EXPLORING THE LINK BETWEEN SIMULATION AND SELF-EFFICACY:

A CASE STUDY

by

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ABSTRACT

It is estimated that over 30,000 applicants to registered nursing (RN) programs are turned away each year following a rigorous selection process for the limited available program admissions. An alarming number of those students who are accepted and enter upper division programs and depart prior to completion do so because of increased stress and anxiety experienced during clinical activities. Attrition occurs when students repeatedly experience levels of stress and anxiety and feel they have reached a breaking point. Self-efficacy impacts the amount of stress and anxiety an individual can tolerate before encountering negative outcome expectations. The theoretical framework for this study was underpinned by Bandura's (1995) theory of self-efficacy. A multi-case study approach and cross-case analysis was utilized to identify if a link existed between simulation and self-efficacy. Beginning nursing students engaged in a simulated clinical experience prior to the initial acute care clinical experience. Nursing students discoursed about physical and sociostructual influences on agency and environment related to self-efficacy and negative affective behaviors. Based upon students' discourse, this study supports a link does exist between simulation and self-efficacy for beginning nursing students.

DEDICATION

I dedicate this dissertation to my mother and best friend, Annie Jane Elder, who left this earth on Sunday, February 2, 2014. She nurtured within me the strength to overcome adversities and achieve the goals I set in life; to her no bar was too high nor any challenge too great to accomplish. Who I am today is the outcome of her endless love and support of me through the years. I am forever thankful, proud, and honored to be her daughter. I love and miss you beyond words AJ!

I would be amiss if I did not include my wonderful father-in-law, Henry (Whitey) Beuk aka Pawpaw, in the dedication of this dissertation. Neither lived to see me complete the process but I know both are in heaven watching down over this "restless spirit" and helped me along the way.

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harder, longer, and more diligently to reach the end of this journey. Mona you are the most amazingly awesome lady I know!

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CHAPTER 1

INTRODUCTION

> The perception of an event or situation as stressful varies among students and within an individual student at different times. Through cognitive appraisal a student perceives something to be stressful if its demands exceed the perceived ability to cope with the stressed.
>
> *Marianne R. Jeffreys, Nursing School Retention – Understanding the Process and Making the Difference, 2012*

In my role as a nurse educator I have had the opportunity to teach students enrolled in pre-licensure registered nurse (RN) education. Four years ago I transitioned from educating students enrolled in the last semester of their nursing education to those entering the first semester of a nursing program. I observed students at the end of their educational endeavors who presented to the clinical setting exhibiting efficacy in their clinical skills performance. In addition to informational sources provided on "how to" perform clinical skills, the senior nursing students had received verbal persuasion and critical feedback based upon their performance of clinical skills. They also had the opportunity to observe role modeling from clinical faculty and clinical staff as well as peers. The combination led to the development of efficacy in performance and facilitated their ability to overcome many obstacles related to clinical skills performance over the past two years that students in the first semester had yet to encounter.

In my transition from teaching students in the last semester of nursing school to the first semester, I was presented the opportunity to gain insight into how students envision the idea of "being a nurse" or "doing nursing." I heard sentiments such as "it's something I've dreamed of

being from the time I was little," to the opposite end of the spectrum, "I couldn't think of anything else to do so I decided to go to nursing school." A disheartening element to generalized statements such as these brought about awareness that many who enter nursing programs possess the academic foundation necessary to enter a program; however, many have limit conceptual knowledge regarding the essential role a RN has in the provision of safe, quality patient care. Statements such as these demonstrate a lack of understanding of the complex and multi-faceted role a RN has in today's healthcare arena.

The roles and responsibilities of a RN are more than handing out Band-Aids to children or following a doctor around holding a chart, as so many of us may have role-played during childhood. The roles and responsibilities are much more complex and include that of direct and indirect care provider, communicator, patient/family educator, patient advocate, counselor, change agent, leader, manager, case manager, and researcher (American Association of Colleges of Nursing (AACN), 2008; Institute of Medicine (IOM), 2010; Wilkinson & Treas, 2011). Having a desire to "be a nurse," "do nursing," or answer the "call to nursing" are attributes important to the basic nursing role. Yet, these attributes do not define students' understanding of the multifaceted role of the professional RN, nor do the attributes depict the cognitive motivation necessary to complete a rigorous program of study. Students who enter RN programs with clearly defined concepts of the professional role RNs have in healthcare maintain the motivation to be successful in completing the program and entering practice. Part of this success may be attributed to higher levels of perceived self-efficacy and motivation for goal attainment (Spouse, 2000).

Understanding student perceptions of discovery, synthesis, and application of knowledge are important to me as a nurse educator. Recognizing differences among students and their

learning styles can be challenging at times for the most experienced educator. Knowledge and comprehension of learning styles among students are essential factors in facilitation of the learning process. For me, an additional aspect to my teaching philosophy includes identification of instructional delivery methods that lead to maximized learning for students. When learning is maximized, I believe students are better equipped for goal attainment.

Bandura (1989) theorizes students with low self-efficacy benefit the most from diagnostic-specific interventions designed to enhance self-efficacy and academic outcomes. Nursing literature supports his theory, reporting if a student perceives learning as difficult or impossible, the level of perceived efficacy in goal attainment is decreased (Jeffreys, 2012). Students with lower levels of perceived self-efficacy in the ability to perform at the level of expectation can experience high levels of stress and anxiety related to clinical performance which can lead to impaired cognitive performance. Examples of stress and anxieties that have been cited as means for creating impaired cognitive performance are when students experience uneasiness or apprehension related to the inability to recall the pathophysiology of disease processes for assigned patients or the appropriate steps required in the performance of clinical skills when supervised by faculty in the clinical setting (Elliott, 2002). Another example would include a student's inability to perform in the clinical setting for fear of judgment by faculty, nurses, and peers (Melincavage, 2008, 2011). Stress, anxiety, and fear in clinical performance during initial acute care clinical (IACC) experiences can be stressful for nursing students, suggesting an intervention of simulated clinical experiences (SCEs) can be beneficial for beginning nursing students (Admi, 1997; Elliott, 2002; Jeffreys, 2012; Jimenez, Navia-Osorio, & Diaz, 2009; Melincavage, 2008, 2011).

Students' feedback concerning stressors and anxieties associated with skills performance during the IACC led to the development of SCEs as teaching and learning activities used to facilitate practice and clinical preparation. These learning experiences have been cited as methods for providing students with opportunities to engage in activities frequently encountered during IACCs (Admi, 1997; Chesser-Symth, 2005; Melincavage, 2008, 2011). Research conducted by Jeffreys (2012) on self-efficacy and nursing students suggests those who can perform and succeed at learning a specific task, despite obstacles and difficulties will use resources necessary to accomplish the task when provided the opportunity to practice in a safe learning environment. This study sought to identify whether a relationship existed between student participation in a SCE and an enhancement of perceived self-efficacy in skills performance during IACC experiences.

Statement of the Problem

It has been estimated that over 30,000 qualified applicants are turned away from nursing programs across the United States each year after a rigorous selection process. A shortage in nursing faculty, decreased resources, and limited clinical placement sites has led to the number of admissions available for each program (Buerhaus, Staiger, & Auerback, 2009). An alarming number of the students accepted into nursing programs depart prior to completion. Student attrition within nursing programs has been cited as a direct consequence of increased stress and anxiety experienced during clinical activities (Galbraith & Brown, 2011). Attrition occurred when students repeatedly experienced higher levels of stress, anxiety, and fear. Strong negative affective behaviors resulted in students reaching their cognitive "breaking points" and stopping before completing a program of study (Cook, 2010). The current trend in attrition rates has led

to the outcome effect of a decreased number of practicing RNs and a decreased ability to provide safe quality patient care by those in practice (AACN, 2011a).

With the impending nursing shortage expected to peak in 2025 and the Institute of Medicine's call for an increased number of practicing RNs prepared at the baccalaureate level to increase by 80%, it is more critical than ever that students who matriculate into upper division nursing programs be retained and achieve successful entrance to practice (AACN, 2011a; HRSA, 2010; IOM, 2010). In 2010, the current number of practicing baccalaureate prepared nurses fell short by more than 50% (AACN, 2011b). The Bureau of Labor Statistics (2011) projected more than 581,500 new RN positions will be created by the year 2018. The AACN (2011b) reported an increased enrollment in baccalaureate programs by 5.7%; however, this number is inadequate to meet the projected demand for nursing.

These alarming statistics indicate it is more imperative for those students admitted into nursing programs to matriculate, graduate, and enter practice. Identification of instructional delivery methods that address individual student learning needs and motivation for goal attainment and identify perceived learning deficits are crucial elements in breaking the chain of attrition and producing higher numbers of practicing RNs (Jeffreys, 2012).

Background for the Study

During the first 8 weeks of the upper division nursing program at X University the process of learning basic nursing skills (i.e., hygiene, transfer/ambulation, vital signs, communication, and safety) and foundational concepts of nursing are introduced in the clinical skills laboratory (AUM, School of Nursing Handbook, 2012). For many beginning nursing students the journey of discovering the affective, cognitive, and psychomotor aspects of basic

nursing skills created high levels of stress and anxieties (Melincavage, 2008, 2011). It was during this initial stage of educational preparation I sought to explore if a link existed between students' perceived self-efficacy in clinical skills performance and participation in a SCE.

Self-efficacy in clinical skills performance can be characterized as a belief in one's ability to learn, engage in, and master the cognitive, affective, and psychomotor skills necessary to become a professional Registered Nurse (RN). Perceived self-efficacy (PSE), according to Bandura (1986), is the "judgment of one's ability to accomplish a certain level of performance" (p. 391). Perceived self-efficacy has a direct effect on cognitive processes, and subsequently influences physical functioning; PSE can either enhance one's ability to succeed or impede cognitive capability resulting in failure of attaining desired outcome expectations (Bandura, 1986, 1989).

Nursing students enrolled at X University began preparation for IACC experiences in the clinical skills laboratory during week one of the semester (AUM, School of Nursing Handbook, 2012). The clinical skills laboratory provided students a safe environment to practice basic nursing skills before performing such skills on human patients in the acute care setting (hospital) (Melincavage, 2008, 2011). While students practiced clinical skills in the laboratory, nurse educators had an opportunity to assess for cognitive, affective, and psychomotor skill attainment. While it is important for educators to validate a student's ability to perform psychomotor skills correctly; it is equally important for a student to be nurtured in his or her self-perception of efficacy in the performance of clinical skills (Hewett, Kochniuk, Dalling, Batacan & Brower, 2002).

Participation in a SCE prior to IACCs provided students an opportunity to practice and demonstrate clinical skills performance while supervised by faculty. Practice and demonstration

of clinical skills provided students with opportunities to receive verbal persuasion (motivation) from faculty and peers. In addition, participation in the SCE provided students with opportunities to communicate with simulated patient/family and healthcare providers, perform basic nursing skills, orient to clinical faculty, and engage in realistic obstacles that have an impact on learning in the clinical setting. Obstacles are defined as occurrences practicing nurses encounter on a regular basis. Angry or upset patients and family members, staffing issues, lack of supplies to perform nursing skills, and medical emergencies are a few examples of obstacles a nurse may frequently encounter in the hospital environment. The level of self-efficacy one has directly impacts the ability to confront, as opposed to avoid, obstacles encountered along the path to goal attainment (Bandura, 1977, 1989, 1994).

