THE EFFECT OF ACUTE CARE ORIENTATION COACHING ON PERCEIVED SELF-EFFICACY AMONG NEW GRADUATE NURSES

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ABSTRACT

This study explores the degree of perceived self-efficacy related to the performance of specific nursing behaviors among new graduate nurses who began their formal acute care institution orientation program in southeastern North Carolina during the summer of 2005. The theoretical framework for the study is Bandura's Theory of Self-Efficacy (1997). A quasi-experimental single-group pretest, posttest design is used to examine self-efficacy perceptions of new graduate nurses across time and compare 6 nursing domains with various demographic characteristics. The study methods evaluate what influence prior nursing practice experience may have on self-perception of self-efficacy and to what degree the self-efficacy perceptions change over the course of 6 months. The study methods also evaluate for differences which may exist between self-efficacy perceptions within 6 nursing domains (Nurse-Client Relationship, Health Promotion, Illness/Injury Prevention, Curative/Supportive Care, Rehabilitative Care and Professional Practice) as measured by the Self-Efficacy for Professional Nursing Competencies Questionnaire (Babenko-Mould et al, 2004). There were 71 new nurse graduates who volunteered to complete the questionnaire during their first week of acute care institution orientation   Forty of these new nurse graduates volunteered to complete the questionnaire again 6 months later. Significant differences ($p<.001$) in self-efficacy perceptions are found from pretest to posttest. These findings highlight the importance of the coaching activities for new graduate nurses and validate self-efficacy sources as proposed in Bandura's theory. Insights gained from this study may assist nursing educators in planning curricula, clinical experiences, and orientation programs to meet learning needs of nursing students in preparation for the new graduate nurse role.

ACKNOWLEDGMENTS

DEDICATION

I dedicate this thesis to nurses.

They help us recognize, even those of us within the profession, the value of caring for another human being in all realms of nursing: patient care, community health, research and education. They do this not only with skillful performance of techniques, but by what they give of themselves so nobly and unconditionally to others.

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DEFINITION OF TERMS

Acute care institution orientation: The process of introducing nursing staff to the

philosophy, goals, policies, procedures, role expectations, and other factors needed to

function in a specific work setting. Orientation takes place for new employees and for

nurses changing roles, responsibilities, and practice settings occur (ANCC, 1998).

Coaching: Guidance provided by an expert or master to a novice of learner. The

purpose is to develop or improve performance in motor tasks, physical skills and

cognitive tasks (Avillion, 2001).

Coaching activities: Coaching activities for new nurse graduates are designed to assess

and guide technical nursing skills and critical thinking using a competency-based

assessment system, The Problem-Based Development System© (PBDS); to provide

nursing interventions with the use of a digitally-enhanced patient simulator Sim Man ©;

and to provide classroom instruction on documentation systems, acute care safety

protocols, infection control, restraints, falls and management of hypoglycemic episodes

and life-threatening emergencies. Coaching activities also involve the assignment of a

coach preceptor or mentor to supervise nursing activities performed by new nurse

graduates within their assigned acute care units and to offer constructive feedback.

Curative/supportive care: Activities provided to clients in all health care agencies and

setting which are designed to restore health. These activities include

performing diagnostic measurements and assessments that detect an illness;

referring questions and abnormal findings to other healthcare providers as

appropriate; and providing direct care of the person who is ill by such

measures as giving physical care, administering medications and carrying

out procedures and treatment (Taylor, Lillis & LeMone, 2005).

Efficacy expectation: the conviction that one can successfully execute the behavior

   required to produce an outcome (Bandura, 1977).

Health promotion: Activities designed to identify and analyze the client's own

   individual strengths and to use these strengths to help the client reach maximum function

   and quality of life or meet death with dignity (Taylor, et al., 2005).

Illness/injury prevention: Activities designed to reduce the risk for illness, to promote

   good health habits and to maintain optimal functioning (Taylor et al., 2005)

Nurse-client relationship: The professional relationship between nurse and patient in

   which the nurse applies a repertoire of therapeutic interpersonal behaviors to establish

   trusting nurse-client-family relationships. A nurse-client relationship requires

   competence in the nursing roles of caregiver, teacher, counselor and advocate (Taylor et

   al., 2005).

Outcome expectation: A person's estimate that a given behavior will lead to certain

   outcomes (Bandura, 1977).

Professional practice: The practice of nursing in a manner consistent with professional

   ethical values and duties as stipulated in the American Nurses Association Standards of

   Nursing Practice (ANA, 2003) and in accordance with the State of North Carolina

   Nursing Practice Act (Nursing Practice Act, 1999).

Registered nurse: A person permitted through mandatory licensure by the North

   Carolina Board of Nursing to practice nursing in accordance with the rules and

   regulations stipulated in the Nursing Practice Act of the State of North Carolina (Nursing

   Practice Act, 1999)

Rehabilitative care: Care designed to assist the client to relinquish the dependent role of

receiving care and resume normal activities and responsibilities (Taylor et al, 2005).

Self-efficacy: A personal judgment of one's capabilities to organize and execute the

courses of action required to manage prospective situations or produce given

attainments (Bandura, 1977; 1986; 1995; 1997).

CHAPTER I

INTRODUCTION

Self-efficacy is a personal judgment of one's capabilities to successfully perform a particular task. The Theory of Self-efficacy, proposed by Albert Bandura in the late 1970's as a component of his Social Cognitive Theory, postulates that competent functioning in a given situation requires not only the requisite skills and knowledge but personal beliefs of efficacy to meet the demands of the situation. Recent theory and research have determined the self-efficacy construct to be a primary factor of task-motivated behavior and performance. In nursing important areas of self-efficacy include nurse-client relationships, health promotion, illness-injury prevention, curative-supportive care, rehabilitative care, and professional practice. These domains are incorporated in the 2002 definition of nursing published by the International Council of Nurses:

> "Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled, and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles." (Taylor, Lillis, & LeMone, 2005)

Purpose

The purpose of this study is to determine the degree of perceived self-efficacy related to the performance of specific nursing behaviors within the 6 domains mentioned above and specified in the self-efficacy survey (Appendix A) among new graduate nurses who began their formal acute care institution orientation program in southeastern North Carolina. An integral

part of the orientation program is the "coaching" or educational activities conducted by the institution's educational staff and nurse preceptors or mentors. In accordance with the propositions of self-efficacy as outlined in Bandura's Theory of Self-Efficacy, the study seeks to determine what influence, if any, previous nursing practice experience may have on perception of efficacy and to what degree these perceptions change over the course of 6 months. The study also examines what significant differences may exist for this sample between the 6 nursing domains specified in the research instrument (Appendix A): Nurse-Client Relationships, Health Promotion, Illness-Injury Prevention, Curative-Supportive Care, Rehabilitative Care, and Professional Practice. These differences may indicate weaknesses within specific domains determined by lower score performance. Finally, the researcher seeks to determine if a relationship exists between self-efficacy beliefs and the demographic characteristics of the subjects. Such a relationship between the beliefs and demographic characteristics would lend support to the proposed sources of self-efficacy beliefs as posited in the Theory of Self-Efficacy (Bandura, 1977; 1986; 1995) and to the influences of these characteristics.

The study sample consists of new graduate nurses who were hired as full-time staff nurses in the acute care setting. The nurses are asked to respond to a research survey examining their perceived self-efficacy to perform professional nursing competencies required of the entry-level registered nurse within 6 nursing domains. Six months after the start of the orientation the participants are provided the same self-efficacy survey in which they are to indicate their perceptions of efficacy. The second administration of the survey occurs after the formal orientation period for each participant has concluded and after each participant has been able to work independently as a staff nurse for approximately 3 months within an acute care clinical setting.

Research Questions

The sources of self-efficacy beliefs proposed in Bandura's (1977; 1986; 1995) Theory of Self-Efficacy, namely, enactive attainment, vicarious experience, verbal persuasion and physiological feedback (a personal trait) is displayed extensively over the course of the new graduate nurses' transition period from full-time nursing students to practicing nurses. They occur through the actual performance of nursing tasks (enactive attainment), observation and socialization activities (vicarious experience), and expert peer mentoring (verbal persuasion) (Avillion, 2001).

The following research questions were posed.

1. What are the perceived self-efficacy beliefs among new graduate nurses in the 6 nursing domains before they start an acute care institution orientation program?

2. What are the changes, if any, in self-efficacy beliefs over the course of 6 months following an orientation program in an acute care institution?

3. Is there a relationship between self-efficacy beliefs and the demographic characteristics of the subjects in this study?

CHAPTER II

LITERATURE REVIEW

Health Care Trends

New graduate nurses face many challenges when entering the workforce in acute care institutions. Higher acuity levels of hospitalized patients in the modern health care system combined with increasing healthcare needs of an aging population have placed greater demands on the new graduate nurse (Nurse Degree Hunter, 2003). Likewise, nurses are faced with increasingly complex technology to care for acutely ill patients during shortened hospital lengths of stay (Ellerton & Gregor, 2003).

More complex technology is required to sustain acutely ill patients and tasks previously assumed by medical staff have become the responsibility of nursing services. The higher average acuity, plus the introduction of more complex technology and treatments, require increased nursing skills and autonomy (Ellerton & Gregor, 2003). Accordingly, the complexities of nursing competencies have increased as well as the demands for the necessary technology skills to execute them.

New graduate nurses are the primary source for staffing in acute care settings (Beecroft, Kunzman, Taylor, Devenis & Guzek, 2004). Meeting the increased demands on nursing requires that new nurses be highly educated and well skilled. Further adding to the strain of preparing nurses to thrive in the acute care institutions are financial constraints to reduce or eliminate comprehensive new employee orientation and continuing education programs. Consequently, today's administrators and nurse managers seek to hire graduates who are "beyond being merely functional, but can hit the ground running" (Ellerton & Gregor, 2003, p. 104).

Transition from Nursing Student to Practicing Nurse

Beginning the practice of nursing is a time of "remarkable transition in terms of knowledge, situatedness in the practice environment, and self-understanding as a nurse" (Benner, Tanner, & Chesla, 1996, p. 77). It is a "dynamic and interactive process" in which the new nurse needs to "assume the activities of a staff nurse while learning how to function within a hospital system" (Godinez, Schweiger, Gruber, & Ryan, 1999, p. 107). The development of clinical knowledge is primarily about learning the concrete, practical and immediate demands of clinical situations beyond often abstract and out-of-context material studied earlier as a student (Thomka, 2001). Beginners to the practice build a foundation of practical understanding that builds from prior theoretical training to experiences in caring for patients suffering from various health conditions and at various stages of their illnesses (Benner et al, 1996).

For most new nurses the transition from being nursing students to professionally practicing nurses is difficult and often stressfu (Walker, 1998; Gerrish, 2000; Ross & Clifford, 2002). Beginning nurses have minimal capacity to attend to the patient as a person when a clinical situation is complex (Benner et al., 1996). The complexity of the tasks and the detailed lists of tasks to be performed dominate the attention and energies of the novice (Benner et al., 1996). The experienced anxieties can be temporarily incapacitating and the full comprehension by the nurse of the clinical situation is compromised (Benner et al., 1996). For some, it may actually be a traumatic experience as graduates become aware of contrasting differences between practicing nursing as an undergraduate student and nursing as a responsible and accountable professional (Boychuk-Duchscher, & Cowin, 2004).   Adding to the strain are inconsistencies in opinion between seasoned nurses and baccalaureate faculty about the importance of entry-level competencies needed by recent baccalaureate graduates (King, Smith, & Glenn, 2003).

