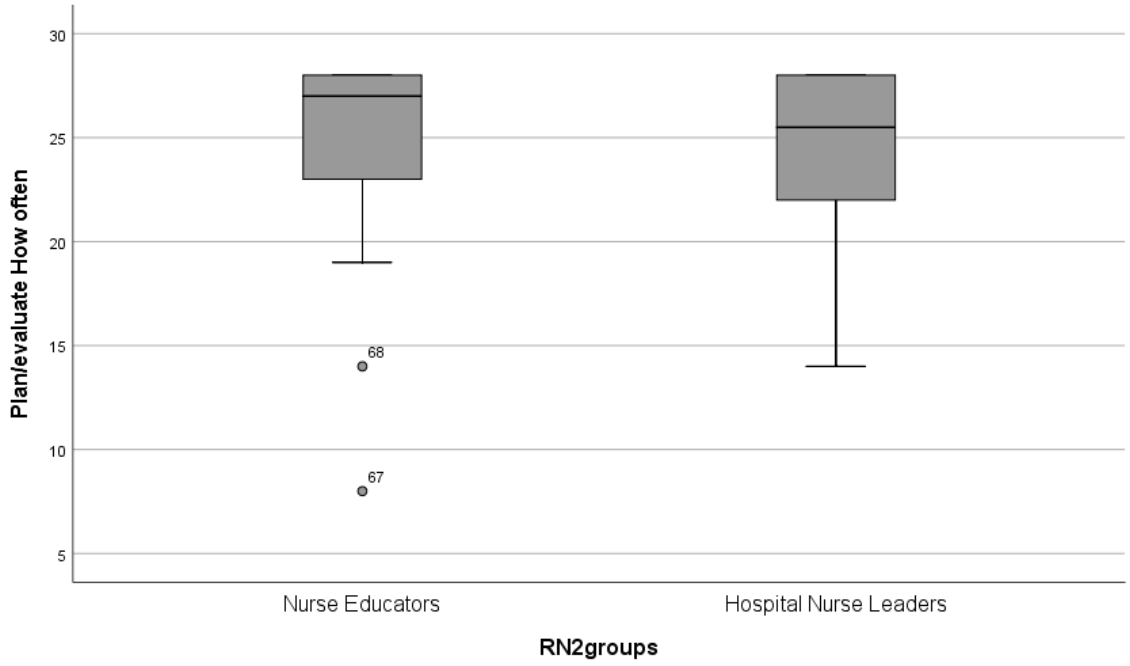



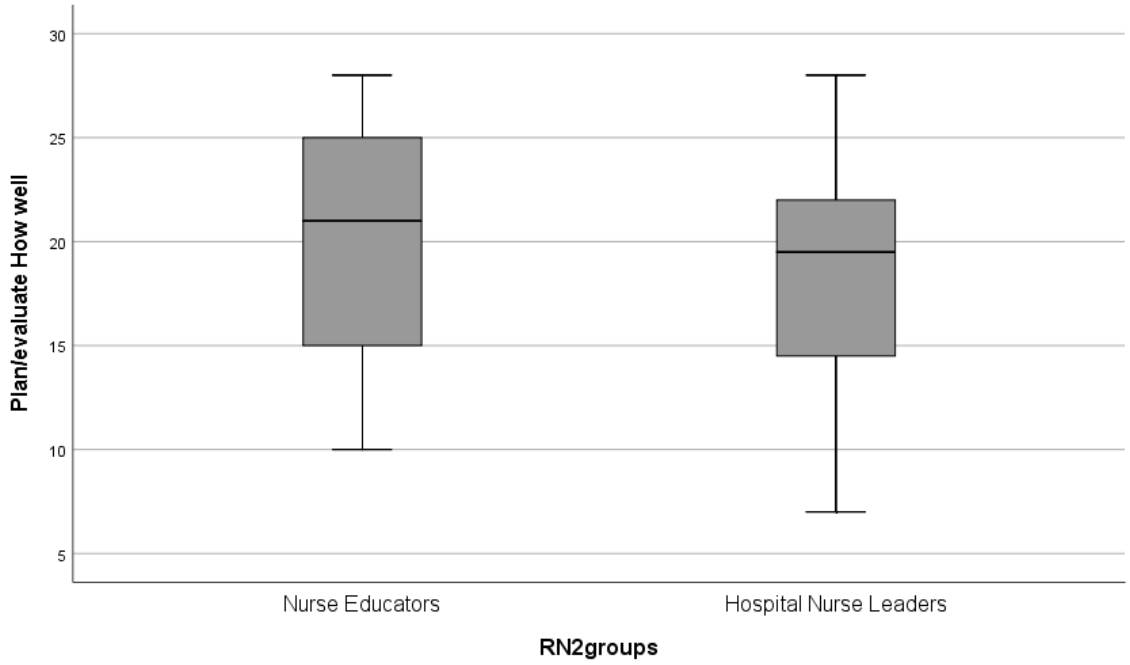

Critical care How often
30
25
20
15
10
5
69
68
14
82
Nurse Educators
Hospital Nurse Leaders
RN2groups