How students report their PSE in performance of cognitive, affective, and psychomotor skills during practice in the clinical skills laboratory provides nurse educators with a basis to build SCEs. Discovering and understanding how students describe their levels of efficacy in clinical performance during the SCE facilitates the planning of IACC experiences for the promotion of learning. In conclusion, comprehension of how students' self-identify efficacy in skills performance during IACC experiences facilitates how nurse educators can design clinical skills laboratory practice and SCEs for future cohorts of nursing students in an effort to promote learning (Bambini, Washburn, & Perkins, 2009; Melincavage, 2008, 2011).

Clinical Skills Laboratory Preparation

> I feel that I have not only learned a considerable number of important clinical skills during my clinical laboratory but also had a chance to practice them. (T. Alvarado, BSN student, Personal Communication, January 21, 2011)

Preparation for the IACC experiences were similar for all students enrolled at X University in the fall 2012 semester. The preparation began in the clinical skills laboratory located on the second floor of the X University School of Nursing. Students have access to a wide variety of learning opportunities during the first eight weeks of the semester. Students were introduced to the laboratory environment during the first week. The skills lab is not what one would typically envision as a "laboratory." There are no laboratory tables, microscopes, glass beakers, Bunsen burners, or element charts scattered around a clinically cold and bleak room. The "skills lab," as the students at X University refer to it, is a micro hospital. The design was structured to mimic a medical unit found in a hospital setting.

As one walks in through the main door there are two sets of cubicles along the left side where students place book bags, lunch boxes, and other personal items. On top of the cubicles are different anatomical models representing different body systems. Through a doorway on the left, housed between the two sets of cubicles, is a medication and supply room. The "med room," as the students refer to it, is a replica of the medication station nurses utilize daily in the hospital setting in the delivery of patient care.

As students walk into the "med room" there are two large hand washing sinks along the back wall and two smaller ones located at opposite ends of the room. There are upper and lower cabinets along the back and both sides that are stocked with medical supplies frequently used for performing patient care. Along the front wall on each side opposite the door are two medication carts. Students use the medication carts to access simulated medications and practice medication

administration skills. The room is arranged in a manner where students can practice clinical skills and receive performance feedback from faculty and peers prior to the actual hospital experiences.

Past the cubicles where students store their personal items, the "skills lab" widens to become two separate medical units. To the left and along the back of the room are four hospital beds, hand washing stations, suction, oxygen, over-the-bed tables, bedside cabinets, and chairs. Each simulated hospital room is separated with curtains that can be closed, allowing for patient privacy during practice sessions. At opposite ends of the room are floor-to-ceiling cabinets that contain a variety of simulation equipment utilized in teaching clinical skills to students.

To the far left side of the room is a smaller room, which the students refer to as the "linen closet." Towels, wash cloths, bed linens, and other small items are stored in the room. Wheelchairs, walkers, and crutches are also located within the room for student use during preparation for clinical. Students use these items when simulating personal hygiene care and ambulation activities.

On the right side of the "skills lab" is a second hospital unit. This unit is subdivided into two smaller "units." The two smaller rooms are set up in the same manner as the larger one. The laboratory environment is made up of a total of 10 beds, with a human patient simulator (HPS) placed in each bed depicting a hospitalized patient. The skills laboratory has been arranged by faculty to provide students with a simulated learning environment similar to that of a hospital. Faculty carefully designed the "skills lab" to provide students with the opportunity to learn and practice skills and affective behaviors consistent with those of practicing RNs in a safe environment. To help simulate the hospital environment students, faculty, and peers must wear

scrubs (nursing uniforms). Faculty and peers serve as role models for beginning nursing students as they prepare for their IACC experiences.

During the normal course of study, students enrolled in the first semester of nursing at X University spend approximately six hours a week in the laboratory in directed learning activities with faculty supervision. Students spend approximately two to four hours a week in practice with peer mentors, unsupervised by faculty. In addition, students spend countless hours watching skills videos, reviewing clinical skills manuals, and individually practicing outside the skills lab. The laboratory is open and available to students for practice time outside the normally scheduled classes. During the time students are in the skills lab, their behaviors are observed by faculty and peers. Hours of practice, demonstration, return demonstration, verbal persuasion, critical feedback, and role modeling facilitate students' abilities in clinical skills performance. Efficacy in skills performance is inherently dependent upon students' perceived abilities to perform at the level of expectation.

Simulated Clinical Experience

> Mock hospital (simulated clinical experience) was a great learning experience and one that will benefit me a great deal as I prepare to work in a hospital. I could not have asked for a better experience or a better partner. Kim and I worked through the problems that arose and the assessment process well together. One thing that did occur to me is how hard it is going to be when I don't have a partner to help me out and I have five more patients to watch… The key will be as I get more comfortable with the job not to let my skills or documentation suffer. . . . (BSN student, Personal Communication, March 4, 2011)

Following the rigorous preparation that occurred in the clinical skills laboratory, students advance to a SCE. Faculty understand that students experience high levels of stress and anxieties about the IACC experiences; therefore, a meticulously designed SCE was developed by faculty at X University to facilitate transition from skills laboratory to the acute care clinical setting.

The SCE included opportunities for engagement in activities relative to goal achievement and addressed the causal factors of stress and anxieties previously identified by students. Examples of stressful activities identified or reported by students included receiving patient assignments; initial interactions with the patients, family members, and staff of the medical unit; and completion of a basic physical assessment.

The overarching goal of the simulation was to provide students with exposure to the affective, cognitive, and psychomotor skills typically encountered during the IACC experience. The process involved faculty from various nursing backgrounds contributing to the simulation and providing students with the opportunity to develop efficacy in skills performance in an environment viewed as risk-free and hospital-like (Parsh, 2010). The outcome of the simulation supported student engagement in SCEs, provision of both formal and informal feedback on their performance, opportunities for discussion on their perceived strengths vs. weaknesses in clinical performance, and the encouragement to ask questions relevant to an actual clinical experience.

Learning activities included in the SCE followed a semi-structured format. Dependent upon students' responses to situations, differing clinical experiences emerged. The SCE began with students grouped together in teams of 20. Each team was then sub-divided into partners. Due to an odd number within one group, a sub-group of three was formed. Partners were pre-selected by faculty based upon previous performance of clinical skills during practice sessions. Faculty sought to pair students who had displayed higher levels of self-efficacy in clinical skills performance with those who displayed lower levels of self-efficacy in skills performance. The matching of students was done in an effort to promote mentoring among the partners. Student partners were assigned a simulated patient to provide nursing care during the SCE.

Ten different patient scenarios were used, and examples included patients admitted with pneumonia, kidney stones, and heart failure. Patient reports were given and students were instructed to read and review the medical charts of their assigned patients. To facilitate proficiency in obtaining vital signs (temperature, blood pressure, heart and respiratory rate), students were responsible for performing these basic clinical skills on each other. Skills such as personal hygiene and bed making were performed on the HPS with students giving each other verbal feedback on individual skill performance.

Under the direction and supervision of clinical faculty, students performed the psychomotor skills, which included urinary catheterization, intravenous catheter insertion, tracheostomy care and suctioning, wound care, and medication administration. Cognitive and affective skills of communication were observed by faculty as students participated in the SCE. Skills observed included communication and interaction with interdisciplinary team members, and patient and/or family members. The third component clinical faculty witnessed was the students' abilities to effectively engage in teamwork with a partner and other group members.

Throughout the SCE, faculty role modeled behaviors, consistent and inconsistent, with those expected of students during their IACC experiences. Obstacles such as inappropriate communication among healthcare members, families, and patient were simulated. These provided students with the opportunity to practice methods of conflict resolution. Supplies necessary to perform skills were at times unavailable; requiring students to critically rationalize how to achieve skills performance with limited equipment. Efforts were made by faculty to provide students with learning opportunities to address the "unexpected," yet realistic, occurrences encountered daily by nurses in a hospital setting.

At the completion of the SCE, students engaged in a session of "debriefing" and "reflection" in a group setting. Opportunities to describe and discuss their experiences were provided and students were encouraged to provide verbal feedback to faculty on the SCE. Student stressors were identified and discussed among peers and faculty; verbal persuasion was given at that time. Verbal persuasion is positive statements provided to an individual to facilitate an increase in efficacy and motivation for goal attainment (Bandura, 1989). An example of verbal persuasion, which occurred following the SCE, included remarks made by faculty such as "Your performance today demonstrated you can do . . ." and "While you did not do that IV perfectly, you can. . . ." The last activity of the SCE required students to write a reflective journal entry on individual and group experiences. Faculty received the written work within 48 hours of the SCE. Students' reflective responses were utilized by faculty as a means to continue the learning process during the IACC experiences.

Initial acute care clinical experiences. The third component, IACC experiences, has been described by some students as frightening, even after preparation in the skills lab and participation in the SCE. The level of stress and anxiety led to impaired cognitive performance by low efficacious students as noted in Chapter 4 of this study. According to Bandura (1989, 1995), individuals with low efficacy in the ability to perform at the level of expectation experience an impairment in cognitive behaviors.

Faculty at X University used the knowledge gained through observation during the SCE and feedback from students to guide clinical assignments at IACC experiences. Students were partnered during the IACC in an effort to facilitate learning and promote efficacy in clinical

skills performance. Faculty considered how students engaged with each other during the SCE when making assignments and then as partners, students provided patient care.

While no SCE can simulate everything that occurs during an IACC, it can provide similar patient situations. The objective is to provide students with a point of reference when they experience difficulty in performance. No two patients are alike and no two situations are the same. The goal for having students matriculate through clinical skills laboratory and the SCE was to provide a foundation for the "real thing," human patient contact. The repeated practice of skills performance, clinical experiences, and receipt of verbal persuasion from faculty, clinical faculty, and peers has been stated by students to strengthen their levels of efficacy.

> The biggest stressor for me was not the actual skill or "procedure" it had to do it on a real live human being that made me anxious . . . because all I would think about is what if I miss a step, or I don't do it right, or I just go blank all together. My anxiety came from having to take a skill that I know I know how to do, but actually applying it in the "real" world that freaked me out. And it's funny because now I don't think twice about my skills. I have a routine and it just come natural to me and I have learned that if you go in there with confidence and ease, whether you have done the skill or not before on an actual person, your patient feels more comfortable with you. They can sense your anxiety/peace when you enter the room. Simulation helped in ensuring that we knew the proper steps to the procedure, and I know that if we didn't have simulation there would have been even more anxiety when it came to clinical then there was. (V. P., RN, personal communication, July 24, 2013)

Purpose of the Study

Recently there has been a push in higher education to decrease the rate of student attrition (Jeffreys, 2012). Additionally, the IOM (2010) issued a call for an increase in the number of practicing RNs to be educated at the BSN academic level. These combined factors have led schools of nursing in college and university settings to seek innovative methods of instructional delivery that will meet the needs of a diverse student population.

The purpose of this study was to describe and explain stress and anxieties related to clinical skills performance, participation in a SCE, and the IACC experiences of five first semester nursing students. The study evolved in an effort to clarify what these students believed to be important motivators in goal attainment. In addition, the study explored how self-efficacy and simulated experiences shaped students' beliefs which had an impact on their success in clinical performance. Literature supports that delivery of an effective SCE can promote student learning while building confidence and maximizing student retention in clinical education (Parsh, 2010).

Theoretical Framework for the Study

The theoretical framework for the study is underpinned by Bandura's theory of self-efficacy and how it relates to motivation, learning, and nursing performance. The study looks at how nursing students perceive in the ability to succeed in attaining a predetermined goal and how this goal attainment directly affects the students' primary outcome (Bandura, 1994). The goal attainment sought is successful performance of clinical skills in the clinical setting and the primary outcome is completion of the course. The long-term effect of achieving the outcome is a substantial increase in the number of practicing RNs prepared at the baccalaureate level.