"Reality shock", identified by Kramer (1974), often occurs in situations where new workers who have spent years preparing for work environments and for which they thought they were going to be prepared find that they are not. Psychological stress is often the manifestation of this dilemma. Often the new graduate nurse may feel disillusioned from what was learned in the undergraduate program and the reality of the job expectations (Ellis & Hartley, 2004). As a result, the person undergoing such stress is less able to perceive an entire situation and effectively solve problems (Ellis & Hartley, 2004). Further, new graduate nurses go through variations of the socialization process: mastering skills and routine, social integration into groups of seasoned staff, moral outrage over the inconsistencies between what was taught in school and what occurs within the workplace, and conflict resolution in which new nurses work out a relationship that bridges the school/workplace gaps (Kramer, 1974, Joel & Kelly, 2002). Altogether, the process of transition from student to staff nurse is not easy and consists of balancing learning opportunities with organizational expectations while providing care for increasing numbers of patients (Godinez, et al, 1999).

Despite the stressful nature of the transition from nursing student to practicing nurse, research has determined that today's nurses appear to have developed more active learning strategies, such as acknowledgment of limitations and seeking appropriate guidance, which better enable them to assume the responsibilities of their new professional roles (Gerrish, 2000). Influences which may lessen the stressors during the transition experience have been suggested in the literature, namely, increased moral support through effective preceptors, previous skills practice as students in a "safe" non-clinical environment and prior clinical experience within areas where students hope to eventually work (Wheeler, Cross & Anthony, 2000; Ross & Clifford, 2002; Hall, 2004).

Theoretical Framework

Self-efficacy is defined as personal judgments of performance capabilities in a given situation in which the activity/activities may be new, unpredictable and possibly stressful (Bandura, 1977; 1986; 1995; Schunk, 1985). Albert Bandura (1977; 1986; 1995) in his Theory of Self-Efficacy postulated that expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended and how long effort will be sustained in the face of obstacles and aversive experiences. The amount of skills one possesses does not determine self-efficacy. Rather, it is the judgments of what can be done with these skills that helps to define an individual's perceptions of self-efficacy. Bandura (1977, 1986; 1995) suggested 4 categories of sources or experiences used in the development of self-efficacy beliefs: (1) enactive attainment or performance accomplishment (successfully achieving the outcome), (2) vicarious experiences (observation of others achieving a specific outcome or modeling); (3) verbal persuasion (encouragement, reassurance, motivational speech); and (4) emotional arousal (physiological signs of anxiety such as feelings of vulnerability). Of these varied sources, Bandura (1977; 1986; 1995) proposed that actual performance accomplishment or personal attainment is the most influential contributor because people learn about their ability to perform through experience.

It has been determined that students who have a low sense of self-efficacy for acquiring cognitive skills may attempt to avoid tasks, whereas those who judge themselves more efficacious participate with more eagerness, motivation and persistence (Schunk, 1985; Bandura, 1995; Stajkovic & Luthans, 1998). Wood and Bandura (1989) further concluded that individuals who demonstrate strong self-efficacy are more likely to undertake challenging tasks, persist longer, and perform more successfully than those with lower self-efficacy beliefs. Conversely,

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low self-efficacy coupled with inappropriate causal attribution (or one's perception of the causal beliefs of success or failure) and low self-esteem may be barriers to success for students (Cantrell, 2001).

Self-efficacy and Job Performance

In studies related to work-performance, the degree of perceived self-efficacy has been shown overall to be positively and strongly related and to affect other variables such as motivation, selection of performance strategies and persistence in task execution (Gist & Mitchell, 1992; Harrison, Rainer, Hochwater, & Thompson, 1997; Stajkovic & Luthans, 1998; Judge & Bono, 2001; Mavis, 2001; Schwoerer, May, Hollensbe, Mencl, 2005). Empirical studies have also demonstrated that the relationship between self-efficacy and work-related performance is moderated by task complexity and the location of the task performance (Stajkovic & Luthans, 1998). In other words, as the complexity of the task increases, the less important are the self-efficacy traits. However, the complexity of work performance tasks may be mediated with an individual's cognitive ability and conscientiousness (Chen, Casper, & Corina, 2001). Further, a strong association between a knowledge base and clinical performance has been demonstrated among medical students and suggests that knowledge required to perform specific tasks underlies competent performance (Mavis, 2001). These concepts thereby lend support to the importance of one's training in performing specific nursing behaviors of increasing complexity.

Bandura (1997) also proposed that with a secure sense of self-efficacy, people learn more and perform better during the job training period than do those with low self-efficacy. Employees of high perceived self-efficacy are likely to perform occupational roles innovatively, where those of low perceived self-efficacy are prone to perform in their job role with little

personal enhancement (Bandura, 1997; Meretoja & Leino-Kilpi, 2003, Schwoerer et al, 2005).

In turn, success and feeling good are linked to job satisfaction and provide the impetus for

continued engagement in increasingly complex opportunities (Godinez et al., 1999; Judge and

Bono, 2001). Consequently, studies indicate that the satisfaction of new nurses is important in

shaping their perceptions about staying in their jobs and with their employers (Roberts, Jones, &

Lynn, 2004).

The degree of perceived self-efficacy among student nurses during the transition to staff

nurse working in acute care settings is not reported in the literature. Moreover, the literature did

not indicate a degree of change, if any, in the self-efficacy perceptions of the new nurses

following the conclusion of their formal acute care institution orientation programs, subsequent

preceptor mentoring through "coaching" activities and the experience of working independently

for a brief period within the clinical setting.

Self-efficacy is highly dependent on context or situation and measurement tools must be

developed with respect to a specific task or activity (Bandura, 1997; Jackson, 2002; Peterson &

Bredow, 2004). Accordingly, the research instrument used in this study, entitled The Self-

Efficacy for Professional Nursing Competencies Instrument® or SEPNCI (Appendix A), was

developed to measure self-efficacy perceptions for nursing skills and behaviors essential for

competent patient care within the acute care setting. Specifically, research on the efficacy beliefs

was examined within 6 nursing domains: (1) Nurse-client relationships; (2) Illness/Injury

Prevention, (3) Health Promotion, (4) Curative/Supportive Care, (5) Rehabilitative Care, and (6)

Professional Practice.

CHAPTER III

METHODOLOGY

Research Design

The study utilizes a quasi-experimental single-group pretest and posttest design to examine the degree of self-efficacy at the beginning of acute care institution orientation for new nurses (pretest), and 6 months after the interventions of a formal orientation, preceptor mentoring, and working independently as staff nurses (posttest).

The advantage of this design lies in the ability to demonstrate over time the level of the dependent variable before orientation coaching activities as well as changes which may have occurred after these activities. This design can be useful in providing a baseline against which to compare the effects of the treatment or the coaching activities which are used in this study (Spector, 1981).

Sample and Setting

Participants were solicited from approximately 80 nurses who began orientation in an acute care institution in southeastern North Carolina during June, July and August, 2005. The target sample size was as many new graduate nurses drawn from the entire population of new graduate nurses as possible.

All members of the targeted population who began orientation have been screened for the following inclusion criteria:

1. success on the National Council Licensure Examination for Registered Nurses (NCLEX);

2. proficiency in English (both written and verbal);

3. recent hire as a staff nurse within an acute care setting at a regional medical

center in southeastern North Carolina.

Procedure

Written permission to conduct this study was obtained from the Institutional Review Board (IRB) of the acute care institution and from the IRB of the University of North Carolina Wilmington. Informed consent (Appendix C) was obtained from each subject prior to data collection indicating a willingness to participate in the study. Participants were given assurance that participation was voluntary, withdrawal was permitted from the study at any time, and participation or nonparticipation would not affect employment status.

Participants completed the research instrument (Appendix A) and a demographic data survey (Appendix B) during their initial week of the orientation period. The principal investigator conducted the 30-minute data collection sessions with the study participants without interruptions. The investigator provided precise instructions on how to complete each of two questionnaires and how to place a numerical code on each questionnaire for appropriate matching to the posttest questionnaires completed 6 months later.

With the exception of 11 new nurse graduates whose employment at the medical center had ended, each participant was contacted after 6 months and asked to complete the SEPNCI a second time (posttest). Data from this follow-up assessment was compared to that of the pretest test data to determine if efficacy sources as proposed in the Theory of Self-Efficacy influenced posttest scores. A $10 gift certificate redeemable at the hospital coffee shop was given to each participant after his/her completion of the posttest in appreciation of his/her contribution to the study.

Instruments

The demographic data survey (Appendix B) was developed by the investigator in order to link demographic characteristics of the sample to the self-efficacy instrument (Appendix A). This survey (Appendix B) consists of questions pertinent to the respondents' age range, gender, race, full-time versus part-time employment status, type of nursing degrees awarded, approximate grade point averages while in school, prior nursing experiences such as that of a certified nursing assistant or licensed practical nurse, units of employment and prior experiences of working within their assigned units. This demographic information was compared to the responses in the questionnaires to determine if prior nursing experience and successful academic work influences the initial self-efficacy perceptions as suggested in Bandura's (1977; 1985; 1997) Theory of Self-Efficacy.

The research instrument, the Self-Efficacy for Professional Nursing Competencies Instrument (SEPNCI) (Appendix A), measured the degree of confidence one has for performing specific tasks or skills related to professional nursing competencies. The tool was adapted from the Canadian Nurses Association's Blueprint for the Canadian Registered Nurse Examination (1999). Content validity of the professional nursing competencies used to form the SEPNCI (Appendix A) was originally determined by a committee of the Canadian Nursing Association who evaluated the set of competencies. The initial competencies were evaluated by registered nurses selected by regulatory authorities. The competency committee subjected the competencies to further refinement. Subsequently, another 400 registered nurses at all levels of practice rated the competencies in terms of applicability, importance and frequency of use at the registered nurse entry-level.

The SEPNCI (Appendix A) contains 6 subscales: nurse-client relationships, illness/injury prevention, health promotion, curative-supportive care, rehabilitative care and professional practice. A standard, summative scale measures participants' overall confidence for meeting nursing competencies with anchors at 0 (not confident at all) and 100 (very confident) (Babenko-Mould, 2002). The Cronbach's alpha reliability coefficient calculated on prior study participants' scores from pretest to posttest is .98. The reliability coefficients of each domain are as follows: Nurse-Client Relationship: 0.92 (pretest) and 0.93 (posttest), Health Promotion: 0.96 (pretest) and 0.96 (posttest), Injury-Illness Prevention: 0.95 (pretest) and 0.95 (posttest), Curative-Supportive Care: 0.94 (pretest) and 0.97 (posttest), Rehabilitative Care: 0.95 (pretest) and 0.91 (posttest); and Professional Practice 0.96 (pretest) and 0.95 (posttest). The SEPNCI (Appendix A) is shown to have "good" criterion-related validity by accurately predicting that people with higher self-efficacy would have greater success than those who score low in self-efficacy in past vocational and educational goals (Babenko-Mould, 2002). The SEPNCI (Appendix A) has also demonstrated construct validity by correlating significantly in predicted directions with a number of other measures such as the General Self-Efficacy – Sherer Scale (GSESH) and the Self-Efficacy Scale of Nursing Activities (SESNA).