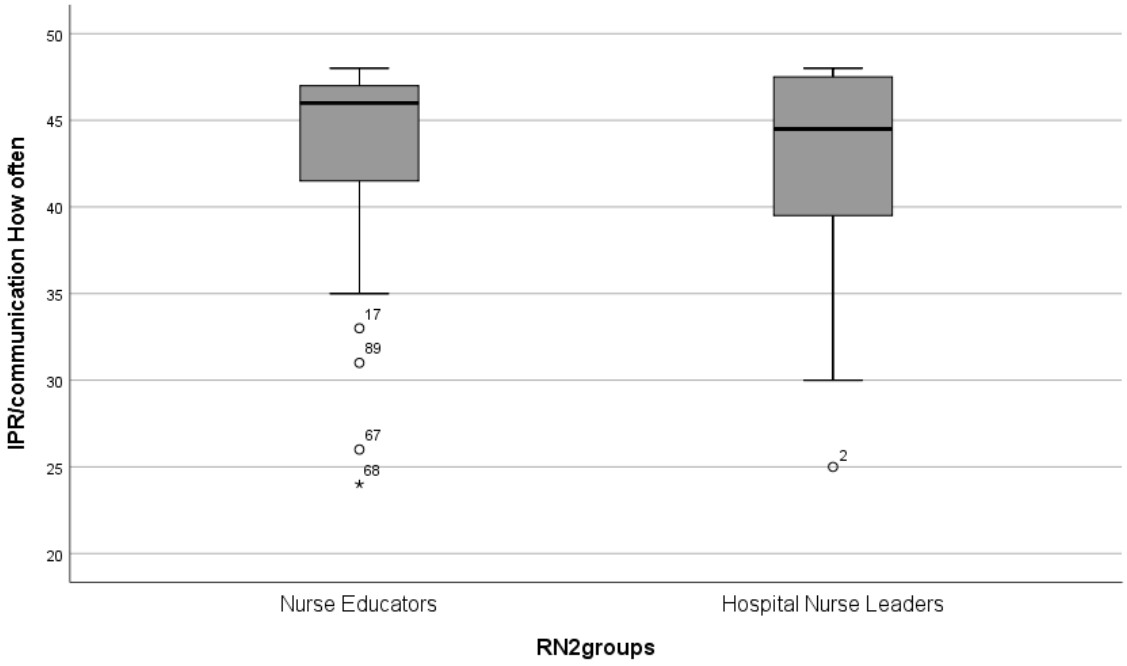

Critical care How well
30
25
20
15
10
5
Nurse Educators
Hospital Nurse Leaders
RN2groups

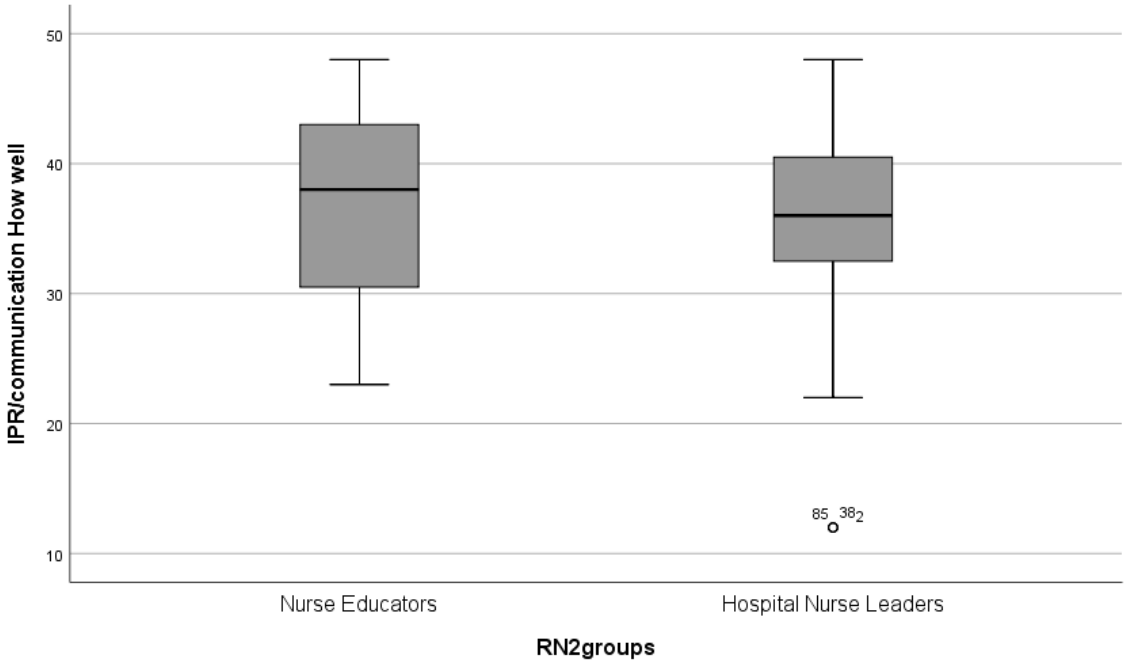

Teach/collaborate How often
45
40
35
30
25
20
15
93
68
67
36
Nurse Educators
Hospital Nurse Leaders
RN2groups

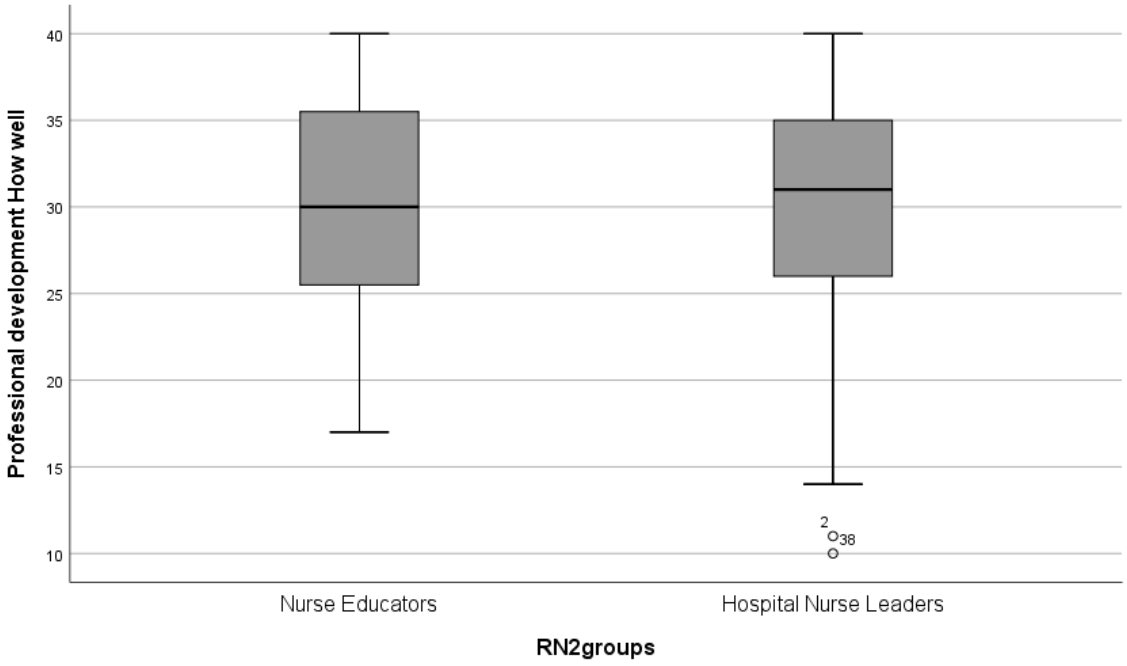

Teach/collaborate How well
50
40
30
20
10
Nurse Educators
Hospital Nurse Leaders
RN2groups


