

EXAMINING THE RELATIONSHIP BETWEEN SELF-REPORTED COMPETENCE  
AND CARING EFFICACY IN REGISTERED NURSES

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## DEDICATION

I dedicate this accomplishment to the many important people that continue to love, encourage, and support me through this and every journey in my life. A special thank you to my wonderful husband and friend Gregory D. Moss and my awesome sons David Allison, II and Joshua Allison. Thank you for your continuous love, patience and support. You have given me great inspiration and taught me what it truly means to take risks and continuously persevere. David and Joshua, I hope I have been a great role model for you. To my loving parents Claude and Earnestine Gallaway, thank you for always being my cheerleaders. Mom, thank you for giving me never-ending love, guidance, and support in every endeavor I have pursued. To my brother Renor Mitchell, I am proud you are my elder sibling. We have come a long way. To my best friend Vicki Fuller, thank you for being a caring and loving friend and sister. You have shown me the true meaning of sisterhood. Lastly, to the special individuals who are no longer physically present with me but will always live in my heart. To my younger brother Desmond Gallaway, you left far too soon. Thank you for giving me my true passion for nursing and desire to create new knowledge. I will always love you and miss you. To my grandparents Phillip and Edna Reed, the encouragement and love you gave me will live within me forever.

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## ABSTRACT

EDTRINA MOSS

### EXAMINING THE RELATIONSHIP BETWEEN SELF-REPORTED COMPETENCE AND CARING EFFICACY IN REGISTERED NURSES

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Competence is the creation of new rules, reasoning procedures, and the integration of skills, values, knowledge, and attitudes to specific, contextual practice situations (Benner, 2001; Benner, Tanner, & Chesla, 2009). Caring is the essence and central focus of the nurse's role that is embedded in personal and cultural meanings and commitments that are both instrumental and expressive (Benner, 2001; Benner, Tanner, & Chesla, 2009; Hess, Dossey, Southard, Luck, Schaub, & Bark, 2013).

The purpose of this study was to examine the relationship between competence and caring efficacy of practicing registered nurses (RN) while controlling for the impact of nurse education, nursing experience, specialty certification, and job role. Guided by Benner's novice to expert model, a cross-sectional non-experimental design used to describe nurses' self-perceptions of competence and caring. The seven subscale, 73-item

Nurse Competence Scale (NCS) and 30-item Caring Efficacy Scale (CES) were used to examine these perceptions in an online survey.

A final convenience sample of 189 practicing, licensed registered nurses involved in direct patient care at least 50% of the time and recruited from four nursing organizations and a Veterans Affairs Medical Center, were used in data analysis. Descriptive statistics were used to describe the demographic data. Most participants were female with an average age of 47 and 18 years of experience. Most held undergraduate degrees, possessed a nursing specialty certification, and worked as staff nurses.

Hierarchical multiple regression was used to examine the relationship between competence and caring efficacy. A moderate, positive relationship between nurse competence and caring efficacy was found. This relationship was not influenced by education, experience, specialty certification, or job role. Correlations were used to compare the frequency of use versus perceived competence on the subscales of the NCS. No relationships were noted between use and perceived competence on six of seven subscales. There was a small correlation in the help domain. These findings suggest that nurse competence and caring develop according to Benner's novice to expert framework and affirm that experience is not a linear process but a continuum of experiential learning opportunities and skills acquisition.

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## CHAPTER I

### INTRODUCTION

Competence and caring have long been key concepts in the art and practice of nursing. Competence is the creation of new rules and reasoning procedures for a chosen plan or perspective to determine which aspects of the current and contemplated future situation should be applied (Benner, 2001; Benner, Tanner, & Chesla, 2009).

Competence is also the integration of skills, values, knowledge, and attitudes to specific, contextual practice situations. As nurses gain experience and knowledge in a specific clinical domain, they move along the continuum from novice to expert (Benner, 2001).

Competence creates a sense of emotional involvement in the outcome and a greater sense of salience through experiential learning. Without competence, poor patient outcomes, increased errors, and the inability to make sound decisions may occur.

Caring is the essence and central focus of the nurse's role to foster improved health and well-being for all clients (Hess, Dossey, Southard, Luck, Schaub, & Bark, 2013). Caring is embedded in personal and cultural meanings and commitments that are both instrumental and expressive (Benner, 2001; Benner, Tanner, & Chesla, 2009). When describing various types of caring in various contexts, nurses comprehend the role of caring in health, healing, and recovery (Benner, 2001). Caring is a skilled, interpersonal interaction between the nurse and patient, based on both the nurse's and the patient's subjective experience and the nurse's commitment to maintaining the patient's dignity

(Smith, Turkel, & Wolf, 2013). Spichiger, Wallhagen, and Benner (2005) described caring practices from an ontological perspective. Perceived caring practices are determined by the concerns that define an individual's self (the nurse) and world and what is required to restore a person (the patient) and lifeworld.

As the demand for competent practitioners who deliver nursing care in a skilled, interpersonal manner continue to dominate the healthcare landscape, nurses must understand their own perceptions, levels of confidence, and beliefs in their ability to develop caring relationships and express caring orientations. As nurses gain experience and knowledge in a specific clinical domain, they also must understand their perceptions of their own competence. Nurses who use the process of reflection by way of self-assessment consider their caring practices within their own practice setting; identify strengths and areas needed for further development, and focus on the attitudes and behavioral repertoire necessary for nurse competence and caring efficacy (Coates, 1997; Meretoja, Isoaho, & Leino-Kilpi, 2004). When nurses assess their own competence and caring practices, it is an important step in identifying professional and educational development programs in academia and in the workplace.

### **Problem of Study**

The purpose of this study was to compare the relationship between competence and caring efficacy of practicing registered nurses (RN). This study also examined the impact of nurse education, nursing experience, specialty certification, and job role on the relationship.

## **Rationale for the Study**

There is great value in identifying self-assessed nurse competence and caring efficacy. According to the IOM (2011), nurses should engage in lifelong learning that focuses on continuing competence instead of continuing education. During the past 40 years, required competencies in nursing have expanded to include evidence-based practice, leadership, public health, geriatrics, system improvement, health policy, and teamwork and collaboration. However, both practice and academic settings are challenged in integrating both emerging and traditional competencies as individual institutions. The IOM has recommended that academic faculty and health care organizations form partnerships that would develop and prioritize competencies (Altman, Butler, & Shern, 2015).

The American Nurses Association (ANA) has affirmed their position regarding professional role competence. ANA posits that competence is a shared responsibility of individual nurses, regulatory agencies, the profession, professional organizations, employers and other stakeholders (American Nurses Association, 2014). Each individual nurse is accountable and responsible for maintaining professional competence, as the public has a right to expect RNs to demonstrate professional role competence throughout their individual careers.

The nursing profession, the individual nurse, employers, the consumer, and regulatory agencies share in the responsibility of ensuring nurse competence. Within nurse competence are caring behaviors. Consumers have identified that the technical

aspect of equipment operation, the knowledge aspect of responding promptly to patient needs, and the caring attitudes of nurses are amongst the most important desired attributes of demonstrated nurse competence (Mann et al., 1999).

### **Theoretical Framework**

Benner's novice to expert model guided this study. Benner's model is situation focused and the level of performance is a function of a nurse's strength within his or her practice capacity, in combination with their educational background and experience (Benner, 2001).

Based on the Dreyfus and Dreyfus model of skill acquisition and development, Benner's model identifies five levels of nursing practice: novice, advanced beginner, competent, proficient, and expert (Benner, 2001). Benner, Tanner, and Chesla (2009) explained that nurses, "achieve competence when they can learn through instruction or experience to adopt a hierarchal perspective." (p. 36). Benner described each stage as follows. The novice nurse has no experience of situations but gains experience, objective attributes, and context-free rules. Advanced beginners have enough of real-life situations to identify "aspects of the situation." The competent nurse has been on the job in the same or similar situations for two to three years and is consciously aware of actions and long-range goals (Benner, 2001). The competent stage is a pivotal one because it is where the nurse must begin to recognize situational patterns and allow those situations to guide responses (Benner et al., 2009). The proficient nurse views situations as a whole rather than in terms of aspects and is guided by maxims. The expert nurse, with enormous

background and experience, has an intuitive grasp of each situation and accurately targets the problem (Benner, 2001).

As nurses move through the skills acquisition of the five levels, Benner (2001) described how clinical knowledge is gained over time through experiential learning. Experience is more than the passage of time or longevity in this context. It refers to amending, refining, turning around, adding nuance to or changing preconceived notions or perceptions of a situation (Benner, 2001; Benner et al., 2009). Experience is gained when one actively recognizes and learns to respond uniquely in practical situations because one's understanding of the situation is altered because of past encounters (Benner, 2001; Benner et al., 2009).

Benner asserted that as nurses move through the stages of skills acquisition, nurses become more emotionally involved with the choice of a perspective and its results (Benner et al., 2009). The nurse creates a conscious awareness on the intentionality of caring, wholeness, and healing through human caring. Benner's work highlighted narratives and interviews of nurses where competencies from actual practice situations emerged (Benner, 2001). These competencies were identified as exemplars within seven domains: the helping role, the teaching-coaching function, the diagnostic and patient monitoring function, effective management of rapidly changing situations, administering and monitoring therapeutic interventions and regimens, monitoring and ensuring the quality of health care practices, and organizational and work-role competencies (Benner, 2001). Caring behaviors manifest primarily in the helping role and the teaching-coaching

function (Nuccio et al., 1996). Caring behaviors in the helping role involve a committed, involved, nurse-patient relationship. These caring behaviors include being present with the patient and providing comfort and communication through touch. Caring behaviors in the teaching-coaching function offer ways of being, information, ways of coping, and new possibilities for the patient. These caring behaviors include capturing patient's readiness to learn and assisting them with integrating the implications of illness and recovery into their lifestyles (Benner, 2001).

The Benner novice to expert model addresses both competencies and caring behaviors. These competencies and behaviors are expected to become more salient and refined as the nurse moves through the continuum. The public has traditionally viewed caring as the hallmark of the nursing profession (Carter et al., 2008). The public also expects nurses to demonstrate clinical knowledge in their caring nurse practices. The model suggests that clinical knowledge is derived from education and experience. Therefore, the assumptions and research questions for this study fit well with the Benner model's theoretical framework.

### **Assumptions**

The basic assumptions relevant to this study were drawn from Benner's novice to expert model. The assumptions were as follows:

1. Nurses are situated in their practice and rely on background understandings that are not fully articulated but are operational (Benner et al., 2009).

2. Caring is an essential requisite for all coping and is essential for the nurse to be situated.

### **Research Questions**

The following research questions were posed:

1. What is the relationship between self-assessed nurse competence and caring-efficacy of practicing registered nurses?
2. Do level of education, years of nursing experience, specialty certification, or job role serve as confounding variables in the relationship between competence and caring efficacy of practicing registered nurses?

### **Definition of Terms**

The following key terms were defined for the purposes of this study:

1. *Caring efficacy* was conceptually defined as “the underlying cognitions, attitudes, and behavioral repertoire one has to express caring orientation and develop caring relationships with clients or patients” (Coates, 1997). Caring efficacy was operationally defined as a weighted, self-report score derived using the Caring Efficacy Scale (CES), a 30-item Likert-type instrument designed to identify a nurse’s confidence in his or her ability to develop caring relationships and express a caring orientation with clients (Coates, 1997).
2. *Level of education* was conceptually defined as “one of four major categories of degrees available for postsecondary students: associate’s, bachelor’s, master’s and doctoral degrees” (Study.com, n.d.). Level of



education was operationally defined as the highest degree completed by participating nurses obtained from the demographic data form.

3. *Nurse competence* was conceptually defined as a nurse's experience on the job in the same or similar situations for two to three years, has more focus on clinical issues than completing tasks, views actions in terms of long-range goals or plans, anticipates certain typical progressions in patients' recovery, and is more discriminating about the performance of others on the healthcare team (Benner, 2001; Benner et al., 2009). Nurse competence was operationally defined as a weighted, self-report score derived using the Nurse Competence Scale (NCS), a 73-item scale designed to allow nurses to consider their practice within their own practice setting, gain insight into their practice to identify strengths and opportunities, and improve practice through self-assessment.
4. *Role* was conceptually defined as "a prescribed or expected behavior Associated with a particular position or status in a group or organization" (BusinessDictionary.com, n.d.). Role was operationally defined as the current position/job title, e.g. staff nurse, nurse manager, nurse educator, clinical nurse leader, nurse practitioner, chief nursing officer, nurse director, etc. shown on the demographic collection form.
5. *Specialty certification* was conceptually defined as "the formal

recognition of the specialized knowledge, skills, and experience demonstrated by the achievement of standards identified by a nursing specialty to promote optimal health outcomes” (American Board of Nursing Specialties, n.d.). Specialty certification was operationally defined as nurses who have completed specialty certification qualifications (minimum nursing degree requirements; specified continued education hours, for initial or renewal; successful passing certification exam) shown on the demographic collection form.

6. *Years of nursing experience* was conceptually and operationally defined as the number of years the nurse has been in the active practice of nursing shown on the demographic collection form.