Limitations of Study

Generalizations made as a result of this study are limited to new graduate nurses who are beginning employment in an acute care institution in southeastern North Carolina. The demographic characteristics specific to these new nurse graduates, such as educational backgrounds and prior nursing-related work experience, may not be generalized to other regions of the U. S. A greater diversity in demographic characteristics than what is exhibited by the sample population may yield different results.

Ethical Considerations

Confidentiality of the subjects was maintained through the use of identification numbers for matching the demographic characteristics on the questionnaire with the research instrument. Names of the participants were placed on the demographic tool for the sole use of permitting the researcher in order to locate each participant for the second administration of the research instrument (posttest). The demographic tools, as well as the research questionnaire were maintained in a locked file cabinet in the researcher's office. All data, including all documents with identification, were promptly destroyed after the statistical analysis was complete.

CHAPTER IV

FINDINGS

Data Analysis

Data analysis for this research was generated using SAS/STAT® software, Version 8.1 of the SAS System for Windows. Statistical tests included the paired sample t-tests to compare pre-measure with posttest scores, and the Wilcoxon Rank Sums Test and Kruskal-Wallis Test was used to examine relationships between demographic characteristics and self-efficacy scores.

The response rate to the posttest data collection was 56% of the pretest responses (40 posttest responses compared to 71 pretest responses). Of the 31 new nurse graduates who did not respond to the posttest, 11, or 15.5%, of the 71 pretest participants had left employment with the regional medical center. This percentage compared to an average annual employment attrition rate of 16% for registered nurses at the regional medical center. Of that figure 28.5% had been employed for less than one year. Twenty new nurse graduates who remained employed at the regional medical center (28% of the pretest participants) elected not to complete the questionnaire a second time.

Threats to Validity and Reliability

The purpose of this study was to determine the degree of perceived self-efficacy related to the performance of specific nursing behaviors among new graduate nurses who began their formal acute care institution orientation program in southeastern North Carolina. Threats to internal and external validity, and reliability of the data were discerned and strategies implemented to exercise control in an attempt to decrease the possibility of error and increase the likelihood that the study's findings were an accurate and meaningful reflection of reality.

Content Validity

Issues related to instrumentation posed the greatest perceived threat to the content validity of this study. The investigator purposely chose an instrument with acceptable psychometric properties to enhance the validity and reliability of the findings. After consultation at the Statistical Research Center at the University of North Carolina Wilmington (UNCW) on the use of the instrument, the investigator solicited a panel of experts, namely 5 current faculty members of the UNCW School of Nursing and 3 nurse educators at the southeastern regional medical center. These experts were asked to comment on the representativeness and relevance of the instrument's items, as well as the completeness of items within each domain in assessing the construct of interest. Based on their recommendations, the investigator eliminated 5 items on the 182-item instrument due to content redundancy of these items within the instrument.

Internal Validity

The investigator used a purposive sample of the new graduate nurses who began their acute care institution orientation during the months of June, July and August, 2005. Valid conclusions could be drawn from this sample due to homogeneity of the sample. Inclusion criteria of the study consisted of success on the National Council Licensure Examination for Registered Nurses (NCLEX), ability to speak English and recent hire as staff nurses in an acute care setting at a regional medical center in southeastern North Carolina. The quasi-experimental research design of one-group pretest-posttest employed in this study was useful to detect the effectiveness of the interventions (the acute care institution's orientation and coaching activities) in a homogeneous group (Norwood, 2000).

Subject characteristics such as age, gender, race, educational background and prior nursing experience may influence the degree of efficacy perceptions; however, these demographic characteristics were examined by matching these characteristics through numerical

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coding of the demographic tool (Appendix B) to the pretest and posttest responses on the research instrument (Appendix A). Cross referencing occurred through statistical analysis of the collected data to appropriately identify any influence of sample demographic characteristics.

External Validity

A potential threat to the external validity of this study is the selection of a purposive sample. However, the subject characteristics such as age, gender, race, and educational background are typical for new nurse graduates within the region of the study. Based on Bandura's Theory of Self-Efficacy (1977; 1986; 1995; 1997), prior experience and academic achievement may affect the degree of efficacy perception. These demographic characteristics are examined by matching the responses through numerical coding of the demographic tool (Appendix B) to the instrument responses (Appendix A). Cross referencing occurs through statistical analysis of the collected data to appropriately identify any influence on self-efficacy scores related to demographic characteristics.

Another potential threat to the study's external validity is the data collection interval of 6 months between the pretest and posttest. The decision for this pretest/posttest interval was based on categories of sources or experiences (vicarious experience, verbal persuasion, and performance accomplishment) proposed by Bandura (1977) in the development of self-efficacy beliefs. The 3-month formal orientation period prescribed at the acute care institution was typical of the time interval that facilitates the development and socialization of newly-hired nursing staff to the responsibilities of their position on their assigned unit. Accordingly, the interval between the pretest/posttest data collection combined the 3-month formal orientation period (vicarious experience and verbal persuasion) with a 3-month period in which the respondents were able to work independently as staff nurses (performance accomplishment).

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Extension of this 6-month data collection interval could not occur due to time constraints on the researcher.

The greatest threat to the external validity of the study was the possibility that the results would not be generalizable to other populations due to the regional selection of the sample. Approximately 80 of the new graduate nurses had been expected to begin orientation during the months of June, July and August, 2005. Of the 71 who volunteered to participate, 66, or 93%, completed their nursing education from the southeastern regional of the United States. Twenty-one, or 30% of all participants, had prior healthcare experience within this same geographical area such as: nursing assistant, intern, paramedic, unit clerk, or EMS. Four percent had healthcare work experience in a different region of the United States. Although a single data collector promotes consistent data retrieval, this could also have been viewed as a threat to the reliability of the study. This may have resulted in possible errors that would skew the results of the study. The researcher double-checked all data entered in the collection tools to ensure accuracy. Since the researcher was not involved with the acute care institution orientation or coaching activities, objectivity was maintained throughout the study.

Control for Extrinsic Factors

The researcher ensured constancy of research conditions by being the sole presenter of the informed consent, demographic tool and research instrument to all participants with no demonstrated interruptions during the data collection period. The researcher was an objective participant in this study being unfamiliar with respondents in the study and a non-participant in the orientation process. The researcher had not participated in the respondents' formal nursing education nor had been associated with the preparation of any nurse education learning materials.

Pretest Results of Perceived Self-efficacy Beliefs

The overall mean score of perceived self-efficacy beliefs among 71 new graduate nurses across all 6 domains is 77.9 (S.D = 10.6) out of a possible 100 points. Statistical analyses of the overall pretest scores of the 71 responses across all domains are presented in Table 1.

The pretest scores of efficacy perceptions within each of the 6 domains are presented in Table 2. The highest mean score of self-efficacy perceptions is found in the Nurse-Client Relationship domain. The lowest mean score is found in the Curative/Supportive Care domain. Figure #1, the box plot graphs of the 6 domain mean scores, offers a visual comparison of the domain mean scores. The box plots indicate that there were not more than a mean 10 point difference between the domains. Domain D (Curative/Supportive Care) had the lowest number outliers as compared to the other 5 domains.

Individual questions receiving the lowest mean scores among the 71 pretest participants occurs in Domain D (Curative/Supportive Care). Specifically, there are 8 questions receiving less than 60 out of 100 possible points. Seven of the questions refer to interventions in rapidly changing health situations such as: myocardial infarction, stroke in evolution, shock, respiratory distress, labor and delivery, and mental health crisis. The eighth question receiving less than 60 out of 100 points pertains to the insertion and removal of nasogastric tubes.

Conversely, the two questions receiving the highest mean scores among the 71 pretest participants pertains to the establishment of a professional relationship with the client, and demonstration of respect for colleagues.

Table 1: Overall Perceptions of Self-Efficacy across the Six Domains (n = 71)

Mean	S. D.	95% Confidence Interval	Median	Max. score	Min. score	Top 25%	Low 25%
77.92	10.60	37.67 – 95.80	77.61	95.80	37.67	87.42	71.19

Table 2: Perceptions of Self-Efficacy within each Domain (n = 71)

Domain*	Mean	S.D.	95% Confidence Interval	Median	Min. score	Max. score	Low 25%	High 25%
A: Nurse-Client Relationship	82.51	9.59	58.46 – 98.46	83.08	58.46	98.46	76.92	90.00
F: Professional Practice	82.44	11.89	35.16 – 99.35	83.55	35.16	99.35	75.81	91.61
C: Illness/Injury Prevention	80.23	10.93	42.72 – 00.09	80.45	42.73	99.09	75.91	88.18
B: Health Promotion	79.71	11.66	40.74 – 99.26	78.85	40.74	99.26	70.74	89.00
E: Rehabilitative Care	76.87	13.44	32.00 – 99.33	78.00	32.00	99.33	66.67	86.67
D: Curative-Supportive Care	73.81	12.35	26.32 – 93.09	75.00	26.32	93.09	66.32	83.09

