

SELF-REPORTED COMPETENCE OF
ENTRY-LEVEL REGISTERED NURSES

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ABSTRACT

The purpose of this study is to describe newly graduated nurses' self-reported perception of competence at the commencement of their first job as a registered nurse. Participants were new graduate nurses starting their first job in nursing in the acute care setting. Data was collected using the Nurse Professional Competence scale (Nilsson et al., 2014) between November 2016 and June 2017 in one hospital network. The tool includes eight areas of competence which are divided into two themes. Theme one is patient related nursing and theme two is nursing care organization and development. The survey was administered in a paper and pencil format at the start of the nursing orientation program. Demographic data collected included gender, age, months since licensed, highest nursing degree and prior work experience in health care. Findings revealed that nurses perceived themselves as most competent in the areas of value-based nursing care, teaching/learning support, and legislation in nursing and safety planning and least competent in the area of education and supervision of staff and students. Theme one competencies' scores were higher than theme two competencies. There was a statistically significant finding among nurses who graduated with an accelerated BSN degree as compared to those with an ADN degree in the competence areas of medical technical care ($p=0.040$) and teaching learning support ($p=.007$). In addition, those nurses who had prior pre-licensure experience in healthcare related clerical roles had a statistically significant ($p=.040$) difference in the leadership and development in nursing competence area as compared to those with experience in other health care related jobs. The results of the study provide guidance to academia and practice in identifying new graduates' areas of strengths and weaknesses to ensure safe entry-level nursing practice.

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I also want to thank my other immediate family members. My daughters always encouraged me, never questioned the lack of dinner on many nights, or lack of time to talk all too often. My 87-year-old mother has also been a rock having endured open heart surgery, life threatening pneumonia and back surgery in the four years I was in school. By the grace of God, she recovered from each and was able to help *me* get through school by cooking and filling in the gaps with my daughters when they needed a “mom” to talk to. Though my father died eight years ago, I know he would have been right by my side helping me succeed. He always encouraged my sister and I to get a college degree. Being

the first person in my entire family to earn a doctoral degree would have made him extremely proud.

I want to acknowledge my fellow educators at the hospital where I work who listened to me for the past four years as I learned “new things” each semester. My excitement and desire to make change was never dismissed but always embraced. I appreciate the days they let me leave early or take a day off to complete my practicum experience or write one of the many papers I was working on.

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freshman nursing student I could never have dreamed that I would one day be leaving with a doctorate degree. I look forward to the opportunities that lie before me and embrace the change that they will bring.

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CHAPTER 1: BACKGROUND

Identification of the Problem

More than a century ago, boards of nursing (BON) were established to protect the public's health by overseeing and assuring the safe practice of nursing. BON in United States and its territories were created to protect the public from the unsafe, incompetent or unethical practice of nursing. BON achieve this mission by establishing the standards for safe nursing care and issuing licenses to practice nursing. The purpose of a professional license is to protect the public from harm by setting minimal qualifications and competencies for safe entry-level practitioners. Nursing is regulated because it is one of the health professions that pose a risk of harm to the public if practiced by someone who is unprepared and/or incompetent. Once a license is issued, the BON holds licensees to provisions defined in state/territorial laws and when necessary, takes action against the licenses of those nurses who have exhibited unsafe nursing practice. The BON in the 50 states, the District of Columbia, and four U.S. territories— American Samoa, Guam, the Northern Mariana Islands and the Virgin Islands —comprise the membership of the National Council of State Boards of Nursing, Inc. (National Council of State Boards of Nursing [NCSBN], 2011).

Entry into registered nursing practice requires a minimum competency which is met successfully by completion of an accredited nursing education program and passing of the national nursing licensure examination (Watson & Hillman, 2011).

Licensure is the process by which boards of nursing grant permission to an individual to engage in nursing practice after determining that the applicant has attained the competency necessary to perform a unique scope of practice.

Licensure is necessary when the regulated activities are complex and require specialized knowledge and skill and independent decision making. The licensure process determines if the applicant has the necessary skills to safely perform a specified scope of practice by predetermining the criteria needed and evaluating licensure applicants to determine if they meet the criteria (NCSBN, 2015a, p.1)

The National Council Licensure Exam for Registered Nurses (NCLEX-RN) is a variable length, computerized, adaptive test. The NCLEX-RN is not offered in paper-and-pencil or oral examination formats. The length of the examination can be anywhere from 75 to 265 items depending on student response to questions. Of these items, 15 are pretest items that are not scored. Regardless of the number of items administered, the time limit for this examination is six hours (NCSBN, 2017b).

The NCSBN Board of Directors has approved a revised definition of the entry-level nurse in the NCLEX environment. It was previously defined as a nurse having no more than six months of experience, however it is now defined as a nurse having no more than 12 months of experience. NCSBN conducts the NCLEX practice analyses every three years to examine entry-level practice. Using the data collected from these studies, NCSBN develops the NCLEX test plans. Analysis of data from a nine-year span indicates that the health care environment has become increasingly complex and what defines entry-level nursing should be reevaluated. NCSBN then researched practices used in other professions to identify the entry-level period, the current entry-level practice environment, today's client population and the results of a nurse focus group arrived at the new definition (NCSBN, 2014).

All registered nurses (RN) have met national board certification standards deeming them capable of providing safe patient care to all patient populations (NCSBN, 2015b). All RNs have passed the NCLEX-RN which is designed to test knowledge, skills and abilities essential to the safe and effective practice of registered nursing at the entry-level. When a practitioner is initially licensed, they are deemed to have met minimal competency standards. This statement is true, however, competency levels vary amongst RNs from the time of initial licensure throughout their career. Ongoing competency requirements vary from state-to-state and nursing literature has not identified one standard method for achieving and maintaining competency (Watson & Hillman, 2011).

Purpose

The purpose of this project is to examine entry-level nurses' perception of their own-competency at the point of beginning their first job in an acute care setting.

Entry-level, as defined by the NCSBN (2014), is the initiation of practice through one year, and was used for this study. New graduate nurses have varying levels of competence at the start of their first jobs after graduation. Orientation and transition to practice programs should be implemented effectively in order to enhance and validate basic competency requirements for independent practice and patient safety.

Research Question

What is the self-reported level of competence for an entry-level registered nurse at the commencement of their first job?

Significance of the study to Nursing and Healthcare

Watson & Hillman (2011) state that “due to rapidly changing medical and technological advancements in today’s healthcare delivery systems, nurses need to possess higher competency levels of skills, knowledge and abilities to render safe and quality patient care” (p. 27). Smith (2012) adds that the nursing profession is challenged to ensure practicing nurses are competent in order to properly care for the millions of people who are hospitalized each year. The Institute of Medicine (IOM) report, *To Err is Human: Building a Safer Health System* (1999) reported between 44,000-98,000 people die in hospitals each year as a result of preventable medical errors. In 2013, it was reported this number was as high as 440,000 (Hospital Safety Score, 2013). Makary and Daniel (2016) estimate that medical errors are the third most common cause of death in the United States. Medication errors, hospital acquired infections and pressure ulcers are amongst the highest errors that occur which nursing has a direct role in prevention. In order to identify how to help nurses develop competence early on, the need to evaluate self-perception of competence by entry-level nurses is worth investigating.

DNP Project Objectives

Rolfe & Davies (2009) describe scholarship as the mechanism that provides knowledge development within a discipline. The American Association of Colleges of Nursing (AACN) (1999) adds that this is inclusive of those activities that systematically advance the teaching, research, and practice of nursing through rigorous inquiry that is significant to the profession, is creative, can be documented, can be replicated or elaborated, and can be peer-reviewed through various methods. Practice scholarship for the Doctor of Nursing Practice (DNP) student means that this work is done in relation

to improving patient outcomes and healthcare systems (Burson, 2014). AACN (2006) outlines the curricular elements and competencies that must be present in programs conferring the DNP degree. It defines eight essentials of a DNP degree and the related competencies for each. This project will focus on DNP Essentials II and III.

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking is relevant to the concept of entry-level nurse competence. The DNP graduate must be able to work within organizations in the provision of care provided by a multidisciplinary team including entry-level nurses. This project examined the entry-level nurse's self-reported level of competence at the commencement of their first job. The data can be used as practice recommendations to assess and intervene appropriately to ensure new graduate nurses feel competent in their first employment as nurses.