Bandura (1994) coined self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). It is essential for nursing students to possess levels of efficacy or have the ability of enhancing efficacy to meet the challenges they will encounter during the educational preparation for practice. There will be setbacks and threats of failure experienced that will require students to quickly recover and realign their strategies for success. To possess such an

efficacious outlook leads to "personal accomplishments, reduces stress, and lowers vulnerability to depression" (p. 71).

Individuals who possess a strong sense of self-efficacy view the challenges with intrinsic interest and deep inclination for achieving the tasks and activities (Bandura, 1989, 1994). Motivation heightens and sustains their efforts. Failures or setbacks are viewed as deficits in effort and lack of preparation for performance. Efficacious individuals approach activities with assurance and exercise control over their actions. In contrast, individuals with a weak sense of self-efficacy view challenges with a lack of motivation and commitment. They doubt their capabilities to face challenges, blaming others and the environment for deficits that prevent them from reaching their goals (Bandura, 1994).

Self-efficacy

Expression of higher levels of self-efficacy in the ability to effectively process social cognitive situations with lower levels of stress and anxiety have been noted as intrinsic factors leading to successful goal attainment (Bandura, 1989, 1995). Clinical experiences are examples of social processes in which students interact with patients, interdisciplinary healthcare professionals (i.e., nurses, physicians, social workers, pharmacy personnel, and therapists) clinical faculty, and peers. For some nursing students the socialization to the profession can be a difficult and challenging journey (Melo, Williams, & Ross, 2010). The authors researched "the impact of nursing curricula on clinical practice anxiety" utilizing a descriptive, comparative design to compare levels of clinical practice anxiety in third year baccalaureate nursing students. Background for the study was related to the high levels of stress and anxieties during clinical practice. Melo's research supporting significant changes in the delivery of healthcare over the

past few decades has challenged nursing schools to become more rigorous in curriculum and clinical preparation thus increasing anxiety and stress in students.

According to Bandura (1995), students who do not achieve higher levels of perceived self-efficacy in their ability to succeed under demanding circumstances may find a journey ends just as it begins. For these students the threat of failure exists and they may not possess the level of efficacy necessary to overcome these threats. Others who have developed a strong sense of efficacy may view the journey as challenges to learn from rather than hurdles to be avoided and thus success is achieved.

Using a qualitative case study method to gain insight into the varying degrees of student thought related to clinical preparation can provide nurse educators a path upon which to build learning activities that promote higher levels of efficacy in clinical performance. Much work has been done on perceived self-efficacy in learning and has focused around its role related to regulation of motivation, action, and affective arousal (Bandura, 1986, 1989, 1994; Zimmerman, 2000) and serves as the theoretical foundation for this study.

Processes of Efficacy

According to Bandura (1995), the process of academic success is multi-faceted and involves cognitive, motivational, affective, and selection processes. These processes are not mutually exclusive, but rather work concurrently to reflect the ongoing regulation of human functioning. The cognitive processes are varying in degree and require the student to set goals for attainment. Personal appraisal of these goals and the efficacy to obtain them are key factors to being committed to the activity and completing it. Actions are a reflection of thought, and one's belief of efficacy directs the type of response constructed and rehearsed. For high

efficacious students this entails the envisioning of difficult scenarios in clinical performance and developing possible solutions. The ability to utilize problem-solving skills requires effective cognitive processing of information that contains many complexities, obscurities, and uncertainties. Understanding the cognitive processes as students relate their experiences can empower nurse educators to build learning opportunities to enhance self-efficacy in clinical performance.

The second process, required for academic success proposed by Bandura, is motivational process. Bandura maintains most human motivation is cognitively generated. Motivation by students to learn to be a nurse is anticipatory and preplanned. A belief that one can achieve their goals, overcome obstacles, reevaluate routes of accomplishment, and remain focused on the outcome is sparked by a motivational process. A body of literature exists which suggests that explicit, challenging, demanding goal setting can enhance and motivate one to learn (Bandura, 1995; Lock & Latham, 1990). Bandura theorizes motivation is based on three types of self-influence; "self-satisfying and self-dissatisfying" responses to performance, "perceived self-efficacy" regarding the ability for goal attainment, and "readjustment" of goals based on performance and progress toward successful completion. The strong sense of efficacy is correlated to the motivation to achieve what one sets out to accomplish (Bandura, 1995). Nursing is a demanding profession that requires motivation for lifelong learning to ensure safe quality patient care (Melo et al., 2010). I propose that by gaining insight into students' motivations to learn, understanding the goals they set during clinical preparation and performance can strengthen the teaching/learning process. Subsequently patient care can be improved.

The third aspect is the affective process. An individual's ability to cope with stress and anxieties during threatening or difficult situations directly influences the level of motivation. Individuals who perceive higher levels of efficacy in their ability to manage difficult encounters are not discouraged by obstacles encountered. In contrast, individuals who perceive lower levels of efficacy in their ability to perform during difficult encounters are discouraged and view the events as "unmanageable" and are subsequently inefficacious in their thinking and doing (Bandura, 1995). Empowering students with positive affective processes through SCE has the potential to provide opportunities for recognizing deficits in performance ability and fosters motivation to overcome negativity causality.

Individuals exercise control over their environments through the first three processes: cognitive, motivation, and affective. Beliefs of self-efficacy are directly related to these three processes. The fourth process of efficacy, selection, underpins how individuals select environments in which they feel the most efficacious in performance. According to Bandura, efficacious beliefs motivate people to choose situations and environments in which they have some control over outcomes and do not perceive the situations exceed their coping capabilities.

Students enter nursing school displaying cognitive processes to become nurses. They exhibit motivational processes as they complete lower level coursework. Motivational processes construct a foundation of knowledge required for entrance into an upper division nursing program. Affectively they develop mechanisms for coping with difficult or unpleasant situations along the journey. As they prepare for IACC experience, some develop stronger affective processes than others, which may be evident in how they demonstrate control over negative encounters during preparation. As an educator, it appears that during the selection process students often fumble and fail to meet the challenges of clinical preparation by choosing less

difficult environments or situations. This philosophy is supported by Bandura's theory: individuals who have a low sense of efficacy have a weaker commitment to the goals they choose to pursue.

Clinical instruction by faculty is delivered in both formal and informal environments and includes cognitive simulations wherein students are able to visualize performance of the skills. The exercise of cognitive simulations of clinical skills allows students to skillfully enhance their clinical performance. With an increase in performance there subsequently comes an even greater increase in self-efficacy. To summarize, increased self-efficacy leads to increased skill performance; increased skill performance leads to even greater self-efficacy (Bandura, 1989). Students' beliefs in their skills performance capabilities affect how much stress and anxiety they experience during the beginning journey of socialization into nursing. It also directly affects their motivational levels for goal attainment (Bandura, 1989). Cognitive simulations heighten motivation as students embark upon increasingly difficult clinical skills. Successful performance of these more difficult clinical skills contributes to greater efficacy (Hewett et al., 2002). Research supports the belief that pairing students with lower efficacy beside students with higher efficacy during cognitive simulations allows for vicarious experiences. Engagement in learning environments of this type promotes a sense of efficacy in others and contributes to a larger community of understanding. The greater the community of understanding and ability to perform difficult skills, the greater the efficacy level becomes in groups and individuals (Bandura, 1989; Hewett et al., 2002). Self-efficacy is having the belief in one's ability to succeed (Bandura, 1977, 1986, 1989, 1994); thereby consistent positive reinforcement of clinical preparation among peers and educators will generate personal agency among students and motivate them to learn (Hewett et al., 2002). Creation of learning environments that foster and

nurture the development of self-efficacy during clinical preparation develops settings supportive for student retention (Jeffreys, 2012). A nurturing learning environment promotes safety and lends to enhancing students' efficacy in skills performance, especially for students who are struggling with belief in their capabilities (Bandura, 1989; Hewett et al., 2002; Jeffreys, 2012; Zimmerman, 2000).

Albert Bandura's (1997) theory of self-efficacy is outlined in the model below. The model depicts how human agency and environment interplay with cognitive and affective influences, which ultimately impact human behavior. Human agency is explained by Bandura (1997) as having the ability to exercise control over what one does. Human agency is driven by self-efficacy expectations, which, in turn, orchestrates behavior. The path leading to behavior is impacted by nature and can be modified by the environment. Belief in the ability to reach desired outcomes relies greatly upon creating an environment that promotes goal attainment. Goal attainment is predisposed by one who views challenging goals with positivity and strong commitment to the behavior outcome in the face of disappointments and obstacles. Negative feedback and lack of motivation impedes the ability to achieve one's goal. Therefore, to accomplish desired behaviors and achieve goals, it is necessary to match human agency to environment. Both factors need to be conducive to attaining self-efficacy and outcome expectations, and are dependent upon positive physical and sociostructural influences.

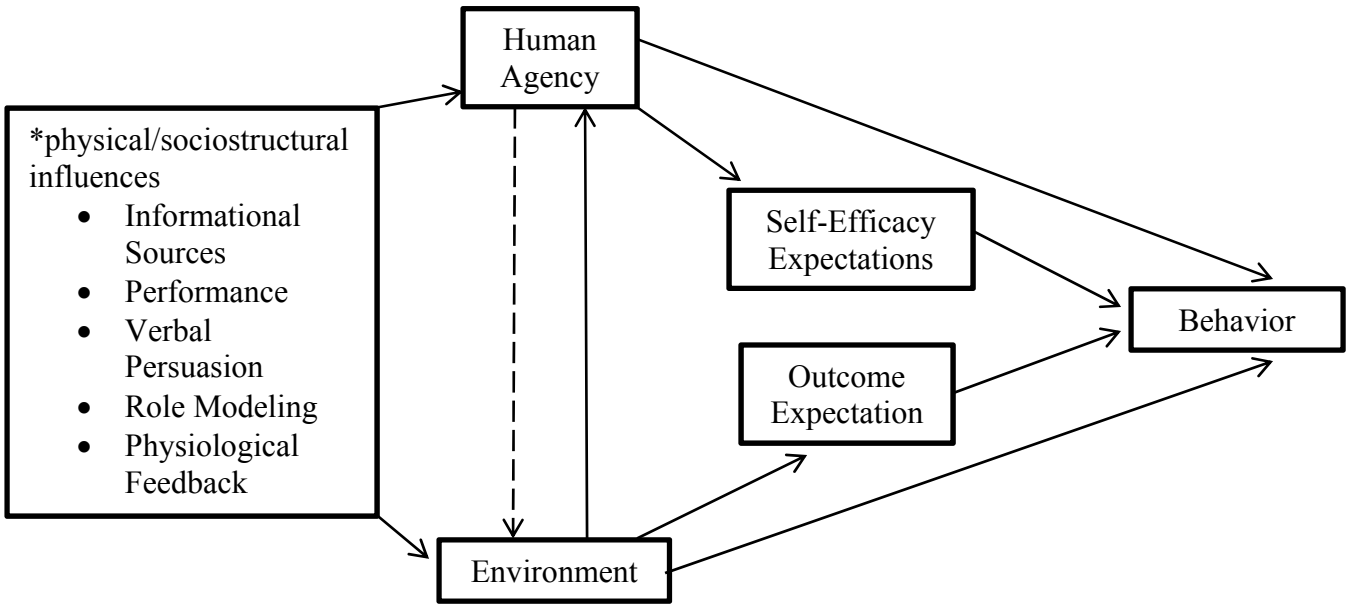


Figure 1. Model of Albert Bandura's theory of self-efficacy.