*Domains ranked in descending order

Figure 1: Boxplots of the Premeasure Self-Efficacy Scores in each of the Six Domains (n = 71).
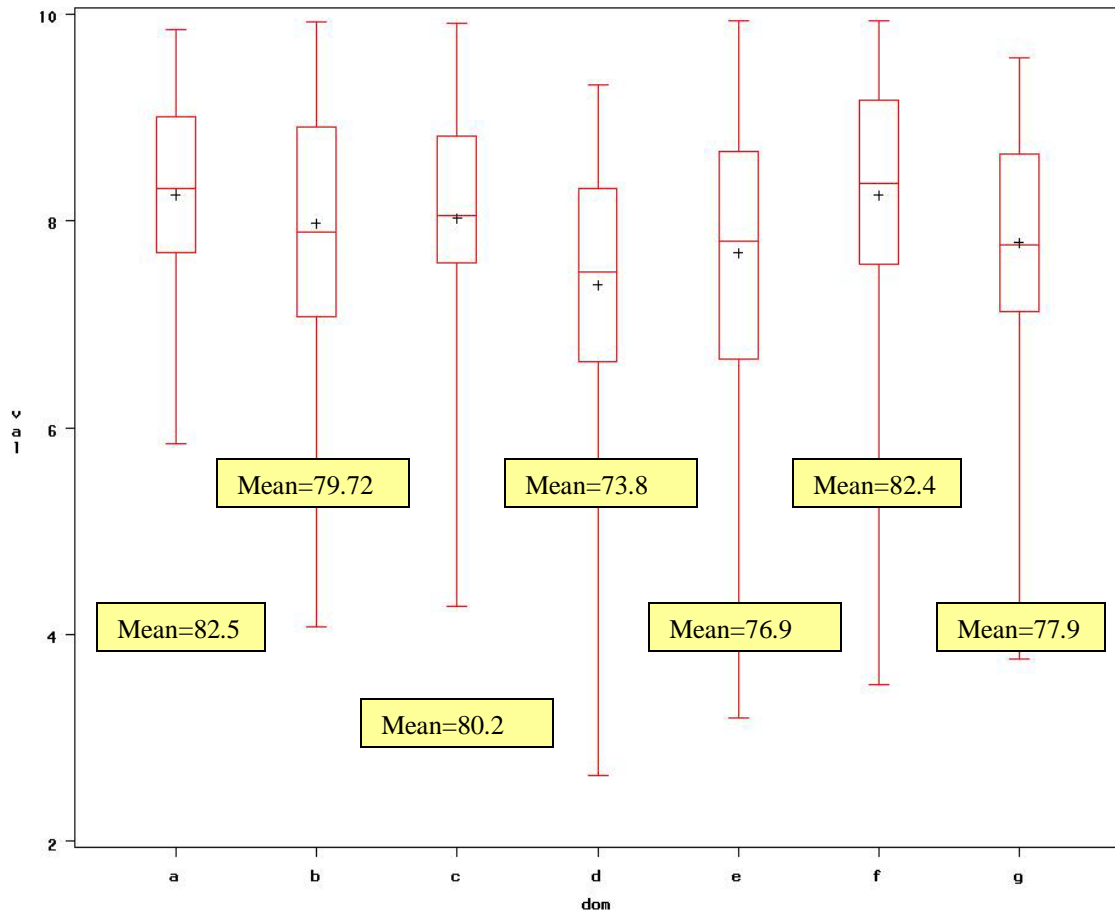
Key
  Horizontal axis: Six domains of the research instrument (SEPCNI®)
        a – Domain A: Nurse-Client Relationship
        b – Domain B: Health Promotion
        c – Domain C: Illness/Injury Prevention
        d – Domain D: Curative/Supportive Care
        e – Domain E: Rehabilitative Care
        f – Domain F: Professional Practice
        g – Overall means across all 6 domains
Vertical axis:
        Val (Numerical values x 10) = Numerical values of the premeasure scores

Changes in Self-efficacy Beliefs

There is a significant difference ($p \leq 0.001$) between the overall (across all 6 domains) mean scores. This overall mean difference between the pretest to posttest scores across the 6 domains is 9.4 points (S.D. = 10.0) with a confidence interval of -5.34 to 44.94. See Table 3 for the overall (across all 6 domains) data on the pretest-posttest differences.

Significant differences ($p < 0.001$) occurred between the mean posttest scores in all 6 domains (Nurse/Client Relationship, Illness/Injury Prevention, Curative/Supportive Care, Rehabilitative Care, Professional Practice and Health Promotion) compared to the mean scores of matching pretest domains. See Table 4 for the differences between the matching pretest-posttest mean scores and Figure 2 for the boxplot graphs of the posttest scores. One domain in which the least degree of difference occurred between pretest to postttest scores was is in Domain B, Health Promotion ($p = 0.015$). This domain describes activities designed to identify and analyze the client's own individual strengths and to use these strengths to help the client reach maximum function and quality of life or meet death with dignity (Taylor, et al., 2005). Specifically, nursing behaviors are directed at the identification of health promotion priorities and the learning needs of the client and the provision of teaching activities related to developmental transitions, family planning, exercise, rest, sleep, hygiene, sexual health and nutrition.

Table 3: Difference between Overall Postmeasure and Premeasure Means (n = 40)

Postmeasure – Premeasure Mean	St. Dev.	Paired t-test (df = 39)	p-Value	Median	95% Conf. Interval	Max. Value	Min. Value	High 25%	Low 25%
9.74	9.98	6.17	p < 0.001	8.57	6.55-12.93	44.94	-5.57	13.92	3.15

Table 4: Differences between Each Domain Comparing Postmeasure and Premeasure Scores (n = 40)

Postmeasure – Premeasure Domain	Mean	SD	Paired t-test (df = 39)	p-Value	Median	95% Conf. Interval	Max. Value	Min. Value	High 25%	Low 25%
D: Curative-Supportive Care	13.30	12.02	7.00	p<0.001	11.69	9.46-17.15	55.15	-5.74	17.13	4.56
F: Professional Practice	8.86	10.78	5.20	p<0.001	6.61	5.44-12.31	47.74	-11.94	16.13	1.13
C: Illness/Injury Prevention	7.63	11.08	4.35	p<0.001	7.05	4.08-11.17	43.18	-11.36	12.95	.91
E: Rehabilitative Care	7.25	10.93	4.20	p<0.001	5.33	3.76-10.75	42.00	-10.00	13.33	1.00
A: Nurse-Client Relationship	7.22	10.30	4.43	p<0.001	4.39	3.93-10.51	34.61	-10.00	13.08	0.38
B: Health Promotion	5.52	13.72	2.54	p=0.015	4.26	1.12-9.91	4.30	-27.00	11.11	0.74

Figure 2: Boxplots of the Postmeasure Self-Efficacy Scores in each of the Six Domains (n=40).
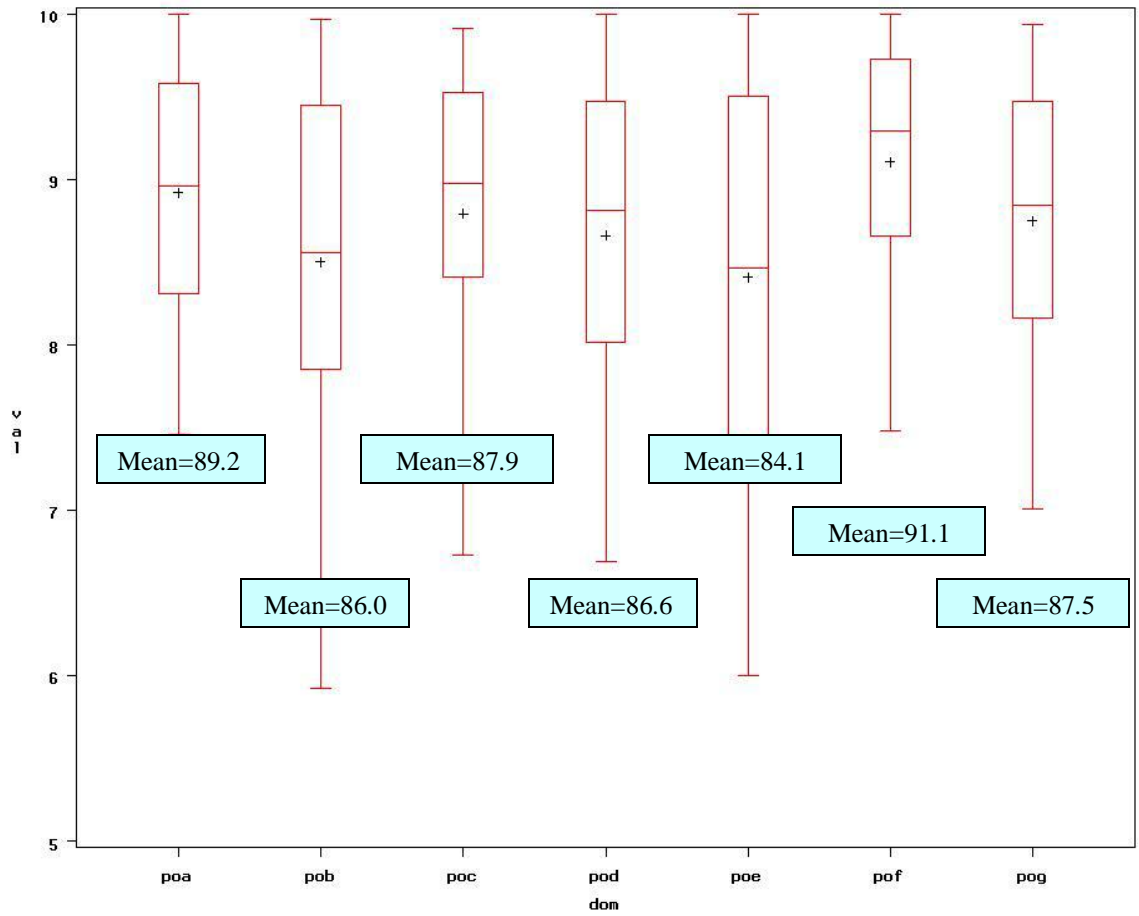
Key
  Horizontal axis: Six domains of the research instrument (SEPCNI®)
        poa – Domain A: Nurse-Client Relationship
        pob – Domain B: Health Promotion
        poc – Domain C: Illness/Injury Prevention
        pod – Domain D: Curative/Supportive Care
        poe – Domain E: Rehabilitative Care
        pof – Domain F: Professional Practice
        pog – Overall means across all 6 domains
Vertical axis:
        Val (Numerical values x 10) = Numerical values of the postmeasure scores

Table 5 presents the comparison data of the overall posttest perceptions of self-efficacy across the 6 domains among the 40 nurses who remain in the sample.

Table 6 presents the posttest perceptions of self-efficacy in each of the 6 domains among the 40 nurses who remain in the sample.

Individual items which exhibit the greatest difference between pretest to posttest mean scores occurs in Domain D (Curative/Supportive Care). Specifically, the greatest difference relates to the administration of blood/blood products (mean difference = 38 points), managing venous access devices (mean difference = 26 points), and interventions in rapidly changing situations: myocardial infarction (mean difference = 22 points), stroke (mean difference = 23 points), shock (mean difference = 24 points) and respiratory distress (mean difference = 27 points).

Conversely, the individual item which exhibits the least difference in mean pretest to posttest scores pertains to intervention in a rapidly changing health situation in labor and delivery (mean difference = 0.26 points; S.D.=29.95).

Demographic Characteristics and Self-efficacy Perceptions

No significant differences (p ≥ 0.05) in the self-efficacy domains are related to the demographic characteristics in the sample group, using the non-parametric Wilcoxon Rank Sum test or the Kruskal-Wallis test, as appropriate. See Table 7 for the demographic characteristics.