Plan/evaluate How often
30
25
20
15
10
5
68
67
Nurse Educators
Hospital Nurse Leaders
RN2groups

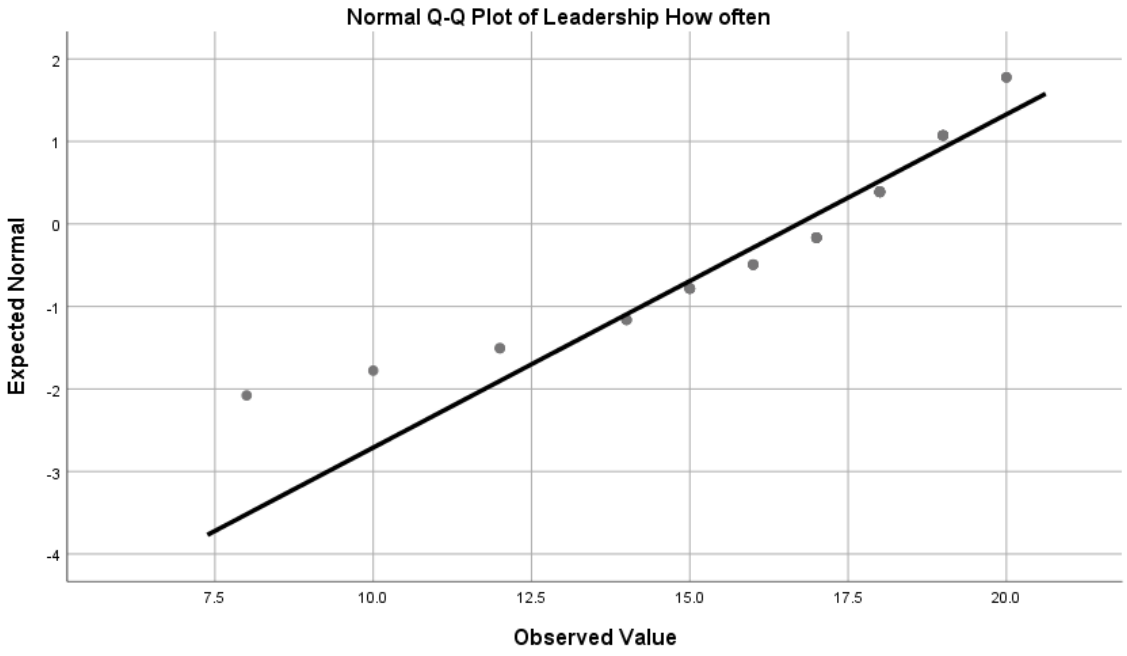

Plan/evaluate How well
30
25
20
15
10
5
Nurse Educators
Hospital Nurse Leaders
RN2groups

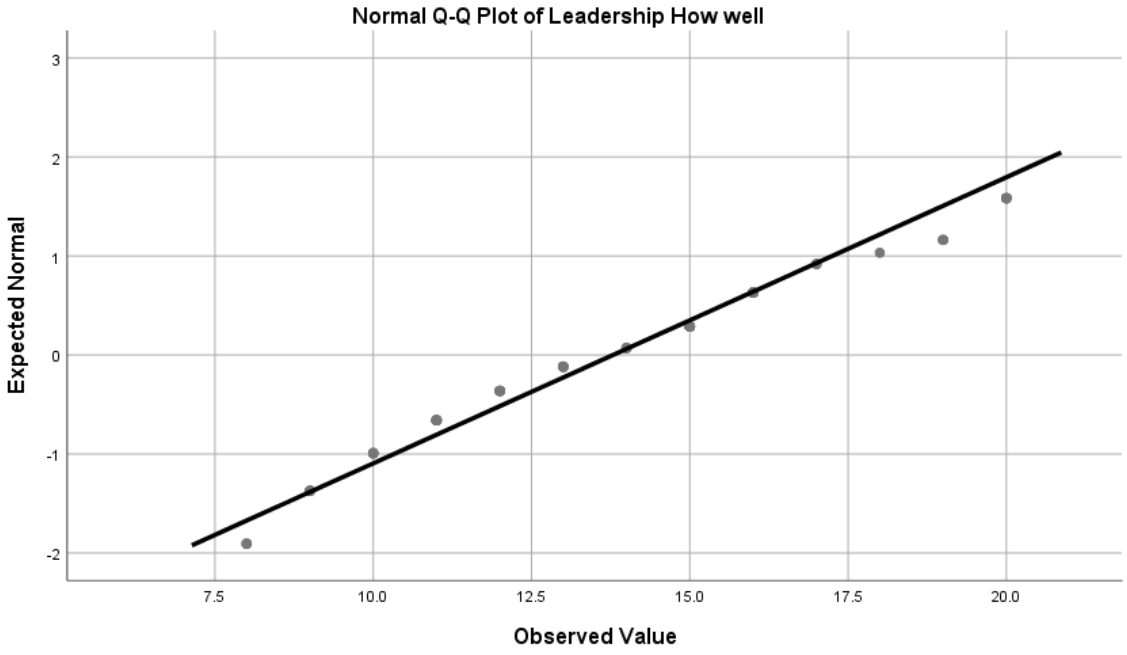

IPR/communication How often
50
45
40
35
30
25
20
17
89
67
68
2
Nurse Educators
Hospital Nurse Leaders
RN2groups