### **Limitations**

Limitations to this study included the following:

1. The design choice for this study was non-experimental and no cause and effect relationship was examined for the variable of competence and caring.
2. The sample was a convenience sample of practicing registered nurses who volunteered from nursing organization memberships and a Veteran’s Health Administration facility to respond to the surveys within their specific practice settings. Findings could not be generalized beyond the responding nurses of the sample.
3. Self-assessment was subjective and based on the interpretation of the

nurses' own definitions of competence and caring. Therefore, findings were not directly related to actual behaviors or patient outcomes.

### **Summary**

A non-experimental design study was used to compare the relationship between self-reported nurse competence and caring efficacy of practicing registered nurses (RN). The study attempted to determine if there was a relationship between the self-perceptions of nurse competence and caring efficacy and whether nursing experience, specialty certification, role, and nursing education had any effect on this relationship. The theoretical foundations were grounded in Benner's novice to expert model for nurse competence and relevant assumptions that flow from the framework. Conceptual and operational definitions were listed with measurable variables of interest.

## CHAPTER II

### LITERATURE REVIEW

The purpose of this study was to investigate variables associated with clinical competence and caring. The literature review was targeted to examine measurements of practicing nurses' self-assessment or self-report of professional or clinical competence and caring efficacy. An online review was conducted using the Scopus, CINAHL, ProQuest Dissertation Abstracts, Medline, and Science Direct databases from the years 2000 to present. Combinations of the following key words were included: measurement scales, measurement systems/analysis, instrument construction, validation, professional competence, clinical competence, performance, aptitude, qualification, ability, skills, and caring efficacy.

Ancestry references were identified and examined for relevance. The literature investigation identified 702 articles. Articles that were discarded included those that did not have instruments, editorials, letters, and articles that included nursing students. In addition, articles that contained particular contexts in nursing (e.g., cultural, moral, and informatics competency), non-nursing disciplines, particular skill sets (e.g. management/leadership skills, interpersonal skills, preceptor, educator and health education) and physician/medical interventions and testing were excluded because the focus of this literature review was on general clinical competence of registered nurses. The review process netted 27 articles that were deemed relevant to this study. Articles examining measurement and testing of general clinical competence and caring efficacy

were included as were quantitative and qualitative research studies of self-assessed nurse competence and caring efficacy. There was a distinct lack of studies examining the relationships between the variables competence and caring efficacy.

### **Nurse Competence**

A concept analysis of competence identified some common attributes as critical thinker, professional role model, demonstrated appropriate action, and building knowledge and skills. Likewise, some antecedents and consequences are experience, continuous learning at work, and quality care and improved performance (Valloze, 2009). Competence creates a sense of emotional involvement in the outcome and a greater sense of salience through experiential learning. Without competence, poor patient outcomes, increased errors, and the inability to make sound decisions may occur. Employers expect nurses to provide safe, effective, and quality patient care. As a result, nurse competence is important to ensuring quality nursing interventions and outcomes.

Benner (2001) conceptualized nurse competence as a nurse's experience on the job in the same or similar situations for two to three years, has more focus on clinical issues than completing tasks, views actions in terms of long-range goals or plans, anticipates certain typical progressions in patients' recovery, and is more discriminating about the performance of others on the healthcare team. Moreover, Benner et al. (2009) suggested that nurse competence is attained through a hierarchical perspective of: novice, advanced beginner, competent, proficient, and expert. Benner's work highlighted narratives and interviews of nurses where competencies from actual practice situations

emerged (Benner, 2001). These competencies were identified as exemplars and narrowed to seven domains: the helping role, the teaching-coaching function, the diagnostic and patient monitoring function, effective management of rapidly changing situations, administering and monitoring therapeutic interventions and regimens, monitoring and ensuring the quality of health care practices, and organizational and work-role competencies (Benner, 2001). These competencies highlight the complex and demanding nature of nurses' role.

### **Measurement Outcomes of Nurse Competence Using Various Scales**

Nurse competence has been analyzed using various measurement tools. There has not been any consistent standard or agreed upon measure identified to date. Many of the instruments used to measure nurse competence have been used in the United States and abroad. This section describes measurement outcomes of various nurse competence scales used from the year 2000 to present.

Kendall-Gallagher and Blegen (2009) explored secondary data ( $N = 48$  adult ICUs) to analyze and examine if there was an association between competence of ICU RNs and specialty certification in 29 hospitals. In this study, competence was based on unit rates of six adverse events, skin breakdown, medication administration errors, total falls, blood stream infections, urinary tract infections, and central catheter infections. All were annual rates per 1,000 patient days. Unit proportion of certified nurses was  $\alpha = .05$  and all other covariates were  $\alpha = .01$ . Study results revealed that the proportion of certified nurses to each competence measure was as follows: skin breakdown (positive

relationship;  $p = .07$ ), medication administration errors (inverse relationship;  $p = .03$ ), total falls (inverse relationship;  $p = .04$ ), blood stream infections (positive relationship;  $p = .04$ ), urinary tract infections (inverse relationship;  $p = .19$ ), and central catheter infections (positive relationship;  $p = .23$ ). These findings support that significant relationships existed, but varied by outcome and direction of relationship. Implications for nursing include further exploration of the specific types of certification to conceptually link specific knowledge gleaned from certification to adverse events.

Researchers used a descriptive correlational design to explore the relationship between new graduate nurses' self-perceptions and performance-based measures of clinical competence. Marshburn, Engelke, and Swanson (2009) used the assessment system, the Performance Based Development System (PBDS) to assess nurses' technical skills, problem management, and communication. For the study, nurse responses to problem management and communication were defined as performance-based competence. The Casey-Fink Graduate Nurse Experience Survey was used to measure new nurse experiences at entry to practice through transition into the professional nurse role.

For the study, professional role and patient care were defined as the scales for new nurses' perceptions of clinical competence. The sample was composed of 265 new registered nurses, the majority ( $n = 151$ ) of whom were prepared at the associate degree level. Their perceptions of clinical competence were measured by responses on the Casey-Fink questionnaire related to patient care and perceived competence. About 53%

( $n = 140$ ) of the nurses felt comfortable making changes regarding the care plan and 47% ( $n = 124$ ) were comfortable with their knowledge of caring for the dying patient. Of new nurses, 61% ( $n = 162$ ) did not meet the criteria for problem management or communication on the PDBS. The 99 new graduate nurses who met the criteria for problem management, 47% ( $n = 47$ ) possessed a bachelor science in nursing compared to 39% ( $n = 39$ ) with an associate degree. There was however, a significant difference between problem management and previous experience ( $\chi^2 = 1, p = .03, [n = 221] = 5.15$ ) for new nurses who had prior roles of licensed practical nurses, nurse externs or emergency medical technicians. Findings from this study may validate the need for nurse educators to create strategies and activities that facilitate effective transitions for new nurses into the workplace. This study helped inform about the relationship between nurse competence and performance, but no mention of how caring is related to performance and competence.

Simulation is a method that has been used to assess nurse competence. Ballangrud, Persenius, Hedelin, and Hall-Lord (2014) conducted an exploratory design study using simulation-based situations, expert raters' assessments, and nurse self-assessments to study intensive care nurses' team performance in relation to different intensive care specialties. RNs were from two specialties, general intensive care units (G-ICU) ( $n = 26$ ) and medical intensive care units (M-ICU) ( $n = 27$ ). RNs used the Mayo High Performance Teamwork Scale (MHPTS) to self-assess team performance. Ballangrud et al. (2014) identified team performance as the cognitions, behaviors, and



attitudes used by team members in crisis resource management. Team effectiveness of both teams ranged from advanced novice to competent, with the M-ICU team achieving higher scores than the G-ICU team on the expert rater assessments, while the M-ICU RNs rated their self-assessed scores lower. The G-ICU nurses had longer experience than the M-ICU. Implication for practice is a raised awareness of team performance regarding patient safety in emergencies. In addition, perceptions of ICU RN's use of simulations for team training to promote patient safety would be ideal for further investigation.

Gillespie, Chaboyer, Wallis, and Werder (2011) performed a cross-sectional study to determine if years of experience and specialty education were related to self-perceived perioperative competence for perioperative RNs. Registered nurses ( $N = 134$ ) from two large metropolitan public hospitals in Australia, completed a 98-item Perceived Competence Scale-Revised (PCS-R) to identify the different facets of knowledge, skills, and attitudes for each of eight subscales. The total scales Cronbach's alpha was 0.98, with a range from 0.89 to 0.95 for the eight subscales. Nurses with  $\leq 5$  years' experience reported lower levels of competence than that of those with 5.1 to 10 years. RNs with 5.1 to 10 years' experience reported high levels of perioperative competence in all categories except clinical leadership, professional knowledge, and coordination. Group differences were significant across all eight competence domains ( $\alpha = .05$ ) using the Kruskal-Wallis test. Although this study suggests that perioperative experience is a strong predictor of nurses' self-assessed competence, peers and leadership did not assess competence, actual behaviors and skills. These variables require further exploration.

A cross-sectional, quantitative study was conducted to explore the relationship of self-assessed competence, job demands, and job performance of Taiwanese nurses of the Kaohsiung Nurse Association (Tzeng, 2004). The nurses ( $N = 304$ ) responded to the 21 - item Questionnaire for Surveying Nurse Work Force. Results support that nurses' overall satisfaction with their self-assessed competencies was a significant predictor of job performance ( $t = 12.31, p = 0.00$ ). This finding suggests that job performance may have a relationship on professional development and nursing services provided. The implication for nursing practice is development of cost-effective and individualized training programs.

Cowan, Wilson-Barnett, Norman and Murrells (2008) developed the European Healthcare Training and Accreditation Network (EHTAN) questionnaire tool (EQT) to explore self-assessed nurse competence in the European Union (EU). Nurses ( $N = 588$ ) from five countries participated (Spain, Belgium, Greece, United Kingdom, and Germany) and used the 108-item EQT to test its psychometric properties. Internal consistency for all five countries was  $\alpha = 0.963$  for internal consistency and significant factor loading score of  $> 0.4$  for construct validity on 107 items. The EQT had eight competence domains (assessment, care delivery, communication, health promotion, personal and professional development, professional and ethical practice, research and development, and team working). Frequency of use for each domain was 1 = *never*, 2 = *occasionally*, 3 = *usually*, and 4 = *always*. Research and development was self-assessed as the lowest competence overall. Care delivery and communication were both self-

assessed as the highest competence overall. Nurse practice implications include creating an international definition for nurse competence and unified method to operationalize.

Edwards and Davis (2006) developed a study to determine the learning needs of internationally educated nurses' perceived competence in a specific set of clinical performance areas that reflect U.S. nursing program outcomes. International nurses (N = 3,205) from Nigeria ( $n = 96$ ), Philippines ( $n = 1,923$ ), India ( $n = 962$ ) and Other ( $n = 224$ ) completed the Commission on Graduates of Foreign Nursing Schools (CGFNS). The CGFNS was designed to predict the success of international nurses on the U.S. licensure examination and meet the requirements for obtaining an occupational visa to practice nursing. Following completion, the nurses voluntarily completed the Clinical Competency Survey and the CGFNS examination site. The Clinical Competency Survey is an assessment tool designed specifically for this study to measure nurses' perceptions of their proficiency in several dimensions that are expected for safe and effective nursing practice in the United States. The survey was in two parts, whereby Part II contained 77 clinical competency statements reflecting multiple aspects of U.S. nursing practice. The statements were arranged in nine dimensions (managing cardiac patients, performing treatments, administering medications, managing patient care, using nursing processes for care planning, using technology, managing pain, performing assessments, and managing pain). Nurse participants were asked to rate their perceived competence on 7-point Likert scale, with 1 = *limited proficiency* and 7 = *highly proficient*. Participants perceived they were less proficient in the areas of medication administration (Mean = 5.37) and

management of cardiac patients (Mean = 4.94). The lowest perceived proficiency was using computerized medication delivery (Mean = 3.82). These findings indicated that international nurses needed extensive assistance with medication administration and technology when entering U.S. nursing practice. There is no mention in this study of how caring is perceived by international nurses and how it fits into their nursing practice.

Danish researchers used a qualitative, Gadamerian framework to explore how proficient nurses experience their nursing practice (Uhrenfeldt & Hall, 2007). Danish nurses ( $N = 10$ ) participated in the study with criteria of inclusion as possessing a bachelor's degree and a minimum of two years' experience in their current position. Audio recordings of two semistructured interviews took place one month apart. Emerging themes were the ability to think critically and with ethical discernment, to act and practice responsibly, and applying thinking and knowledge to specific acts of care. Findings support Benner et al. (2009) understanding of decision-making skills that include compassion relationships, tact, silence, dignity, and forming caring relationships. This study suggests that forming caring relationships was a component of ethical discernment of proficient nurses in their clinical decision-making. These caring relationships showed in the actions by nurses regarding their skills, preparation, and professional collaboration.

## **Measurement Outcomes of Nurse Competence Using the Nurse Competence Scale (NCS)**

The Nurse Competence Scale (NCS) is a measurement instrument designed to allow nurses to assess and consider their individual nursing practice within their own environments and identify strengths and opportunities to improve through their personal self-assessment. The NCS has been used in several Finland studies and in the United States. This section describes the use of the NCS and its outcomes from the year 2000 to present.