Methodology of the Study

The research method utilized for the study was a qualitative case study approach. A qualitative case study is an intensive analysis of a bounded system (Bloomberg & Volpe, 2008; Merriam & Associates, 2002). The case study approach was chosen as the method of inquiry to answer a "how" question which existed in a social phenomenon of real life context that I, the researcher, had no control over the outcome (Schwandt, 2007; Yin, 2003). Learning how a purposively selected group of first semester baccalaureate nursing students experienced stress; anxieties; and their perception of efficacy during clinical preparation, simulation, and IACC experiences was of particular interest to me as researcher and nurse educator.

The research study was conducted at X University a public four-year university located in the southeastern region of the United States. Participants were students enrolled in the upper division of the School of Nursing, who participated in a SCE learning activity prior to an IACC, and completed the first semester of clinical nursing. Five students expressed stress and anxiety

related to clinical skills performance and volunteered for the study. One student was withdrawn from the study during the process of the second interview. This participant did not state a cause for discontinuing the process. He did not show up for the scheduled interview and was subsequently withdrawn from the remainder of the study. An email was sent to the student notifying him of the withdrawal. No further communication was made with this student by the researcher and none was received from the student.

The primary method of data collection was a two-part semi-structured interview process. Students were initially interviewed during the same semester they participated in the SCE and IACC. The follow-up interview utilized the same questions as the initial interview and was conducted at the beginning of the second semester enrolled in the nursing program. The students had not participated in clinical experiences for the second semester at the time of the interview to ensure they did not cross-reference their clinical performance.

A second method of data collection included review of students' journal entries written the week preceding the SCE, the week following the SCE, and the week after IACC experiences. A third component of data collection included field notes of students' behaviors observed during each interview. In particular, I noted body language of the students during the interview process. My notes included behaviors such as location/choice of seating, arm position, eye contact and volume, and tone of voice used during the interview.

As part of a systematic data analysis approach I: (1) read and re-read interview transcripts and journal responses for exploration of "big ideas," (2) coded and categorized data, (3) revised coding schemes, (4) developed findings statements, (5) interpreted data, and (6) analyzed and synthesized data for linkage to the experiences (Bloomberg & Volpe, 2008). Interview transcripts were sent to the students following both interviews to ensure accuracy. No additions

or deletions were necessary after their reviews. Cross-case analysis of data was performed to ensure accuracy in the study. Cross-case analysis involved manipulating diverse data and exploring for similarities and differences across the cases. Manipulation of data was achieved by manually separating individual interview responses and journal entries according to protocol questions 1 through 8 and journal entries 1 through 3. Cross-case analysis involved the different sources of information from the study. The rationale for utilization of a qualitative case study research along with the research design, sample, setting, data collection, management, interpretation, and analysis are detailed in Chapter 3.

Theoretical Assumptions

Two theoretical assumptions underpinned the research study.

1. The assumption a person could exercise control over what he or she does.

2. The assumption that what a person believed, felt, or thought had a direct impact on his or her performance and the motivation sustained to reach goal attainment (Bandura, 1994).

Research Question

The following research question was posed for the study:

How does participation in a SCE impact the student's perception of self-efficacy in clinical skills performance?

Definitions of Terms

For the purposes of this qualitative case study, the following definition of terms was used.

Acute care clinical setting: An inpatient hospital setting to which patients are admitted for the purposes of receiving medical treatment of disease processes on a short-term basis (Berman & Snyder, 2012).

Anxiety: A subjective state of mind created from uneasiness and apprehension (Melincavage, 2008).

Clinical preparation: The act of learning skills associated with nursing practice performed in the clinical setting (Emerson, 2007).

Clinical skills laboratory: A learning environment utilized for the purpose of educating nursing students in clinical skills (Emerson, 2007).

Cognitive simulation: Mentally visualizing the performance of a task (Bandura, 1989).

Initial acute care clinical (IACC) experience: The first scheduled learning experience nursing students encounter during their program of study (Berman & Snyder, 2012).

Nursing student: An individual enrolled in an upper division nursing program for the purpose of becoming a Registered Nurse (NSNA, 2007).

Nursing students: Individuals enrolled in an upper division nursing program for the purposes of becoming a Registered Nurse (NSNA, 2007).

Perceived self-efficacy: One's belief in the ability to perform cognitive, affective, and psychomotor skills (Bandura, 1989).

Simulated Clinical Experience (SCE): A learning experience whereby students are engaged in simulated activities of direct patient care, interpersonal communication, clinical

decision making, time management, and obstacles associated with nursing practice and patient care (Bambini et al., 2009).

Stress: An emotional state of mind created from exposure to unknown stressors or forces (Melincavage, 2008).

Upper division nursing program: Undergraduate nursing curriculum consisting of the last four or five semesters prior to graduation (AUM, SON Handbook, 2012).

Summary Discussion for Chapter 1

Chapter 1 provided an overview of the critical components of the research study: problem, purpose, and research questions. In addition to these critical study components, the chapter provided an introduction, overviews of the research design and theoretical framework, theoretical assumptions, and definitions of key terminology used in the study. Chapter 2 will summarize the research literature relevant to topics for the study. Chapter 3 will provide a detailed accounting of the methodological process carried out during the development and implementation of the study. Chapter 4 will provide participant descriptions and summarize the results of the study. Conclusions and discussion of the study findings are discussed in Chapter 5.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

The purpose of this case study research was to inquire how participation in a simulated clinical experience (SCE) as preparation for the initial acute care clinical (IACC) impacts student perceptions of self-efficacy in clinical skills performance and if a link between simulation and self-efficacy exists. Specifically, how first semester baccalaureate nursing students' report levels of stress and anxiety related to the IACC, the phenomenon of participation in an SCE as preparation for the IACC, and perceptions of self-efficacy in clinical skills performance. A critical aspect to beginning this research study entailed a review of the current literature contiguous to these topics. The process of the literature review has been ongoing throughout the data collection, analysis, and synthesis phases of the study to support the qualitative methodological process utilized. Databases utilized for research consisted of Academic Search Premier, CINAHL Plus Full Text, ProQuest Dissertations & Theses, ERIC, Google Scholar, and ProQuest Nursing and Allied Health Source.

Search terms related to the problem and significance of the study topic included student nurse, anxiety, stress, clinical preparation, clinical education, perceptions of student nurses related to clinical, and simulation in nursing education. Terms associated with the theoretical framework underpinning the research study include self-efficacy, perceived self-efficacy, self-efficacy theory, motivation, and learning. Current literature between 2000 and 2013 was the

foundational basis for the review. Historical literature with a focus on self-efficacy theory and student perceptions of clinical experience were included as support for the research.

Topics Reviewed

The first section of the literature review begins with discourse on the meaning of stress and anxiety. Included within this section are the significance of clinical experiences in nursing education and the effect of stress and anxiety on nursing students during clinical experiences. The second section discusses simulation, beginning with a brief history of simulation. To illustrate the importance of simulation for this study, discourse regarding the use of simulation as clinical preparation to decrease stress and anxiety while increasing perceived efficacy in nursing students has been included. The chapter concludes with a brief statement on the future of and the significance for retaining and graduating student nurses into professional practice.

Stress and Anxiety

Stress is an emotional state described by scholars as individual perceptions of fear, tension, or anxiety that creates an impairment of overall performance (Admi, 1997; Elliott, 2002; Moscaritolo, 2009; Pulido-Martos, Augusto-Landa, & Lopez-Zafra, 2012). For the benefit of understanding, this study utilizes the general definition of stress and anxiety as coined by psychologists Lazarus and Folkman. Together the two scholars have produced a large body of literature on the topic since the 1960s and are viewed as pioneers in stress theory (Moscaritolo, 2009).

Stress is defined as "a particular relationship between the person and the environment that is appraised as challenging or difficult to manage, causing anxiety" (Lazarus & Folkman,

1984, p. 19). For the purposes of this case study, the "person" is a first semester baccalaureate nursing student and the "environment" is the initial acute care clinical (IACC) experience. Five nursing students reported an increased feeling of stress related to preparation and performance of clinical skills, which created a state of anxiety.

Lazarus and Folkman (1984) described anxiety as "a vague, uncomfortable feeling exacerbated by prolonged stress and the presence of multiple stressors" (p. 4). Historically, nursing students have reported anxiety related to the fear of making mistakes, providing direct patient care, performing clinical procedures, working with clinical faculty and practicing RNs, as well as being assessed by peers (Admi, 1997; Chesser-Smyth, 2005; Elliott, 2002; Melincavage, 2011; Melo et al., 2010). The student participants in this study reported similar fears related to their initial clinical experiences, which led to a feeling of stress and anxiety in clinical skills performance.

Clinical Experiences

Clinical education continues to be a major focus in nursing education as well as other disciplines such as education, law, medicine, and aviation. A foundational concept that supports clinical experiences in nursing education is that students are provided with opportunities to apply theoretical knowledge in the practice environment. Students receive constructive feedback from faculty and peer mentors, which supports the enhancement of clinical judgment and reasoning (Benner, 2010).

Clinical judgment and clinical reasoning are developed over a period of time in which learning is in context with a patient situation. A student needs to receive formal and informal feedback from faculty, practicing RNs, and peers. Feedback can be delivered as questioning

occurs related to the clinical situation, which allows the student to see a larger picture after a period of time. Students have reported that because of the separation in classroom (theoretical) learning and clinical learning it is difficult to put an entire picture of the patient situation together. Benner maintains bridging the two environments--classroom education with clinical practice--and suggests the process begin in the skills laboratory. The skills laboratory provides faculty the perfect opportunity to present knowledge to students in an environment where students can simultaneously practice what they are learning. The application of knowledge without fear of harm to a patient decreases stress in performing clinical skills, reduces the risk for mistakes, and increases long-term learning.

Stress and Anxiety during Clinical Experiences

Clinical experiences have been cited as a major source of stress and anxiety for many nursing students (Admi, 1997; Bradbury-Jones, Irvine, & Sambrook, 2010; Chesser-Symth, 2005; Elliott, 2002; Galbraith & Brown, 2011; Jimenez et al., 2011; Melincavage, 2008, 2011; Moscaritolo, 2009). The clinical environment presents challenges that the classroom cannot. Students learn theory in the closed environment of a classroom where faculty control the dimensions of complications. Students can anticipate the appropriate response to a given situation without unexpected obstacles and challenges. In the clinical environment, no one person controls the magnitude of difficulties a student can encounter when providing care to a patient. It is the uncertainties of when and/or how to perform that lead to increased levels of stress and anxiety regarding clinical experiences (Admi, 1997; Elliott, 2002; Melincavage, 2008; Melo et al., 2010; Moscaritolo, 2009).

Challenges that students are presented in the acute care setting have been identified using the Nursing Student's Stress Scale (NSSS). The scale was constructed to assess student reported sources of stress and anxiety related to clinical experiences (Admi, 1997). The instrument has been useful in identifying a direct relationship between clinical preparation and performance in the acute care setting. The scale includes six subscales: "adequate knowledge, close supervision, averse sights, causing pain, insufficient resources, and reality conflict" (p. 323). Data gathered from use of the tool identified specific fears by nursing students related to the IACC experiences which have produced immense stress and anxiety. An example is a student having been placed in an unfamiliar situation that created higher stress, leading to a decrease in performance ability. A situation becomes unfamiliar because a gap exists between the expected and the experienced stress and anxiety. This breach between the two is a critical indicator for the need to provide interventions that facilitate first semester nursing students in developing realistic expectations for the IACC experience (Admi, 1997, Elliott, 2002, Melincavage, 2008, Melo et al., 2010, Moscaritolo, 2009).

A nursing student reported, "You are required by a staff nurse to perform a procedure in a way that contradicts what you learned at school" (Admi, 1997, p. 324). This statement made by the student reflected stress and anxiety, which was directly related to a gap in the theoretical knowledge gained in the classroom and practical knowledge gathered from a clinical experience. This type of situation creates heightened anxiety and demonstrates a need for the development of learning strategies to address the breakdown between expectations and reality in clinical practice (Moscaritolo, 2009).