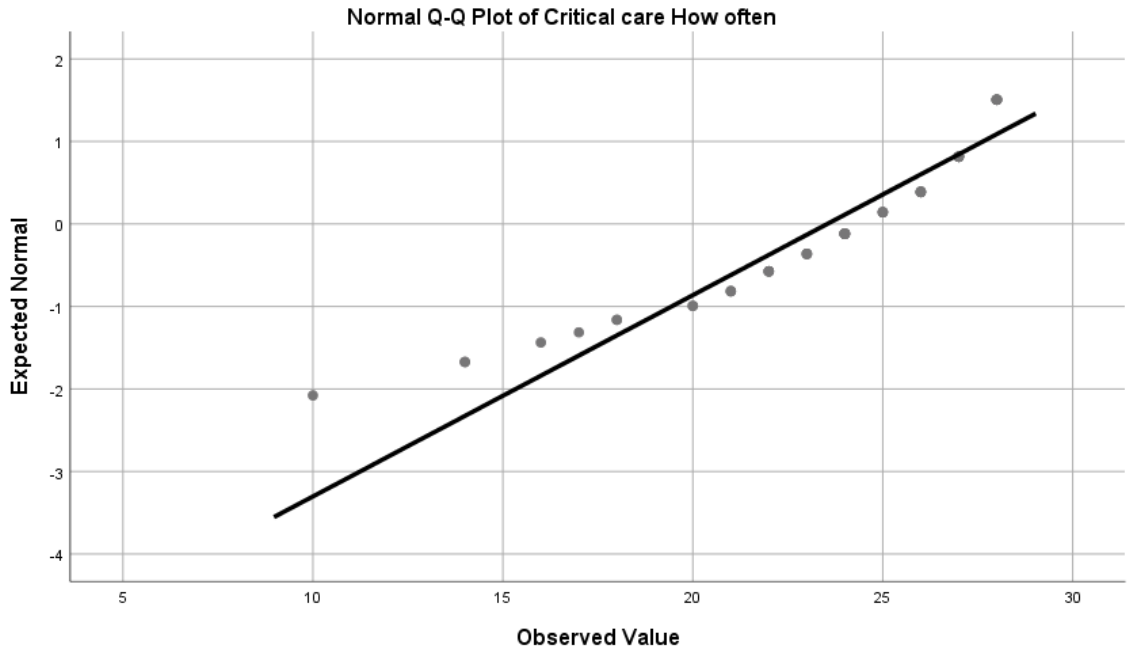

IPR/communication How well
50
40
30
20
10
85
38
2
Nurse Educators
Hospital Nurse Leaders
RN2groups

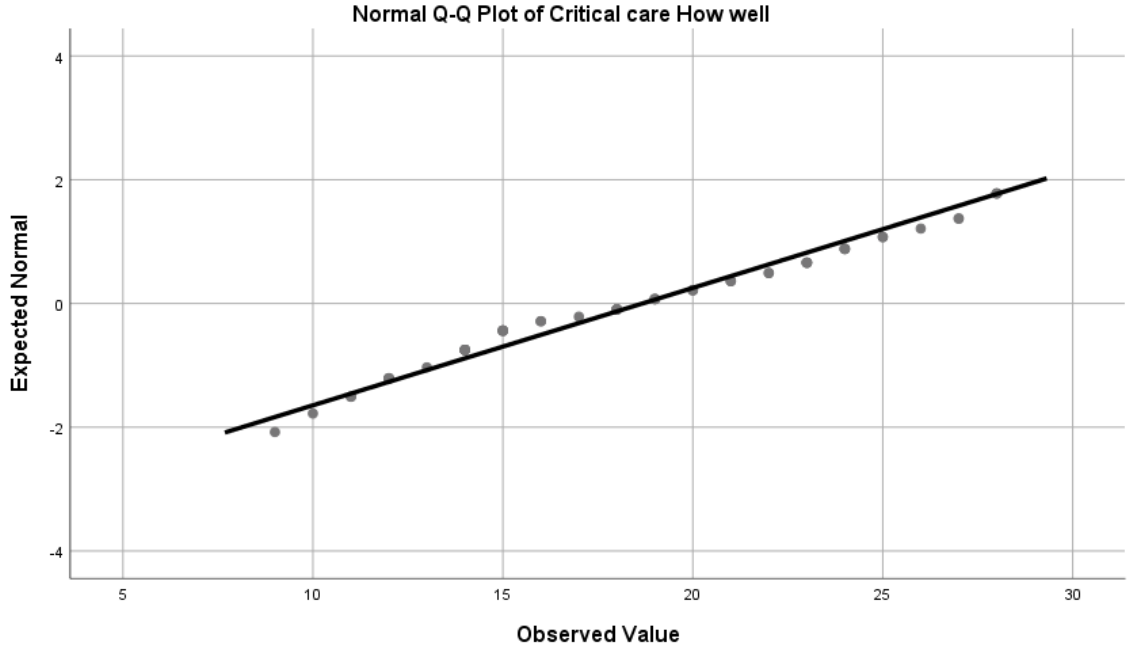

Professional development How well
40
35
30
25
20
15
10
2
38
Nurse Educators
Hospital Nurse Leaders
RN2groups