A critical care nurse is a registered nurse in the intensive care unit who provides direct patient care, teaching, advocacy, leadership, and physiologic stability for seriously ill and injured patients (Nolan & Murphy, 2006). O’Leary (2012) conducted a quantitative, descriptive design study ( $N = 101$ ) to identify and address the self-assessed competence of critical care nurses in a tertiary care facility using the Nurse Competence Scale (NCS). The overall frequency of use of competencies identified as “used occasionally” and “used often” was 79%. Participants scored 56% in the competence category of Excellent (VAS = 75 – 100). The study also identified a significant correlation between the total NCS score and nursing experience,  $P < 0.05$ . Overall, nurses with more experience rated their self-assessed competence higher. O’Leary (2012) identified implications for nursing included future studies that focused on self-assessed nurse competence and other background factors affecting experience.

A descriptive study by Salonen, Kaunonen, Meretoja, and Tarkka (2007) analyzed newly licensed RNs' perceptions of competence, frequency of use of competencies, and factors influencing perceptions. RNs ( $N = 147$ ) from the intensive and emergency care settings used the NCS to self-assess nurse competence. Nurses assessed their overall nurse competence as good (VAS = 56.0). Results showed that 70% ( $n = 97$ ) of the 139 competence categories were used frequently (occasionally or very often). Several factors were shown to correlate with perceptions of competence, such as age ( $p = 0.001$ ), current work experience ( $p = 0.001$ ), and advanced preceptor appointed ( $p = 0.000$ ). Implications for nursing include development of preceptorship practices and long-term mentorship relationships.

One of the criteria for a nursing specialty is defined competencies for the area of specialty nursing practice (American Nurses Association, 2010). According to the American Board of Nursing Specialties (2005), more than 50 nurse specialties exist in the United States (US). As such, every RN in the US practice in a specialty area. Initial RN licensure is a static test of knowledge that is a baseline indicator of a nurse's ability to do a job (Brazen, 2008). The plethora of nursing specialties dictates that RNs have specialty knowledge and education acquired in a specialty beyond that of basic licensure (Gillespie, Chaboyer, Wallis, & Werder, 2011). Unfortunately, very few studies have examined self-assessed nurse competence in the US and its implications for nursing practice in the 21st century. In addition, only a small number of studies have examined this concept outside of the US during this period.

Meretoja, Leino-Kilpi, and Kaira, (2004) analyzed the self-assessed nurse competence of RNs ( $N = 498$ ) in Finnish University Hospital. The sample represented nurses from medical – surgical, emergency/outpatient, intensive care, and operating room. The nurses rated their VAS competence levels as good, with mean levels in all categories ranging from 55 to 69. Nurses considered their levels of competence greatest in the areas of skills and tasks, in the categories of Managing situations, Helping role, and Diagnostic function. Nurses considered their levels of competence least in Ensuring quality. Nurses working in different work environments rated their levels of competencies differently between categories. Ward nurses rated their competence levels lower in Managing situations (VAS mean 65.8) than operating and emergency room nurses who rated their competence levels in this category higher (VAS mean 71.2 and 71.8, respectively). Results identified positive correlations between self-assessed competence and work experience, highest in intensive care and lowest in emergency/outpatient areas. The implication for nursing practice is the realization that the scope of competent practice depends on the contextual competencies of the specialty area.

Hamstrom, Kankkunen, Suominen, and Meretoja (2012) used a cross-sectional design to examine nurse competencies in the ambulatory care practice setting. The study recruited RNs ( $N = 84$ ) in six ambulatory surgery units in six different hospitals in Finland. Overall level of nurse competence was good (VAS mean 57.4). Levels for all seven categories ranged from VAS 51.5 to 64.6. Nurses rated their highest competence

sub-category as mastering the content of patient education (Teaching/coaching category, VAS 84.7) and use of competency as “*very often*” for this category as 93.9%. Nurses rated their least competence sub-category as professional identity serves as resource in nursing (Work role category, VAS 76.7) and use of competence as “*very often*” for this category as 80.0%. Nurses with greater than ten years’ experience assessed a higher level of competence to managing situations ( $p = .036$ ), helping role ( $p = .007$ ), ensuring quality ( $p = .043$ ), and work role ( $p = .021$ ). Logic follows that nurses in this setting would have the highest frequency and self-assessed rating of competence due to rapid nature of recovery and discharge. Implications for nursing practice include leadership assessment of nurse competencies systematically and frequently to match patient needs and to ensure quality patient care.

Researchers used the NCS and the Hospital Ethical Climate Survey (HECS) to examine if newly graduated nurses’ (novice nurses) perceptions of the ethical climate of their work environment was associated with their self-assessed professional competence and other work factors (Numminen, Leino-Kilpi, Isoaho, & Meretoja, 2015). A cross-sectional, correlational methodology was used to analyze the responses of nurse members of the Finnish Nurses Association ( $N = 318$ ). The correlation between nurses’ ethical environment and professional competence was moderately positive ( $r = 0.307, p < 0.001$ ). Values noted as statistically significant were  $p \leq 0.05$  and  $\alpha = 0.05$ . The strongest positive correlations were noted amongst managers ( $r = 0.199, p < 0.001$ ), hospitals ( $r = 0.234, p < 0.001$ ), and physicians ( $r = 0.307, p < 0.001$ ). Weaker, but significant,



correlations were noted amongst patients ( $r = 0.168, p = 0.004$ ) and peers ( $r = 0.170, p = 0.003$ ). In addition, the main effects of ANOVA suggested that nurses at higher competence levels perceived positive ethical climates (mean: 3.98) than nurses at lower competence levels (mean: 3.71). Implications for nursing practice include opportunities for nurse leaders to focus on issues in creating positive ethical environments and creating interventions that promote those environments.

Various instruments have been used to measure nurse competence. Most have measured the association between competence and performance and/or experience. Many of these nurse competence tools were designed for the research study highlighted that further testing was needed to validate and generalize findings. The NCS has been used in multiple studies in the United States and other countries to identify self-assessed nurse competence. Multiple specialty areas such as intensive care, medical-surgical, emergency department, operating room, and ambulatory care have been represented in studies regarding performance and experience using the NCS. Study results using the NCS overwhelmingly support that nurses with higher levels of experience frequently assess higher levels of competence.

### **Caring**

Caring is based on what matters to an individual and the conscious or unconscious actions that follow that which matters (Edwards, 2001). The encounters between nurses and clients are guided by one's value system and philosophy of caring. A caring attitude is not passed down via genes, from generation to generation. Caring attitudes are

developed and transmitted by the culture of the nursing profession as a means of coping with its environment (Smith et al. 2013). Watson believes that caring relationships depend on the nurse's ability to embrace the patient's frame of reference and create a healing environment (Sitzman & Watson, 2013). Watson framed specific *ontological/caring competencies* that aim to deepen nurses' ways of cultivating having a healing presence. Some of these competencies include 1. ability to center, quiet down and pause before entering a client's room; 2. ability to be present; 3. maintain appropriate eye contact based on personal/cultural sensitivity; 4. accurately detect other's feelings; and 5. authentically listen/hear behind the words (Watson, 2008). These competencies are not all inclusive. Watson recommended that the nursing profession continue to explore models for *ontological/caring competencies*. Within this framework of competencies, nurses should remember they are not just in the environment. They *are* the environment (Watson, 2008).

According to Benner (2003), caring creates conditions of possibility to give and receive help. In addition, caring creates conditions for trust in caring relationships that enables the person cared for to appropriate the help offered. It is imperative for nurses to understand that they must appreciate what patients care about and understand patient's own interpretation of their predicament to create a healing environment. It is also imperative for nurses to understand their own beliefs and attitudes toward expressing caring orientations in the health care environment. Caring efficacy is the underlying

cognitions, attitudes, and behavioral practices nurses need to express caring orientation and develop caring relationships with patients (Coates, 1997).

### **Measurement Outcomes of Caring Using Various Scales**

Caring in nursing has been analyzed using various measurement tools. There has not been any consistent standard or agreed upon measure identified to date. Many of the instruments used to measure caring have focused on nurses' self-assessed caring behaviors and abilities that require patient ratings of each. The Caring Efficacy Scale (CES) measures a nurse's confidence in his or her ability to create caring relationships, separate from patients' evaluations of this ability. This section describes measurement outcomes of various caring scales used from the year 2000 to present.

Tanking (2010) designed a two-group exploratory study to investigate if perceived caring behaviors of nurses differed from patient perceptions. Nurses and patients from two Midwestern rural hospitals in the US responded to the study for participation. The participants completed the Caring Behavior Inventory ( $\alpha = 0.96$ ), a 42-item survey of the following five subscales: a) respectful deference to other, b) assurance of human presence, c) positive connectedness, d) professional knowledge and skill, and e) attentiveness to other's experience. It is important to note that the nurse sample ( $n = 85$ ) consisted of registered nurses and licensed practical nurses (LPN). It is unclear how many total RNs participated in the sample. Findings revealed no significant differences perceived caring behaviors of nurses and patients. Nurses scored highest in a) respectful deference to other ( $M = 5.76$ ), b) assurance of human presence ( $M = 5.69$ ), and d)

professional knowledge and skill ( $M = 5.59$ ). Their scores were lower in c) positive connectedness ( $M = 5.46$ ), and e) attentiveness to other's experience ( $M = 5.45$ ). This finding suggests the nurse participants have opportunities for increasing their awareness of appreciation for what patients care about and understanding patient's own interpretation of their predicament to create a healing environment. As the sample included LPNs as well as RNs, there remains an important practice implication for academia and healthcare organizations to teach the ethic of caring and assess caring competence and efficacy.

Researchers developed the Caring Behaviors Inventory (CBI) to validate the context of caring behaviors among nurses and patients (Wu, Larrabee, & Putman, 2006). The CBI was a 24-item, Likert scale tool measuring four dimensions of caring: professional knowledge and skill, assurance of human presence, respectful deference to other, and positive connectedness. Overall CBI index internal consistency for patients and nurses was  $\alpha = .96$ , with a high test-retest reliability,  $r = .96$ . The four subscales  $\alpha$  value ranged from .82 to .92. Patients'  $\alpha$  values were similar to nurses  $\alpha$  values. The nurse sample ( $N = 42$ ) from medical, surgical, and intensive care step down units in an academic medical center hospital in northern West Virginia, completed the survey. The CBI-24 scale demonstrated significance in correlation with patient satisfaction scores ( $r = .62$ ), moderate correlations with patient characteristics of age ( $r = .23$ ), satisfaction with life ( $r = .19$ ), education ( $r = -.11$ ), and pain level ( $r = -.11$ ). Implications for practice includes expanding the clinical

environment and geographical location to confirm reliability and evaluate the effectiveness of intervention studies.

The Caring Behaviors Inventory (CBI) was also used to measure caring behaviors of nurse practitioners (NP). Nurse Practitioners ( $N = 140$ ) were recruited from the membership of the Illinois Nurses' Association Council of NPs. Overall CBI index internal consistency for patients and nurses was  $\alpha = .96$ , with a high test-retest reliability,  $r = .96, p < .001$ . The four subscales  $\alpha$  value ranged from .82 to .92 (Brunton & Beaman, 2000). The most frequently reported caring behaviors and mean response rates (of possible score of 6) were appreciating as a human being ( $M = 5.86$ ), showing respect ( $M = 5.83$ ), being sensitive ( $M = 5.82$ ), talking with the patient ( $M = 5.79$ ), and maintaining confidentiality ( $M = 5.76$ ). The mean value of items with the five dimensions of caring ranked as 1) respectful deference to others ( $M = 5.60$ ); 2) assurance of a human presence ( $M = 5.35$ ); 3) positive connectedness ( $M = 5.13$ ); 4) professional knowledge and skill ( $M = 5.14$ ); and 5) attentiveness to the other's experience ( $M = 3.94$ ). Measures of age, length of time as NP, subscale scores, and total scores were variables of the NPs and their perception caring behaviors. The respondents' length of time as NP was shown to have a significant correlation to positive connectedness ( $r = .186, p = .041$ ). These findings support the emphasis of interpersonal principles of the advanced practice model. Implications for practice include ensuring that NP roles are validated by the documentation of competencies that embrace caring behaviors. Research implications are

developing specific instruments to measure NP and patient perceptions of NP caring behaviors.

Nkongho's (2009) Caring Ability Inventory (CAI) was a tool designed to describe how the caring subscales, knowing (14 items), patience (10 items), and courage (13 items) were experienced by practicing nurses. The 37-item scale  $\alpha$  for each subscale ranged from .71 to .84 and test-retest  $r$  ranged from .64 to .80 (Pross, Boykin, Hilton, & Gabuat, 2010). The CAI used ranges of low, medium, and high to measure the subscales. Registered nurses ( $N = 151$ ) from a 194-bed acute care facility completed the survey. The resulting  $\alpha$  values were .65 for courage, .73 for patience, and .77 for knowing. The total CAI was .82. Significant correlations were identified for the three subscales ( $R = .01$ ). The correlations between knowing and patience were positive ( $R = 0.69$ ). In contrast, the correlations between knowing and courage and courage and patience were negative,  $R = -0.33$  and  $R = -0.24$  respectively. Practice implications highlight opportunities for nurses to know self and others as caring when in engaging in a caring culture throughout the organization. In addition, organizational leaders have the opportunity to revisit their nursing philosophies and principles to include specific aspects of caring.

### **Measurement Outcomes of Caring Efficacy Using the Caring Efficacy Scale (CES)**

The CES is a measurement instrument designed to allow nurses to assess their confidence in their ability to develop caring relationships and caring orientations their personal self-assessment. The CES has been used in several studies in the United States

to describe associations of caring efficacy and communication and job satisfaction. This section describes the use of the CES and its outcomes from the year 2000 to present.