An additional source of stress within a clinical environment is related to an inability to communicate effectively with staff and families, which become factors limiting clinical

performance. Effective communication is a learned behavior that is best achieved through exposure to similar situations requiring interaction between two or more individuals. Learned behaviors are suggested to occur through clinical preparation, clinical supervision, and constructive feedback from instructors and peers (Benner, 2010; Elliott, 2002). Decreased clinical performance has a direct correlation between inadequate clinical preparation and the incorporation of learning strategies that promote self-efficacy and decrease stress and anxiety (Elliott, 2002). A student's perceived quality of a clinical experience has a direct effect on the learning that occurs before and during the situation.

Nursing students become disillusioned when their perceptions of clinical expectations differ from what is learned in the classroom and then observed in the practice setting. Such sources of stress create challenges for students which may result in declined clinical performance. Their cognitive, psychomotor, and affective skills learned during clinical skills preparation do not prepare them with how to handle these challenges (Admi, 1997; Elliott, 2002). Therefore, it is essential for faculty to foster a learning environment that decreases stress and anxiety and promotes self-efficacy in clinical performance (Melincavage, 2008, 2011).

Efficacy in clinical performance can either empower or disempower students during clinical experiences (Bradbury-Jones et al., 2010; Melincavage, 2008, 2011). Methods that empower students begin with learning skills in a clinical skills laboratory. Students feel more empowered in their clinical practice when they report higher levels of self-efficacy in clinical skills performance (Melincavage, 2008, 2011). It has been suggested that nurse educators incorporate strategies to promote social cognitive learning as part of the learning experience, which promote feelings of empowerment (Bradbury-Jones et al., 2010).

Fear and uncertainty associated with new experiences can produce immense stress and anxiety in nursing students. For some students, this first clinical experience is a leading factor in producing levels of stress and anxiety, which lead to impaired cognitive appraisal of a situation. The unfamiliarity of a clinical environment and the perceived expectations of performance are the main issues associated with the stress and anxiety that lends to impairment. Addressing student needs is critical and the development of teaching/learning strategies, such as a simulated clinical experience, focused on orienting students to the initial clinical experience may be the answer nurse educators have been seeking. Development of a scenario-based orientation to clinical would support and promote student success within a nursing program, resulting in the reduction of stress and anxiety, fostering improved learning opportunities, and facilitating positive perceptions of efficacy in clinical performance (Admi, 1997; Bradbury-Jones et al., 2010; Chesser-Symth, 2005; Elliott, 2002; Folkman et al., 1986; Folkman & Lazarus, 1986; Galbraith & Brown, 2011; Jimenez, Navia-Osorio, & Diaz, 2011; Melincavage, 2008, 2011; Moscaritolo, 2009).

History of Simulation

Simulation has been used in military aviation since the beginning of World War I, and as early as the 1930s military personnel were trained using electronic flight simulators. In the 1950s, the military constructed the first off-the-ground flight simulator in which pilots experienced the in-flight motions of an actual aircraft. Technological advances continued and it is reported modern day simulators were created as far back as the late 1960s. Since this time, simulation in flight training has been incorporated into the private aircraft industry (Horsley, 2012; Rolfe & Staples, 1997).

Medicine and nursing recognized how advances in technology and use of simulators in the military and aviation industries was increasing critical thinking and mastery of complex psychomotor skills within complex situations (Horsley, 2012; Scherer, Bruce, Graves, & Erdley, 2003). Other disciplines such as nursing and medicine began considering the benefits of utilizing simulators in their respective educational programs. The first nursing simulator was introduced in the 1950s. The simulator, "Mrs. Chase," provided nursing students the opportunity to practice basic psychomotor skills in a skill laboratory (Nehring, Lashley, & Ellis, 2001). Dr. Michael Gordon from the University of Miami created the first full-sized cardiopulmonary simulator used in medical schools in the 1960s. "Harvey" remains in use today as part of interdisciplinary education on cardiac and pulmonary diseases (Issenberg & Scalese, 2008; Gordon Center for Medical Research, 2014).

Today there are two major manufacturers of simulators that are used in both nursing and medicine education: Laerdal Medical and CAE Healthcare, formerly Medical Education Technologies (METI). Simulators are used throughout the United States by schools of nursing and medicine in the training of students. Simulators range from simple task trainers used to practice basic care skills to full-size high fidelity simulators that can be programmed to imitate the most complex medical situations (CAE Healthcare.com, 2014, Laerdal.com, 2014). With the availability of such advancements in technology to be utilized in nursing education, the question remains as to how effective these resources are being implemented into curriculum (Bremmer, Aduddell, Bennett, & VanGeest, 2006; Horsley, 2012; Parsh, 2010).

Use of Simulation as Clinical Preparation

Simulation has been used in nursing education for many years. Research supports the teaching philosophy of using simulation as a means of clinical preparation of nursing students. Both quantitative and qualitative studies reveal varying aspects of faculty involvement in the development, delivery, and evaluation of how simulation is being used as a teaching strategy and the benefit to students' educational experiences (Bremmer et al., 2006; Garrett, MacPhee, & Jackson, 2010; Horsley, 2012; Parsh, 2010).

Researchers have studied how students report the use and benefit of simulation as a means of clinical preparation with varying results. The majority of research has been quantitative, using survey instruments and a Likert-type scale to evaluate students' responses on the topic (Bambini et al., 2009; Bremmer et al., 2006; Gore, Hunt, Parker, & Raines, 2011; Horsley, 2012; Leigh, 2008; Yuan, Williams, & Man, 2014). Qualitative studies have investigated student reports on the characteristics of an effective simulated clinical experience; however, little research has been conducted on student perception of using a simulated clinical experience prior to an initial hospital experience to decrease anxiety and increase efficacy in first semester nursing students (Kuznar, 2009; Melincavage, 2008, 2011, Moscaritolo, 2009; Parsh, 2010; Pike & O'Donnell, 2010).

Simulated clinical experiences provide students with opportunities to enhance communication, confidence, and clinical judgment. Patient scenarios present students with opportunities to practice cognitive, psychomotor, and affective skills throughout the nursing program and vary in complexity depending on the students' levels of preparation (Bremmer et al., 2006; Ricketts, 2011; Yuan et al., 2014). The students' levels of preparation is determined by the level of placement within the program and is typically related to course content as

preparation for clinical experiences. Advances in technology have allowed for increased use of simulation in nursing education to "create realistic simulations" during which students gain knowledge, skills and affective behaviors to enhance confidence in clinical judgment and performance (Bambini et al., 2009).

While simulation has been valued for years as a teaching strategy by faculty, research has been conducted for the purpose of determining student value of simulation in nursing education (Bambini et al., 2009; Bremmer et al., 2006; Gore et al., 2011; Horsley, 2012; Leigh, 2008; Yuan et al., 2014). To better understand the phenomenon of student engagement in simulation as clinical preparation, Bremmer et al. (2006) engaged first-semester nursing students in a simulated learning activity where they performed head-to-toe physical assessments on human patient simulators. Forty-one students completed a 2-part questionnaire related to the experience. The results from their work revealed 95% of students felt "good" to "excellent" about the learning experience. Interestingly, 68% of students reported that simulation should be mandatory in nursing programs, and 42% of students reported an increase in ability to perform clinically, following the simulated learning experience.

Using simulation as a medium for psychomotor skills development has been the norm within programs of nursing across the United States. The purpose for employing the teaching strategy is based on the concept that simulation optimizes an individual's ability to perform patient care and reduces the occurrences of medical errors. Nurse educators identified the benefits of using simulation in the training of medical students, which prompted the expanded use in nursing education. The many factors that influence the delivery of quality patient care can be safely and effectively gained through complex patient scenarios. Evidence supports the integration of clinical simulation into curriculum for the purposes of promoting individual and

group practices that enhance communication, patient care, and students' confidence in their ability to perform in actual patient situations (Bremmer et al., 2006; Garrett et al., 2010; Horsley, 2012; Parsh, 2010). Interdisciplinary teamwork includes healthcare providers from varying disciplines working together in the care of patients. Many variables affect the "translation of learned material into improved clinical practice;" learning clinical skills in a safe environment promotes confidence in the ability to perform in healthcare environments (Fox-Robichaud & Nimmo, 2007).

Educators have begun to take a deeper look into the benefits of using simulation as preparation for clinical practice and the promotion of confidence among students (Gore et al., 2011; Leigh, 2008). Studies began to self-measure students' levels of efficacy in clinical performance. Students typically report a feeling of being unprepared and not knowing what to expect before going to clinical. These "feelings" have been cited as sources of stress and anxiety which alter the ability to perform to the perceived level of expectation (Admi, 1997; Bradbury-Jones et al., 2010; Chesser-Symth, 2005; Elliott, 2002; Folkman et al., 1986, Galbraith & Brown, 2011; Gore et al., 2011; Jimenez et al, 2009; Leigh, 2008; Melincavage, 2008, 2011; Moscaritolo, 2009). Following a simulated clinical experience students have responded, "It is great to know what to expect and how to plan for the clinical day" and "I feel a lot more comfortable with my skills" (Gore et al., 2011). Positive anecdotal statements, such as these made by students, indicate to faculty the use of simulation in nursing education is an effective teaching strategy (Leigh, 2008).

Leigh (2008) completed a doctoral thesis that examined the relationship between participation in simulation and the levels of self-efficacy reported by nursing students. Sixty-five senior baccalaureate nursing students participated in the mixed methods study. A self-efficacy

scale was used to determine the level of efficacy in clinical preparation before and after engagement in a simulated learning activity. The outcome of the study supported the use of simulation as a variable that can be used to increase self-efficacy in clinical performance prior to graduation and entering professional practice. The study cited limitations as being a lack in student diversity, sample size, and the need for a more in-depth look at the students' perceptions by qualitative measures. The current study was inspired by Leigh's recommendation of replicating the study using a sample of beginning nursing students and to expand on student perceptions of self-efficacy in clinical preparation and performance through qualitative research methods.

The use of simulated learning in the clinical skills laboratory is a process that can increase students' levels of confidence in skills performance and enhance communication between student peers, faculty, and healthcare providers when in the acute care clinical setting (Kuznar, 2009; Ricketts, 2011). Students and faculty are, at times, critical of the teaching/learning process; however this review of literature supports inclusion of simulated learning activities into nursing curriculum. The research suggests careful planning and organization in holistic (meaning patient centered) clinical scenarios that offer measurable learning outcomes (Ricketts, 2011).

In today's healthcare system, patient care is complex and requires critical thinking by nurses. To better prepare students in how to respond to critical situations with safe clinical judgment, nurse educators use simulated learning experiences (Bambini et al., 2009; Bremner et al., 2006; Fox-Robichaud & Nimmo, 2007; Jeffries, 2005; Nishisaki, Keren, & Nadkarni, 2007; Smith & Roehrs, 2009). Creation of learning experiences with the use of simulation is not unique to nursing education. The teaching strategy has been utilized globally by other

professions such as aviation, chemical manufacturing, nuclear power generation and the military (Nishisaki et al., 2007). Simulated learning experiences incorporate the use of human patient simulators as part of the teaching/learning process. Human patient simulators allow nurse educators to construct situations where nursing students care for patients in a safe environment, free of fear or threat of failure (Jeffries, 2005; Reising, Carr, Shea, & King, 2011). Pre-clinical simulated teaching/ learning processes as a variable in enhancement of student self-perception of efficacy in clinical performance is identified in the literature.