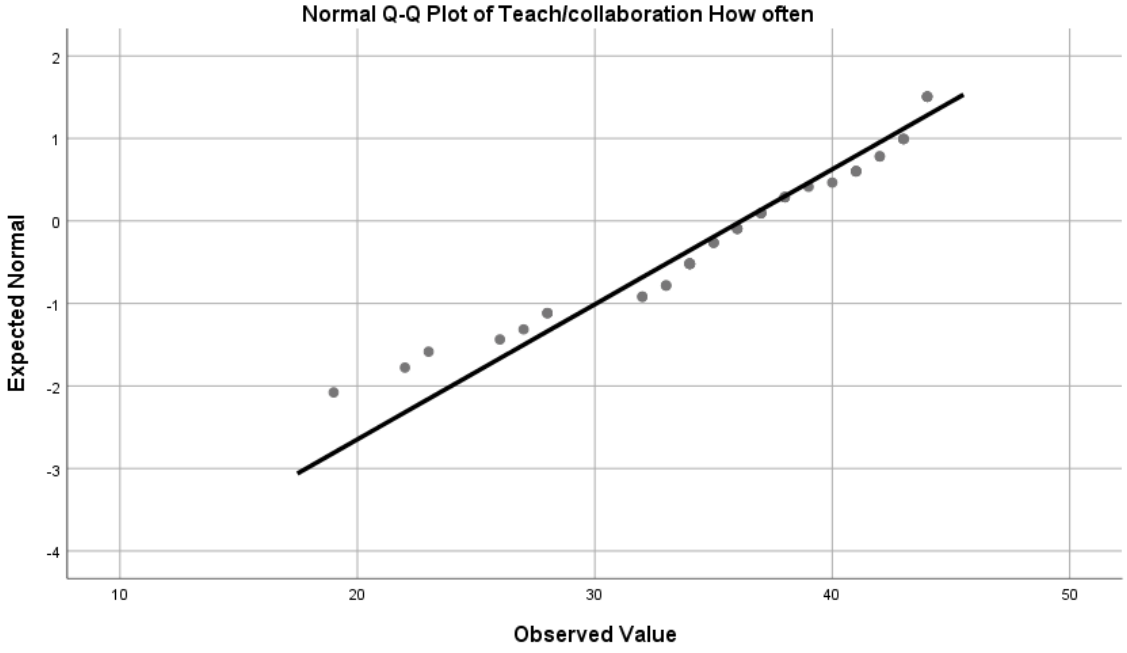
# Appendix E: Normal Q-Q Plots

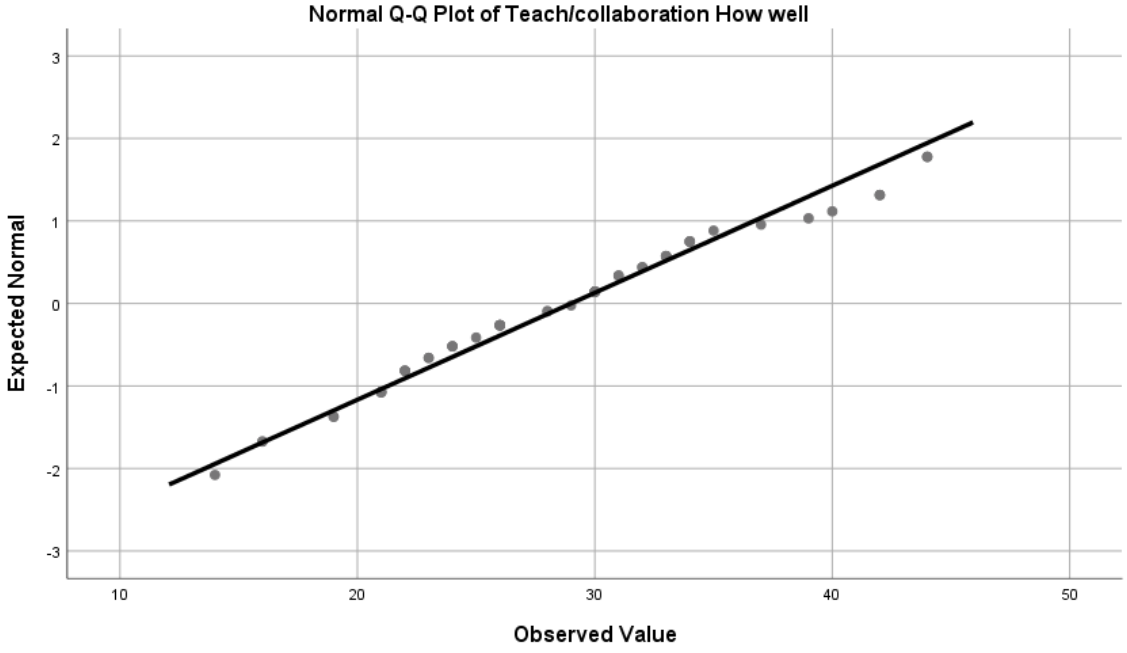


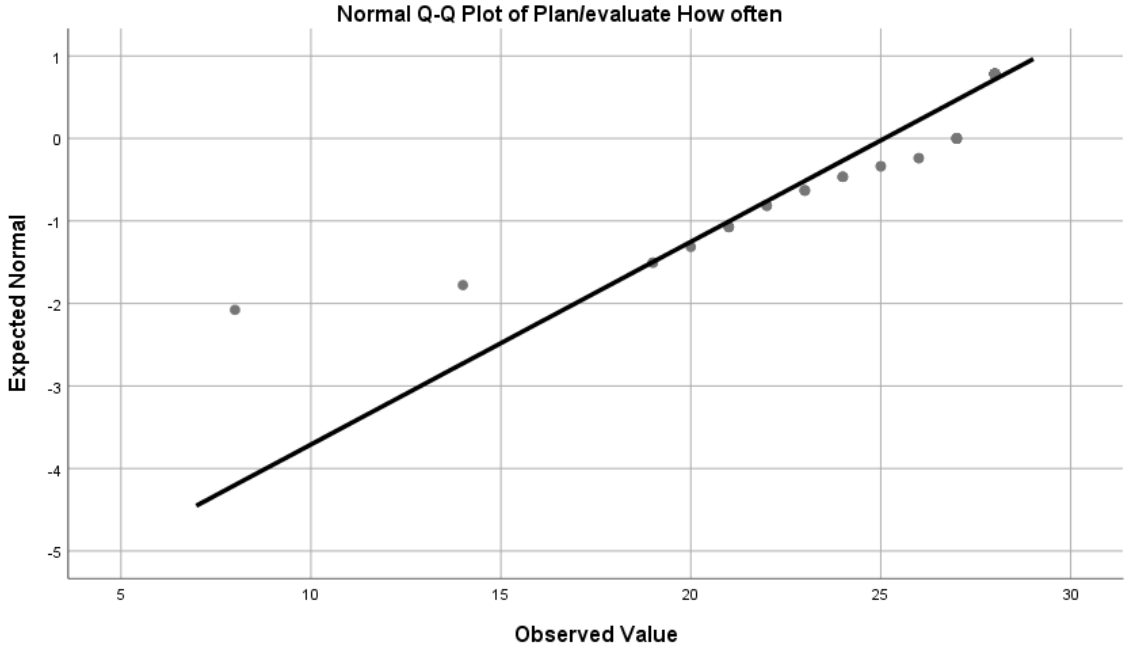



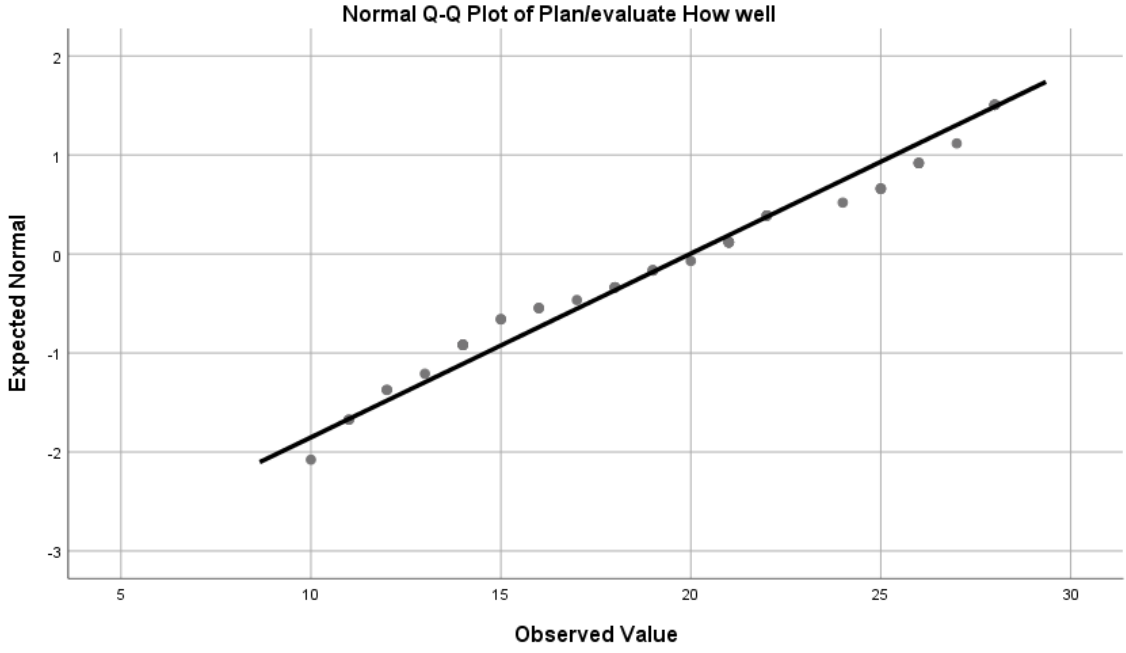

Normal Q-Q Plot of Critical care How often
Expected Normal
Observed Value
2
1
0
-1
-2
-3
-4
5
10
15
20
25