Betcher (2010) developed a project designed to improve the communication skills of nurses and to enhance effective communication for palliative care patients and families. The CES was used to evaluate whether nurses would perceive themselves as more caring with palliative care patients and families by learning how to effectively communicate with compassion. The project included a 45-minute didactic lecture on communication techniques, simulation, discussion, and role-playing. Nurses ( $N = 8$ ) from the palliative program of a 208-bed hospital in the United States participated. Pre- and post-assessments of caring efficacy were measured with CES. Results of the project revealed an average 11% increase in caring efficacy scores after the education program. Individual items on the scale increased 5% – 37%. The overall project was time consuming and did not lend itself to continue in the format presented. As a result, a DVD was created for educational purposes to help improve the communications skills of nurses in the specialty. Practice implications for this project are creating and evaluating innovative development programs for nurse communication and evaluating nurses' caring efficacy of those programs.

In another study, a methodological triangulation descriptive design was used to evaluate caring perceptions of nurses after receiving Reiki energy therapy as a self-care practice (Brathovde, 2006). Reiki is a hands-on energy therapy, facilitated by light touch believed to balance a recipient's energy field and help the body heal itself. A convenience

sample of twelve mental health professionals, 60% of which were RNs ( $n = 7$ ) were given a 1 ½-hour educational presentation introducing Reiki energy therapy as a self-care practice. Pre- and post-assessments of caring efficacy were measured with CES. Study results revealed a -7.9% to 100% change in pre-Reiki and post-Reiki training CES scores ( $p = .028$ ). Significant change was noted to be  $> 25\%$ . Eleven of the 30 questions showed significant change. An important nursing implication for practice identified was the relationship between caring behaviors and nurses before the self-care training activity and their feelings of the activity can be linked to improvements in their ability to provide quality care.

Amendolair (2012) used a descriptive correlation survey design to examine nurses' perceived ability to express caring behaviors with job satisfaction. Medical-surgical RNs ( $N = 1,091$ ) from acute care hospitals in the US completed the CES and the Index of Work Satisfaction Scale (IWS) to explore if there was a relationship between caring behaviors and job satisfaction. Job satisfaction in this study meant how nurses felt about their work. Positive feelings meant job satisfaction and negative feelings meant job dissatisfaction. Study findings suggest a statistically positive correlation between caring efficacy and job satisfaction ( $r = 0.276, P < .01$ ). Thus, nurses who rated their caring efficacy higher, have greater job satisfaction. Practice implications include creating environments that are conducive to caring, thus improving job satisfaction and improving patient outcomes.



Carter et al. (2008) developed a descriptive, comparative design study to investigate staff nurses ( $N = 54$ ) and patients' perceptions of caring in a 36-bed medical unit. Study authors used the CES to measure the nurses' belief in their ability to develop caring relationships and express a caring orientation with patients. The Client Perception of Caring Scale (CPC) was administered to patients ( $N = 60$ ) to measure patients' responses to nurses' caring behaviors. The CPC ( $\alpha = .81$ ) is a 10-item, six-point rating scale. The scores range from 10 to 60, with higher scores indicating higher levels of perceived caring behaviors demonstrated by the nurse. CES scores ranged from 4.50 to 5.90 ( $M = 5.18$ ) on a six-point scale. Higher scores indicated a greater perception nurse caring efficacy. The CPC scores ranged from 39 to 60 ( $M = 54.68$ ). Higher scores indicated a greater perception of nurse caring behaviors seen from the patients' perspectives. Study findings suggest high levels of caring perceived by both patients and nurses. The study opened the opportunity for caring consciousness, transpersonal connection, and the authentic presence of the nurse. Nurse leaders in healthcare organizations may find it valuable to assess their unit's caring environment through nurse self-assessments of caring efficacy.

Various instruments have been used to measure caring in nursing. A few have measured the association between perceived nurse caring behaviors and patients' perceptions of nurses' caring behaviors. The current literature is lacking research that examines nurses' perceptions of competence and caring. Many of these caring tools were designed for the research study highlighted and further testing is needed to validate and

generalize findings. The CES has been used in multiple studies in the United States to identify self-assessed caring efficacy. Specialty areas such as palliative care and medical-surgical have been represented in studies using the CES. Study results using the NCS overwhelmingly support that nurses with higher levels of caring efficacy frequently assess higher job satisfaction, communication, and self-care.

### **Summary on Competence and Caring**

The relationship between competence and caring continues to be elusive. Competence in nursing is a prerequisite for improved patient outcomes, minimized errors, and the ability to make sound clinical decisions. Caring is proposed to be a requisite of the development of critical thinking (Edwards, 2001; Benner et al., 2009). Several nursing exemplars demonstrate the caring practices of nurses (Benner, 2000). These exemplars include nurse stories of bringing dying patients back from isolation into a social world, engaging patients in rituals to help manage chronic disease, and using play therapy for families to reduce tension and conflict about the unacceptable prognosis of a child. Each of these exemplars demonstrate nurses' competencies in clinical decision-making as well as their caring efficacy and practices. Unfortunately, a lack of quantitative studies exists on a hypothesized relationship between self-assessed nurse competence and caring efficacy.

Review of the previous studies indicated gaps in the literature identifying relationships between self-assessed nurse competence and caring efficacy that also identify the impact of certification on the two variables. Literature was non-existent for identifying links between nurse competence and caring efficacy. Further research and investigation was necessary to determine if nurse competence and caring efficacy were relational and determine whether there was an effect of specialty certification.

### CHAPTER III

#### PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A cross-sectional non-experimental research survey design was used to measure the relationship between self-reported nurse competence and caring efficacy of practicing RNs. Nonexperimental cross sectional surveys have provided a useful mechanism for gathering data on descriptive characteristics allowing for assessment of key nursing characteristics such as nurse competence and caring efficacy. Because little is known about self-appraised nurse competence, caring, and the potential impact of education, years of nursing experience, specialty certification, or job role, this study proposes to identify future needs for professional and educational development programs in academia and in the workplace.

#### **Setting**

The research instruments were placed online using the PsychData survey software tool. An internet link was established and provided to potential participants. Once a participant logged onto the survey and consented to participate, they were assigned a coded ID number.

Nurses were recruited via membership through key nursing associations, including Sigma Theta Tau International (STTI), the American Academy of Ambulatory Care Nursing (AAACN), the American Association of Critical Care Nurses (AACN), the Academy of Medical-Surgical Nurses (AMSN), the American Nurses Association (ANA), and Texas Nurses Association (TNA). These organizations provided ready access to large nursing populations. The PI contacted the primary point of contact for each nursing organization, via email to explain the study. The organizations and nurse members were recruited via email online community forums (AMSN – The Hub), weekly e-newsletter (TNA Check-Up), and online Special Interests Groups (SIG). Those who chose to participate were provided a PsychData link. When the response from these organizations failed to produce a large enough sample, administrative leadership of the Department of Veteran's Affairs, DeBakey VA Hospital agreed to allow participation of their nurses.

### **Population and Sample**

The population for this non-experimental investigation were registered nurses. Inclusion criteria for participants were currently licensed registered nurses who were actively practicing in a clinical setting and involved in direct patient care at least 50% of

the time. A convenience sampling technique was used. Sample size was determined using guidelines for the minimum number of participants required for a reliable multiple regression to be conducted. The desired sample size to support the planned multiple regression analysis was 160 to 200. A G\*power analysis determined that a sample size of 135 to 228 was needed for a power of 0.80, an alpha of 0.05, and a presumed low-moderate to moderate effect size.

A total of 413 nurses accessed the PsychData link to the survey. A total of 224 cases were lost during the data collection process. PsychData automatically excluded forty-seven potential participants for failure to meet study inclusion criteria. Another 39 were eliminated when they opted not participate after accessing the site. One hundred thirty-seven cases were eliminated when participants failed to answer any items on one or both study instruments. The final useable sample was 189.

### **Protection of Human Subjects**

The Institutional Review Board (IRB) at Texas Woman's University and Baylor College of Medicine (BCM) approved this study (see Appendix A). Participant identities were not recorded or disclosed to the investigator and no personal identifiable information was collected. Informed consent was received when the participant logged onto the PsychData online collection site and proceeded to the survey section.

### **Instruments**

Three instruments were used to collect data for this study, the demographic data form, the Nurse Competence Scale, and the Caring Efficacy Scale. Each discussed below.

## **Demographic Data Form**

A demographic data form was developed to collect personal and professional data on all participants to describe age, gender, level of education, role, years of nursing experience, and specialty certification (see Appendix B).

## **Nurse Competence Scale**

The NCS, guided by Benner's competency framework, is a 73-item scale with seven subscales designed to allow nurses to consider their practice within their own environment, gain insight into their practice to identify strengths and opportunities, and improve practice through self-assessment (see Appendix C). Benner's (2001) description of the seven subscales are: helping role (seven items that measure a nurse's ability to create a climate that establishes a commitment to healing); teaching-coaching function (16 items that measure a nurse's ability to skillfully teach and coach patients to cope with illness and mobilize for recovery); diagnostic functions (seven items that measure a nurse's ability to recognize and document significant changes in a patient's condition); managing situations (eight items that measure a nurse's ability to grasp emergency problems quickly, intervene appropriately, and mobilize the help available); therapeutic interventions (10 items that measure a nurse's ability to skillfully perform procedures and accurately administer medications while monitoring untoward effects and therapeutic responses); ensuring quality (six items that measure a nurse's ability to ensure safe medical and nursing care); and work role (19 items that measure a nurse's ability to

coordinate multiple patient needs, set priorities, build therapeutic teams, and cope with staff shortages and turnover).

The NCS has been used in multiple studies in the United States and other countries to identify self-assessed nurse competence. The Nurse Competence scores range from zero (very low level) to 100 (very high level) in level of competence for each of the 73 items. Individual overall VAS-scores were calculated as the mean value of the average competencies for the seven competence categories (Meretoja et al., 2004). Frequency of use in clinical practice is also recorded for each item and is indicated on a four-point scale range from no use to frequent use.

Content validity and construct validity have been examined for this instrument (Meretoja et al., 2004). Reliability levels for the NCS have been reported across several studies with Cronbach alphas range from 0.75 to 0.92 on the seven subscales. (Meretoja et al., 2004; Numminen et al., 2015). The Cronbach alphas calculated on the seven competence categories for this study ranged from 0.86 to 0.97. A Cronbach alpha of 0.98 was also calculated for the total NCS scale in this study. These values are consistent with those reported in the literature and reveal a consistent pattern of reliability for the NCS scale and subscales.

### **Caring Efficacy Scale**

The CES is a 30-item Likert-type instrument guided by nursing caring and social psychology theories (see Appendix D). The CES was designed to identify a nurse's confidence in his or her ability to develop caring relationships and express a caring

orientation with clients. Each item is scored on a 6-point scale ranging from strongly disagree (-3) to strongly agree (+3). Validity has been assessed using content and concurrent methods (Coates, 1997). Reliability on the CES has been reported with Cronbach's alpha ranging from 0.85 to 0.88 (Coates, 1997). In the current study, the Cronbach alpha was 0.86.

### **Data Collection**

After approvals from the Institutional Review Boards at TWU and BCM, permission confirmations from the nursing organizations and DeBakey VA Hospital were obtained, data collection began. Data were collected via PsychData®, an online survey software that allows researchers to author, distribute, and collect data on the web. PsychData® has specific features pertinent to academic research with strict security policies and procedures that exceed industry standards for internet security and IRB policy for protection research participants (PsychData, n.d.). The estimated time to complete the surveys was 30 minutes. The investigator emailed a letter of intent for the study to the prospective point of contacts at each nursing organization (Appendix E). The letter explained the study and procedure for completing the electronic survey. The investigator requested the membership email lists from each organization to email the surveys to members. The primary points of contact for AMSN and TNA posted the letter explaining the study to their online community forums (AMSN – The Hub) and the weekly e-newsletter (TNA Check-Up), respectively. The investigator emailed each member directly on the email lists received from each organization. In addition, the



investigator posted the letter of intent and surveys to the nursing organizations' community discussion boards and SIGs to capture additional respondents. The investigator sent subsequent emails to all potential participants every fifteen days to serve as a reminder and increase response rate. In addition, the initial and reminder email communications informed each participant of the chance to participate in seven, \$200 electronic gift card drawings upon completion of the survey and data analysis, by redirecting the participant to a separate site to include his or her email address. The survey link was available to participants for a 11-month period, February 2017 to January 2018.

When the data collection failed to yield a sufficient number of participants, the investigator emailed a letter of intent that explained the study and procedure for completing the electronic surveys to six RN email distribution lists in DeBakey VA Hospital (see Appendix F). The investigator sent subsequent emails to all potential participants every seven days to serve as a reminder and increase response rate. The VA Hospital is a federal government organization and does not permit financial incentives for staff participation in research. The survey link was available to participants for a three-month period, November 2017 to January 2018.

### **Treatment of Data**

Statistical Package for Social Sciences (SPSS) version 25.0 software was used to code and analyze the data. Appropriate descriptive statistics were run on the demographic data sample. Frequencies and percentages were used to describe gender, education, job

role, and specialty certification. Mean and standard deviation were used to describe the characteristics of age and years of nursing experience. Hierarchical multiple regression was used to address the research questions. Correlations were also run to compare frequency of use versus perceived competence on the seven subscales of the NCS.