DNP essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice is relevant to the topic of nurse competence. The self-reported competence of entry-level nurses in the acute care setting is the focus of the study. The critical appraisal of existing literature was significant in determining the definitions of competence and competency. In addition, methods to measure competence were reviewed and utilized in the study. The findings can guide the development of orientation programs to enhance the best evidence for practice for entry-level nurses

CHAPTER 2: REVIEW OF THE LITERATURE

Theoretical Framework

The theoretical framework for this study is the Competency Outcomes Performance Assessment (COPA) Model. The COPA model is designed and structured as a curriculum framework to promote competence for practice (Lenburg, Klein, Abdur-Rahman, Spencer & Boyer, 1999). This framework is relevant to the study because it is applicable to the service/hospital setting; is relevant to new graduate nurses; is focused on outcomes; and attempts to define, describe and measure competence. Lenburg (1999) describes the model as holistic, but focused on practice outcomes, interactive learning methods and performance assessment of competencies.

The COPA model is organized around four essential pillars: specification of essential core practice competencies, end-result competency outcomes, practice-driven interactive learning strategies, and objective competency performance examinations. In designing a curriculum in academia or service, the faculty must respond to four questions: What are the essential competencies required for practice? What are the most effective outcome statements that integrate or define those competencies? What are the most effective learning strategies to promote achievement of the outcomes? What are the most effective performance assessment method to validate achievement of outcomes and required practice competencies? (Lenburg, 1999; Lenburg et al., 1999).

Lenburg (1999) describes eight core practice competency categories in the COPA model as part of pillar one. The categories are: assessment and intervention skills, communication skills, critical thinking skills, human caring and relationship skills, management skills, leadership skills, teaching skills and knowledge integration skills.

The eight categories list skills which can be tailored for different level, type, or focus of practice. Pillar two requires the identification of actual practice-based outcomes. They are statements that define expected competence in clear terms and are different from learning objectives or steps in a procedure. These statements are called critical elements and are applicable to the eight core practice competency categories. Lenburg (1999) defines a critical element as a set of single, discrete, observable behaviors that are mandatory for the designated skill, at the targeted level of practice. The third pillar requires that the most effective methods are used to help students achieve outcomes of the core competencies. This pillar is focused on the learner and effective learning strategies as compared to the teacher and teaching methods. Interactions between the teacher, learner and resources are essential to achieve the outcomes and core competencies required for practice. The last pillar describes the use of performance examinations to assess competence. After the learning process is completed, the learner must be evaluated to determine if they meet the established standards defined by the critical elements. Evaluations can be implemented for didactic as well as clinical content.

The AACN (2016) report "Advancing Healthcare Transformation: A New Era for Academic Nursing" describes the need for academia and the healthcare system to align in order to impact healthcare delivery in today's era. Two key recommendations are as follows: academic nursing should be recognized as a full partner in healthcare delivery, education, and research, and nursing faculty should engage more deeply in clinical practice. This report supports the COPA model in bridging the gap between academia and practice to promote competent practitioners who can provide safe quality care.

Related Literature

Smith (2012) analyzed the concept of nurse competence in an attempt to define and describe the term. Several attributes of nurse competence repeatedly emerged in the review of the literature: integrating knowledge into practice, experience, critical thinking, proficient skills, caring, communication, environment, motivation and professionalism. There are two major context areas in which competence is used in nursing. First, competence is commonly used in reference to nurses' abilities to perform their job without doing harm to patients. Second, competence is frequently referenced when discussing the process of testing nurses' knowledge and skills through tests or skills verification activities known as competencies. Consequences of nurse competence refers to the indicators that nurse competence has been achieved. Consequences of nurse competence include confidence, safe practice, and holistic care.

Definition of Competence

There appears to be no consistent definition of competency for nursing, and the nursing literature has not identified one standard method for achieving and maintaining competency (Watson & Hillman, 2011). Confusion surrounding the definition of nurse competence leads to difficulty in evaluating nurse competence (Lenburg, 1999). Without a solid definition of nurse competence, it is difficult to identify how to help nurses develop competence and establish which methods are best for evaluation. The terms competence, competency and continuing competency have been used interchangeably in the literature, however do represent different meanings. Locsin (1998) presented two meanings of competence. Competence is likened to performance and it can be seen as a quality of an individual. Woodruffe (1993) defined competency as "the set of behavior

patterns that the incumbent needs to bring to a position to perform its tasks and functions with competence” (p.29). He added that competencies are concerned with the individual’s behavior and not necessarily with the job itself. Nolan (1998) states that competency is an individual’s actual performance whereas competence is the capacity of individuals to perform the functions of their job. Whittaker, Carson, & Smolenski (2000) present various approaches of assuring ongoing competency. These include regulatory bodies such as individual state boards of nursing, the American Nurses Association (ANA), American Nurses Credentialing Center (ANCC) and The Joint Commission (TJC).

Whittaker et al. (2000) state that “most definitions reflect the context from which they were developed. As a result, regulatory groups define competency based on the “scientific method” of direct measurable outcomes that has a specific disciplinary based response add that public agencies and employers look at the continuum of competence based on the professional attributes of an individual in a particular situation or practice setting (p.3).

The Joint Commission requires hospitals to assess the competency of employees when hired and then regularly throughout employment. The competence assessment is defined as the systematic collection of practitioner specific data to determine an individual’s capability to perform up to defined expectations (as cited in Whittaker et al., 2000).

The American Nurses’ Association (2007) drafted a white paper on competence and competency. Several assumptions served as the framework for the definitions of competence and competency. These assumptions include: the primary purpose for

ensuring competence is the protection of the public; the secondary purpose for ensuring competence is the advancement of the profession through the professional development of nurses; the public has a right to expect nurses to demonstrate competence throughout their careers; the nursing profession must shape and guide any process assuring nurse competence; nurses are individually responsible and accountable for maintaining competence; employers are responsible and accountable to provide an environment conducive to competent practice; assurance of competence is the shared responsibility of the profession, individual nurses, regulatory bodies, employers, and other key stakeholders; competence is definable, measurable, and can be evaluated and context determines what competencies are necessary. The ANA (2007) states that “an individual who demonstrates “competence” is performing successfully at an expected level and a “competency” is an expected level of performance that results from an integration of knowledge, skills, abilities, and judgment” (p.1).

Methods of Competency Assessment

Benner’s (1982) definition of a competent nurse is one who has practiced for two to three years. The emphasis is on the concept that nurses are not competent at one point in time, but instead competence develops over time and with experience. Meretoja, Isoaho & Leino-Lilpi (2004) acknowledge the different ways competency is defined in the literature and the interplay between interpersonal skills, technical skills, and critical thinking. This study also recognized the controversy in the literature about the type of instrument needed to measure competence. Meretoja et al. (2004) developed the Nurse Competence Scale (NCS) based on the work of Benner’s From Novice to Expert competency framework. This instrument is intended for the self-assessment of

competence by practicing hospital nurses. The Six-Dimension Scale (6D Scale) of Nursing Performance had been extensively tested for validity and reliability. Although this tool was originally developed to assess performance of graduating and recently graduated nurses, the 6D scale was used to test concurrent validity of the NCS as the closest existing instrument. The NCS was found to be more sensitive for differentiating nurses on the novice to expert scale than the 6D Scale (Meretoja et al., 2004).

Lima, Newall, Kinney, Jordan & Hamilton (2014) examined the competence of 47 new graduate nurses as they began their first jobs. The new graduate nurses self-assessed their competence using the Nurse Competence Scale (NCS). This tool is 73 items across seven domains related to nurse competence and each of the 73 items is rated using a visual analog scale (0-100) with the ends labeled 0 for very low level and 100 for very high level of competence (Meretoja et al., 2004). The domains are helping role, teaching-coaching, diagnostic functions, managing situations, therapeutic interventions, ensuring quality and work role. The mean for self-assessed overall competence was 40.1. Within the domains, means ranged from 35 in the teaching-coaching role to 47.5 for ensuring quality. Individual items with higher means tended to relate to recognizing the needs of patients and families and being aware of own limitations and need for professional development (Lima et al., 2014). The new graduate nurses who participated in this study indicated a lower level of competence than that reported in other studies using the same tool with nurses with more experience. The findings from this study support the notion that competence develops along a continuum.

It is difficult to know whether nurses are safe to practice after years of working without the right tools to assess competency (Wilkinson, 2013). A scale such as the NCS

could be used by educators in hospital settings, preceptors and nurse managers to evaluate competency of staff at all levels of practice. However, it is important to note that self-assessment tools may be unable to differentiate competency issue from behavioral issues.

Gardulf et al. (2016) conducted a study to investigate the self-reported competence of Bachelor of Science in Nursing (BSN) students who were at the point of graduation, using the NPC scale. A further aim was to relate the findings to socio-economic background factors. The socioeconomic information collected was related to age, sex, type of nursing education, work experience prior to and during school and number of hours worked during school. Additional questions were also asked related to the overall quality of the nursing program the students attended.