30

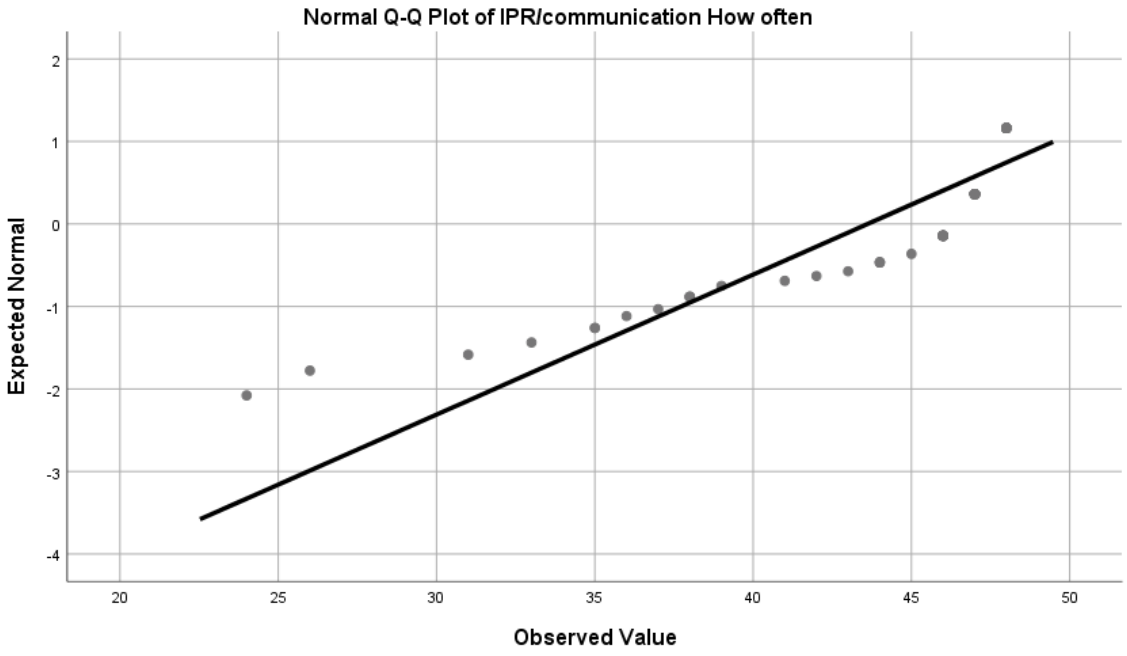

Normal Q-Q Plot of Critical care How well
Expected Normal
Observed Value
4
2
0
-2
-4
5
10
15
20
25
30

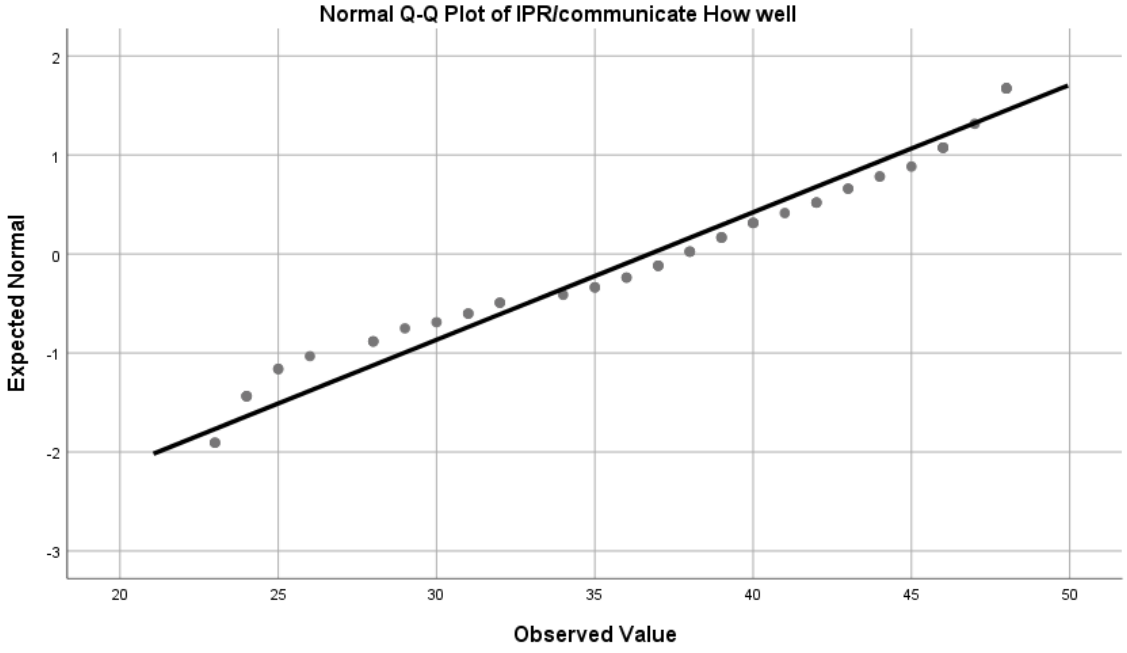

Normal Q-Q Plot of Teach/collaboration How often
Expected Normal
2
1
0
-1
-2
-3
-4
10
20
30
40
50
Observed Value