The future of nursing practice. In 1999 the Institute of Medicine (IOM) published "To err is human," a report that alerted the American public to medical errors and increased the awareness of patient safety in healthcare (Nishisaki et al., 2007). Little has changed in more than a decade, the number of lives lost to medical error each year in the United States has increased from an estimated 98,000 in 1999 to over 100,000 in 2010 (IOM, 2012).

The "Teaching IOM: Implications of the Institute of Medicine reports for nursing education" publication provides a basis for nursing practice in current healthcare reform. The publication synthesizes the IOM (2010) report on "The future of nursing, leading change, advancing health," which mandates nurses take a leading role in provision of safe quality healthcare. Additionally it provides educational processes for teaching core competencies related to safe patient care. Leading the change in nursing education includes building students' abilities to think critically and problem solve in complex patient situations. These qualities are critical in delivering safe quality patient care (Finkelman & Kenner, 2009). Preparing future nurses to lead the change in advancing healthcare requires nursing programs to instructionally

prepare students to practice in the complex healthcare arena (American Association of Colleges of Nursing, 2011).

In an effort to soundly educate future nurses, simulation can play a leading role in the preparation phase of the cognitive, affective, and psychomotor skills necessary to provide safe, quality patient care. The use of simulation in healthcare education is an effective method for (1) improving patient safety, (2) improving healthcare provider self-efficacy and competence in clinical performance, and (3) improving patient outcomes (Nishisaki et al., 2007). When designing and delivering simulated learning grounded from Bandura's theoretical framework of self-efficacy, students are motivated and academic performance and overall interest in the subject matter increases (Pike & O'Donnell, 2010). The level of perceived efficacy directly affects someone's ability to analytically think and problem-solve and adequately accomplish a goal (Bandura, 1989).

Summary

This review of the literature revealed studies and reports on student perceptions of stress and anxiety in general, related to clinical experiences, and clinical skills performance. Both quantitative and qualitative studies were reviewed along with synthesized reviews of literature. What appears to be a gap in the literature is linking students' perceptions of stress and anxiety of IACC experiences to SCEs as effective teaching strategies.

Clinical preparation is a known factor of producing stress and anxiety in first semester nursing students and can limit the ability to perform safe patient care in the acute care setting (Cooper, Taft, & Thelen, 2005). Based on the review of literature, I propose students' clinical preparations begin in a clinical skills laboratory followed by a SCE prior to the IACC as a

teaching/learning strategy that can impact students' self-perceptions of efficacy in clinical performance. The enhancement in self-efficacy is propositioned to decrease stressors and anxieties of the first clinical experience. The outcome effect is retention of baccalaureate nursing students, increasing the number of practicing RNs, reducing the projected nursing shortage, and providing safe quality patient care.

Chapter 1 provided an overview of the critical components of this research study: problem, purpose, and research questions. In addition to these critical study components the chapter provided an introduction, overview of the research design, theoretical assumptions, researcher perspective, rationale and significance, and definitions of key terminology to be used in this study. Chapter 3 will provide a rationale for utilizing qualitative research and details the design of the study. Chapter 4 details the data analysis process and presents findings from the study. Chapter 5 reports the conclusions derived from findings, discusses implications for the future of nursing, and provides recommendations for future research.

CHAPTER 3

METHODOLOGY

The purpose of this qualitative case study was to investigate "how" students identify participation in a Simulated Clinical Experience (SCE) as preparation for the Initial Acute Care Clinical (IACC) experiences and the impact on perceived self-efficacy in clinical skills performance. Specifically, how first semester baccalaureate nursing students report (1) levels of stress and anxiety related to IACC experiences, (2) the phenomenon of participation in a SCE as a course of preparation for the IACC experiences, and (3) perceptions of self-efficacy in clinical skills performance during SCE and IACC experiences. As the researcher, I felt the development of teaching/learning experiences that nurture perceptions of self-efficacy in clinical performance would facilitate student success throughout entry level nursing education and provide a means for matriculation into professional practice. In an effort to gain greater insight into the phenomenon, the following research question was proposed: "How does participation in a SCE impact the student's perception of self-efficacy in clinical skills performance?

Chapter 3 describes the study's research methodology and includes discussions around the following areas: (1) research design; (2) description of the research sample, setting, and population; (3) summary of data collection and management; (4) methods for data analysis; (5) validity and reliability; and (6) ethical considerations of the study. The chapter concludes with a brief summary.

Research Design

The research design used for the study utilized a descriptive case study approach. According to Merriam (1988), three criteria are necessary to define the use of a descriptive case study approach to research in education. The research question inquires "how" a phenomenon impacted students; the researcher had no control over behavioral events, and the focus was a contemporary rather than historical experience. The first criterion was met as evidenced by the following actions of the researcher. The researcher sought to interview participants in an effort to gain greater insight into the phenomenon of stress, anxiety and perceived self-efficacy related to clinical skills performance. A second method for meeting the first criterion included mining data from documents. Specifically, the reflective journal entries written by participants before SCE, after SCE, and after IACC experiences were reviewed which provided for a method of inquiry to retrospectively analyze participant perceptions of the phenomenon. Field notes were used by the researcher as a resource to recall observations through verbal description of the setting, participant behaviors, and activities during participant interviews. Additionally, the field notes provided a method in which the researcher could reflect on personal feelings that were encountered prior to, during, and following participant interactions.

The researcher having no control over behavioral events was the second criterion necessary to define a descriptive case study. The researcher did not possess the ability to influence student grades associated with participation, or non-participation, in the study. Students were not enrolled in an associated course of study in which the researcher was lead faculty. Additionally, the researcher did not contribute to the development of SCE scenarios, participate in the delivery of the SCE, nor observe any of the activities the students engaged in through the

simulated experience. By these measures, no control over behavioral events was possible through student participation, or lack of participation, in the study.

The third criterion necessary to define a descriptive case study related to the focus being of a contemporary rather than historical experience. Exploring a link between simulation and self-efficacy met the criterion for a contemporary experience. The research study was devoted to addressing changing healthcare dynamics, current and future nursing shortages, and the increasing demand on professional nursing responsibilities through an inter-professional approach to the delivery of safe, patient-centered care (Cherry & Jacob, 2013).

The descriptive case study approach utilized a *particularistic* method of inquiry. A *particularistic* method of inquiry has a focus on a particular "situation, event, program, or phenomenon" (Merriam, 1988, p. 11). The specificity of the focus was to examine how nursing students described stress and anxiety during clinical skills preparation, perceived efficacy in clinical skills performance, and subsequent performance in an IACC experience. A second characteristic of a *particularistic* case study is to "concentrate attention on the particular way groups of people confront specific problems, taking a holistic view of the situation" (Shaw, 1978, p. 2)." The particular group of people included in the study was five first semester nursing students enrolled in X University School of Nursing in fall 2012. The researcher typically elects four or five "cases" for a multi-case study (Creswell, 2007). Similarities and differences were explored to better understand how stress, anxiety, and perceived efficacy related to students' clinical skills performance during the SCE and IACC experiences of the five student participants.

Research Sample, Setting, and Population

Nonprobability sampling strategy is used to "solve qualitative problems, such as discovering what occurs; the implication of what occurs; and the relationship linking occurrences" (Honigmann, 1982, p. 84). The most common form of nonprobability sampling used in qualitative research is purposive sampling (Yin, 2009). Purposive sampling is based upon the assumption that the researcher wants to gain insight into a phenomenon and needs to select a sample from which the greatest information can be gained (Merriam, 1988). The purposive sample selected for this research study was from a population of nursing students currently enrolled in the first semester of the traditional upper division nursing program at X University during fall semester 2012.

As part of normal curriculum design at X University, the population of nursing students is engaged in 36 hours of clinical skills laboratory, a 5-hour pre-clinical simulated learning activity, and five 6-hour clinical experiences in an assigned acute care hospital setting (AUM, School of Nursing Handbook, 2012). As part of the coursework students engaged in reflective journaling after each clinical skills laboratory, SCE, and acute care clinical experiences. Three journal entries written by the sample were of interest to the researcher and included as data for the research study. The researcher made the assumption that following the preparation for and engagement in IACC experiences nursing students could talk about how stress and anxieties impacted their perceptions of self-efficacy and clinical skills performance. Additionally, the assumption was made that these students could describe how self-perception of efficacy in clinical skills performance along with a SCE prepared, or did not prepare, him or her for the IACC experience. Based upon these assumptions, the researcher proposed to explore how this sample of nursing students would dialogue about perceived stress, anxieties, and self-efficacy

associated with IACC experiences. The researcher further proposed the exploration of the sample of nursing students' discussions could assist nurse educators to create SCEs in the future which motivate student learning and nurture perceptions of self-efficacy in clinical skills performance.

Students were selected for the study through careful consideration based upon inclusion and exclusion criteria. Criteria for inclusion in the research study included students who (1) were currently enrolled in the first semester of the upper division nursing program at X University, (2) participated in a SCE experience prior to the IACC, and (3) expressed feelings of stress and/or anxieties prior to and/or during the IACC experience. Criteria for exclusion in the research included (1) any student who was required to repeat the first semester course work, (2) repeaters in a SCE experience prior to the IACC experience, (3) repeaters in an acute care clinical experience, and/or (4) previous work experience in healthcare.

Following a process of inclusion and exclusion, a purposive sampling of five participants was chosen to participate in the study. The smaller sample size provided richness and complexity of data necessary for interpreting the community experience that was sought by the researcher (Merriam et al., 2002; Smith & Roehrs, 2010). The occurrence of greater than five students volunteering for the study did not present itself and thereby the researcher was not required to utilize a lottery method to randomly select the desired sampling. Participants were chosen based on the fact they were in the first semester of the upper division nursing program and met the criteria for inclusion in the study. All five participants stated a degree of stress and anxiety related to the IACC experience and a lower level of perceived self-efficacy in clinical skills preparation and performance.

With the attrition of one participant following the first interview, a final sampling of four two-part interviews and one single interview resulted. Sample size was important for achieving the purpose of the study; however, it was the information gathered through interviews and archival data (reflective journal entries) that generated meaning and insight to the stress, anxieties, and self-percept of efficacy in clinical performance related to clinical preparation, SCE and IACC experiences (Burns & Grove, 2011; Houser, 2012; Merriam et al., 2002).

Data Collection and Management

Preparation for data collection is an integral aspect to the design and implementation of case study research. Good preparation in the skills of case study research along with research on the specifics of case study design, development of a protocol for the study, and exploration of a pilot case study increase validity and reliability of the investigation of the study for the researcher (Yin, 2009). Merriam (1988) suggested attaching oneself both physically and psychologically to the research phenomenon to obtain depth and detail of the qualitative data. Interviews contribute immensely in the data collection process. As part of preparation for the study, the researcher developed a 13-question protocol for the semi-structured interview process. The protocol was piloted using two senior level nursing students to assess for richness of dialogue and collection of data. Data received from the pilot study revealed a need for revision by the researcher to narrow and refine the protocol questions. The interview protocol was revised and resulted in the collection of rich qualitative data.

Qualitative data consists of "detailed descriptions of situations, events, people, interactions, and observed behaviors; direct quotations from people about their experiences, attitudes, beliefs, and thoughts; and excerpts or entire passages from documents, correspondence,

records and case histories" (Patton, 1990, p. 22). Merriam (1988) stated that qualitative case studies rely greatly upon interviews, documents, and observations as methods of data collection. Observation field notes support generalized interview statements and enhance data retrieved through interviews. A different method of data collection supports the use of cross-case analysis to interpret the diverse data and find meaning.