A total of 1086 nursing students from 11 nursing programs in Sweden participated in this study. The questionnaire was handed out to students in the final days prior to their graduation. The results of self-reported competence were found to be highest for value-based nursing care and documentation and information technology. These categories are related to respect for patient autonomy, integrity and dignity and use of the electronic medical record in provision of nursing care. Other categories that the students scored high in were nursing care, application of the nursing process, managing patient condition and changes in the condition and medication administration. The two lowest scores were in the categories of education and supervision of staff and students and legislation in nursing and safety planning (Gardulf et al., 2016).

The findings report that the students had a higher competence in theme I patient related nursing as compared to theme II organizational and development of nursing care.

The study also showed that the factor with the most influence on self-reported competence was paid work experience during their nursing program, particularly for those who worked more than 20 hours per week. The researchers relate this finding to the extra exposure to complex clinical care and ethical dilemmas the students gained (Gardulf et al., 2016).

Kajaner-Unkuri et al. (2013) report that graduating nursing students had highest self-reported level in nursing care activities, such as helping patients cope and providing ethical and individualized care and the lowest level in collegially, accountability and autonomy. Gardulf et al. (2016) relate the higher self-reported findings in theme one, patient related nursing, to the competence the students develop during the nursing program. They acknowledge that the competencies in theme two are more difficult to learn during the program. Kajaner-Unkuri et al. (2013) found that self-reported competence in general, may decrease over time in this population.

The various definitions of competence and competency are related to performance as well as the possession of knowledge and skills. Ramritu and Barnard (2001) conducted a study using phenomenography as the research design. The sample consisted of six RNs who has practiced nursing for three months in a pediatric setting and had no other nursing experience. Interviews using pre-established questions, discussion and drawings were used to gather data. Eight conceptions of competence evolved as a result of the data analysis. The conceptions are that competence is experienced as: safe practice, limited independence, utilization of resources, management of time and workload, ethical practice, performance of clinical skills, knowledge and evolving. The conception of safe

practice was found to be the most basic of the eight and the foundation for development of the others.

The findings of this study demonstrate that new graduate nurses can describe competence as performance based but also as holistic. They understand that basic competence is a prerequisite to performance in the real world and that they have known limitations that require continuing support and guidance from more experienced nurses in the clinical setting. Educational support for time management skills, procedures, and interactions with other health professionals aided in development of confidence and self-esteem. The role of the experienced nurse, or preceptor, was identified as being an essential part of the new graduate nurses' competence development (Ramritu & Barnard, 2001).

Marshburn, Keehner-Engelke, & Swanson (2009) examined the relationship of new nurses' self-perceptions of competence to performance-based measurements of clinical competence. The relationship of nurse characteristics to perceived self-competence and performance-based competence was examined related to nurse characteristics. This retrospective study was conducted in a large tertiary care academic medical center.

New graduate nurses completed the Performance Based Development System (PBDS) and Casey-Fink Graduate Nurse Survey tools routinely during their nursing orientation. Data was analyzed from a sample of 265 new nurses over a two-year time span. The PBDS includes assessment of problem management, communication and technical skills. The Casey-Fink Graduate Nurse Experience Survey measures the new nurse's experience at entry to practice through the transition into the role of professional

nurse. The tool assesses patient care, professional role and support. The patient care and professional role categories were used to define perceived clinical competence in the study (Marshburn, Keehner-Engelke, & Swanson, 2009).

The researchers found that nurses who scored higher in performance based competence had significantly higher scores on the perceived competence criteria. These nurses were found to be more confident about their skills in patient care as well. New nurses who had prior experience in health care, such as a nursing assistant, nurse extern, emergency medical technician, etc. were more likely to meet criteria for performance based measures of clinical competence. This group was also more confident with communication skills (Marshburn, Keehner-Engelke, & Swanson, 2009).

It is essential that nurse's perception of their knowledge and skills and actual performance be similar to minimize patient safety issues and errors. Educators and leaders must have an understanding of the relationship between new nurse's perception and actual clinical competence. The gap in perception of clinical competence and actual performance may lead to patient safety issues (Marshburn et al., 2009).

Wolff, Pesut, & Regan (2010) state that competence and readiness for practice of new graduate nurses is a shared responsibility of nursing education programs, regulatory bodies, governmental agencies and healthcare organizations. The ability to assess new graduate nursing competence and transition them to independent practice is essential for long term success and positive patient outcomes. The Institute of Medicine (2011) supports the use of new graduate nurse transition programs such as nurse residencies to help new graduate nurses develop their ability in clinical decision making and clinical

autonomy in providing patient care, incorporate research-based evidence into their practices and increase commitment to nursing as a career.

CHAPTER 3: METHODS

This chapter discusses the research methods employed in an attempt to answer the following question: What is the entry-level nurse's self-reported level of competence upon commencement of their first job in an acute care setting? Topics that are covered are the research design, sample selection, setting and how subjects were recruited. The method of data collection, inclusive of the use of the Nurse Professional Competence scale [NPC] (Nilsson et al., 2014) and the statistical methods used are explained.

Research Design

The research design is a non-experimental, quantitative, cross sectional study. Quantitative research design allows data to be collected in such a way that the data is able to undergo statistical analysis (Patten, 2009). The NPC scale by Nilsson et al. (2014) was used to gather the quantitative data (Appendix A).

Sample

The population that was studied was entry-level registered nurses. Entry-level is defined as a registered nurse having no more than 12 months of experience (NCSBN, 2014). A purposive convenience sample of 83 entry-level nurses were recruited from multiple hospitals in one health network in the northeastern United States. Though convenience samples allow cases to be easily gathered they may not be representative of the population (Corty, 2014). In a convenience sample, every person who meets the criteria is asked to participate (Wood & Ross-Kerr, 2011). The inclusion criteria for this study was entry-level registered nurses who were beginning their first job in an acute care setting. The sample was obtained from nurses who were hired to work on all adult medical/surgical units, telemetry, intermediate care, and critical care units (intensive care

units and emergency trauma department). The participants were informed that participation was voluntary. Exclusion criteria included nurses who were in the entry-level period but had prior experience working as an RN or licensed practical nurse (LPN) in acute care, long term care or rehabilitation. The work experience may affect their level of competency at the start of their job.

Procedure

Entry-level nurses were asked to complete the NPC tool during the initial didactic portion of their orientation. Entry-level nurses are hired monthly and attend didactic orientation program at the start of employment in the hospitals where the study was conducted. A designated day and time was arranged with the respective orientation coordinators to invite the group of orientees to participate in the study.

The nurses who agreed to participate completed the survey at that time and they were placed in a sealed envelope after they were completed. Demographic data that was built-in the survey was also collected. The demographics included the following: date of the data collection, year of birth, gender, what group that the survey has included (i.e. nursing student/registered nurse/ others), completed nursing specialist education (indicated for nurses, such as intensive care) and professional experience as a registered nurse. Additional demographic data that was collected was prior work experience as an unlicensed nursing personnel, student nurse extern or other health related job, type of nursing degree, type of unit orientation started on and type of unit hired for (Appendix B). The survey was administered in a paper and pencil format by the researcher.

Instrument

Data was collected using the NPC Scale. Nilsson et al. (2014) developed and validated the NPC scale to measure self-reported professional competence among nursing students at the point of graduation and among professional nurses with work experience. The tool was developed in Sweden based on formal competence requirements from the Swedish Board of Health and Welfare which was originally based on World Health Organization (WHO) guidelines.

The NPC has 88 item self-reported Likert scale inclusive of eight factors which refer to two overarching themes: patient related nursing and nursing care organization and development. The eight factors are: 1) nursing care (15 items), 2) value based nursing care (8 items), 3) medical technical care (10 items), 4) teaching/learning/support (11 items), 5) documentation and information technology (4 items), 6) legislation in nursing and safety planning (9 items), 7) leadership in and development of nursing (26 items) and 8) education and supervision of staff/students (5 items). Factors one through six are part of theme one, patient related nursing, and are more applicable to the population being studied. Factors six through eight are considered part of theme two, nursing care and organization and development. The response alternatives are on a 1 to 4 scale with 1=to a very low degree, 2= to a relatively low degree, 3=to a relatively high degree and 4= to a very high degree (Nilsson et al., 2014).

The NPC tool is the result of evaluation of psychometric properties from the original 130 item questionnaire developed by the authors. Properties evaluated were face validity, data quality, construct validity, reliability and known group validity. Face validity was evaluated by asking 27 nursing students to respond to the items and

reviewed them for understanding. Minor adjustments were made to several items as a result of this. Construct validity was evaluated by application of orthogonal rotation. After exploratory factor analysis, the authors decided to further develop the questionnaire which led to the final version with 88 items.