Normal Q-Q Plot of Teach/collaboration How well
Expected Normal
3
2
1
0
-1
-2
-3
10
20
30
40
50
Observed Value

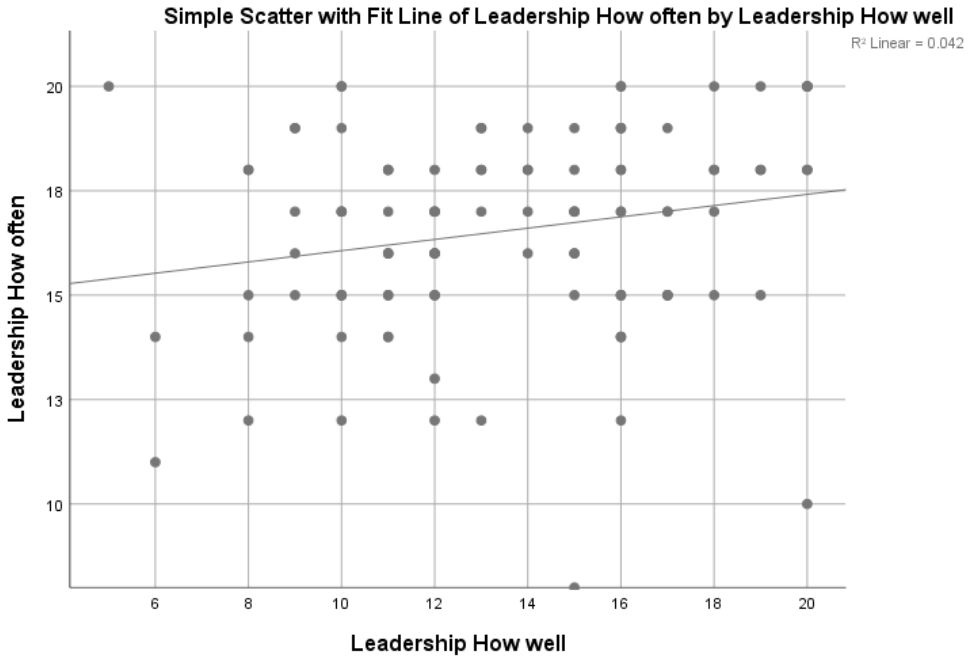

Normal Q-Q Plot of Plan/evaluate How often
Expected Normal
Observed Value
1
0
-1
-2
-3
-4
-5
5
10
15
20
25
30

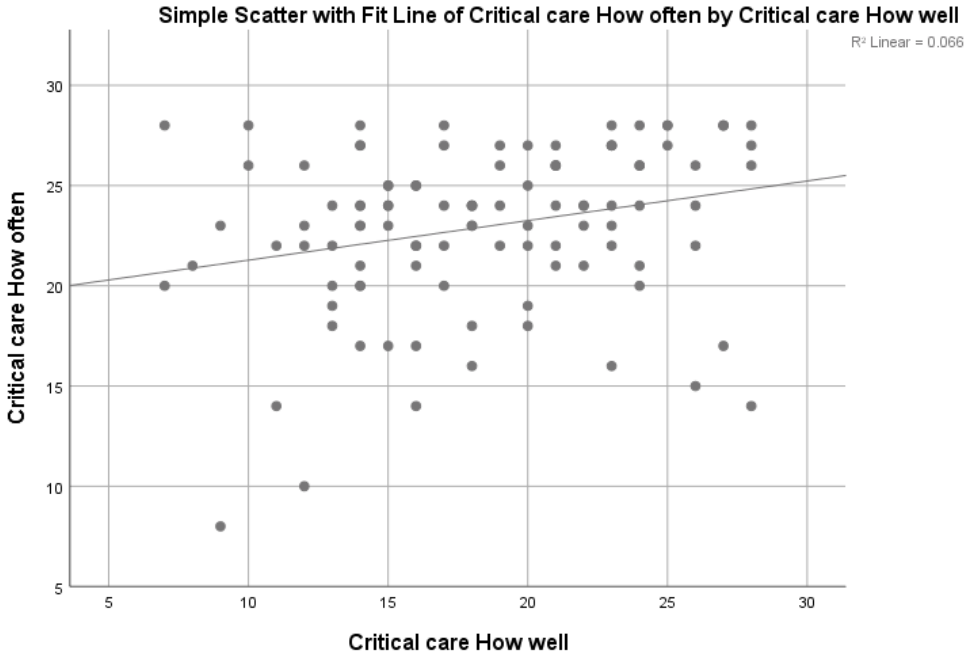

Normal Q-Q Plot of Plan/evaluate How well
Expected Normal
Observed Value
2
1
0
-1
-2
-3
5
10
15
20
25
30