Data Collection Process

The researcher submitted protocol review applications to both the Institutional Review Boards (IRB) at Auburn University at Montgomery and The University of Alabama. Initial approval was received from Auburn University at Montgomery, followed by the final approval from The University of Alabama IRB. Data collection immediately began following receipt of approvals.

An invitation to participate in the study (Appendix A) was emailed using students' official school email address. The email consisted of (a) study objectives; (b) inclusion criteria; (c) data collection, analysis, and reporting processes; (d) contact information for the researcher; and (e) a baseline data collection (BDC) form (Appendix B). Accordingly, nursing students who perceived they met the study criteria and had a desire to participate voluntarily notified the researcher of their interest via email. No student was directly asked to participate in the study by the researcher or any faculty employed by the institution. Students meeting the study criteria for participation were offered a meeting with the researcher. Full study details were provided at the time of the meeting. Signed informed consent was obtained after a mutual decision to participate between the student and the researcher resulted.

Following purposive selection of five participants, the researcher formally notified each participant of inclusion in the study. A two-part semi-structured focused interview process was utilized for data collection. Guiding interview questions (Appendix C) were used by the researcher throughout the interview process to ensure data elicited was consistent among all participants.

Student Interviews

Interviews in case study research provide for "guided conversations" rather than structured queries (Yin, 2003). Focused interviewing was the method of interview used for the study. Students were engaged for a short period of time, conversation was directed with open-ended questions, yet followed a question set developed from the case study protocol. The questions were asked by the researcher in a manner that suggested naivety about the subject and encouraged the student to comment freely about the experience (Yin, 2009).

Individual interviews were conducted in a non-threatening environment located in Moore Hall on the X University campus in Montgomery County, Alabama. The location for individual interviews was on the second floor of Moore Hall. Students were familiar with these surroundings and expressed no distress related to the location and timing of the interviews. Room 201 was reserved through administration to ensure privacy and deter interruption during the interviews. Tables were arranged in a "U" shape with chairs on both sides of the tables. During the interview process, a student sat on one side of the table and the interviewer sat opposite the student. The arrangement of seating allowed the student to choose a seat on the side closest to the door. The method of seating was made in an attempt to give control of when one could exit the interview completely to the student. There was ample lighting in the room,

supplied by fluorescent fixtures spaced throughout the overhead space of the room. No area of the room was darkened. There are no windows in the room with the exception of the door window which was covered with a curtain. The curtain was placed upon the door window to ensure privacy during the interviews. Prior to beginning the interview, each student was asked if he or she was "okay" with the room environment or if changes needed to be made to accommodate personal preferences.

Interviews lasted approximately 30 to 45 minutes each. The purpose of the interviews was to gather data regarding how nursing students make meaning of their participation in SCE and the impact on perceived self-efficacy in clinical skills performance. How nursing students associate stress and anxieties related to the IACC experience and the impact on perceived self-efficacy in clinical skills performance was explored. Lastly, the interviews were used as a tool to provide insight into how self-efficacy impacted clinical skills performance for these nursing students. In an effort to validate consistency of responses from participants, the same guiding questions were used during the second interview.

Interviews were audio recorded on an individual interview tape using a digital voice recorder. Audio recordings were kept by the researcher in a locked file cabinet. To maintain security of the recordings, the locked file cabinet remains secured in the researcher's office which has both key and combination lock capabilities.

Reflective Journal Entries

Documents are pieces of information that are not solely produced for research purposes. Yet, the documents serve as a ready-made source of information the researcher can use to strengthen the case study. Documents are labeled as "artifacts" by nature of existence prior to

the research at hand (Merriam, 1988). Emerson (2007) described reflective journaling as "written dialogue between students and faculty" (p. 137). The development of asking a "guiding question" is essential in reflective journaling. The "guiding question" promotes the process by which a student creates a link between current situations and past experiences.

Students enrolled in the course participated in journal entries as a normal requirement of the course. There were no grade points assigned to the activity by course faculty. The activity was given to students as a method of promoting reflection on participation in learning activities. Permission to access and analyze reflective journal documents of the five participants was received. Permission was obtained as part of the signed informed consent prior to the beginning of the study. Security of student journal entries was maintained through the university Informational Technology (IT) Department. The researcher was provided access to three reflective journal entries per participant, for a total of 15 samples, for the purpose of data collection. The first set of journal entries was made at the conclusion of clinical skills laboratory preparation. The second set of journal entries was made following the SCE. The third set of journal entries was collected after the IACC experiences.

For the first reflective entry, students were instructed by course faculty to reflect and respond to the following questions:

> How would you describe your ability to perform clinical skills and your motivation in achieving mastery of these skills as you prepare for mock hospital? (Provide examples within your entry). Do you feel stress or anxiety about going to clinical?

The second reflective journal entry was to reflect upon the experience of the SCE and dialogue through written response to the following question:

> How would you describe your clinical skills performance during Mock Hospital? Discuss how you feel Mock Hospital will help (or not) as you prepare for your first clinical experience.

> Do you feel Mock Hospital alleviated your stress or anxiety about going to clinical? If so, explain how.
>
> If not, explain what would have helped you.

The third and final piece of data collected from reflective journal entries came after the IACC experience. Students were instructed to reflect on the following questions:

> How would you describe your clinical skills (such as assessment, vital signs, communication, psychomotor skills, etc.) during your initial hospital clinical experience? Discuss how you feel Mock Hospital prepared (or not) you for your first clinical experience.
> Was the first clinical as stressful or were you as anxious as you were two weeks ago? If not, why not? If so, how could you have better prepared for this clinical experience?

There was no criterion for response length on the entries. Students were encouraged to express thoughts and perceptions as a method of reflective learning.

Observation Field Notes

Field notes are as individual as the researcher. The field note takes on a certain pattern of thought, usually consisting of verbal descriptions of the setting, individuals present, activities of interest to the researcher, direct quotes from participants, and narrative comments by the researcher (Merriam, 1988). "What is written down or mechanically recorded from a period of observation becomes raw data from which a study's findings eventually emerge" (p. 96).

The third component of data collection for this case study included recording and reading researcher field notes taken during the interview process. The researcher kept written field notes transcribed before and after each participant interaction. The purpose of the notes was to facilitate recall of particular elements of the setting, participants, activities and interactions; frequency and duration of the interview; and subtle factors that may influence the researcher's ability to fully recall the interaction (Merriam, 1988). Researcher notes are kept by the

researcher in a locked file cabinet. To maintain security of the notes the locked file cabinet has been secured in the researcher's office with both key and combination lock capabilities.

Baseline Data Collection Forms

Baseline Data Collection (BDC) forms (Appendix B) were completed and returned to the researcher by potential participants who expressed an interest in the study. Data extracted from the form allowed the researcher to evaluate a potential participant based on inclusion and exclusion criteria. Once the case study sample was determined, all BDC forms were secured in a locked file cabinet. To ensure security of student information, the locked file cabinet was secured in the researcher's office which has both key and combination lock capabilities. The BDC forms will be maintained for three years following the completion of the study and may be utilized in future research on stress and anxiety related to IACC experiences and perceived self-efficacy in clinical skills performance of nursing students.

Method for Data Analysis

Merriam (1988) proposed "data collection and analysis is a simultaneous activity in qualitative research" (p. 119). Analysis of data begins to construct as the researcher conducts the first interview, creates the first field observation, and reads the first journal entry of a participant. Emergence of ideas and suppositions take hold and lead to the next phase of data collection and analysis. Each path taken lends way to another, winding the researcher through various times of refinement and reformation of the research question before concluding with the final interpretation of data collected and analyzed.

> Unlike experimental designs where validity and reliability are accounted for before the investigation, rigor in qualitative case study derives from the researcher's presence, the

> nature of the interaction between researcher and participants, the triangulation of data, the interpretations of perceptions, and rich, thick description. (p. 120)

Qualitative data collection and analysis is most assuredly an ongoing process. The more data the researcher collects and analyzes, the greater the need to search deeper into the problem. At the onset of the study, student interviews were held as previously described. At the conclusion of each interview, audio recordings were transcribed verbatim by a professional transcriptionist. The researcher then read the transcribed interviews while listening to the audio recorded interviews for accuracy. After the researcher verified accuracy, the transcriptions were forwarded to individual participants to read for accuracy. Interview transcripts were denoted by participants as accurate and data analysis began.

At the beginning of analysis, transcripts were read a second time by the researcher; exploration of "big ideas" began to emerge. "Big ideas" considered for the study related to the theoretical framework. Examples of "big ideas" include (but are not limited to) thoughts regarding behaviors, impaired cognitive performance, self-efficacy, goal attainment, motivation, performance, outcome expectations, and role modeling. Qualitative software NVivo10® was utilized at the beginning of the process to identify key words and sentence trends among participant responses. The use of software was helpful to identify key words and sentence trends; however, it did not provide the researcher with rich data. The researcher began the process of cross-case analysis using manipulation techniques as described in Chapter 4.

Data retrieved from individual interviews and journal entries were then coded and categorized using the cross-case analysis method. Collectively, the transcribed interviews and journal entries were analyzed and revision of coding schemes occurred. The researcher reviewed the data for the emergence of essential themes that depicted an impact of self-efficacy on clinical skills performance by these nursing students. Data extracted became an integral part of the

development of finding statements. Assessment of how nursing students reflect on motivation, action, and affective arousal as modes of enhancing self-efficacy in clinical skills performance was vital in the data analysis process. Themes and categories reflect participants' experiences of clinical preparation, simulation, and engagement in IACC experiences reflecting linkage to the experience (Bloomberg & Volpe, 2008). Detailed descriptions of data analysis, synthesis, and a discussion of finding statements are provided in Chapter 4.

Validity and Reliability

Assessments for validity and reliability in qualitative case study research are different from those of the more traditional quantitative research. According to Yin (2009), three tests are included in the criteria for validity and one for reliability in case study research. The first test for validity, according to Yin (2009), is construct validity. This test necessitates the use of multiple sources of evidence and establishment of a chain of evidence during the data collection phase as well as the inclusion of member checks. A member check is performed when a key informant reviews a draft of the case study report. Member checks are a part of the composition phase of the study. The second test for validity is called internal validity. Internal validity is whereby the researcher performs pattern matching, explanation building, evaluation explanations, and use of logic models during the data analysis phase of the study. External validity, the third test, is achieved through the use of theory during the research designing phase of a multiple case study research project. The last test and most familiar to others is reliability or trustworthiness of the case study. Reliability is achieved when the researcher uses a case study protocol and develops an evidence database during the data collection phase of the study.

To successfully complete the first test related to validity, this study employed cross-case analysis. Student interviews and raw data derived from student journal entries were collected and analyzed. Researcher field notes were used to support findings. A chain of evidence was established through detailed descriptions of data collection processes. As a final criterion for achieving construct validity, participants were provided copies of interview transcripts to review for accuracy and encouraged to correct any inaccuracies discovered within.

Internal validity, the second test, was met during the data analysis phase of the study. The researcher initially performed pattern matching and explanation building using a qualitative software package, Nivo10®. A more comprehensive analysis was performed manually by the researcher using cross-case analysis method. Word tables were developed based upon findings during the coding and categorizing of themes. Complete description and explanation of the findings during the data analysis phase of the study are discussed in Chapter 4.

External validity for a single case study research study is attained through the use of theory. This research study was underpinned from the theoretical framework of Bandura's theory of self-efficacy (1997). The fourth and final test, reliability, was achieved through the development and use of a case study protocol and evidence database set during the data collection. The case study protocol was conceptualized at the research design stage of the study, refined following a pilot study, and completed prior to the beginning of data collection by the researcher.