Reliability for each factor in terms of internal consistency was evaluated by calculating Cronbach's alpha values. A value of ≥ 0.70 was considered sufficient. The eight factors had Cronbach's alpha values ranging from 0.75 to 0.94 for the single factors and 0.97 for the entire NPC scale (Nilsson et al., 2014). Permission to use the tool was granted by the author (Appendix C).

Protection of Human Subjects

Concern for protection of human subjects was addressed prior to data collection by way of informed consent. The consent explained that participation was voluntary and the participants' performance evaluation and employment status would not be affected based on participation. All data were coded for anonymity. All data were collected using a paper and pencil tool which was stored in a locked file cabinet in the researcher's personal locked office at the hospital where she works. Data will be kept for six months after the study is completed at which point it will be shredded. Data were coded to protect the identification of the subjects after it was transcribed electronically. Compiled data were housed on a computer that is password protected. IRB approval was granted by William Paterson University and Hackensack University Medical Center (Appendix D and E).

Data Analysis

Data was entered into SPSS version 24 and analyzed using frequency distributions and descriptive statistics on the demographics and NPC surveys. Frequency graphs were completed for each individual area of competence and themes one and two. One way ANOVA, tukey HSD, independent samples t-test and linear regression analysis were completed to analyze differences between self-reported areas of competence on the demographic data. The data gathered from this study assisted in identifying self-reported competence levels of entry-level nurses at the start of their first job in acute care.

CHAPTER 4: RESULTS

The purpose of this research was to examine the self-reported competence of entry-level nurses at the commencement of their first job in the acute care setting. The original project proposal was designed to collect data from one hospital only, however the study was amended and expanded to include multiple hospitals in a network in order to increase the sample size.

A total of 83 surveys were collected and analyzed. Information on the actual tool was completed on all 83, however only 82 of the surveys had demographic information completed (see Table 1). The sample size consisted of 76 (95%) females, 4 (5%) males, and three did not answer the question. Age was reported by 80 of the participants and ranged from 21 to 55 years with a mean of 29.1. The entry-level period for a newly graduated nurse is defined as 12 months (NCSBN, 2014a). The number of months the sample had their license was: 0-3 (45=54.9%), 3-6 months (28=34.1), 6-9 months (6=7.3%), 9-12 months (0) and greater than 12 months (3=3.7%). The three participants who obtained their license more than 12 months ago were kept in the sample since they did not report prior work experience as an RN even though they are outside of the defined entry-level period. The highest nursing degree completed by the sample was: (Associate degree 26 (31.7%), generic 4-year bachelor's degree 39 (47.6%) and accelerated BSN or RN to BSN bachelor's degree 17 (20.7%).

The majority of the sample was hired to an orientation program in which their permanent unit was not assigned at time of hire. The majority of the sample, 67 (81.7%) did not have a permanently assigned unit at the time of hire, 8 (9.8%) were hired for a medical/surgical unit, 6 (7.3%) were hired for a unit based telemetry unit and 1 (1.2%)

was hired for an intermediate care unit. Healthcare-related work experience pre-licensure was collected. Some participants reported prior work experience in multiple jobs. Of the 82 responses to this category, 39 (47.6%) had experience as an unlicensed direct patient care nursing assistant, patient care technician or patient care assistant, six (7.3%) had experience in a clerical role such as unit service representative or unit clerk, seven (8.5%) had experience as an emergency medical technician, 15 (18.3%) had experience as a student nurse extern and 20 indicated other experiences. The participants recorded the following prior work experience in the “other” category: pharmacy technician (5), medical assistant (5), mental health case manager (1), health educator (1), patient observer (5), home health aide (1), telemetry technician (1) and bed manager (1).

Table 1

Demographic Data

Gender	Frequency	Percent
Male	4	5.0
Female	76	95.0
Total	80	100
Missing	3	
Age		
Range	21-55	
Mean	29	
# of months of RN license	Frequency	Percent
0-3	45	54.9
3-6	28	34.1
6-9	6	7.3
9-12	0	0
greater than 12	3	3.7
Total	82	100
Missing	1	
Highest Nursing Degree		
ADN	26	31.7
BSN-generic 4 year	39	47.5
BSN-accelerated/RN to	17	20.7
BSN	82	
Total		
Prior Work experience		
NA/PCT/PCA	39	47.6
USR/UC	6	7.3
EMT	7	8.5
SNE	15	18.3
Other	20	24.4
Total	82	

The NPC measured eight different competence areas in this study (see Figure 1).

These eight areas of competence are further broken down into two themes. Theme one is

related to patient related nursing and includes nursing care (1), value-based nursing care (2), medical technical care (3), teaching/learning support (4), documentation and information technology (5) and legislation in nursing safety and planning (6). Theme two is related to nursing care organization and development and also includes legislation in nursing safety and planning (6), leadership and development in nursing (7), and education and supervision of staff/students (8).

The means of each competence area were compared individually and theme one compared to theme two (see Figure 2). Means were compared to normalize the data and compare each area to the other. The NPC uses a 4 point Likert scale. The response alternatives are on a 1 to 4 scale with 1="to a very low degree", 2= "to a relatively low degree", 3="to a relatively high degree" and 4= "to a very high degree" (Nilsson et al., 2014). The individual mean scores of each area, from highest to lowest, are value-based nursing care 3.1, teaching/learning support 3.0, legislation in nursing and safety planning 3.0, nursing care 2.9, medical technical care 2.9, documentation and information technology 2.8, leadership and development in nursing 2.8 and education and supervision of staff/students 2.2. When comparing theme one to theme two, the mean response for theme one was 3.0 as compared to theme two 2.7.

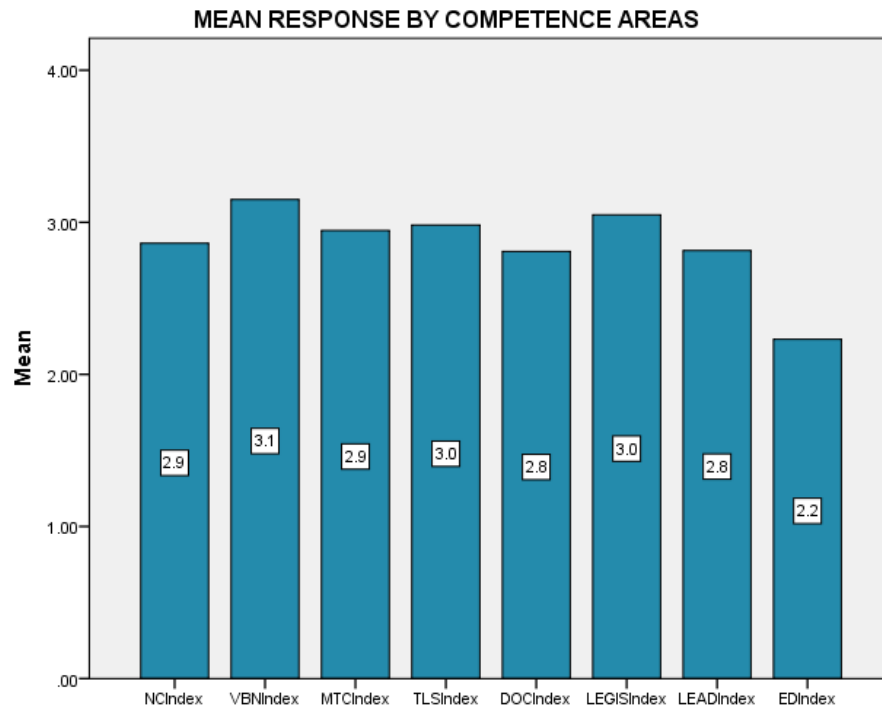


Figure 1. Mean responses for each of the eight-competence areas on the Nurse Professional Competence Scale.