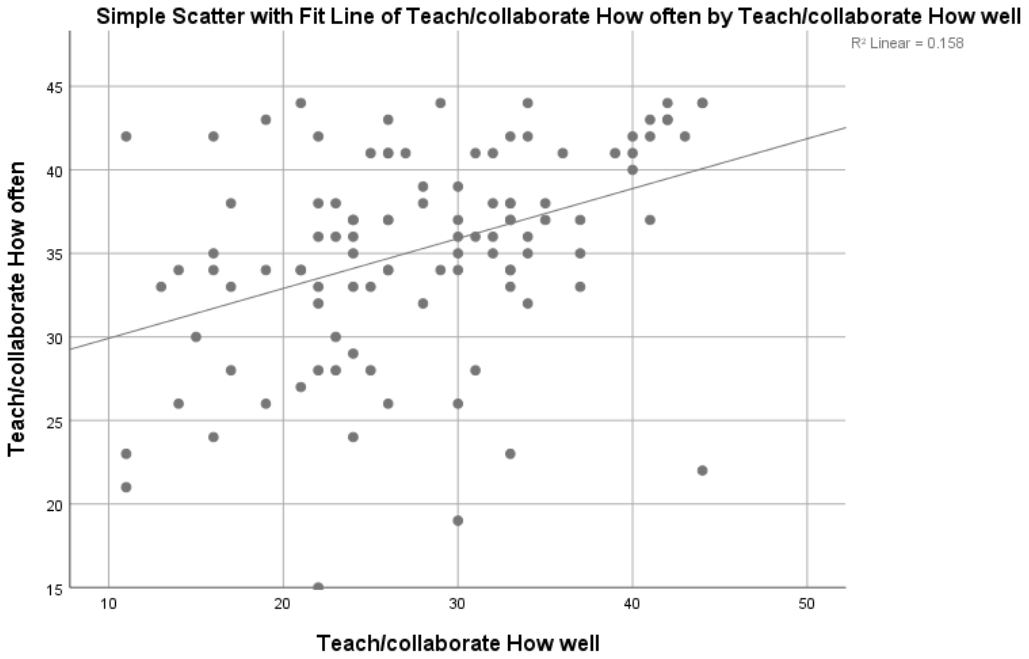

Normal Q-Q Plot of IPR/communication How often
Expected Normal
Observed Value
2
1
0
-1
-2
-3
-4
20
25
30
35
40
45
50

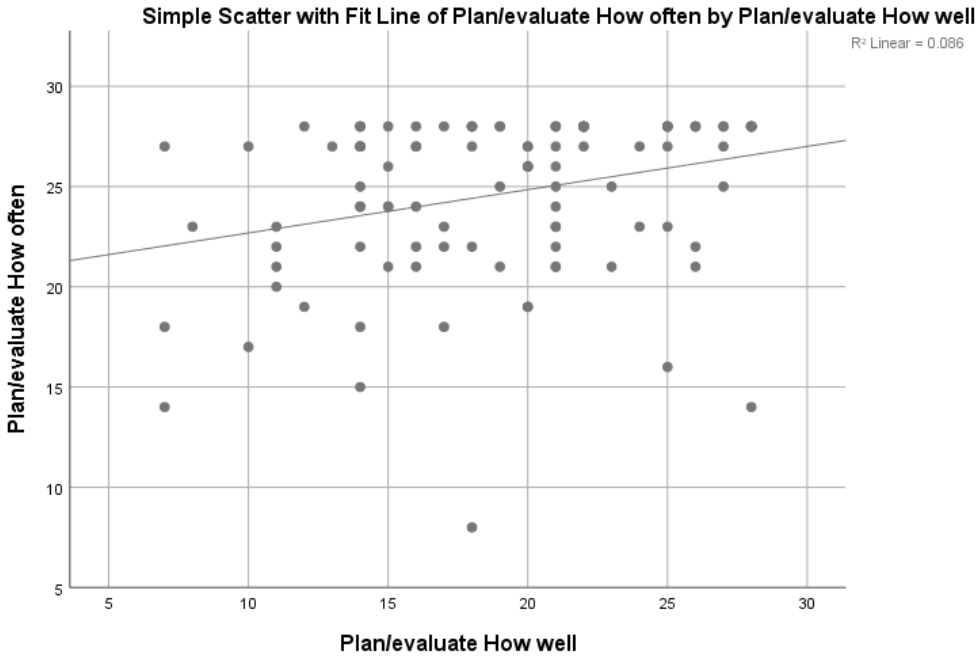

Normal Q-Q Plot of IPR/communicate How well
Expected Normal
Observed Value
2
1
0
-1
-2
-3
20
25
30
35
40
45
50

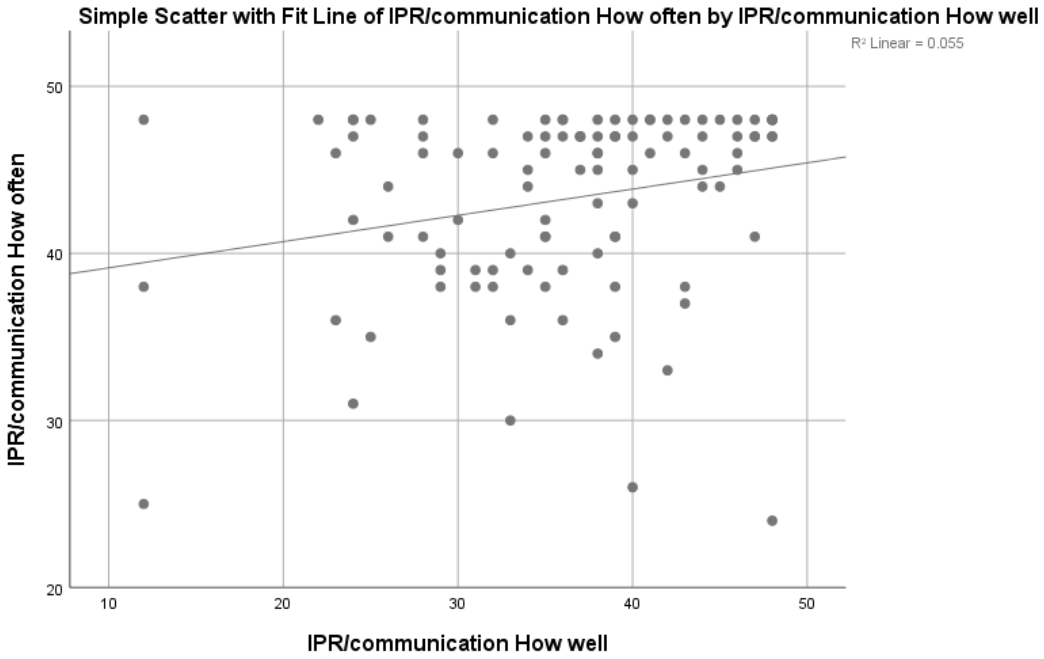
# Appendix F: Scatter Plots with Fit Line




Simple Scatter with Fit Line of Teach/collaborate How often by Teach/collaborate How well
R² Linear = 0.158
Teach/collaborate How often
Teach/collaborate How well
45
40
35
30
25
20
15
10
20
30
40
50


Simple Scatter with Fit Line of Plan/evaluate How often by Plan/evaluate How well
R² Linear = 0.086
Plan/evaluate How often
Plan/evaluate How well
30
25
20
15
10
5
5
10
15
20
25
30


Simple Scatter with Fit Line of IPR/communication How often by IPR/communication How well
R² Linear = 0.055
IPR/communication How often
IPR/communication How well
50
40
30
20
10
20
30
40
50