Table 5: Overall Premeasure Perceptions of Self-Efficacy across the Six Domains of the 40 Participants who participated in the Postmeasurement

Mean	SD	Median	Max. Score	Min. Score	Top 25%	Low 25%
77.70	11.11	77.36	95.80	37.67	86.82	70.85

Table 6: Premeasure Perceptions of Self-Efficacy within each Domain of the 40 Postmeasure Participants (ranked in descending order)

Domain	Mean	SD	Median	Min. score	Max score	Low 25%	High 25%
F: Professional Practice	82.19	11.53	82.90	50.32	99.35	75.97	99.35
A: Nurse-Client Relationship	82.02	10.47	83.08	58.46	96.92	73.85	90.77
C: Illness/Injury Prevention	80.31	11.67	80.23	42.73	98.18	74.32	90.23
B: Health Promotion	80.24	12.29	78.89	40.74	99.26	71.30	89.50
E: Rehabilitative Care	76.83	14.08	77.33	32.00	99.33	66.00	87.00
D. Curative/Supportive Care	73.29	12.90	73.31	26.32	93.09	66.18	81.76

Table 7: Demographic Characteristics of Premeasure Participants (n = 71)

	Number	% of n
Age: 20's	37	52
30's	19	27
40's	13	18
50's	2	3
Gender: Female	59	83
Male	12	17
Race: White	66	93
Non-white	5	7
Nursing Degree: ADN	51	72
BSN	20	28
GPA: 2.0 – 2.5	6	8
2.6 - 3.0	12	17
3.1 - 3.5	36	51
3.6 – 4.0	17	24
From southeast U.S.: Yes	5	7
No	66	93
Prior Nursing Exp.: Yes	12	17
No	59	83
If yes, < 18 months	10	83 (n = 12)
≥ 18 months	2	17 (n = 12)
Prior Unit Exp.: Yes	12	17
No	59	83
If yes, < 18 months	7	58 (n = 12)
≥ 18 months	5	42 (n = 12)
Prior NA Exp: Yes	26	37
No	45	63
If Yes, < 18 months	16	62 (n =26)
≥ 18 months	10	38 (n = 26)

CHAPTER V

DISCUSSION

Pretest Self-efficacy Perceptions

The findings revealed that prior to the beginning of the formal orientation/coaching activities, the overall mean of the new nurse graduates across all domains was 77.9 on a Likert scale ranging from 0 (not confident at all) to 100 (very confident). This is the mean value of the 71 responses to all 176 questions of the instrument exploring efficacy perceptions across every domain. This research finding implies that generally new nurse graduates begin their nursing careers confident in their abilities to perform nursing behaviors specified in the research instrument. It underscores the value of their nursing school preparation to perform these behaviors and the relatively high self-efficacy judgments of the new graduate nurses as to their capabilities to perform these nursing behaviors and skills. People with strong efficacy expectations persevere in the face of adversity, due to a belief that they will ultimately succeed (Bandura, 1977).

Nurse-Client Relationship Domain

The Nurse-Client Relationship domain receives the highest mean score (mean = 82.5, SD = 9.6. This domain specifies behaviors pertinent to the professional relationship between nurse and patient in which the nurse applies a repertoire of therapeutic behaviors to establish trusting nurse-client-family relationships. These relationships require competence in the nursing roles of caregiver, teacher, counselor and advocate (Taylor et al., 2005). The high self-efficacy mean score of this domain suggests the strength the new graduate nurses have concerning their perceived abilities to perform the tasks specified in this domain.

Curative/Supportive Care Domain

Conversely, the lowest pretest mean score of a domain is found in the Curative/Supportive Care domain (mean = 73.8, SD = 12.4). This domain addresses nursing activities provided patients in all health care agencies and settings which are designed to restore health. They include performing diagnostic measurements, referring questions and abnormal findings to other healthcare providers, assessment of patients' responses to drugs and providing direct care of the person who is ill. Direct care consists of measures of providing physical care, administering medications and carrying out procedures and treatment.

This domain pertains to clinical judgment skills or nursing skills required to assess and intervene in specific and rapidly deteriorating situations: myocardial infarction, stroke, shock, respiratory distress, labor and delivery, trauma and mental health crisis. These situations often rely on experiential judgments and are acquired in real situations. The domain also addresses the ability to manage multiple nursing interventions simultaneously. These are skills that extend beyond the reliance on abstract principles and theory learned in a classroom. It has been found that novice nurses have little to no experience in many of the situations they are confronted with and are given context-free rules to guide performance (Benner, 2001). However, the rule and procedure-governed behavior typical of the novice is limited and inflexible (Benner, 2001). Rules do not indicate what the most relevant tasks are to perform in an actual situation due to the absence of context (Benner, 2001). Since new graduate nurses entering clinical practice have little understanding of the contextual meaning of the recently learned textbook content, it is understandable that their self-efficacy perceptions in this domain are the lowest among all other domains.

There is a time lag between the new graduates experience in learning certain skills, the clinical procedures described in this domain, and the commencement of employment. The

technical skills of blood/blood product administration and nasogastric tube management can be forgotten during this period which may be a contributing factor for lower perceptions of self-efficacy in this domain (Ramritu & Barnard, 2001). Since self-efficacy expectations are developed through repeated successes in performance (which in turn reduce the impact of failure), the limited experiences of performance accomplishment among the new graduate nurses during their education and the initial orientation period may also contribute to the perception of lower self-efficacy.

Pretest to Posttest Differences

The significant difference ($p \leq 0.001$) between the pretest to posttest overall mean scores among all 6 domains confirmed the value and function of the acute care institution's orientation period and coaching activities. Further, it is during the period between the pretest to posttest period that orientation coaching activities and skill/behavior performances by the new nurse graduates occurs. These interventions support three of the four self-efficacy contributions proposed in Bandura's Theory of Self-Efficacy: success and failure on similar tasks (enactive attainment), observation of others (vicarious experience) and social influence of others (verbal persuasion). The fourth source, emotional arousal, a personal attribute, was not readily measurable.

Health Promotion Domain

The Health Promotion Domain (Domain B) has the smallest significant difference ($p=0.015$), which may suggest an area in which little, if any, emphasis during the orientation period is given. It may also suggest an area in which the new graduate nurses had little performance experience after 6 months of employment. Nurse educators and coaching preceptors may consider additional educational support, coaching activities, and training to build

self-efficacy within this area. Nurse educators can be directed towards assisting new nurses with identification of health promotion priorities and providing their clients with appropriate teaching activities relating to such.

Pretest to Posttest Differences by Clinical Area

The largest posttest overall mean score gain across all 6 domains (45 points) are observed in one participant currently employed in a critical care unit. The other major gains are observed in the responses of new nurse graduates employed on general medical/surgical units.

Negative Differences between Pretest to Posttest Mean Scores

The overall negative differences in pretest to posttest mean scores are among 5 of the 40 (12%) remaining participants. Of these, the greatest negative difference was 5.6 points, and there is inconsistency among the 6 domains in which negative scores are seen. The negative scores of the pretest to posttest differences may be attributed to highly inaccurate pretest responses from these respondents, especially those with little clinical nursing experience. Bandura (1985) stated that initial or early self-efficacy expectations can be unrealistically high due to a lack of an appropriate experiential base. Some misjudgment of ability to perform nursing skills can be attributed to insufficient experience in a new domain. The new graduate nurses may infer higher performance capabilities from other skill performances which in turn can mislead their self-efficacy judgment.

The greatest overall negative mean score difference of an individual response was 5.6 points which was observed in one new graduate nurse employed in a rehabilitation facility. Once possible reason for this score is that nursing practice is based on patient rehabilitative goals which differs from other acute care units.

Items with the Greatest Positive Difference between Pretest to Posttest Scores

Individual items receiving the greatest increase in posttest scores compared to pretest scores occurred in Domain D (Curative/Supportive Care) and specifically related to blood/blood product administration, management of venous access devices and interventions used in rapidly changing health situations. These increases support 3 of the 4 sources of self-efficacy perceptions proposed by Bandura (1977; 1986; 1995) and are exhibited in the coaching activities: actual performance of a specific task, verbal persuasion and vicarious experience.

Items with the Least Positive Difference between Pretest to Posttest Scores

The items receiving the least positive difference of pretest to posttest scores refers to intervening behaviors associated with the rapidly changing health situation in labor and delivery. Since only 2 of the 40 posttest nurses (5%) are employed in labor and delivery, it would be unusual for the remaining 95% of the respondents to have had relevant coaching activities in this area and have performed interventions relating to such.

Demographic Characteristics

There is no significant relationships between the demographic characteristics and self-efficacy perceptions. Evidence of variability among this sample is observed on Table 4. Demographic characteristics include an average age of ….(2x to 5x), educational background (ADN versus BSN degree), prior nursing experience (51 % with experience), GPA (2.0 to 3.9 on a 4.0 scale), gender (12 males versus 59 females), race (66 whites versus. 5 non-whites) and geographical regions of basic nursing education (66 from the southeastern United States versus. 5 from other regions). The absence of any significant difference of pretest responses attributed to any demographic variable may indicate that these variables are not influential factors on the self-efficacy perceptions or the sample is not large enough to detect significant differences.

Findings of Pretest Scores

Bandura (1977) in his Theory of Self-Efficacy stated that the efficacy expectations are not the only determinant of behavior. One's expectations alone do not produce a desired performance if the component capabilities are missing or if there is an absence of adequate performance incentives when the requisite skills are present (Bandura, 1977). However, given the appropriate skills and incentives, efficacy expectations are a major determinant of a person's choice of activities, how much effort he or she will expend, the degree of perseverance when confronting obstacles and how resilient he or she will be in the face of adverse situations (Bandura, 1977).

Findings of Pretest to Posttest Differences

The findings of this study show that the mean self-efficacy perceptions of the new nurse graduates indicate a fairly high level of confidence, 77.9 out of a possible 100 points, in their capabilities to perform specific nursing skills and behaviors at the entry-level competence. The findings also show that these perceptions improve with time, as evidenced by the overall posttest mean score, with an increase in the overall mean score across all 6 domains by nearly 10 points. Based on the review of literature, these findings are instrumental and accurate predictors of future behaviors given that new graduate nurses have the necessary ability and reasonable incentives for carrying out the nursing behaviors. Further, the strength of the perceived self-efficacy results relates to the confidence the nurses have concerning task performance, their perseverance when obstacles are met and their resilience in facing adverse situations. The literature also revealed that self-efficacy beliefs influence self-determined goals and challenges people set for themselves and their commitment to them.

The findings also reveal significant increases ($p<0.05$) in self-efficacy scores over time and after coaching activities with an increase in the overall mean score in the posttest of 87.5

points. This result confirms three of the four sources of self-efficacy beliefs as proposed in Bandura's Theory of Self-Efficacy, namely enactive attainment (through the actual performance of nursing skills), vicarious experience and verbal persuasion (through coaching activities).

Findings Related to Demographic Characteristics

The results of the study also indicate that demographic characteristics present in the study's sample had no impact on self-efficacy perceptions. These findings confirm that the strength of self-efficacy perceptions may not be impacted by the characteristics that were measured nor may they be construed as barriers to perceived self-efficacy.

Implications and Recommendations

Assessment of Self-efficacy Beliefs

As the review of literature revealed, a sound assessment of the degree of self-efficacy beliefs is important for nurse educators and nurse administrators to consider when understanding and predicting behavioral outcomes in new nursing graduates.   These perceptions may serve as a strategic component in educational planning and student guidance to prepare pre-licensure students and enhance the performance of new graduate nurses.

The results of this study identify and compare domains within the broad scope of nursing practice in which the perceived self-efficacy to perform the component behaviors are higher or lower. Identification of such areas in which the mean scores indicate a lower strength of self-efficacy may serve as a basis for interventions, such as in educational programs and new coaching activities.

Enactive Attainment through Practice and Case studies

Enactive mastery experience or performance attainment, according to Bandura (1977; 1986; 1997) is the most influential source of self-efficacy information since it provides the most

authentic evidence of whether one can muster what it takes to succeed. Expertise is developed through the actual practice of skills and behaviors. This self-efficacy source also provides stronger and more generalized efficacy beliefs than do the other self-efficacy sources of vicarious experiences or verbal instruction.