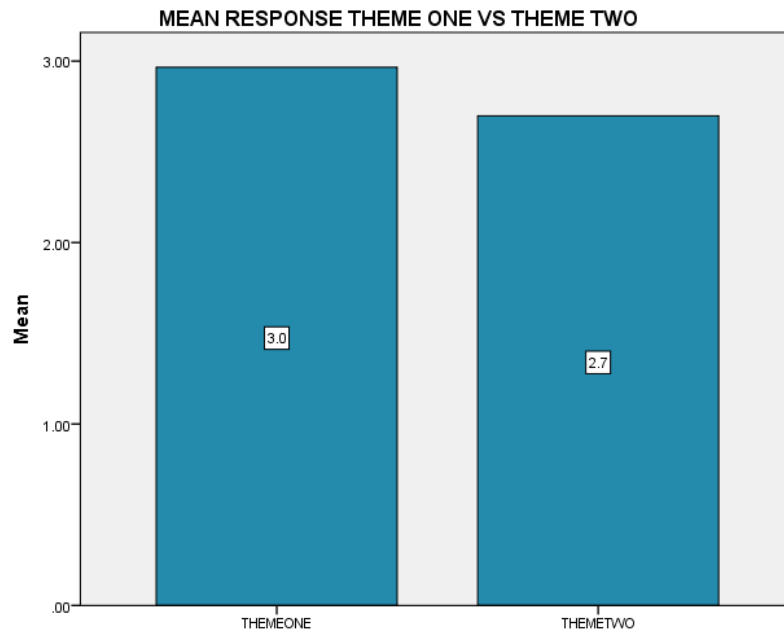


Figure 2. Mean responses from theme one and theme two on the Nurse Professional Competence Scale. Theme one represents competence areas 1-6 and theme two represents competence areas 6-8.

Areas of competence and type of nursing degree

A one-way ANOVA was performed on each of the eight areas of competence to examine potential differences in mean scores between highest type of nursing degree reported. Statistically significant relationships were revealed in two areas of competence versus highest degree in nursing. These areas are medical technical care (MTC) (F statistic of 3.123, $p = 0.050$) and teaching/learning support (TLS) (F statistic of 5.208, $p=0.008$). Post Hoc analysis of the ANOVAs using the tukey HSD detailed that accelerated BSN graduates reported higher level of competence compared to ADN graduates in the two areas of competence. Statistical significance was seen in MTC ($p=0.040$) and TLS ($p=0.007$).

Table 2

Comparison of Means of MTC and TLS Based on Highest Nursing Degree

Tukey HSD					
Area of Competence	(I)	(J)	Mean difference (I-J)	Standard error	Significance
MTC Index	ADN		-.33801	.13614	.040
BSNACC					
TLS Index	ADN		-.48355	.15414	.007
BSNACC					

Areas of competence and prior health care experience

An independent samples t-test was completed to analyze any differences between the scores of those participants with or without each type of prior healthcare experience in eight competence areas. Independent samples t-test showed prior work experience as a unit clerk (UC) /unit service representative (USR) related to higher scores than those with other types of healthcare related work experience in the area of leadership and development in nursing. Those with USR experience scored a fraction (0.169) higher than those without, with a t statistic of -2.203 and $p=.04$. It should be noted that the sample distribution skewed strongly in favor of those without experience (75-6).

Table 3

*Significance of Prior Experience in USR/UC Role on Leadership Competence**Area*

	Levene's Test for Equality of Variances		T	df	Sig.(2- tailed)	Mean Difference
	F	Sig				
LEAD Index	4.883	0.30	-.870 -2.203	79 19.009	.387 .040	-.16949 -.16949

Theme Index Scores and Impact of Age

A bivariate linear regression was performed to determine the impact of age on the two theme index scores. In neither case was the relationship significant. For Theme One, the F statistic was 3.456 with $p=.067$ and an R Square of .042. For Theme Two, $F=2.076$ with $p=.154$ and an R Square of .026. The effects were therefore minimal and statistically nonsignificant. In summary, entry-level nurses rate their own competence at, or close to a relatively high degree in seven of the eight competence areas surveyed. They scored higher in Theme one as compared to Theme two. Statistical significance was found in selected areas only when comparing background variables to competence areas.

CHAPTER 5: DISCUSSIONS/CONCLUSIONS

Discussion

The aim of this study was to examine entry-level nurses self-reported level of competence at the commencement of their first job in the acute care setting. Self-reported level of competence was measured using the NPC Scale which was based on formal competence requirements for nurses in Sweden as well as global core competencies for nurses from the World Health Organization (WHO, 2009).

Benner (1982) has defined nurse competence as the ability to perform a task with a desirable outcome under various conditions of the real world. Experience with real situations is required to develop competence as an expert nurse and recently graduated nurses are in their process of skills acquisition. This development of nurse competence takes place during work experience described as a continuum from novice to expert (Benner, 2001).

Results of this study found that overall competence in Theme one was scored at a mean of 3.0 which represents “to a fairly high degree” on the 1-4 Likert scale. Theme one reflects patient related nursing activities such as the nursing process, communication skills, medication administration, technical and procedural skills, patient education and documentation in the medical record.

Missen (2016) conducted a study to explore perceptions of qualified nurses who served as preceptors to new graduate nurses, on the abilities of new graduate nurses to perform a variety of clinical skills. Clinical skills were defined by the author as routine physical assessment, basic and advanced technical skills, medication administration and emergency procedures. These topics are similar to the content in theme one of the NPC

scale. The results demonstrated that the new graduate nurses practice at a “good” level on very basic skills such as medication administration, assisting patients with activities of daily living, taking vital signs and administering oxygen. They are rated as “adequate” on physical assessments, administering blood or IV infusions and understanding implications of medication administration and “poor” on more advanced clinical skills such as central line management, NG tubes, chest tubes and IV insertion. The perceptions of both the new graduate and preceptor on competence development must be continually evaluated in order to facilitate a meaningful orientation and safe transition to independent practice.

Results of the study found that overall competence in Theme two was scored at a mean of 2.7 which represents a score closer “to a fairly high degree” than “to a fairly low degree” on the 1-4 Likert scale. Theme two represents organization and development which includes legislation in nursing, critical thinking, evidence based practice (EBP), research, and education of students and peers. Theme two is lower and this is expected based on the competence areas. Students generally do not have adequate experience with EBP and research, especially to those who did not attend a non-BSN degree program because of the nature of their curriculum. Theme two findings is consistent with Benner’s description that competent nurses are those who perform in the same practice work environment for at least two to three years (Benner, 2001). New nurses therefore are not expected to feel very competent to perform nursing activities under theme two which is nursing care organization and development.

Wangenstein (2012) studied newly graduated nurses’ own perception of competence and predictors influencing these perceptions. They studied the frequency of

use of the areas of competence and found that it played an important role in explaining the self-perception of competence. This study used the Nurse Competence Scale (Nilsson et al., 2014) a different tool from the one used in this study, however similar topics of competence were included. The topic of teaching-coaching was rated with the lowest frequency of use and a mean score of 57.8 on a 0-100 visual analogue scale (Wangensteen, 2012). This finding is similar to the lowest score in this study in the education and supervision of staff and students with a mean score of 2.2. Students are not often given these responsibilities, nor are new nurses who are in a transition to practice period for up to 12 months.

The results of this study are similar to those found by Gardulf et al. (2016) in that the sample of nurses scored highest in Theme one as compared to Theme two. In addition, the competence area of value-based nursing was the highest scoring category and education and supervision of staff and students the lowest scoring category. There were also differences noted in this study as compared to Gardulf et al. (2016). This study found documentation and information technology to be one of the lower scoring categories (2.8) as compared to this being one of the two highest scoring categories in Gardulf et al. (2016). Legislation in nursing and safety planning was one of the higher scoring categories (3.0) in this study as compared to one of the lowest in Gardulf et al. (2016). It is an interesting result considering that the sample in this study included graduates of any type of undergraduate degree program as compared to Gardulf et al. (2016) which included BSN graduates only who have more opportunities for health policies including legislation in nursing. Lastly, this study surveyed nurses at the point of

commencement of their first job as compared to Gardulf et al. (2016) which surveyed students on their last day of school prior to graduation.

The background variables found to be statistically significant in this study were highest level of nursing degree and prior work experience in a healthcare related pre-licensure job. Those nurses who had completed an accelerated BSN program scored higher than those who completed an ADN program in two competency categories: teaching/learning support and medical technical care. Accelerated BSN nursing programs are designed for students who have a bachelor's degree in another discipline. The program builds upon previous learning experiences of the student. Graduates of accelerated BSN programs tend to be older, motivated, have higher academic expectations than traditional entry-level nursing students and bring many layers of skill and education with them (AACN, 2017).

Those who had prior work experience in a role as unit coordinator or service representative had higher scores in leadership and development in nursing. Wangenstein (2012) found statistically significant differences in overall reported competence on those nurses who had previous healthcare experience ($p=.020$) and based on age ($p=.027$). The Wangenstein (2012) study did not find a statistical significance based on type of academic preparation. Marshburn et al. (2009) found that new nurses who had prior experience in health care, such as a nursing assistant, nurse extern, emergency medical technician, etc. were more likely to meet criteria for performance based measures of clinical competence.

DNP Essentials

DNP Essential II: Organizational and Systems Leadership for Quality

Improvement and Systems Thinking is relevant to the concept of entry-level nurse competence. The DNP graduate must be able to work within organizations in the provision of care provided by themselves but also by others, such as entry-level nurses. This paper examined the entry-level nurse's self-reported level of competence at the commencement of their first job. The findings demonstrate that entry-level nurses have a fairly high degree of self-reported competence.