## CHAPTER IV

### ANALYSIS OF DATA

The purpose of this non-experimental research study was to examine the relationship between competence and caring efficacy of practicing RNs while controlling for effects of extraneous variables, level of nurse education, nursing experience, specialty certification, and job role. A final convenience sample of 189 registered nurses from six nursing associations and the Department of Veteran's Affairs, DeBakey (VA) hospital was used in the analysis. A description of sample characteristics, study variables, and presentation of study findings are represented in this chapter.

#### **Description of the Sample**

All data were collected using the online PsychData platform. The survey contained a demographic data form, CES and NCS. Of the 413 participants who accessed the online survey toll, 189 met the inclusion and exclusion criteria and completed both instruments. Descriptive statistics were used to describe the sample and to compare VA and nursing association participants. Tables 1 and 2 summarize participant characteristics.

Table 1  
*Frequencies of RN Demographic Characteristics by Group*

Variable	Total RNs ( <i>N</i> = 189)		Nsg. Assoc. RN ( <i>n</i> = 125)		VA RNs ( <i>n</i> = 64)	
	F	%	F	%	F	%
Gender						
Female	167	88.4	114	91.2	53	82.8
Male	22	11.6	11	8.8	11	17.2
Age (in years)						
25 – 34	31	16.3	24	19.2	7	11.1
35 – 44	44	23.3	27	21.6	17	26.6
45 – 54	55	29.0	34	27.2	21	32.8
55 and over	58	31.1	40	36.0	19	29.8
Highest Education Degree						
BSN	101	53.4	60	48.0	41	64.1
MSN	50	26.5	34	27.2	16	25.0
ADN	20	10.6	18	14.4	2	3.1
DOCTORATE	10	5.3	6	4.8	4	6.3
OTHER	8	4.2	7	5.6	1	1.6
Specialty Certification						
Yes	108	57.1	73	61.8	32	50
No	81	42.9	49	39.2	32	50
Experience (in years)						
5 or less	40	21.1	32	23.7	8	12.6
6 – 10	28	14.9	23	18.4	5	8.0
11 – 15	15	7.8	6	4.8	9	14.2
16 – 20	27	9.0	14	11.2	14	21.9
20 and over	100	53.8	54	43.2	35	54.6
Practice Setting						
Other	90	47.6	59	57.2	31	48.5
Ambulatory	43	22.8	31	24.8	12	18.8
Med/Surg	37	19.6	22	17.6	15	23.4
Critical Care	19	10.1	13	10.4	6	9.4
Role						
Staff Nurse	125	66.1	89	71.2	36	56.3
Other	25	13.2	13	10.4	12	18.8

Charge Nurse	20	10.6	9	7.2	11	17.2
Nurse Practitioner	19	10.1	14	11.2	5	7.8

The great majority of participants in the total sample were female with a wide age range (25 – 71) and a mean age of 46.9 years. Most held a bachelor’s degree in nursing, were certified in a specialty area, and worked as staff nurses. The three most popular areas of practice were ambulatory care, medical-surgical care, and critical care. Other reported areas were wide ranging with no more than five in any given area and included such areas as emergency care, mental health, cardiology, surgery, obstetrics, transplant, and long-term care. The participants reported an average of eighteen years of experience and six years in their current position. The characteristics of the 64 participants from the VA and the 125 participants from the six professional organizations were similar across all the descriptive variables. There were more males in the VA sample and the VA participants were slightly older and had more experience. The VA nurses also held slightly more BSN degrees and fewer certifications. However, there were no significant differences between the two cohorts on any of the descriptive characteristics.

Table 2

*Means and Standard Deviations of RN Demographic Characteristics by Group*

Variable (in years)	Total RNs (N = 189) Range M (SD)	Nsg. Assoc. RNs (n = 125) Range M (SD)	VA RNs (n = 64) Range M (SD)
Age	25 – 71 46.90 (11.17)	25 – 71 46.62 (11.88)	25 – 63 47.45 (9.7)

Experience	0 – 42 18.16 (12.00)	0 – 42 17.34 (12.74)	1 – 40 19.74 (10.33)
Time in Current Position	1 – 38 6.40 (6.87)	1 – 38 6.52 (7.57)	1 – 26 6.15 (5.27)

Data collected on the two scales was also analyzed descriptively (see Table 3). The CES's 30-item scale measured the participants caring efficacy and was scored on a 6-point scale ranging from strongly disagree to strongly agree and contains 23 positively worded and seven negatively worded items (Coates, 1997). After negative items were

Table 3  
*Means and Standard Deviations of CES and NCS*

Variable	Total RNs ( <i>N</i> = 189) Range M (SD)	Nsg. Assoc. RNs ( <i>n</i> = 125) Range M (SD)	VA RNs ( <i>n</i> = 64) Range M (SD)
Total CES	3.23 – 6.00 5.28 (.51)	3.23 – 6.00 5.30 (.51)	3.90 – 6.00 5.25 (.51)
Total NCS	3.48 – 99.00 84.36 (16.26)	17.74 – 98.92 86.05 (12.33)	3.48 – 99.00 81.11 (21.68)
Manage	3.25 – 100.00 85.45 (17.88)	3.75 – 99.25 86.64 – (15.07)	3.25 – 100.00 83.13 (22.34)
Teach	3.60 – 99.20 85.07 (17.54)	3.60 – 99.20 86.44 (14.72)	4.33 – 99.13 82.41 (21.92)
Work	3.58 – 100.00 84.93 (16.62)	23.58 – 99.00 86.75 (12.00)	3.58 – 100.00 81.46 (22.78)
Therapeutic	3.11 – 99.22 84.89 (17.44)	13.00 – 99.22 86.62 (14.74)	3.11 – 99.00 81.53 (21.51)
Diagnostic	3.00 – 99.29 84.20 (18.72)	3.57 – 99.29 85.40 (16.48)	3.00 – 99.14 81.86 (22.43)
Help	3.25 – 100.00 83.55 (18.11)	3.25 – 99.00 84.31 (15.69)	3.75 – 100.00 82.07 (22.16)

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Quality	3.33 – 100.00 81.61 (17.95)	28.17 – 99.83 83.76 (13.42)	3.33 – 100.00 77.49 (24.00)
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were reversed, the 30 items were added together and averaged producing a scale score for overall caring with a possible range from 1 (low caring) to 6 (high caring). Nurses' overall scores indicted a very high level of caring efficacy that was unaffected by setting.

The NCS measured the participants' self-reported competencies across 73-items grouped into seven subscales. Possible scores ranged from zero to 100. Individual overall NCS scores were calculated as the mean value of the average competencies for the seven competence categories (Meretoja et al., 2004). Nurses' overall NCS mean scores indicated a very high level of self-reported competence across all subscales.

### **Findings of the Study**

This section presents the findings for the two research questions. Research question one examined the relationship between self-assessed nurse competence and caring efficacy of practicing registered nurses. Research question two examined if the level of education, years of nursing experience, specialty certification, or job role served as confounding variables in the relationship between competence and caring efficacy of practicing registered nurses. A hierarchical multiple regression was used to assess the relationship between nurse competence and caring efficacy while controlling for the

possible influence of variables, level of education, years of nursing experience, specialty certification, and job role.

Preliminary analyses that were conducted to check for violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity revealed a problem with multicollinearity among the seven nurse competence subscales. Simple correlations between the various subscales ranged from .85 to .93. The two subscales with the highest beta weights in the initial regression run (teaching-coaching and diagnostic functions) were retained and the other five competence subscales were dropped from the regression analysis. A subsequent hierarchical regression analyses resolved the multicollinearity issues. Nursing experience, specialty certification, job role, and education were entered at step one and accounted for 1.9% of the variance in caring. At Step Two, teaching-coaching and diagnostic functions were added, and the total variance explained by the model was 19.5%,  $F(6, 182) = 7.33, p < .001$ . Nurse competence (teach and diagnostic) explained an additional 17.6% of the variance in caring, after controlling for four variables in step one competence,  $R$  squared change = .176,  $F$  change  $(2, 182) = 19.86, p < .001$ . In the final model, only the diagnostic and teaching subscales were statistically significant with the diagnostic subscale recording a higher beta value (beta = .24,  $p < .001$ ) than the teaching subscale score (beta = .20,  $p < .001$ ). Table 4 presents the hierarchical multiple regression model summary.

Table 4  
*Model Summary*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error Estimate	R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change
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1	.137 <sup>a</sup>	.019	-.003	.51413	.019	.883	4	184	.475
2	.441 <sup>b</sup>	.195	.168	.46836	.176	19.857	2	182	.000

a. Predictors: (Constant), Role nurse, Specialty Certification, Experience, Educ level

b. Predictors: (Constant), Role nurse, Specialty Certification, Experience, Educ level, diagnostic, teach

c. Dependent Variable: Caring

A third multiple regression was used to determine whether institution played any part in explaining caring efficacy. Institution was entered as Step One, the four control variables at step two, and the two competence subscales at step three. Institution was not a significant factor and played no part in the final results.

Thus, the final results revealed a high level of caring and competence reported by this sample of practicing registered nurses with a moderate, positive relationship between self-assessed nurse competence and caring-efficacy. Potential confounding variables such as level of education, years of nursing experience, specialty certification, job role, or institution had no effect on this relationship.

### Post-Hoc Analyses

This study also explored the connection between self-reported nurse competencies across the seven subscale categories and the frequency of use of those nurse competencies to determine whether frequency of use was related to increased perceived competence in clinical practice. A Pearson correlation was used to investigate the frequency of use in clinical practice, as measured by the NCS (four-point scale range from no use to frequent use) and perceived competence on the seven subscales of the NCS (scored zero to 100).

This analysis revealed a moderate, positive relationship of the help frequency of use subscale and the help perceived competence subscale. No relationships existed between the remaining perceived competence subscales and their counterpart frequency of use subscales.

### **Summary of Findings**

This chapter presented the data analysis and findings of a non-experimental study that examined the relationship between self-reported nurse competence and caring efficacy of practicing registered nurses. Descriptive statistics indicated more than half of all RN participants have a minimum of a BSN education, possess a specialty certification and serve in a staff nurse job role. The average age of these RNs was 47 years and possessed an average of 18 years' experience. Nurse participants self-reports revealed a moderate relationship between nurse competence and caring efficacy. Level of education, years of nursing experience, specialty certification, job role, and institutional designation did not influence the relationship of competence and caring.

## CHAPTER V

### SUMMARY OF THE STUDY

According to the IOM (2011), nurses should engage in lifelong learning that focuses on continuing competence instead of continuing education. The American Nurses Association (ANA) has affirmed their position regarding professional role competence. ANA's assertion that competence is a shared responsibility of individual nurses, regulatory agencies, the profession, professional organizations, employers and other stakeholders underscores the value in identifying self-assessed nurse competence and caring efficacy (American Nurses Association, 2014). Each individual nurse is accountable and responsible for maintaining professional competence, as the public has a right to expect RNs to demonstrate professional role competence throughout their individual careers. The individual nurse, the profession, employers, and consumers, share the responsibility of ensuring nurse competence. Consumers have identified that the technical aspect of equipment operation, the knowledge aspect of responding promptly to

patient needs, and the caring attitudes and behaviors of nurses are amongst the most important desired attributes of demonstrated nurse competence (Mann et al., 1999).

The purpose of this study was to examine the relationship between competence and caring efficacy of practicing RNs. This study also examined the impact of level of nurse education, nursing experience, specialty certification, and job role on the relationship. Data was collected over an eleven-month period from a final convenience sample of 189 registered nurses from six nursing associations and the Department of Veteran's Affairs, DeBakey (VA) hospital. This chapter presents a summary of the study, discussion of study findings, study conclusions, implications for nursing, and recommendations for future research.

### **Summary**

A convenience sample of nurses were recruited via membership through key nursing associations, including Sigma Theta Tau International (STTI), the American Academy of Ambulatory Care Nursing (AAACN), the American Association of Critical Care Nurses (AACN), the Academy of Medical-Surgical Nurses (AMSN), the American Nurses Association (ANA), and Texas Nurses Association (TNA). These organizations provided ready access to large nursing populations. Those who chose to participate were provided a PsychData link. When the response from these organizations failed to produce a large enough sample, the Department of Veteran's Affairs, DeBakey VA Hospital agreed to allow participation of their nurses. Inclusion criteria for participants were currently licensed registered nurses who were actively practicing in a clinical setting and

involved in direct patient care at least 50% of the time. Actively licensed nurse educators in academic roles were not part of the inclusion criteria.

Three instruments were used to collect data for this study, the demographic data form, the NCS, and the CES. Participants completed the demographic tool, the NCS, and the CES. The demographic tool collected data regarding age, gender, level of education, role, years of nursing experience, and specialty certification. Descriptive statistics described and summarized the demographic data. Frequencies and percentages described gender, education, job role, and specialty certification. Mean and standard deviation described the characteristics of age and years of nursing experience. Hierarchical multiple regression addressed the research questions. Correlations analyzed the seven perceived competence subscales and their counterparts on the frequency of use subscales of the NCS.