Since self-efficacy expectations greatly impact performance and are strongly influenced by past and present successes, it is important for the new graduate nurse to be able to successfully test his/her abilities in skill mastery (performance attainment). He or she needs opportunities to learn from success and failure and to develop knowledge from it. At the undergraduate level, nurse educators are in prime positions not only to provide the challenges but to encourage self-determined goals and choose resources and responsibilities in ways that promote success. The undergraduate clinical experiences are the appropriate venue to reinforce efficacy behaviors. These experiences provide opportunities for students to practice nursing skills and behaviors and they enhance the ability to learn (Billings & Halstead, 2005).

The findings indicate that the domain with the lowest mean scores was that of Curative/Supportive Care. This domain deals with the application of specific technical skills used in clinical practice and clinical judgment. It includes such behaviors as medication administration, management of venous access devices and drainage/collection tubes, intravenous therapy, pain management, blood/blood product administration, and the use of universal precautions. One contributing factor for these lower scores may have resulted from the time lag the new graduates experienced from practicing many of these skills and the start of their hospital employment. Academic nurse educators may consider reducing the time span by providing skill enrichment through performance activities leading up to student graduation. It is important as

well that hospital nurse educators plan learning activities that provide maximum skill practice during coaching activities.

The Curative/Supportive Care domain also addresses skillful interventions used in rapidly changing health situations. Since these interventions rely not only on practical, how-to knowledge but on expertise developed through actual practice situations, the new graduate nurse with limited experience must rely on problem-solving of a more elemental nature (Benner, 2001). However, nurse educators may consider learning activities using case studies in which the students' ability to grasp the situation is sought and challenged. Patricia Benner (1984) suggests that for greater learning purposes case studies have levels of complexity and ambiguity similar to actual clinical situations.

The results also indicate that Domain B, Health Promotion, exhibited a lesser degree of significant difference between the mean pretest to posttest scores. This may suggest that component activities of this domain were neither practiced nor emphasized during the coaching period. In that case, it is recommended that nurse educators and coaches provide additional educational support and coaching activities in Health Promotion to enhance nursing skills of assessing prioritized patient health needs and providing relevant patient teaching activities.

Providing Vicarious Experience through Modeling Activities

The increase in perceived self-efficacy following coaching activities supports the importance that the coaching activities through modeling (vicarious experience) has on efficacy beliefs. Bandura (1977) suggested that seeing others perform activities through vicarious experience without adverse consequences can generate in the observer a sense that he/she will also improve. Thus, it is important for nurse educators and coaches to be aware of the importance of their role in modeling and influencing new nurses. Equally important is the selection of role

models as nurse educators and coaches for learning outcomes of both students and new graduate nurses. Additionally, the means in which to mentor or coach a new graduate nurse may not be apparent among the coaches and educational support for these chosen staff mentors should be offered.

Verbal Persuasion through Education and Coaching Activities

The positive impact exhibited by the study's findings that coaching activities had on the posttest scores supports verbal persuasion, or verbal feedback, as an influential source of perceived self-efficacy. This confirms that encouragement and constructive criticism offered by coaches on skill development impact perceptions of one's capabilities to perform specific nursing tasks. Learners need clear information that they are acquiring knowledge and skills and making progress, as well as feedback which may correct defects in task performance (Bandura, 1997).

Verbal persuasion in the form of reactions displayed by nurse educators and preceptors over student performance may also serve to influence self-efficacy perceptions. Generally, students and new graduate nurses possess intrinsic incentives to achieve success and become "good" nurses. Hence, reactionary responses to student errors and risk-taking behavior have formative impact on the students' future self-evaluations, their creativity and risk taking behaviors (Schunk, 2005). Formative feedback during skill acquisition allows students to be able to learn or perform well on their own (Schunk, 2005).

Coping/Stress Reduction Skills during Coaching Activities

While the fourth source of self-efficacy beliefs, physiological feedback, was not capable of being measured in this study, its importance on self-efficacy perceptions cannot be ignored. This researcher suggests that nurse educators and coaches be encouraged to incorporate coping

skills during coaching activities. Doing so may assist the new graduate nurses to better mitigate and deal successfully with stressful situations. Further, this researcher suggests that coaches engage the new graduate nurses in discussion at the end of the day which focuses on exploring the context of clinical situations that may have required deviation from textbook models and relied instead on skillful clinical judgment.

Recommendations for Future Research

Additional research may be needed to determine if a greater diversity among nurses would influence self-efficacy perceptions. The demographic characteristics specific to the study's sample may not be generalized to other regions of the United States and a greater diversity among these characteristics may yield different results.

Research is also recommended using qualitative methods to identify factors that contribute to the gain or loss in self-efficacy perceptions over time. Further research among this sample may reveal ongoing trends in perceived self-efficacy changes and whether specific demographic influences (i.e. increased nursing experience, job changes and additional education) are operating.

Further study of actual performances of the behaviors stipulated in the 6 domains of the research instrument (Appendix A) by the new nurse graduates may clarify potential reciprocal effects on each other. In other words, if the performances of the new nurses can be quantitatively judged and compared to matching self-efficacy beliefs, a relationship between these beliefs and the outcomes may be established.

Replication of this study with future staff nurses is worthwhile to understand what changes, if any, in perceived self-efficacy may occur at a different time and over a longer period

of time. This in turn would keep nurse educators attuned to the educational needs in preparing nurses for safe and competent practice.

Summary

The purpose of this study was to determine the initial perceived self-efficacy judgments among new graduate nurses, how these perceptions changed over time and if these perceptions were affected by demographic characteristics of the sample. Using Bandura's Theory of Self-Efficacy (1977; 1986; 1997) as the theoretical framework, the study outlined the impact self-efficacy perceptions have on behavior and provided support for sources of these perceptions. Emphasis was given to the role that nurse educators have, both at the pre-licensure academic and post graduate clinical levels, in providing direction to the new nurses. Suggestions were made as to means in which to increase self-efficacy perceptions among pre-licensure nursing students and new graduate nurses, particularly in domains where weaknesses were identified.

"It is simply not a matter of how capable one is, rather of how capable one believes oneself to be." (Bandura, 1984)

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Self-Efficacy for Professional Nursing Competencies Questionnaire©

Terminology:

Self-efficacy (degree of confidence) pertains to one's belief in his/her own ability to carry out specific behaviors (Bandura, 1977).

Professional nursing competencies include the "knowledge, abilities, skills, attitudes, and judgment" required of the entry-level registered nurse to practice safely and effectively. These competencies were adopted from the Canadian Nurses Association. The competencies are grouped here into 6 domains: nurse-client relationship, health promotion, illness/injury prevention, curative/supportive care, rehabilitative care, and professional practice (CNA, 1999).

Instructions: **Please indicate how confident you are that you can perform the following behaviors. Circle the number that best matches your response, e.g. a score of 100 means you are 100% confident.**

A. Nurse-Client Relationship	**Not confident at all**						**Very Confident**				
1. Establish professional relationship with client.	0	10	20	30	40	50	60	70	80	90	100
2. Use therapeutic communication techniques with client.	0	10	20	30	40	50	60	70	80	90	100
3. Identify effect of my own values and assumptions in interactions with clients.	0	10	20	30	40	50	60	70	80	90	100
4. Demonstrate consideration of client diversity.	0	10	20	30	40	50	60	70	80	90	100
5. Provide culturally sensitive care to client.	0	10	20	30	40	50	60	70	80	90	100
6. Discern when clients' health practices can be accommodated or modified.	0	10	20	30	40	50	60	70	80	90	100
7. Collaborate with client in planning and evaluation of care.	0	10	20	30	40	50	60	70	80	90	100
8 Facilitate client's participation in all aspects of care.	0	10	20	30	40	50	60	70	80	90	100
9. Select interventions consistent with client identified concerns and priorities.	0	10	20	30	40	50	60	70	80	90	100

10.	Support informed choice of client to make decisions regarding care.	0	10	20	30	40	50	60	70	80	90	100
11.	Consider client's existing resources throughout plan of care.	0	10	20	30	40	50	60	70	80	90	100
12.	Obtain client's consent prior to involving others in care.	0	10	20	30	40	50	60	70	80	90	100
13.	Maintain a caring environment that assists client in achieving health outcomes.	0	10	20	30	40	50	60	70	80	90	100

B. Health Promotion

1.	Identify determinants of health that are pertinent to the client and the situation.	0	10	20	30	40	50	60	70	80	90	100
2.	Collaborate with client to develop and establish health promotion priorities.	0	10	20	30	40	50	60	70	80	90	100
3.	Assist client in understanding link between health promotion strategies and health outcomes.	0	10	20	30	40	50	60	70	80	90	100
4.	Support client choice to use alternate therapies.	0	10	20	30	40	50	60	70	80	90	100
5.	Encourage client to seek out groups for mutual aid, support, and community action.	0	10	20	30	40	50	60	70	80	90	100
6.	Coordinate activities with client and others to facilitate continuity of care.	0	10	20	30	40	50	60	70	80	90	100
7.	Develop learning plans in collaboration with client.	0	10	20	30	40	50	60	70	80	90	100
8.	Identify areas for health promotion.	0	10	20	30	40	50	60	70	80	90	100
9.	Assess learning needs of client.	0	10	20	30	40	50	60	70	80	90	100
10.	Select appropriate medium and strategies to meet client's learning needs and available resources.	0	10	20	30	40	50	60	70	80	90	100
11.	Encourage client to assume ownership of health promotion plan.	0	10	20	30	40	50	60	70	80	90	100
12.	Assist client in implementing learning plans.	0	10	20	30	40	50	60	70	80	90	100
13.	Verify client comprehension of essential information and skills.	0	10	20	30	40	50	60	70	80	90	100
14.	Verify client ability to apply essential information and skills.	0	10	20	30	40	50	60	70	80	90	100

15.	Provide evident-based health-related information to the client.	0	10	20	30	40	50	60	70	80	90	100
16.	Use principles of teaching/learning in health promotion activities.	0	10	20	30	40	50	60	70	80	90	100
17.	Involve key stakeholders in health promotion activities.	0	10	20	30	40	50	60	70	80	90	100
18.	Support client through developmental transitions	0	10	20	30	40	50	60	70	80	90	100
19.	Teach about family planning.	0	10	20	30	40	50	60	70	80	90	100
20.	Promote healthy environment with client.	0	10	20	30	40	50	60	70	80	90	100
21.	Promote health habits related to physical activity/exercise.	0	10	20	30	40	50	60	70	80	90	100
22.	Promote the use of health coping strategies to deal with life events.	0	10	20	30	40	50	60	70	80	90	100
23.	Promote balance between rest/sleep and activity.	0	10	20	30	40	50	60	70	80	90	100
24.	Promote health practices related to hygiene.	0	10	20	30	40	50	60	70	80	90	100
25.	Promote healthy sexuality.	0	10	20	30	40	50	60	70	80	90	100
26.	Promote safe sexual practices.	0	10	20	30	40	50	60	70	80	90	100
27.	Promote healthy habits related to nutrition.	0	10	20	30	40	50	60	70	80	90	100