It is important to disseminate the findings to both the practice and academic settings in order to bridge the gaps in this perception. New graduate nurses self-rating of themselves may be based solely on their experiences and didactic course work in school or in pre-licensure jobs.

As an educator in the practice setting, this gap is observed regularly. New graduate nurses often struggle with basic and more advanced skills and knowledge due to the increasing acuity and expectations in the acute care setting. This may lead to stress, errors and intention to leave the profession. DNP practicum experiences afforded me the opportunity to observe this same concept in the entry-level advanced practice nurse group as well. The identified knowledge gap can be used to assist new nurses, nurse preceptors and nurse leaders in an effort to offer appropriate orientation and education programs, and clinical support during this time of transition from student to independent practitioner. It is relevant information for educators in nursing professional development educator in the practice setting as well as clinical professors in the academic setting.

DNP essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice is relevant to the topic of nurse competence. The self-reported competence of entry-level nurses in the acute care setting was the focus of the study. Though the results showed that new graduate nurses rate themselves as having a fairly high degree of competence, literature supports the need for well-structured orientation and practice transition programs focusing on the areas that new graduates need to become successful independent practitioners. Nurse residency and practice transition programs are well documented and supported in the literature. Educators who work with new graduate nurse orientation, residency and practice transition may use the results of this study to support the need for these programs in this population.

Implications for practice

This study will add to the existing body of knowledge related to entry-level nurse competence. The evidence provided may be used by academia as well as those in the practice setting. The American Association of Colleges of Nursing (2016) report "Advancing Healthcare Transformation: A New Era for Academic Nursing" describes the need for academia and the healthcare system to align in order to impact healthcare delivery in today's era. Two key recommendations are as follows: academic nursing should be recognized as a full partner in healthcare delivery, education, and research, and nursing faculty should engage more deeply in clinical practice. This report supports the COPA model in bridging the gap between academia and practice to promote competent practitioners who can provide safe quality care. The COPA model is organized around four essential pillars: specification of essential core practice competencies, end-result

competency outcomes, practice-driven interactive learning strategies, and objective competency performance examinations.

Pillar one of the COPA model defines eight practice competency categories. These categories may be tailored for different level, type or focus of nursing practice. Educators can use this to guide the content of orientation programs or transition to practice programs for entry-level nurses. Pillar two is focused on identification of practice based outcomes. Defining competency areas and outcomes assists in fulfilling pillars three and four which assists in the evaluation of the learning process (Lenburg, 1999).

It is essential for nursing to students to have meaningful clinical rotations which may better prepare them for independent practice. Academia is charged with determining what the most effective teaching strategies are to promote achievement of the required competencies and outcomes. They must also determine and develop performance assessment methods to validate achievement of the outcomes and required competencies. This is also true as the newly graduated students enter the practice setting. (Lenburg, 1999; Lenburg et al., 1999). Clinical faculty must be clinically competent and have a synergistic partnership with the staff in clinical settings in order to gain access to clinical experiences that will afford students the real-life exposure to improve competence and preparedness for their first job.

New graduate nurse transition to practice programs are used in the clinical setting to allow proper orientation and mentoring of newly graduated nurses. The NCSBN (2017a) recognizes that new nurses are caring for sicker patients in increasingly complex health settings. The implication is that new nurses report more negative safety practices

and errors than experienced nurses. In addition, approximately 25% of new nurses leave a position within their first year of practice. This turnover may negatively influence patient safety and health care outcomes. Health institutions with transition programs have seen a marked drop in attrition, along with improved patient outcomes (NCSBN, 2017a).

Spector et al. (2015) conducted a multisite study of transition to practice programs in 105 hospitals. The study hospitals adopted the NCSBN Nursing's Transition to Practice model program instead of traditional methods of orientation used in the control group. New graduate nurses completed surveys at baseline, six, nine, and 12 months after beginning their first nursing position. Self-reported data included competence, number of errors, safety practices, work stress and job satisfaction.

The results showed minimal statistical significance between the control and transition to practice program group. However, it was found that any type of structured transition program which include elements such as patient-centered care, communication and teamwork, quality improvement, evidence based practice, informatics, safety, clinical reasoning, feedback, reflection, and specialty knowledge in an area of practice provide better support for the nurse. Hospitals that use structured programs had higher retention rates, fewer patient care errors, employed fewer negative safety practices, had higher competency levels, lower stress levels and better job satisfaction. It is significant to note that overall competency showed statistically significant improvement over the 12 months (Spector et al., 2015).

Limitations

Limitations have been identified in this study. One limitation is the use of a convenience sample. When study participants are not selected randomly, the external

validity, or the ability to generalize beyond the sample is limited (Nolan & Heinzen, 2012). Nurses hired at one of the hospitals in the study are selected based on the type of nursing degree they possess. The higher percentage of bachelor-prepared nurses in the study may have skewed the results towards the expected competencies of BSN-prepared nurses.

Another limitation is the time factor in which the nurses received their nursing license. More than 50% of the participants were hired within three months of receiving their license. The other 50% who were hired more than three months after receiving their license may have varying views of their self-competence because they were not able to obtain jobs soon enough. In addition, the use of a self-reported tool is subjective. As time lapses from the point of graduation, the nurses may feel less competent if they have not obtained jobs and started to practice.

Lastly, many of the studies on self-reported competence and the available tools were not developed in the USA. Other countries have different regulations for academic preparation and clinical practice. The tool used for this study, though translated to English, may not reflect academic preparation and practice in the USA specifically. This tool was created based on core competencies developed by the World Health Organization, which the AACN was a contributor. The tool, however is also based on the formal competence requirements for nurses developed in Sweden.

Future Research

In addition to a one-time assessment of self-reported competence, future studies can be done from a longitudinal perspective. According to Benner (1982) competence develops over time. She describes a competent nurse as one who has two to three years of

experience. The literature is limited with descriptions of self-reported competence during an RNs first year of practice when initial orientation may be occurring. This type of information would be helpful to study in order to contribute to the data on entry-level RN orientation and transition to practice programs.

Additional studies examining the amount of work hours a student has during nursing school in a healthcare related job would be beneficial. Gardulf et al. (2016) conducted a study to investigate the self-reported competence of Bachelor of Science in Nursing (BSN) students who were at the point of graduation, using the NPC scale. The background factors studied found that the factor with the most influence on self-reported competence was paid work experience during their nursing program, particularly in those who worked more than 20 hours per week. The researchers relate this finding to the additional exposure to complex clinical care and ethical dilemmas the students gained (Gardulf et al., 2016). Additionally, the types and amount of clinical experiences the students have in their last semester or last year of nursing school could be studied. The number of hours and type of experiences may lead to an increased competence.

Future research could also include replication of this study with the sample changing from new graduate nurses to students at the last day of school prior to graduation since the tool was developed for both populations. This could eliminate the possibility of changes in perception of competence as time elapses from point of graduation to start of first job. It is also recommended to replicate this same study among entry-level nurses in sub-acute and long-term care nursing practice settings so that similarities and differences in areas of competence can be identified.

Conclusion

Orientation and transition to practice program curriculum need to be designed to allow new nurses to be mentored under the supervision of experienced nurses in order to prepare them effectively and expediently for safe and independent practice. Spector et al. (2015) recommend structured programs to support the new graduate nurse in the transition to practice period. These programs should be supported by chief nursing officers and administration, be formalized, and be a minimum of six months in length. A preceptorship program should be integrated into the program in order to support the new graduate nurse during this time as well as learning specialty knowledge required to work on their nursing unit. Time, feedback and reflection are key parts of the orientation period that leads to successful transition of new graduates and promotes patient safety and positive patient outcomes.

References

- American Association of Colleges of Nursing. (1999). Defining scholarship for the discipline of nursing. Retrieved from http://www.aacn.nche.edu/publications/position/defining_scholarship
- American Association of Colleges of Nursing. (2006). The essentials of doctoral education for advanced nursing practice. Retrieved from <http://www.aacn.nche.edu/dnp/Essentials.pdf>
- American Association of Colleges of Nursing. (2016). Advancing healthcare transformation: A new era for academic nursing. Retrieved from <http://www.aacn.nche.edu/news/articles/2016/manatt-report>
- American Association of Colleges of Nursing. (2017). Accelerated baccalaureate and master's degrees in nursing. Retrieved from <http://www.aacnnursing.org/Nursing-Education-Programs/Accelerated-Programs>
- American Nurses Association. (2007). Draft white paper on competence and competency. Retrieved from: <http://nursingworld.org/functionalmenucategories/aboutana/leadership-governance/newcnpe/cnpemembersonly/pastmeetings/february2007/competency-whitepaper.pdf>
- Benner, P. (1982). From novice to expert. *American Journal of Nursing*, 82(3), 402-407.
- Benner, P. (2001). *From novice to expert. Excellence and power in clinical nursing practice*. Upper Saddle River: Prentice-Hall.