### **Discussion of Findings**

The total convenience sample of all nurse participants was  $N = 413$ . The final sample of RNs who completed the survey and met the inclusion criteria was  $n = 189$ . The overall completion rate was 46%. The average length of time spent to complete the survey tools for this study was 30 minutes. The time commitment and the dual nature and involvement required to fill out the NCS scale may have been a contributing factor in the low completion rate. Some studies have shown that although web-based surveys generate more completed information than paper surveys, item complexity rather than length may also contribute to low completion (Denscombe, 2006; Rolstad, Adler, & Ryden, 2011).

Descriptive statistics indicated more than half of all RN participants have a minimum of a BSN education, possessed a specialty certification and served in a staff nurse job role. The average age of these RNs was 47 years and participants possessed an average of 18 years' experience. This sample closely reflects the makeup of Texas RNs. According to demographic data from the Texas Center for Nursing Workforce Studies (2015), 39.8% of Texas RNs were 50 years or older, with a median age of 45 years, and 55.5% held a minimum of a baccalaureate degree in nursing or higher. Texas RNs (64%) in 2015 were employed in the staff nurse position and the median age of those staff nurses was 43 years.

The scores for each instrument were compared to findings in the literature. The mean competence score for this study was 84.36 ( $SD = 16.26$ ) and indicated a very high level of competence across all categories. Total respondents rated the managing situations subscale highest (85.45) and ensuring quality lowest (81.61) of all subscales for the NCS. These findings are consistent with NCS scores reported in the literature. Several studies reported findings of nurse competence using the NCS with experienced and graduate nurses. Studies with experienced nurses (greater than five years' experience) revealed a NCS mean range of 70.90 – 85.70, good – very good (Bahreini, Moattari, Shahamat, Dobaradaran, & Ravanipour, 2013; Chang, Chang, Kuo, Yan, & Chou, 2011; Istomina et al., 2011; Koskinen, Likitalo-Licphil, Aho, Vuorio, & Meretoja, 2014; O'Leary, 2012).

In four of the studies, participants rated the managing situations subscale highest of all competence subscales. This subscale highlights an area of skilled practice where

expert nurses demonstrate the ability to grasp problems quickly, intervene appropriately, and assess and mobilize resources in emergency situations (Benner, 2001). Nurse participants in all five studies rated ensuring quality lowest of all subscales. This subscale consists of evaluating outcomes, providing a backup system to ensure safe medical and nursing care, and contributing to further development of patient care (Benner, 2001). This competence subscale was noted to be one that nurse participants were visibly uncomfortable and least prideful in discussing during research development of the novice to expert framework (Benner, 2001).

The mean caring score for this study was 5.28 ( $SD = .51$ ) and indicated high rates of caring efficacy. This finding is consistent with mean CES scores reported in the literature. Several studies reported findings of caring efficacy using the CES with expert nurses (greater than five years' experience) and revealed a CES mean range of 5.03 – 5.18, very high caring (Carter et al., 2008; Lamke, Catlin, & Mason-Chadd, 2014; Reid, Courtney, Anderson, & Hurst, 2015; Surr, Smith, Crossland, & Robins, 2016). Expert nurse participants in two of the studies rated very high caring before and after an educational or professional development intervention.

Benner's theoretical framework gives context and may explain current study findings that identified a moderate, positive relationship between self-assessed nurse competence and caring-efficacy and sample participant's reported high levels of nurse competence and caring efficacy. Benner's framework postulates that competence does not increase linearly with experience but evolves along a continuum of experiences and

skills acquisition with various encounters in multiple, practical situations. This explains the nurse respondents' self-reported high levels of nurse competence and caring efficacy and is further demonstrated by respondents' rating the managing situations subscale highest of all subscales for the NCS. Study results suggest that nurse respondents operate between the proficient and expert nurse stages in Benner's framework.

Research question one examined the relationship between self-assessed nurse competence and caring efficacy of practicing registered nurses. This study found moderate relationships between overall nurse competence and caring efficacy. These findings are similar to studies that explored the relationship of competence and other variables. Nurses rated their self-assessed competence higher in studies related to quality of care, older age, ethical climate, and critical thinking (Istomina et al. 2011; Meretoja & Leino-Kilpi, 2003; Numminen et al. 2015; Wangenstein et al. 2012).

All seven competence subscales were also moderately correlated with caring efficacy. The teaching-coaching and diagnostic function subscales revealed the strongest correlations with caring. This finding is not surprising. Diagnostic caring behaviors include the nurse's ability to detect and document changes in condition, anticipate deterioration, and assess for potential for wellness. Caring behaviors in the teaching-coaching function offer ways of being, information, ways of coping, and new possibilities for the patient. These caring behaviors include capturing a patient's readiness to learn and assisting them with integrating the implications of illness and recovery into their lifestyles (Benner, 2001).



The literature partially supports these findings. Nuccio et al., (1996) asserted that caring behaviors manifest primarily in the helping role and the teaching-coaching function. A 2012 study of 84 RNs in an ambulatory care setting rated their highest competence category as mastering the content of patient education, which falls under the teaching/coaching category (Hamstrom et al., 2012). A study comparing competence assessments by nurse managers and practicing staff nurses identified that nurse managers assessed nurses more competent in diagnostic function (Nurse  $M = 67.80$ , Manager  $M = 72.20$ ) and teaching-coaching (Nurse  $M = 63.20$ , Manager  $M = 73.60$ ) categories than nurses self-reports (Meretoja & Leino-Kilpi, 2003).

Level of education, years of nursing experience, specialty certification, and job role did not influence the relationship of competence and caring. This finding partially supports Benner's (2001) assertion that, "nurses achieve competence when they can learn through instruction or experience to adopt a hierarchal perspective" (p. 36). The premise of Benner's framework is that competence is increased through experiential learning and not the linearity of time-specific experience. Study findings are at odds with several previous studies that suggest experience is directly correlated with nurse competence. O'Leary (2012) identified a significant correlation between the total NCS score and nursing experience,  $P < 0.05$ , nurses with more experience rated their self-assessed competence higher. A study by Salonen et al. (2007) showed that current work experience ( $p = 0.001$ ) was shown to correlate with perceptions of competence.

This study found very little relationship between the perceived competence subscales and their counterpart frequency of use subscales. This is not congruent with the article that described the development of the NCS and reported that self-assessed level of competence increased in direct proportion to the self-assessed frequency of using competencies (Meretoja et al., 2004). This may be due in part to the greater homogeneity of this sample of nurses.

### **Conclusions**

The following conclusions are derived from the findings in this study for the RN sample:

1. The sample is reflective of the practicing RN population in Texas.
2. Nurse competence affects caring efficacy and the relationship is unaffected by linear experience, supporting assertions in Benner's theoretical framework novice to expert.
3. Other factors, not yet accounted for, influence the connection between competence and caring.
4. Perceptions of competence were not influenced by the frequency with which a particular competence was used.

### **Implications for Nursing Practice**

The implications suggested by this study are:

1. Increasing perceptions of competence through professional development opportunities can impact caring efficacy for practicing nurses.

2. Use of performance evaluations allow nurses to assess practice gaps and focus on competencies that need to be further developed.

### **Recommendations for Further Study**

There is a gap in research regarding perceived competence and caring efficacy for nurses who perform in the proficient and expert levels of practice. Much of the current research explores competence and caring behaviors of graduate or novice nurses. Several recommendations for future research arise from this study, including:

1. Replication of the study using a larger, heterogeneous sample.
2. A comparison of practicing nurses' perceptions of competence with employers' assessments of nurse competence.
3. An examination of the relationship between practicing nurses' self-reported caring behaviors and patient perceptions of nurse's caring.
4. An exploration of additional factors that may impact the connection between competence and caring.
5. A reexamination of the Nurse Competence Scale (NCS) with the aim of developing a shorter, more user-friendly version of the NCS.
6. Further exploration of the relationship of levels of competencies with the frequency of use of those competencies.

## REFERENCES

- Altman, S., Butler, A., & Shern, L. (2015). *Assessing progress on the institute of medicine report on the future of nursing*. Washington, DC: The National Academies Press.
- Amendolair, D. (2012, January). Caring behaviors and job satisfaction. *Journal of Nursing Administration*, 42(1), 34-39. [doi: 10.1097/NNA.0b013e31823c18af](https://doi.org/10.1097/NNA.0b013e31823c18af)
- American Board of Nursing Specialties. (n.d.). Our history. Retrieved from <http://www.nursingcertification.org/about>
- American Board of Nursing Specialties. (2005). A position statement on the value of specialty nursing certification. Retrieved from <https://www.aaacn.org/sites/default/files/images/ABNS-cert-stat.pdf>

American Nurses Association. (2014). *Professional role competence*. Retrieved from <http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/NursingStandards/Professional-Role-Competence.html>

BusinessDictionary.com. (n.d.). *Role*. Retrieved from <http://www.businessdictionary.com/definition/role.html>

Bahreini, M., Moattari, M., Shahamat, S., Dobaradaran, S., & Ravanipour, M. (2013). Improvement of Iranian nurses' competence through professional portfolio: a quasi-experimental study. *Nursing and Health Sciences*, 15, 51-57. doi: 10.1111/j.1442-2018.2012.00733.x

Ballangrud, R., Persenius, M., Hedelin, B., & Hall-Lord, M. (2014). Exploring intensive care nurses' team performance in a simulation-based emergency situation, - expert raters' assessments versus self-assessment: An explorative study. *BMC Nursing*, 13(47), 1-23. doi: 10.1186/s12912-014-0047-5

Benner, P. (2000). The wisdom of our practice. *American Journal of Nursing*, 100(10), 99-105. Retrieved from <http://www.ajnonline.com>

Benner, P. (2001). *From novice to expert: Excellence and power in clinical nursing practice*. Upper Saddle River, NJ: Prentice Hall.

Benner, P. (2003). Reflecting on what we care about. *American Journal of Critical Care*, 12(2), 165-166. Retrieved from <http://ajcc.aacnjournals.org/>

Benner, P., Tanner, C., & Chesla, C. (2009). *Expertise in nursing practice: Caring, clinical judgment & ethics* (2nd ed.). New York, New York: Springer Publishing Company, LLC.

Betcher, D. (2010). Elephant in the room project: Improving caring efficacy through effective and compassionate communication with palliative care patients. *MedSurg Nursing*, 19(2), 101-105. Retrieved from <http://www.ajj.com/services/pblshng/msnj/default.htm>

Brathovde, A. (2006). A pilot study: Reiki for self-care of nurses and healthcare providers. *Holistic Nursing Practice*, 20(2), 95-101. Retrieved from <http://www.hnpjournal.com/>.

Brazen, L. (2008). Competence, nursing practice, and safe patient care. *Perioperative Nursing Clinics*, 3, 297-303. doi: 10.1016/j.cpen.2008.08.003

Brunton, B., & Beaman, M. (2000). Nurse practitioner's perceptions of their caring behaviors. *Journal of the American Academy of Nurse Practitioners*, 12(11), 451-456. doi: 10.1111/j.1745-7599.2000.tb00153.x

Carter, L., Nelson, J., Sievers, B., Dukek, S., Pipe, T., & Holland, D. (2008, March 1). Exploring a culture of caring. *Nursing Administration Quarterly*, 32(1), 57-63. doi: 10.1097/01.NAQ.0000305948.69311.44

Chang, M., Chang, Y-J., Kuo, S-H., Yang, Y-H., & Chou, F-H. (2011). Relationships between critical thinking ability and nursing competence in clinical nurses.

*Journal of Clinical Nursing*, 20, 3224-3232. doi: 10.1111/j.1365-2702.2010.03593.x

Coates, C. (1997). The caring efficacy scale: Nurses' self-reports of caring in practice settings. *Advanced Practice Nursing Quality*, 3(1), 53-59. Retrieved from <https://books.google.com>

Cowan, D., Wilson-Barnett, D., Norman, I., & Murrells, T. (2008). Measuring nursing competence: Development of a self-assessment tool for general nurses across Europe. *International Journal of Nursing Studies*, 45, 902-913. doi: 10.1016/j.ijnurstu.2007.03.004

Denscombe, M. (2006). Web-based questionnaires and the mode effect: an evaluation base on completion rates and data contents of near-identical questionnaires delivered in different modes. *Social Science Computer Review*, 24(2), 246-254. doi: 10.1177/0894439305284522

Edwards, P., & Davis, C. (2006). Internationally educated nurses' perceptions of their clinical competence. *The Journal of Continuing Education in Nursing*, 37(6), 265-269. Retrieved from <http://www.slackinc.com/>

Edwards, S. (2001). Philosophical and ethical issues: Benner and Wrubel on caring in nursing. *Journal of Advanced Nursing*, 33(2), 167-171. doi: 10.1111/j.1365-2648.2001.01649.x