C. Illness/Injury Prevention

1.	Use data collection techniques pertinent to client and the situation.	0	10	20	30	40	50	60	70	80	90	100
2.	Identify actual or potential problems/risk factors.	0	10	20	30	40	50	60	70	80	90	100
3.	Identify actual or potential safety risks to client.	0	10	20	30	40	50	60	70	80	90	100
4.	Incorporate research findings about health risks And risk reduction into plan of care.	0	10	20	30	40	50	60	70	80	90	100
5.	Collaborate with clients to reduce complex health risks into manageable components.	0	10	20	30	40	50	60	70	80	90	100
6.	Collaborate with client to prioritize needs and develop risk prevention strategies.	0	10	20	30	40	50	60	70	80	90	100
7.	Reduce risk of disease transmission.	0	10	20	30	40	50	60	70	80	90	100

		Not confident at all						Very confident				
8.	Minimize sensory overload.	0	10	20	30	40	50	60	70	80	90	100
9.	Employ safety measures to prevent client injury.	0	10	20	30	40	50	60	70	80	90	100
10.	Encourage client's use of safety measures to prevent injury.	0	10	20	30	40	50	60	70	80	90	100
11.	Help client to understand preventable health problems or issues and their consequences.	0	10	20	30	40	50	60	70	80	90	100
12.	Implement strategies to prevent communicable diseases.	0	10	20	30	40	50	60	70	80	90	100
13.	Implement strategies to prevent domestic violence, abuse, and neglect.	0	10	20	30	40	50	60	70	80	90	100
14.	Implement strategies related to prevention/early detection of prevalent diseases.	0	10	20	30	40	50	60	70	80	90	100
15.	Implement strategies related to prevention of addictive behaviors.	0	10	20	30	40	50	60	70	80	90	100
16.	Implement strategies to minimize risk of mental health problem.	0	10	20	30	40	50	60	70	80	90	100
17.	Implement preventative strategies related to safe use of medication.	0	10	20	30	40	50	60	70	80	90	100
18.	Implement preventive strategies related to environmental safety.	0	10	20	30	40	50	60	70	80	90	100
19.	Implement preventive strategies related to workplace safety.	0	10	20	30	40	50	60	70	80	90	100
20.	Evaluate effectiveness of preventive measures with client.	0	10	20	30	40	50	60	70	80	90	100
21.	Employ safety measures to protect self from injury.	0	10	20	30	40	50	60	70	80	90	100
22.	Employ safety measures to protect self from potentially abusive situations in work environment.	0	10	20	30	40	50	60	70	80	90	100

D. Curative/Supportive Care

1.	Use appropriate techniques for data collection.	0	10	20	30	40	50	60	70	80	90	100
2.	Collect data about various dimensions of the client.	0	10	20	30	40	50	60	70	80	90	100

3.	Collect data from a range of appropriate sources.	0	10	20	30	40	50	60	70	80	90	100
4.	Adapt assessment to client's situation.	0	10	20	30	40	50	60	70	80	90	100
5.	Validates data with client and/or appropriate sources.	0	10	20	30	40	50	60	70	80	90	100
6.	Establish relationships between and among the various data collected.	0	10	20	30	40	50	60	70	80	90	100
7.	Interpret data within the context of scientific knowledge and norms.	0	10	20	30	40	50	60	70	80	90	100
8.	Identify actual and potential health problems.	0	10	20	30	40	50	60	70	80	90	100
9.	Develop the plan of care.	0	10	20	30	40	50	60	70	80	90	100
10.	Document the plan of care.	0	10	20	30	40	50	60	70	80	90	100
11.	Select interventions consistent with priority of situation.	0	10	20	30	40	50	60	70	80	90	100
12.	Modify interventions to suit client situation by selecting interventions that are consistent with client's identified concerns and priorities.	0	10	20	30	40	50	60	70	80	90	100
13.	Select appropriate technology in accordance available resources and client needs.	0	10	20	30	40	50	60	70	80	90	100
14.	Support client's participation in implementation of plan of care.	0	10	20	30	40	50	60	70	80	90	100
15.	Help client understand interventions and their relationship to expected outcomes.	0	10	20	30	40	50	60	70	80	90	100
16.	Use principles of teaching and learning with client receiving curative/supportive care.	0	10	20	30	40	50	60	70	80	90	100
17.	Facilitate appropriate and timely response of health team members to client care needs.	0	10	20	30	40	50	60	70	80	90	100
18.	Coordinate activities with client and others to promote continuity of care.	0	10	20	30	40	50	60	70	80	90	100
19.	Prepare client for diagnostic procedures and treatments using appropriate resources.	0	10	20	30	40	50	60	70	80	90	100
20.	Provide client care throughout perioperative experience.	0	10	20	30	40	50	60	70	80	90	100
21.	Promote optimal ventilation and respiration when breathing is impaired.	0	10	20	30	40	50	60	70	80	90	100

		Not confident at all								Very Confident		
22.	Ensure ventilation and respiration when breathing is impaired.	0	10	20	30	40	50	60	70	80	90	100	
23.	Promote circulation.	0	10	20	30	40	50	60	70	80	90	100	
24.	Monitor fluid balance.	0	10	20	30	40	50	60	70	80	90	100	
25.	Promote adequate fluid intake.	0	10	20	30	40	50	60	70	80	90	100	
26.	Relate nutritional needs to physiological conditions.	0	10	20	30	40	50	60	70	80	90	100	
27.	Manage nutritional access devices.	0	10	20	30	40	50	60	70	80	90	100	
28.	Promote urinary elimination in client with compromised system.	0	10	20	30	40	50	60	70	80	90	100	
29.	Promote bowel elimination in client with compromised system.	0	10	20	30	40	50	60	70	80	90	100	
30.	Promote client's correct body alignment.	0	10	20	30	40	50	60	70	80	90	100	
31.	Promote tissue integrity of client.	0	10	20	30	40	50	60	70	80	90	100	
32.	Promote comfort by using various measures.	0	10	20	30	40	50	60	70	80	90	100
33.	Promote sensory stimulation at an appropriate	0	10	20	30	40	50	60	70	80	90	100	
34.	Intervene in response to changes observed in client's condition.	0	10	20	30	40	50	60	70	80	90	100	
35.	Manage multiple nursing interventions simultaneously.	0	10	20	30	40	50	60	70	80	90	100	
36.	Communicate to appropriate health team members.	0	10	20	30	40	50	60	70	80	90	100	
37.	Modify plan of care to suit client's changing situation.	0	10	20	30	40	50	60	70	80	90	100	
38.	Calculate medication dosage correctly.	0	10	20	30	40	50	60	70	80	90	100	
39.	Determine medication dosage is safe.	0	10	20	30	40	50	60	70	80	90	100	
40.	Administer medications safely and appropriately.	0	10	20	30	40	50	60	70	80	90	100
41.	Assess client's response to drugs.	0	10	20	30	40	50	60	70	80	90	100	
42.	Discern when a PRN medication is indicated.	0	10	20	30	40	50	60	70	80	90	100	

	Not confident at all						Very Confident				
43. Take appropriate actions when desired responses to medication are not attained.	0	10	20	30	40	50	60	70	80	90	100
44. Assist client to manage pain with non-pharmacological measures.	0	10	20	30	40	50	60	70	80	90	100
45. Assist client to manage pain with pharmaceutical agents.	0	10	20	30	40	50	60	70	80	90	100
46. Safely administer blood/blood products.	0	10	20	30	40	50	60	70	80	90	100
47. Manage venous access devices.	0	10	20	30	40	50	60	70	80	90	100
48. Manage drainage tubes and collection devices.	0	10	20	30	40	50	60	70	80	90	100
49. Insert and remove nasogastric tubes.	0	10	20	30	40	50	60	70	80	90	100
50. Maintain established peripheral intravenous therapy.	0	10	20	30	40	50	60	70	80	90	100
51. Maintain central venous intravenous therapy.	0	10	20	30	40	50	60	70	80	90	100
52. Apply principles of microbiology and communicable disease transmission as demonstrated through application of universal precautions.	0	10	20	30	40	50	60	70	80	90	100
53. Intervene in a rapidly changing health situation: myocardial infarction.	0	10	20	30	40	50	60	70	80	90	100
54. Intervene in a rapidly changing health situation: stroke in evolution.	0	10	20	30	40	50	60	70	80	90	100
55. Intervene in a rapidly changing health situation: shock.	0	10	20	30	40	50	60	70	80	90	100
56. Intervene in a rapidly changing health situation: respiratory distress.	0	10	20	30	40	50	60	70	80	90	100
57. Intervene in a rapidly changing health situation: labor and delivery.	0	10	20	30	40	50	60	70	80	90	100
58. Intervene in a rapidly changing health situation: mental health crisis.	0	10	20	30	40	50	60	70	80	90	100
59. Intervene in a rapidly changing health situation: trauma.	0	10	20	30	40	50	60	70	80	90	100
60. Evaluate and respond appropriately to status of clients in relation to anticipated outcomes.	0	10	20	30	40	50	60	70	80	90	100
61. Evaluate effectiveness of nursing interventions	0	10	20	30	40	50	60	70	80	90	100

		Not confident at all										Very confident

62. Prepare client for discharge.   0 10 20 30 40 50 60 70 80 90 100

63. Coordinate continuity of care across care settings.   0 10 20 30 40 50 60 70 80 90 100

64. Provide supportive care to clients with chronic illness.   0 10 20 30 40 50 60 70 80 90 100

65. Perform palliative nursing interventions to meet physical needs.   0 10 20 30 40 50 60 70 80 90 100

66. Perform palliative nursing interventions to meet physical needs.   0 10 20 30 40 50 60 70 80 90 100

67. Perform palliative nursing interventions to meet psychosocial needs.   0 10 20 30 40 50 60 70 80 90 100

68. Provide care that is sensitive to clients expressing loss.   0 10 20 30 40 50 60 70 80 90 100

69. Provide supportive care throughout dying process.   0 10 20 30 40 50 60 70 80 90 100

E. Rehabilitative Care

1. Facilitate continuity and consistency of care in approach used by all members of health care team.   0 10 20 30 40 50 60 70 80 90 100

2. Individualize care to accommodate client's deficits in sensory and cognitive functions.   0 10 20 30 40 50 60 70 80 90 100

3. Begin rehabilitative measures at earliest opportunity.   0 10 20 30 40 50 60 70 80 90 100

4. Provide nursing care to prevent development of complications that can impede recovery.   0 10 20 30 40 50 60 70 80 90 100

5. Promote client's positive self-concept.   0 10 20 30 40 50 60 70 80 90 100

6. Assist client in accessing community resources.   0 10 20 30 40 50 60 70 80 90 100

7. Support client to draw on own assets and resources in meeting self-care needs.   0 10 20 30 40 50 60 70 80 90 100

8. Promote social interaction of client.   0 10 20 30 40 50 60 70 80 90 100

9. Assist client with prosthetic and mobilizing devices.   0 10 20 30 40 50 60 70 80 90 100

	Not confident at all						Very confident			
10. Promote client mobility.	0	10	20	30	40	50	60	70	80	90	100
11. Arrange for adaptations in environment to facilitate client's development of independence in activities of daily living.	0	10	20	30	40	50	60	70	80	90	100
12. Promote elimination.	0	10	20	30	40	50	60	70	80	90	100
13. Assess for psychological and psychosocial adaptation.	0	10	20	30	40	50	60	70	80	90	100
14. Encourage family and significant others to support client during the rehabilitation process.	0	10	20	30	40	50	60	70	80	90	100
15. Assist client with reintegration into family and community networks.	0	10	20	30	40	50	60	70	80	90	100