- Burson, R. (2014). Scholarship in practice. In K. Moran, R. Burson, & D. Conrad (Ed.), *The Doctor of Nursing Practice Scholarly Project* (pp.57-84). MA: Jones & Bartlett Learning.
- Corty, E. (2014). *Using and Interpreting Statistics* (2nd ed.). New York: Worth Publishers.
- Gardulf, A., Nilsson, J., Florin, J., Leksell, J., Lepp, M., Lindholm, C., Johansson, E. (2016). The Nurse Professional Competence (NPC) Scale: Self-reported competence among nursing students on the point of graduation. *Nurse Education Today*, 36, 165-171.
- Hospital Safety Score. (2013). Hospital errors are the third leading cause of death in U.S., and new hospital safety scores show improvements are too slow. Retrieved from <http://www.hospitalsafetyscore.org/newsroom/display/hospitalerrors-thirdleading-causeofdeathinus-improvementstooslow>
- Institute of Medicine. (1999). To err is human: Building a safer health system. Retrieved from <http://iom.nationalacademies.org/~media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20%20report%20brief.pdf><http://iom.nationalacademies.org/~media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20%20report%20brief.pdf>
- Institute of Medicine. (2011). The future of nursing: Leading change, advancing health. Retrieved from <http://www.nap.edu/read/12956/chapter/1>

Kajander-Unkuri, S., Salminen, L., Saarikoski, M., Suhonen, R., Leino-Kilpi, H. (2013).

Competence areas of nursing students in Europe. *Nurse Education Today*, 33(6), 625-632.

Lenburg, C. (1999). The framework, concepts and methods of the competency outcomes and performance assessment (COPA) Model. *Online Journal of Issues in Nursing*, 4. Retrieved from

nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume41999/No2Sep1999/COPAModel.html

Lenburg, C., Klein, C., Abdur-Rahman, V., Spencer, T., & Boyer, S. (1999). The COPA model: A comprehensive framework designed to promote quality care and competence for patient safety. *Nursing Education Perspectives*, 30(5), 312-317.

Lima, S., Newall, F., Kinney, S., Jordan, H., & Hamilton, B. (2014). How competent are they? Graduate nurses' self-assessment of competence at the start of their careers. *Collegian*, 21, 353-358.

Locsin, R. (1998). Technologic competence as caring in critical care nursing. *Holistic Nursing Practice*, 12(4), 50-56.

Makary, M. & Daniel, M. (2016). Medical error—the third leading cause of death in the US. *British Medical Journal*, 353, retrieved from <http://www.bmj.com/content/353/bmj.i2139>

Marshburn, D., Keehner, M., & Swanson, M. (2009). Relationships of new nurses' perceptions and measured performance-based clinical competence. *The Journal of Continuing Education in Nursing*, 40(9), 426-432.

Meretoja, R., Isoaho, H., & Leino-Kilpi, H. (2004). Nurse competence scale:

Development and psychometric testing. *Journal of Advanced Nursing*, 47(2), 124-133.

Missen, K., McKenna, L., Beauchamp, A., & Larkins, J. (2016). Qualified nurses' rate new nursing graduates as lacking skills in key clinical areas. *Journal of Clinical Nursing*, 25, 2134-2143.

National Council of State Boards of Nursing. (2011). What you need to know about nursing licensure and boards of nursing. *Dakota Nurse Connection*, 9(2), 26-28.

National Council of State Boards of Nursing. (2014). NCSBN Revises definition of entry-level nurse. Retrieved from <https://www.ncsbn.org/5495.htm>

National Council of State Boards of Nursing. (2015a). About nursing licensure. Retrieved from <https://www.ncsbn.org/licensure.htm>

National Council of State Boards of Nursing. (2015b). Guiding principles of nursing regulation. Retrieved from <https://www.ncsbn.org/1325.htm>

National Council of State Boards of Nursing. (2017a). Transition to practice. Retrieved from <https://www.ncsbn.org/transition-to-practice.htm>

National Council of State Boards of Nursing. (2017b). 2017 NCLEX Examination Candidate Bulletin. Retrieved from https://www.ncsbn.org/089900_2017_Bulletin_Proof2.pdf

Nilsson, J., Johansson, E., Egmar, A., Florin, J., Leksell, J., Lepp, M.,...Gardulf, A. (2014). Development and validation of a new tool measuring nurses self-reported professional competence-The nurse professional competence (NPC) scale. *Nurse Education Today*, 34, 574-580.

- Nolan, P. (1998). Competencies drive decision making. *Nursing Management*, 29(3), 27-29.
- Patten, M. (2009). *Understanding Research Methods* (7th ed.). CA: Pyrczak Publishing.
- Ramritu, P., & Barnard, A. (2001). New graduates' understanding of competence. *International Nursing Review*, 48, 47-57.
- Rolf, G. & Davies, R. (2009). Second generation professional doctorates in nursing. *International Journal of Nursing Studies*, 46(9), 1265-1273.
- Smith, S. (2012). Nurse competence: A concept analysis. *International Journal of Nursing Knowledge*, 23(3), 172-182.
- Spector, N., Blegen, M., Silvestre, J., Barnsteiner, J., Lynn, M., Ulrich, B.,...Alexander, M. (2015). Transition to practice study in hospital settings. *Journal of Nursing Regulation*, 5(4), 24-38.
- Wangenstein, S., Johansson, I., Bjorkstrom, M., & Nordstrom, G. (2012). Perception of competence and possible predictors: A cross-sectional survey. *Journal of Professional Nursing*, 28 (3), 170-181.
- Watson, E., & Hillman, H. (2011). Practice of registered nursing: Are you competent. *Journal of Legal Nurse Consulting*, 22(2), 27-28.
- Whittaker, S., Carson, W., & Smolenski, M. (2000). Assuring continued competence: Policy questions and approaches: How should the profession respond? *The Online Journal of Issues in Nursing*, 5. Retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume52000/No3Sept00/ArticlePreviousTopic/ContinuedCompetence.html>

- Wilkinson, C. (2013). Competency assessment tools for registered nurses: An integrative review. *The Journal of Continuing Education in Nursing, 44*(1), 31-37.
- Wolff, A., Pesut, B., & Regan, S. (2010). New graduate nurse practice readiness: Perspectives on the context shaping our understanding and expectations. *Nurse Education Today, 30*, 187-191.
- Wood, M., & Ross-Kerr, J. (2011). *Basic Steps in Planning Nursing Research*. Sudbury, MA: Jones and Bartlett Publishers.
- Woodruffe, C. (1993). What is meant by a competency? *Leadership and Organizational Development Journal, 14*(1), 29-36.
- World Health Organization (2009). Global Standards for the initial education of professional nurses and midwives. Retrieved from http://www.who.int/hrh/nursing_midwifery/hrh_global_standards_education.pdf

APPENDIX A

THE WILLIAM PATERSON UNIVERSITY OF NEW JERSEY
INSTITUTIONAL REVIEW BOARD FOR HUMAN SUBJECT RESEARCH

c/o Office of Sponsored Programs
 Raubinger Hall, Room 309
 973-720-2852 (Phone)
 973-720-3573 (Fax)
<http://www.wpunj.edu/osp/>

Chair: Professor Liane Robertson (RobertsonL10@wpunj.edu)
 College of Humanities and Social Sciences
 Contact: Martin Williams (williamsm@wpunj.edu)
 Office of Sponsored Programs

To: Pamela Pascarelli
 Department of DNP of Nursing Student

From: Martin B. Williams *Martin B. Williams*

Subject: IRB Approval (Expedited Review)

Study: Protocol # 2017-315: Self-reported competence of entry
 level registered nurses.

Date: November 22, 2016

The IRB has APPROVED the above study involving humans as research subjects.
 This study was approved as: Category: Expedited; special class of subjects: None.

IRB Number: 2017-315 This number is WPU's IRB identification that
 should be used on all consent forms and correspondence.

Approval Date: 11/17/2016

Expiration Date: 11/16/2017

This approval is for one year. It is your responsibility to insure that an application for continuing review approval (WPU IRB Form Appendix D) has been submitted before the expiration date noted above. If you do not receive approval before the expiration date, all study activities must stop until you receive a new approval letter. There will be no exceptions. In addition, you are required to submit an Appendix D form at the conclusion of the project. The WPU IRB will accept a report submitted to another office or agency (i.e. ART report) in lieu of the narrative report of progress attachment to Appendix D. The Appendix D can be accessed at: <http://ww3.wpunj.edu/osp/>.