- Gillespie, B., Chaboyer, W., Wallis, M., & Werder, H. (2011, July). Education and experience make a difference: Results of a predictor study. *AORN Journal*, 94(1), 78-90. doi: 10.1016/j.aorn.2010.11.037
- Hamstrom, N., Kankkunen, P., Suominen, T., & Meretoja, R. (2012). Short hospital stays and new demands for nurse competencies. *International Journal of Nursing Practice*, 18, 501-508. doi: 10.1111/j.1440-172X.2012.02055.x
- Hess, D., Dossey, B., Southard, M., Luck, S., Schaub, B., & Bark, L. (2013). *The art and science of nurse coaching: The provider's guide to coaching scope and competences*. Silver Springs, MD: American Nurses Association.
- Institute of Medicine (IOM). (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: The National Academies Press.
- Istomina, N., Suominen, T., Razbadauskas, A., Martinkenas, A., Meretoja, R., & Leino-Kilpi, H. (2011). Competence of nurses and factors associated with it. *Medicina*, 47(4). 230-237. Retrieved from [https://www.researchgate.net/publication/51559375\\_Competence\\_of\\_Nurses\\_and\\_Factors\\_Associated\\_With\\_It](https://www.researchgate.net/publication/51559375_Competence_of_Nurses_and_Factors_Associated_With_It)
- Kendall-Gallagher, D., & Blegen, M. (2009, March). Competence and certification of registered nurses and safety of patients in intensive care units. *American Journal of Critical Care*, 18(2), 106-114. doi: 10.4037/ajcc2009487



- Koskinen, L., Likitalo-Licphil, H., Aho, J., Vuorio, O., & Meretoja, R. (2014). The professional competence profile of Finnish nurses practicing in a forensic setting. *Journal of Psychiatric and Mental Health Nursing*, 21. 320-326. doi: 10.1111/jpm.12093
- Lamke, D. Catlin, A., & Mason-Chadd, M. (2014). Not just a theory: the relationship between Jin Shin Jyutsu® self-care training for nurses and stress, physical health, emotional health, and caring efficacy. *Journal of Holistic Nursing*, 32(4). 278-289. doi: 1177/0898010114531906
- Mann, J., Permaloff, A., Howard, G., Albert, Y., Dickson, C., Scharath, B. et al. (1999). *Consumer's perceptions of competence in nursing*. Presented at the Annual Meeting of the 1999 National Council of State Boards of Nursing, Inc. Educational Sessions, Montgomery, Alabama.
- Marshburn, D., Engelke, 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. doi: 10.3928/00220124-20090824-02
- Meretoja, R., Isoaho, H., & Leino-Kilpi, H. (2004). Nurse competencies scale: Development and psychometric testing. *Journal of Advanced Nursing*, 47(2), 124-133. doi: 10.1111/j.1365-2648.2004.03071.x/epdf

- Meretoja, R., Leino-Kilpi, H. (2003). Comparison of competence assessments made by nurse managers and practicing nurses. *Journal of Nursing Management*, 11, 404-409. doi: 10.1046/j.1365-2834.2003.00413.x
- Meretoja, R., Leino-Kilpi, H., & Kaira, M. (2004, September). Comparison of nurse competence in different hospital work environments. *Journal of Nursing Management*, 12(5), 329-336. doi: 10.1111/j.1365-2834.2004.00422.x
- Nkongho, N. (2009). Caring ability inventory. In J. Watson (Ed.), *Assessing and measuring caring in nursing and health sciences* (pp. 117-124). New York, New York: Springer Publishing Company, LLC.
- Nolan, S., & Murphy, J. (2006, June). The tried, true, and new: A traditional approach to critical care education with a new twist. *Critical Care Nurse Quarterly*, 29(3), 199-206. Retrieved from <http://www.ccnq.com>
- Nuccio, S., Lingen, D., Burke, L., Kramer, A., Ladewig, N., Raaum, J. et al. (1996, December 1). The clinical practice development model: The transition process. *The Journal of Nursing Administration*, 26(12), 29-37. Retrieved from <http://www.jonajournal.com>
- Numminen, O., Leino-Kilpi, H., Isoaho, H., & Meretoja, R. (2015). Ethical climate and nurse competence - newly graduated nurses' perceptions. *Nursing Ethics*, 22(8), 845-859. doi: 10.1177/0969733014557137

- O'Leary, J. (2012). Comparison of self-assessed competence and experience among critical care nurses. *Journal of Nursing Management*, 20, 607-614. doi: 10.1111/j.1365-2834.2012.01394.x
- Pross, E., Boykin, A., Hilton, N., & Gabuat, J. (2010). A study of knowing nurses as caring. *Holistic Nursing Practice*, 24(3), 142-147. doi: 10.1097/HNP.0b013e3181dd47bc
- PsychData. (n.d.). *About Us*. Retrieved from <https://www.psychdata.com/content/aboutus.asp>
- Reid, C., Courtney, M., Anderson, D., & Hurst, C. (2015). The 'caring experience': testing the psychometric properties of the caring efficacy scale. *International Journal of Nursing Practice*, 21, 904-912. doi: 10.1111/ijn.12327
- Rolstad, S., Adler, J., & Ryden, A. (2011). Response burden and questionnaire length: is shorter better? A review and meta-analysis. *Value in Health*, 14, 1101-1108. doi: 10.1016/j.jval.2011.06.003
- Salonen, A., Kaunonen, M., Meretoja, R., & Tarkka, M.-T. (2007, November). Competence profiles of recently registered nurses working in intensive and emergency settings. *Journal of Nursing Management*, 15(8), 792-800. doi: 10.1111/j.1365-2934.2007. 00768.x

- Sitzman, K., & Watson, J. (2013). *Caring science, mindful practice: Implementing Watson's human caring theory*. New York, New York: Springer Publishing Company.
- Smith, M., Turkel, M., & Wolf, Z. (2013). *Caring in nursing classics: An essential resource*. New York, New York: Springer Publishing Company, LLC.
- Spichiger, E., Wallhagen, M., & Benner, P. (2005). Nursing as a caring practice from a phenomenological perspective. *Scandinavian Journal of Caring Science*, 19, 303-309. doi: 10.1111/j.1471-6712.2005.00350.x
- Study.com. (n.d.). *Types of different degree levels*. Retrieved from [https://study.com/different\\_degrees.html](https://study.com/different_degrees.html)
- Surr, C., Smith, S., Crossland, J., & Robin, J. (2016). Impact of person-centered dementia care training programme on hospital staff attitudes, role efficacy and perceptions of caring for people with dementia: a repeated measures study. *International Journal of Nursing Studies*, 53, 144-151. doi: 10.1016/j.ijnurstu.2015.09.009
- Tanking, J. (2010, June 1). Nurse caring behavior. *The Kansas Nurse*, 85(4), 3-5. doi: 10.1046/j.1365-2648.1998.00577.x
- Texas Center for Nursing Workforce Studies (2015). Nursing workforce in Texas: 2015 demographics and trends report. *Texas Department of State Health Services Center for Health Statistics*. Retrieved from <http://www.dshs.texas.gov/chs/cnws/Nursing-Workforce-Reports/>

- Tzeng, H.-M. (2004, July). Nurses' self-assessment of their nursing competencies, job demands and job performance in the Taiwan hospital system. *International Journal of Nursing Studies*, 41(5), 487-496. doi: 10.1016/j.ijnurstu.2003.12.002
- Uhrenfeldt, L., & Hall, E. (2007). Clinical wisdom among proficient nurses. *Nursing Ethics*, 14(3), 387-398. doi: 10.1177/0969733007075886
- Valloze, J. (2009). Competence: A concept analysis. *Teaching and Learning in Nursing*, 4, 115-118. doi: 10.1016/j.teln.2009.02.004
- Wangenstein, S., Johansson, I., Bjorkstrom, M., & Nordstrom, G. (2012). Newly graduated nurses' perception of competence and possible predictors: a cross-sectional survey. *Journal of Professional Nursing*, 28(3), 170-181. doi: 10.1016/j.profnurs.2011.11.014
- Watson, J. (2008). *Nursing: The philosophy and science of caring*. Boulder, CO: The University Press of Colorado.
- Wu, Y., Larrabee, J., & Putman, H. (2006, February 1). Caring behaviors inventory: A reduction of the 42-item instrument. *Nursing Research*, 55(1), 18-25. Retrieved from <http://www.nursingresearchonline.com>

## APPENDIX A

### TWU and Baylor IRB Letters of Approval



**Institutional Review Board**  
Office of Research  
6700 Fannin, Houston, TX 77030  
713-794-2480  
irb-houston@twu.edu  
<http://www.twu.edu/irb.html>

DATE: November 9, 2017

TO: Ms. Edtrina L. Moss  
Nursing - Houston

FROM: Institutional Review Board (IRB) - Houston

Re: *Approval for Examining the relationship between self-reported competence and caring efficacy in registered nurses (Protocol #: 19859)*

The above referenced study has been reviewed and approved by the Houston IRB (operating under FWA00000178) on 11/7/2017 using an expedited review procedure. This approval is valid for one year and expires on 11/7/2018. The IRB will send an email notification 45 days prior to the expiration date with instructions to extend or close the study. It is your responsibility to request an extension for the study if it is not yet complete, to close the protocol file when the study is complete, and to make certain that the study is not conducted beyond the expiration date.

If applicable, agency approval letters must be submitted to the IRB upon receipt prior to any data collection at that agency. A request to close this study must be filed with the Institutional Review Board at the completion of the study. Because you do not utilize a signed consent form for your study, the filing of signatures of subjects with the IRB is not required.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All forms are located on the IRB website. If you have any questions, please contact the TWU IRB.

cc. Dr. Ainslie Nibert, Nursing - Houston  
Dr. Rae Langford, Nursing - Houston  
Graduate School

October 19, 2017

JANE ANDERSON  
BAYLOR COLLEGE OF MEDICINE  
NEUROLOGY

Baylor College of Medicine  
Office of Research  
One Baylor Plaza, 600D  
Houston, Texas 77030  
Phone: (713) 798-6970  
Fax: (713) 798-6990  
irb@bcm.tmc.edu

**H-41510 - EXAMINING THE RELATIONSHIP BETWEEN SELF-REPORTED COMPETENCE AND CARING EFFICACY IN REGISTERED NURSES**

**APPROVAL VALID FROM 10/19/2017 TO 9/11/2018**

Dear Dr. ANDERSON

The Institutional Review Board for Human Subject Research for Baylor College of Medicine and Affiliated Hospitals (BCM IRB) is pleased to inform you that the research protocol named above was reviewed and approved by Expedited procedures on 10/19/2017 by Board 4.

The study may not continue after the approval period without additional IRB review and approval for continuation. You will receive an email renewal reminder notice prior to study expiration; however, it is your responsibility to assure that this study is not conducted beyond the expiration date.

Please be aware that only IRB-approved informed consent forms may be used when written informed consent is required.

Any changes in study or informed consent procedure must receive review and approval prior to implementation unless the change is necessary for the safety of subjects. In addition, you must inform the IRB of adverse events encountered during the study or of any new and significant information that may impact a research participants' safety or willingness to continue in your study.

The BCM IRB is organized, operates, and is registered with the United States Office for Human Research Protections according to the regulations codified in the United States Code of Federal Regulations at 45 CFR 46 and 21 CFR 56. The BCM IRB operates under the BCM Federal Wide Assurance No. 00000286, as well as those of hospitals and institutions affiliated with the College.

Sincerely yours,

☐

GABRIEL HABIB, M.D.

Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals



APPENDIX B

Demographic Form

### Demographic Collection Form

Please read and complete the following questions regarding your background and work experience.

1. Do you engage in direct patient care at least 50% of the time?

\_\_\_yes (Continue with survey)

\_\_\_no (Redirect to end of survey; does not meet inclusion criteria)

2. Are you:

\_\_\_Male

\_\_\_Female

3. Your current age \_\_\_\_\_

4. Your highest degree earned

\_\_\_Associate degree

\_\_\_Baccalaureate degree

\_\_\_Master's degree

\_\_\_Doctoral Degree

\_\_\_Other (please specify) \_\_\_\_\_

5. Do you hold a specialty certification?

\_\_\_yes (Go to question 5)

\_\_\_no (Go to question 6)

6. Please describe ONE most recent certification held and the year it was granted (e.g.: Adult nurse practitioner- 2009) \_\_\_\_\_
7. Your number of years of nursing experience \_\_\_\_\_
8. Describe your practice setting where you engage in direct patient care at least 50% of the time (e.g.: ER, ICU, Cardiology unit, etc.)  
\_\_\_\_\_
9. Describe your role where you engage in direct patient care at least 50% of the time (e.g., charge nurse, head nurse, clinical nurse leader, staff nurse, etc.)  
\_\_\_\_\_
10. How long have you been in this current position? \_\_\_\_\_