F. Professional Practice

1. Practice in a manner consistent with the North Carolina Nursing Practice Act: health and well-being.	0	10	20	30	40	50	60	70	80	90	100
2. Practice in a manner consistent with the North Carolina Nursing Practice Act: choice.	0	10	20	30	40	50	60	70	80	90	100
3. Practice in a manner consistent with the North Carolina Nursing Practice Act: dignity.	0	10	20	30	40	50	60	70	80	90	100
4. Practice in a manner consistent with the North Carolina Nursing Practice Act: confidentiality	0	10	20	30	40	50	60	70	80	90	100
5. Practice in a manner consistent with the North Carolina Nursing Practice Act: fairness.	0	10	20	30	40	50	60	70	80	90	100
6. Practice in a manner consistent with the North Carolina Nursing Practice Act: accountability.	0	10	20	30	40	50	60	70	80	90	100
7. Practice in a manner consistent with the North Carolina Nursing Practice Act: practice environment conducive to safe, competent and ethical care.	0	10	20	30	40	50	60	70	80	90	100
8. Practice in a manner consistent with acts governing nursing practice, the regulatory body's standards for nursing and guidelines for the scope of nursing practice.	0	10	20	30	40	50	60	70	80	90	100
9. Practice in a manner consistent with common law and legislation that directs practice.	0	10	20	30	40	50	60	70	80	90	100

		Not confident at all						Very confident			
10. Exercise professional judgment when following agency procedures, protocols or position statements.	0	10	20	30	40	50	60	70	80	90	100
11. Exercise professional judgment in absence of agency procedures, protocols or position statements.	0	10	20	30	40	50	60	70	80	90	100
12. Practice in a manner consistent with pro-fessional values, principles of safety and obligation to take action.	0	10	20	30	40	50	60	70	80	90	100
13. Advocate for client or client's representative, especially when client is unable to advocate for self.	0	10	20	30	40	50	60	70	80	90	100
14. Maintain clear, concise, accurate, and timely record of client care.	0	10	20	30	40	50	60	70	80	90	100
15. Use appropriate, cost-effective health care resources to provide effective and efficient care.	0	10	20	30	40	50	60	70	80	90	100
16. Organize own workload effectively.	0	10	20	30	40	50	60	70	80	90	100
17. Identify an unrealistic workload and seek assistance as necessary.	0	10	20	30	40	50	60	70	80	90	100
18. Accept responsibility for own action and decisions when delegating.	0	10	20	30	40	50	60	70	80	90	100
19. Use evidence-based knowledge from nursing, health sciences, and related disciplines in the provision of individualized nursing care.	0	10	20	30	40	50	60	70	80	90	100
20. Recognize limitations of own competence and seek assistance when necessary.	0	10	20	30	40	50	60	70	80	90	100
21. Delegate health care activities to others con-sistent with levels of expertise, education, job description/agency policy, and client needs.	0	10	20	30	40	50	60	70	80	90	100
22. Evaluate outcomes of delegated health care activities.	0	10	20	30	40	50	60	70	80	90	100
23. Build partnerships with nursing and members of health care team to provide health services.	0	10	20	30	40	50	60	70	80	90	100
24. Clarify nurses role and responsibilities to other health care team members.	0	10	20	30	40	50	60	70	80	90	100
25. Demonstrate respect for colleagues.	0	10	20	30	40	50	60	70	80	90	100
26. Maintain effective communication with health care team.	0	10	20	30	40	50	60	70	80	90	100

	Not confident at all						Very confident				
27. Provide constructive feedback to colleagues.	0	10	20	30	40	50	60	70	80	90	100
28. Use conflict resolution skills to facilitate health team interactions.	0	10	20	30	40	50	60	70	80	90	100
29. Report unsafe practice of nursing colleagues and other members of health care team to the appropriate authority.	0	10	20	30	40	50	60	70	80	90	100
30. Use established communication protocols within the health care agency, across agencies, health system, and community.	0	10	20	30	40	50	60	70	80	90	100
31. Participate in planning, implementing, and evaluating changes that affect nursing practice, client care, and the practice environment.	0	10	20	30	40	50	60	70	80	90	100

Thank you so much for your participation!!!

Demographic Questionnaire

Instructions: Please take a few moments to check the appropriate areas for demographic information only. This information is for research purposes. Complete confidentiality of any information provided is assured.

1. Age range: 21 to 29 years _____   30 to 39 years _____
                   40 to 49 years _____   50 to 59 years _____
                   60 years and over _____

2. Gender: Male _____
                Female _____

3. Race: Black _____   White _____   Other _____
                Hispanic _____   Asian _____

4. Unit of employment: _____

5. Employment status: Full time _____
                          Part-time _____

6. Prior experience working in assigned unit?
      Yes: _____
        If so, how much (specify # of months or years): _____
        If so, job title: _____
       No: _____

7. Prior nursing experience?
      Yes: _____
            If so, how much (specify # of months or years): _____
            If so, job title: _____
       No: _____

8. Prior nursing assistant experience?
      Yes: _____
            If so, how much (specify # of months or years): _____
            If so, job title: _____
       No: _____

9. Type of nursing degree (check one): BSN _____   ADN _____   Diploma _____

10. Approximate GPA in nursing school: _____

11. Month and year of nursing school graduation: _____

12. What state are you coming from to work? _____

13. Name: _____   Last 4 digits of SS#: _____
 (This information will be kept confidential by Principal Investigator and not shared with any other individual. Information will be maintained under lock and key in a secure location. Request for name and SS# is for follow-up research purposes only.)

Participant Consent/Authorization Form

Title of Study: The Effect of Coaching During an Acute Care Institution Orientation on Perceived Self-Efficacy Among New Graduate Registered Nurses.

Principal Investigator (PI): Sandra O'Donnell, RN, OCN, MSN Candidate
Organization: University of North Carolina Wilmington
     Address: 601 South College Road
             Wilmington, NC 84203
              Phone number: (910) 256-5173

You are being asked to take part in a research study. The PI of this study will explain the study to you. Research studies only include people who choose to take part. Please take your time to make your decision about taking part in this study. You are encouraged to discuss your decision with your family and friends. You can also discuss with the orientation leaders. If you have any questions, you can ask your study's principal investigator.

This study has been reviewed for your safety by the New Hanover Regional Medical Center Institutional Review Board. This Board has been established under the authority of the Food and Drug Administration (FDA) for the purpose of protecting the rights and well-being of people recruited to participate in research activities. This Board looks at the risks and benefits of each study and receives updated information throughout the study to ensure your safety as a research participant.

Why is this study being done?
       The purpose of this study is to examine the perceptions of self-efficacy, or feelings of personal capability to perform a specific nursing skill or behavior, among new qualified registered nurses who are beginning an acute care institution orientation program in southeastern North Carolina.
       The study will also explore if there is a change in self-efficacy beliefs over time and following the orientation program. In addition, the study will seek to determine if there is a relationship between the perceptions of personal capabilities and the demographic characteristics of the participants in the study.

How many people will take part in this study?
       My goal is to enroll approximately 80 to 100 people in this study at this location over the next 2 to 3 months.

What will happen if I take part in this research study?

You will be asked to answer a demographic data survey seeking general information as to your nursing education background, prior nursing experience and what unit you expect to begin employment. Additionally, you will be asked to sign your name on this form for the PI to be able to contact you again. Then you will be asked to fill out a questionnaire that will ask how you rate your personal capabilities of performing nursing skills and behaviors. After approximately 6 months of employment, the PI will contact you to complete a follow-up survey to again have you rate your personal capabilities of performing nursing skills and behaviors.

How long will I be in the study?

Each survey will take approximately 30 minutes or less to complete. You will be in the study for 6 months.

Can I stop being in the study?

Yes. You can decide to stop at any time. Participation or non-participation in the study or early withdrawal from this study will in no way affect your employment status.

If you withdraw from the study, the data collected to that point may be included in the research findings to preserve research consistency. The PI will decide whether or not the data collected to the time of your withdrawal needs to be included.

What are the risks being in this study?

Although every effort will be made to keep the information you provide confidential, there is a possibility the information could be disclosed to someone that is not bound under the same guidelines to maintain confidentially.

Are there benefits to taking part in the study?

There will be no direct benefit to you for taking part in this study. However, hospital administrators, unit managers, and nurse educators, as well as nursing school faculty may benefit from the knowledge gained from your participation in this study. It is possible that as a result of this study improvements or changes in the school curricula, orientation process and content, and ongoing nurse educational activities could be made. Specifically, these individuals may have a better view of how prepared and capable recently qualified registered nurses feel as they begin their employment within the acute care setting and to what degree these perceptions change over the course of 6 months.

What other choices do I have if I do not take part in this study?

You may choose not to participate in this study.

Will the information that I disclose be kept private?

Only the PI will have access to the information expressed on the demographic data surveys and self-efficacy questionnaires. A member of the statistics department at UNCW will have access only to numerical data collected without any personal identification. Organizations and/or individuals that may disclose, receive, look at, and/or copy your medical records for research, quality assurance, and data analysis include: The Food and Drug Administration, the Office of Human Rights Protection and New Hanover Regional Medical Center.

What are the costs of taking part in this study?

There is no cost to you.

Will I get paid for taking part in this study?

After you complete the second follow-up questionnaire you will receive a gift certificate redeemable at Kona Coast.

What are my rights if I take part in this study?

Taking part in this study is your choice. You may choose either to take part or not to take part in the study. If you decide to take part in this study, but change your mind at any time, you may withdraw your consent to participate. Your employment status at NHRMC will NOT be affected by your participation, non-participation and/or early withdrawal. If you revoke your consent and/or authorization, you can no longer participate in the study.

No matter what decision you make, there will be no penalty to you and you will not lose any benefits to which you are entitled. Leaving the study will not affect your employment at NHRMC. In the case of injury resulting from this study, you do not lose any of your legal rights to seek payment by signing this form.

Who can answer my questions about the study?

You can talk to the study's PI about any questions or concerns you have about this study. Contact Sandra O'Donnell at (910) 256-5173 or Dr. RuthAnne Kuiper, nursing professor at UNCW, at (910) 962-3343.

For questions about your rights while taking part in this study, call the Institutional Review Board at (910) 343-4621 or pager 341-6217.

Signatures

I have read or had read to me this consent/authorization form. I understand the information and have had my questions answered. I understand that I will be provided with a signed copy of this form. By signing this consent/authorization form, I agree to take part in this study and authorize the use and disclosure of my personal information as described in this consent/authorization form. If I do not agree to sign the consent/authorization form, I understand that I will not be able to participate in the study and will need to talk with the investigator or orientation coordinator.

Participant:

Print Name _____ Initials _____

Signature _____ Date _____

Principal Investigator: I have fully explained to the participant the nature, purpose and risks of the study described above. I have answered any and all questions to the best of my ability.

Print Name _____ Initials _____

Signature _____ Date _____