Consent Form: All research subjects must use the approved Informed Consent Form. You are responsible for maintaining signed consent forms (if approved for Active Consent format) for each research subject for a period of at least three years after study completion.

Mandatory Reporting to the IRB: The principal investigator must report immediately any serious problem, adverse effect, or outcome that is encountered while using human subjects or any complaints from your subjects. In addition, the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol using Appendix D.

Amendments/Modifications: You are required to carry out this research as described in the protocol. All amendments/modifications of protocols involving human subjects must have prior IRB approval, except those involving the prevention of immediate harm to a subject. Amendments/Modifications for the prevention of immediate harm to a subject must be reported within 24 hours to the IRB using Appendix D.

For exempted and expedited review protocols: the protocol will be reviewed by the entire IRB committee at its next meeting. Should questions arise that cannot be answered by the materials already provided, additional information may be requested from you. This most likely will not affect the approval status of your project—you are approved to initiate the project as of the date above, and you will not receive notice of the committee's final review. Only in the rare situation when serious questions arise will the IRB instruct that the project be discontinued until those questions are answered.

Records/Documentation: You are required to keep detailed records concerning this research project and appropriate documentation concerning Informed Consent in a readily accessible location for a period of not less than three (3) years. The IRB reserves the right to inspect all records, research tools and databases that are associated with this research.

If you have any questions, please do not hesitate to contact Martin Williams at 973-720-2852 or williamsm@wpunj.edu, or the IRB Committee Chairperson, Dr. Liane Robertson, at RobertsonL10@wpunj.edu.

Good Luck on your project.

Sign the Verification Statement below. Return the original signed copy of this memo to the IRB Office, c/o Office of Sponsored Programs, Raubinger Hall room 309, and retain a copy for your records. The IRB Office must receive the signed verification statement before research may begin.

VERIFICATION:

By signing below, I acknowledge that I have received this approval and am aware of, and agree to abide by, all of its stipulations in order to maintain active approval status, including timely submission of continuing review applications and proposed protocol modification, as well as prompt reporting of adverse events, serious unanticipated problems, and protocol deviations. I am aware that it is my responsibility to be knowledgeable of all federal, state and university regulations regarding human subjects research

Signature of Investigator

Date

APPENDIX B

Page 1 of 2

Hackensack Meridian
HEALTH

EXPEDITED REVIEW APPROVAL

To: [Kristina Rioux](#)
CC: [Pam Pascarelli](#)
Re: Study# [Pro2016-0561](#)
Self Reported Competence of Entry Level Registered Nurses

Study Expiration Date: 10/31/2017

This is to advise you that the above Study has been presented to the Institutional Review Board for expedited review.

Please be reminded that all modifications to approved projects must be reviewed and approved by the Institutional Review Board before they may be implemented. Any changes to this protocol must be submitted for IRB approval before initiated.

All serious adverse events and unexpected adverse events must be reported to Institutional Review Board within seven days.

Please do not make any changes to the IRB approved consent without approval of the IRB. Only the IRB stamped approved consent should be used.

If your study meets the definition of a qualifying study that meets the FDAAA 801 definition of an "applicable clinical trial", you are responsible for ensuring that the trial has been registered properly on the Clinical Trials.gov website prior to the enrollment of any subject.

"Applicable clinical trials" generally include controlled clinical investigations, other than phase 1 clinical investigations (with one or more arms) of FDA-regulated drugs, biological products, or devices, that meet one of the following conditions:

- The trial has one or more sites in the United States
- The trial is conducted under an FDA investigational new drug application or investigational device exemption
- The trial involves a drug, biologic, or device that is manufactured in the United States or its territories and is exported for research

For complete statutory definitions and more information on the meaning of "applicable clinical trial," see [Elaboration of Definitions of Responsible Party and Applicable Clinical Trial \(PDF\)](#).

This study has been reviewed and approved via expedited review on 11/1/2016.

HIPAA waiver granted.

Important news about our email communications.

Hackensack Meridian Health Network has implemented secure messaging services. If you need assistance with retrieving a secure email, please send an e-mail to postmaster@hackensackmeridian.org

Confidentiality Notice:

This e-mail message and any attachments from Hackensack University Medical Center are confidential and for the sole use of the intended recipient. This communication may contain Protected Health Information ("PHI"). PHI is confidential information that may only be used or disclosed in accordance with applicable law. There are penalties under the law for the improper use or further disclosure of PHI. If you are not the intended recipient of this e-mail or the employee or agent responsible for delivering the communication to the intended recipient, then you may not read, copy, distribute or otherwise use or disclose the information contained in this message. If you received this message in error, please notify us by telephone at 551.996.2000 or by e-mail to postmaster@hackensackmeridian.org. Please indicate that you were not the intended recipient, and confirm that you have deleted the original message. Please do not retransmit the contents of the message. Thank you. Hackensack Meridian Health Network is the proud recipient of Quality New Jersey's Governor's Gold Award for Performance Excellence

Hackensack Meridian Health Network
30 Prospect Avenue Hackensack, New Jersey 07601 551-996-2000
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DNP project - Message (HTML)

You forwarded this message on 3/2/2017 10:47 AM.

Sent: Thu 3/2/2017 10:42 AM

From: Weaver, Susan H
 To: Pascarelli, Pam
 Cc: Wurmser, Teri; Douglas, Claudia; Hessels, Amanda; RussellBabin, Kathleen; Moran, Sara E; Gafanha, Lindsey; Harker, Melissa
 Subject: DNP project

We have received a response from the Meridian IRB, who advised that you can use Meridian as a site to survey new graduate nurses (during nursing orientation) who are taking their first job in acute care after graduation IF you have done the following:

- Changed your recruitment protocol to include Meridian new graduate nurses and added Meridian as a site to the Hackensack IRB

Please let me know if you have any other questions.

Thanks
 Sue
Susan H. Weaver, PhD, RN, CRNI, NEA-BC
 Nurse Scientist
 Ann May Center for Nursing
 1350 Campus Parkway, Suite 101
 Neptune, NJ 07753
 732-765-6349
 201-787-1281 (cell)









Hackensack Meridian
 HEALTH

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. This communication may contain material protected by the attorney-client privilege. If you are not the intended recipient or the individual responsible for delivering the email to the intended recipient, please advise that you have received this email in error and that any use, dissemination, forwarding, printing, copying of this email is strictly prohibited. If you have received this email in error, please immediately notify IT Service Desk by telephone 732-779-3333. You will be reimbursed for reasonable costs incurred in notifying us.

From: Pascarelli, Pam [mailto:Pamela.Pascarelli@hackensackmeridian.org]

Click on a photo to see social network updates and email messages from this person.

Connect to social networks to show profile photos and activity updates of your colleagues in Outlook. Click here to add networks.

							
Weaver, Susan H NURSE SCIENTIST	Pascarelli, Pam Education Specialist	Wurmser, Teri DIRECTOR ANN MAY CTR ...	Douglas, Claudia	Hessels, Amanda NURSE SCIENTIST	RussellBabin, Kathleen DIRECTOR NURSING EDU ...COORD EDUCATION TRAL...	Moran, Sara E ...COORD EDUCATION TRAL...	Gafanha, Lindsey NURSING RESIDENCY CO...

12:23 PM
3/22/2017

APPENDIX C

Please complete the demographic data below:

1. Date _____
2. Name of unit where you will begin/began your orientation.
 - 5 St. John new graduate nurse program
 - Other: _____
3. Type of unit hired for permanently.
 - General medical - surgical
 - Unit based telemetry (example 3PE, 3PW, 3West)
 - Intermediate care (example 3 North, 4PW, 4 West)
 - Unknown at this time
4. Have you attended a course on cardiac rhythm interpretation as part of your orientation? (*i.e. The Stepdown Course*)
 - No
 - Yes - Date started _____
5. Please indicate if you have any prior work experience in the health care related positions listed below. **Select all that apply**
 - Nursing assistant/patient care technician
 - Unit service representative/unit clerk
 - Emergency medical technician
 - Student nurse extern
 - Other: _____
6. Highest nursing degree completed.
 - Associate degree
 - Bachelor's degree (generic 4-year degree)
 - Bachelor's degree (accelerated or RN to BSN)
7. How many months have you had your RN license?
 - 0-3
 - 3-6
 - 6-9
 - 9-12
 - greater than 12
8. Year of birth _____
9. Gender: Male Female