APPENDIX C

Caring Efficacy Scale

### Caring Efficacy Scale (CES)

**Instructions:** Circle the number that best expresses your opinion.

	Strongly Disagree	<u>Moderately</u> Disagree	<u>Slightly</u> Moderate	<u>Slightly</u> Agree	<u>Moderately</u> Agree	Strongly Agree
Item	-3	-2	-1	+1	+2	+3
1. I do not feel confident in my ability to express a sense of caring to my clients/patient.	-3	-2	-1	+1	+2	+3
2. If I am not relating well to a client/patient, I try to analyze what I can do to reach him/her.	-3	-2	-1	+1	+2	+3
3. I feel comfortable in touching my clients/patients in the course of caregiving.	-3	-2	-1	+1	+2	+3
4. I convey a sense of personal strength to my clients/patients .	-3	-2	-1	+1	+2	+3
5. Clients/patients can tell me most anything	-3	-2	-1	+1	+2	+3

and I won't be shocked.						
6. I have an ability to introduce a sense of normalcy in stressful conditions.	-3	-2	-1	+1	+2	+3
7. It is easy for me to consider the <u>multi-facets</u> of a <u>client's/</u> <u>patient's</u> care, at the same time as I am listening to them.	-3	-2	-1	+1	+2	+3
8. I have difficulty in suspending my personal beliefs and biases in order to hear and accept a client/patient as a person.	-3	-2	-1	+1	+2	+3
<b>Item</b>	Strongly Disagree	<u>Moderately Disagree</u>	<u>Slightly Moderate</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	Strongly Agree
9. I can walk into a room with presence of serenity and energy that makes clients/patients feel better.	-3	-2	-1	+1	+2	+3
10. I am able to tune into a	-3	-2	-1	+1	+2	+3

particular client/patient and forget my personal concerns.						
11. I can usually create some way to relate to most any client/patient.	-3	-2	-1	+1	+2	+3
12. I lack confidence in my ability to talk to clients/patients from backgrounds different from my own.	-3	-2	-1	+1	+2	+3
13. I feel if I talk to clients/patients on an individual, personal basis things might get out of control.	-3	-2	-1	+1	+2	+3
14. I use what I learn in conversations with clients/patients to provide more individualized care.	-3	-2	-1	+1	+2	+3
15. I don't feel strong enough to listen to the fears and	-3	-2	-1	+1	+2	+3

concerns of my clients/patient.						
16. Even when I'm feeling self-confident about most things, I still seem to be unable to relate to clients/patient.	-3	-2	-1	+1	+2	+3
17. I seem to have trouble relating to clients/patient.	-3	-2	-1	+1	+2	+3
18. I can usually establish a close relationship with my clients/patient.	-3	-2	-1	+1	+2	+3
<b>Item</b>	Strongly Disagree	<u>Moderately Disagree</u>	<u>Slightly Moderate</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	Strongly Agree
19. I can usually get patients/clients to like me.	-3	-2	-1	+1	+2	+3
20. I often find it hard to get my point of view across to patients/clients when I need to.	-3	-2	-1	+1	+2	+3
21. When trying to resolve conflict with a client/patient, I usually make it worse.	-3	-2	-1	+1	+2	+3
22. If I think a client/patient is	-3	-2	-1	+1	+2	+3



uneasy or may need some help, I approach the person.						
23. If I find it hard to relate to a client/patient, I will stop trying to work with that person.	-3	-2	-1	+1	+2	+3
24. I often find it hard to relate to clients/patients from a different culture than mine.	-3	-2	-1	+1	+2	+3
25. I have helped many clients/patients through my ability to develop close, meaningful relationships.	-3	-2	-1	+1	+2	+3
26. I often find it difficult to express empathy with clients/patients .	-3	-2	-1	+1	+2	+3
27. I often become overwhelmed by the nature of the problems clients/patient.	-3	-2	-1	+1	+2	+3
28. When a client/patient is having	-3	-2	-1	+1	+2	+3

difficulty communicating with me, I am able to adjust to his/her level.						
29. Even when I really try, I can't get through to difficult clients/patient.	-3	-2	-1	+1	+2	+3
30. I don't use creative or unusual ways to express caring to my clients/patients .	-3	-2	-1	+1	+2	+3

Watson, J. (2009). *Assessing and measuring caring in nursing and health sciences* (2nd ed.). New York: Springer Publishing Company, LLC.

Written letter of permission for use from Dr. C. Coates, October 1, 2013.

## APPENDIX D

### Nurse Competence Scale

## Nurse Competence Scale

**Instructions:** 1. In the first four columns, answer each statement by choosing one option that ranks your frequency of use in clinical practice on a four-point scale about the statement. By choosing one option of the four columns ('0' thru '3', you are indicating your frequency of use for each statement: **0** – not applicable in my work; **1** – used very seldom; **2** – used occasionally, and **3** – used very often in my work.

2. In the fifth column, answer each statement by inserting **one** number from 0 – 100 that would best describe your perceived level of competence. The ratings are divided into four parts on a Visual Analogue Scale (VAS): Low VAS, **0 -25**; Quite good VAS, **26 -50**; Good VAS, **51 -75**; and Very good VAS, **76 – 100**. By writing in one number from the VAS, you are indicating your level of perceived competence.

Statement	0 – not applicable to my work	1 – used very seldom	2 – used occasionally	3 – used very often in my work	Choose one number between 1-100
<b>1 – Humanism Role</b>					
1. Planning patient care according to individual needs.	0	1	2	3	
2. Supporting patients' coping strategies.	0	1	2	3	
3. Evaluating critically own philosophy in nursing.	0	1	2	3	
4. Modifying the care plan according to individual needs.	0	1	2	3	

5. Utilizing nursing research findings in relationships with patients.	0	1	2	3	
6. Developing the treatment culture of my unit.	0	1	2	3	
7. Decision-making guided by ethical values.	0	1	2	3	
<b>2 – Teaching-Coaching</b>					
1. Mapping out patient education needs carefully.	0	1	2	3	
2. Finding optimal timing for patient education.	0	1	2	3	
<b>Statement</b>	0 – not applicable to my work	1 – used very seldom	2 – used occasionally	3 – used very often in my work	Choose one number between 1-100
3. Mastering the content of patient education.	0	1	2	3	
4. Providing individualized patient education.	0	1	2	3	
5. Coordinating patient education.	0	1	2	3	
6. Able to recognize family members' needs for guidance.	0	1	2	3	
7. Acting autonomously in guiding family members.	0	1	2	3	
8. Taking student nurse's level of	0	1	2	3	

skill acquisition into account in mentoring.					
9. Supporting student nurses in attaining goals.	0	1	2	3	
10. Evaluating patient education outcome together with patient.	0	1	2	3	
11. Evaluating patient education outcomes with family.	0	1	2	3	
12. Evaluating patient education outcome with care team.	0	1	2	3	
13. Taking active steps to maintain and improve my professional skills.	0	1	2	3	
14. Developing patient education in my unit.	0	1	2	3	
15. Developing orientation programs for new nurses in my unit.	0	1	2	3	
16. Coaching others in duties within my responsibility area.	0	1	2	3	
<b>3 – Diagnostic functions</b>					
1. Analyzing patient's well-being from many perspectives.	0	1	2	3	

2. Able to identify patient's need for emotional support.	0	1	2	3	
3. Able to identify family members' need for emotional support.	0	1	2	3	
4. Arranging expert help for patient when needed.	0	1	2	3	
<b>Statement</b>	0 – not applicable to my work	1 – used very seldom	2 – used occasionally	3 – used very often in my work	Choose one number between 1-100
5. Coaching other staff members in patient observation skills.	0	1	2	3	
6. Coaching other staff members in use of diagnostic equipment.	0	1	2	3	
7. Developing documentation of patient care.	0	1	2	3	
<b>4 – Managing situations</b>					
1. Able to recognize situations posing a threat to life early.	0	1	2	3	
2. Prioritizing my activities flexibly according to changing situations.	0	1	2	3	
3. Acting appropriately in life-	0	1	2	3	

threatening situations.					
4. Arranging debriefing sessions for the care team when needed.	0	1	2	3	
5. Coaching other team members in mastering rapidly changing situations.	0	1	2	3	
6. Planning care consistently with resources available.	0	1	2	3	
7. Keeping nursing care equipment in good conditioner.	0	1	2	3	
8. Promoting flexible team cooperation in rapidly changing situations.	0	1	2	3	
<b>5 – Therapeutic Interventions</b>					
1. Planning own activities flexibly according to clinical situation.	0	1	2	3	
2. Making decisions concerning patient care taking the particular situation into account.	0	1	2	3	
3. Coordinating multidisciplinary team's nursing activities.	0	1	2	3	
4. Coaching the care team in performance of	0	1	2	3	



nursing interventions.					
5. Updating written guidelines for care.	0	1	2	3	
<b>Statement</b>	0 – not applicable to my work	1 – used very seldom	2 – used occasionally	3 – used very often in my work	Choose one number between 1-100
6. Providing consultation for the care team.	0	1	2	3	
7. Utilizing research findings in nursing interventions.	0	1	2	3	
8. Evaluating systematically patient care outcomes.	0	1	2	3	
9. Incorporating relevant knowledge to provide optimal care.	0	1	2	3	
10. Contributing to further development of multidisciplinary clinical paths	0	1	2	3	
<b>6 – Ensuring quality</b>					
1. Committed to my organization's care philosophy.	0	1	2	3	
2. Able to identify areas in patient	0	1	2	3	

care needing further development and research.					
3. Evaluating critically my unit's care philosophy.	0	1	2	3	
4. Evaluating systematically patients' satisfaction with care.	0	1	2	3	
5. Utilizing research findings in further development of patient care.	0	1	2	3	
6. Making proposals concerning further development and research.	0	1	2	3	
<b>7 – Work role</b>					
1. Able to recognize colleagues' need for support and help.	0	1	2	3	
2. Aware of the limits of my own resources.	0	1	2	3	
3. Professional identity serves as resource in nursing.	0	1	2	3	
4. Acting responsibly in terms of limited financial resources.	0	1	2	3	
<b>Statement</b>	0 – not applicable to my work	1 – used very seldom	2 – used occasionally	3 – used very often in	Choose one number between 1-100

				my work	
5. Familiar with my organization's policy concerning division of labor and co-ordination of duties.	0	1	2	3	
6. Coordinating student nurse mentoring in the unit.	0	1	2	3	
7. Mentoring novices and advanced beginners.	0	1	2	3	
8. Providing expertise for the care team.	0	1	2	3	
9. Acting autonomously.	0	1	2	3	
10. Guiding staff members to duties corresponding to their skill levels.	0	1	2	3	
11. Incorporating new knowledge to optimize patient care.	0	1	2	3	
12. Ensuring smooth flow of care in the unit by delegating tasks.	0	1	2	3	
13. Taking care of myself in terms of not depleting my mental and physical resources.	0	1	2	3	

14. Utilizing information technology in my work.	0	1	2	3	
15. Coordinating patient's overall care.	0	1	2	3	
16. Orchestrating the whole situation when needed.	0	1	2	3	
17. Giving feedback to colleagues in a constructive way.	0	1	2	3	
18. Developing patient care in multidisciplinary teams.	0	1	2	3	
19. Developing work environment.	0	1	2	3	

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

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

124-133. Email communication of permission for use from Wiley Publishing.

October 5, 2015.

## APPENDIX E

### Email Letter of Intent, Nurse Organizations

Dear Nurse Colleagues and Leaders:

I am a doctoral student at Texas Woman's University in Houston, Texas. I am requesting your assistance to complete my dissertation, Examining the Relationship Between Self-Reported Competence and Caring-Efficacy in Registered Nurses. I am humbly requesting use of your membership email list for me to contact nurses directly to participate.

Nurses will be invited to participate in two surveys that investigate how they consider their practice competence within their work environment and their ability to develop caring relationships with patients. The purpose of this study is to compare the relationship between competence and caring efficacy (ability) of practicing registered nurses (RN). This study will also examine the impact of nurse education, nursing experience, specialty certification, and job role on the relationship.

The survey will take about 30 minutes to complete. At the end of the survey, nurses will have the option to participate in a separate drawing for \$200 electronic gift card. The survey will redirect participants to a secure website to submit their personal email address for the drawing held at the end of the data collection period. Participation is anonymous and voluntary. Nurses may withdraw from the study at any time. There are minimal risks to completing the surveys. Participant answers will be completely confidential. All data will be sent to one database where information is de-identified and results reported as aggregate data.

To participate in the online study, nurses will go to

<https://www.psychdata.com/s.asp?SID=175660>. Each nurse must complete the electronic consent prior to answering the questions.

If you have questions about the survey, please contact Edtrina Moss, RN at [emoss1@twu.edu](mailto:emoss1@twu.edu) or call 832-978-4987.

## APPENDIX F

Email Letter of Intent, Veteran's Affairs

# Baylor College of Medicine®

GIVING LIFE TO POSSIBLE

Dear Potential Research Participant:

We in the Baylor College of Medicine Department of Neurology and Michael E. DeBakey VA Medical Center are studying the relationship between nursing practice competence and developing caring relationships with patients. We are contacting you because you are a RN and you may eligible to take a survey related to our research.

If you complete the anonymous online survey, you are consenting or agreeing to take part in this research. As part of the survey, you will be asked to complete two sets of question and provide demographic information. The survey will take about 30 minutes to complete. We will take all steps legally possible to keep this information confidential.

You decide whether you want to take part or not. If you do not take part, you will lose none of your rights. You may decide to stop taking part at any time. Again, if you decide not to take part, it will not affect your rights or benefits.

It will not cost you to take part in this study. The deadline to participate is January 31, 2018.

Click here <https://www.psychdata.com/s.asp?SID=179018> to take the survey.

If you have any questions about this survey or the study, please contact Jane Anderson or Edtrina Moss at 713-794-7416 or at [edtrina.moss@va.gov](mailto:edtrina.moss@va.gov). If you have additional questions about your rights as a research subject, contact the Institutional Review Board for Human Subject Research for Baylor College of Medicine & Affiliated Hospitals at (713)798-6970.

Thank you for your time.

Sincerely,

Jane A. Anderson, PhD, RN, FNP-C

Associate Chief of Nursing Research

Michael E. DeBakey VA Medical Center

Investigator, Houston Health Services Research and Development

Center for Innovations in Quality, Effectiveness & Safety (IQuEST)

Edtrina Moss, MSN, RN-BC, NE-BC

Utilization Review RN

713-194-7416; [edtrina.moss@va.gov](mailto:edtrina.moss@va.gov)