Ethical Considerations

Protection of participants and compliance with review protocols were in accordance with The University of Alabama Institutional Review Board for Protection of Human Subjects and the

Auburn University at Montgomery Institutional Review Board. Signed informed consent to participate in the study was voluntary. Each student was provided written and oral communication regarding the study protocol and individual consent was obtained prior to engagement in data collection processes. Participants were instructed, and acknowledged understanding, that voluntary withdrawal from the study was permitted at any stage of the process and would not incur any negative consequences. One participant made the decision to withdraw from the study following the first interview of a two-part interview process. Had a participant expressed an experience of emotional distress during, or following, participation in the study, access information and/or referral to the Counseling Center located on the campus of X University was available.

Summary Discussion for Chapter 3

Chapter 3 provided an accounting of the methodological processes related to the study. Specifically addressed within the chapter was research design, sample, setting, and population; data collection and management; methods for data analysis; issues of trustworthiness; and ethical considerations. Chapter 4 will provide a detailed summation of participant descriptions and results from data analysis. Conclusion and discussion of the study findings will be outlined in Chapter 5. Retrospectively, Chapter 1 outlined the critical components of the research study and Chapter 2 summarized the research literature relevant to the topics for the study.

CHAPTER 4

RESULTS

The purpose of this case study research was to explore how participation in a simulated clinical experience (SCE) as preparation for the initial acute care clinical (IACC) impacts student perceptions of self-efficacy in clinical skills performance and if a link between simulation and self-efficacy exists. Specifically, how first semester baccalaureate nursing students' report levels of stress and anxiety related to the IACC, the phenomenon of participation in a SCE as preparation for the IACC, and perceptions of self-efficacy in clinical skills performance.

The research question helps to identify the method of inquiry a researcher will utilize in answering the problem statement (Creswell, 2007). After the problem statement related to the attrition rate in schools of nursing and the decreased number of practicing registered nurses was defined, the research question was formulated. The research question for this study supports the use of case study method of inquiry because "how" a purposively selected group of first semester baccalaureate nursing students experienced stress, anxieties, and their perception of efficacy during clinical preparation, simulation, and IACC experiences was of particular interest to me as a researcher and nurse educator. A case study method of inquiry can lead to findings which will either support or disprove the "how" question presented within this study (Schwandt, 2007; Yin, 2003).

In addition to answering a "how" question, a qualitative case study is an intensive analysis of a bounded system(s) (Bloomberg & Volpe, 2008; Merriam & Associates, 2002).

Bounded systems embedded in this case study were five first semester nursing students who self-identified stress and anxiety related to the clinical skills performance and their IACC experience.

Participant Selection

After receiving approval to conduct my research from both The University of Alabama and Auburn University at Montgomery Institutional Review Boards (IRB) (Appendix D), I had hoped to interview three to five participants from the Fall 2012 cohort of first semester nursing students enrolled at X University. A total of five students expressed an interest in participating in the study and met the requirements for inclusion.

Each participant was provided with a copy of the study protocol and returned a signed consent form prior to the first interview. The sample consisted of five students, all White. The five participants stated a degree of stress and anxieties related to the IACC experience and a lower level of perceived self-efficacy in clinical skills preparation and performance. There was attrition of the one participant following the first interview, resulting in a final sampling of four two-part interviews and one single interview. Sample size was important for achieving the purpose of this case study. However, it was the rich data obtained from interviews, journal entries, and researcher field notes that generated the meaning and insight to stress, anxieties, and self-percept of efficacy in clinical performance related to clinical preparation, SCE, and IACC experienced by these beginning nursing students (Burns & Grove, 2011; Houser, 2012; Merriam, et al., 2002).

Student interviews were conducted on various dates depending upon the student's individual schedule. I worked with each student to safeguard against distress related to the time devoted for the interview. I did not divert students from their classroom or clinical schedules

when planning interview meetings. Initial interviews were conducted on Thursday, November 29, 2012; Friday, November 30, 2012; and Tuesday, December 4, 2012. Follow-up interviews were conducted on Wednesday, February 20, 2013 and Monday, February 26, 2013. Interviews were conducted in room 201 on the second floor in Moore Hall on the X University campus. The room was set up with several tables in a "U" shape with chairs on both sides. The arrangement of tables and chairs had been carefully chosen to provide the participants with the option of sitting closest to the door on either side or in the middle of the room. The fluorescent lighting in the room was neither too bright nor dim, supporting a conversational environment. Each participant verified the lighting was suitable for use during individual interviews. There are no windows in the room with the exception of the door window which was covered by a curtain. This was to maintain privacy during the interview and alleviate any apprehension related to participation in the study.

Participant One

At the time of the interviews, Participant One was a 37-year-old, married full-time student. She held a previously earned baccalaureate in arts (BA) degree from another institution of higher education. This student was classified as a non-traditional student based on her age, marital status, and previous college experience. The responses she provided during the interviews were rich descriptors of her experiences related to clinical skills preparation during the first eight weeks of the semester in skills lab, the SCE, and IACC experience. At times during the interviews, she elaborated with non-verbal behaviors that did not always coincide with her verbalized perception of lower self-efficacy in clinical skills performance. Particular responses made during the interview process are highlighted throughout the chapter. These

remarks strengthened my analysis and provided depth and richness to presentation of data. Participant One appeared to appreciate the opportunity to share her experiences with me as I sought to discover if a link existed between SCE and self-efficacy in first semester nursing students.

Participant Two

Participant Two was a 19-year-old, single full-time student. She lived at home with her parents. Based on her age, marital status, and current educational status she was considered a traditional college student at the time of this study. During her interviews, Participant Two displayed verbal and non-verbal communication consistent with behaviors defined by Bandura (1985) as low efficacious. She spoke timidly in a high pitched, low tone voice throughout both interviews. Rarely did she make eye contact with me as we discoursed about her experience. Her responses and behaviors mirrored each other, meaning she described her experiences in the same manner as which she conversed with me. She was timid, shy, and appeared unsure in her ability to reach goal attainment. At the time of the follow-up interview, Participant Two verbalized she had been unsuccessful in achieving the expected outcomes of the first semester courses and was currently repeating these in an effort to graduate from nursing school.

Participant Three

Participant Three was a 21-year-old, single full-time student who lived with friends in local housing at the time of the interviews. Based on age, marital status, and current educational status she was considered a traditional student at the time of this study. Participant Three declared a prior work history as a pharmacy technician during summer breaks from school.

However, she denied any experience in direct patient care prior to entering the upper division nursing program at X University. This was important to note because she stated a work history in healthcare on her baseline data collection form, which required additional inquiry to ensure she met criteria for inclusion. During the interviews, Participant Three's non-verbal body language conveyed to me an eagerness to discuss her experiences during the first semester of nursing school. I would describe her verbal tone as one of excitement during discourse pertaining to preparation in the skills laboratory, the SCE, and then the IACC. Her responses provided rich and complex data for use during the analysis phase of this study. In particular, the information she provided guided some of the recommendations I make for future studies.

Participant Four

At the time of the first interview, Participant Four was a single 21-year-old enrolled as a full-time student. He lived at home with his parents and siblings. This student was classified as a traditional student based on his age, marital status, and current educational status. During the interview Participant Four would face away from me while describing his experiences. Several times throughout the interview he would request I repeat or rephrase the protocol questions prior to providing his response. He appeared easily distracted and provided shortened discourse related to his stated stress and anxieties in clinical skills performance. After three failed attempts to meet for the follow-up interview, Participant Four was withdrawn from the study. I did not receive any further correspondence from this student. The data extracted from the one interview was limited yet rich and diverse. For analysis, I found his remarks extremely valuable and insightful.

Participant Five

Participant Five was a 21-year-old, single, full-time student at the time of the interviews. She worked part-time for her father's business and lived at home with her parents and siblings. Of note, the distance from her residence to the campus was the farthest of any participant. I learned during the interviews she drove approximately 1 hour and 30 minutes one way to attend class and clinical. She too was considered a traditional college student based upon her age, marital status, and current educational status; however, her work schedule and commuter status was comparable to that of a non-traditional student. Participant Five could best be described as lively and bubbly during both interviews. She was eager to discuss her experiences on an individual and group level. The data retrieved from both interviews was valuable as I worked through the analysis phase of the study. Her descriptors of stress and anxieties as a beginning nursing student were reflective of her cognitive, affective, and motivational processes exercised as she completed the course.

Data Analysis

Holistic analysis of this multi-case study was performed using a cross-case analytical approach. Cross-case analysis involved examination of themes across the cases to depict shared aims among the cases (Creswell, 2007; Yin, 2003). Evidence collected included interviews, archival documents, and field notes. Evidence collected provided for the development of descriptions or facts related to the cases. Descriptions then facilitated the formulation of themes and subsequently assertions, which support or answer the "how" research question of the case study (Yin, 2009, 2012).

Preliminary analysis of data was performed using Nvivo10® qualitative software. The qualitative software was employed as an assistive tool for the purpose of identifying an initial set of codes which were later expanded to completely depict the richness of data. Word frequency and phrases were identified; however, due to the diverse evidence collected, the computer assisted software was ineffective in capturing the real-life content necessary for data analysis.

The limited application of assistive software findings has been cited as a cause that can lead to a "stalling" problem in the data analysis phase of a case study. A broader strategy to appraising data helps one to overcome the procrastination phase within a research study. Development of a different set of analytical strategies by the researcher in order to "play" with data is suggested. Data begins to take a more in-depth analytical shape, allowing for the emergence of patterns and meaning of the words, codes, and themes (Yin, 2009, 2012).

Yin (2009, 2012) suggested using analytical manipulations that are helpful in capturing the real-life context of the data collected. Manipulations include sorting data into various collections, placing evidence into categories, creating word tables, and using graphics to display data to start the analysis process. Following the initial analytical methods, the researcher then would begin to formulate word and phrase frequencies, after which the researcher would explore the complexity of tabulated words and phrases for meaning and variances. The final aspect would include putting the information surmised into chronological order and using it to make interpretations or assertions (Creswell, 2007; Yin, 2003, 2009, 2012).

The primary sources of data utilized in this case study were interview transcripts from five participants. Transcripts from the first interview were analyzed for Participants One, Two, Three, Four, and Five. Transcripts from the second interview were analyzed for Participants

One, Two, Three, and Five. Participant Four withdrew from the study prior to the second interview.

Secondary sources of data included three participant journal entries and field notes. Journal entries analyzed were reflections from participants following the completion of clinical skills laboratory, simulated clinical experience, and initial clinical experience. Field notes were written recordings made by the researcher before and after each participant interview and during the preliminary analysis phase of the case study.

Preliminary manipulations began by selecting a different color paper for each participant. Transcripts for interviews 1 and 2 were then printed onto the selected color paper. Printed transcripts were cut into questions 1-8. On a large sheet of white paper, participant responses for protocol question 1 were taped in a vertical sequence beginning with Participant One and progressing downward through Participant Five. On the left side of the paper were responses from interview 1 and on the right were responses from interview 2. The same process was followed for all 8 questions. After manipulation of protocol question transcripts, cross-case analysis of data began.

The three journal entries were then manipulated in a similar manner. Journal entries One, Two, and Three were printed on the same colored paper as the interview transcripts, separated by participant according to the pre-assigned color. On a large sheet of white paper, journal entries were aligned both vertically and horizontally. Vertically, journal entries were organized as journal entries one, two, and three. Horizontally, entries were aligned according to participant, starting with Participant One at the left side and ending with Participant Five on the right. Following manipulation of printed journal entries cross-case analysis of data began.

Note-taking by the researcher is a common occurrence with case study research. Notes are taken from various sources of data and at different phases of case study research (Yin, 2012). Researcher observation notes were manipulated by taking initial "jottings" from each participant interview and constructing organized notes. The organized notes were then utilized as a mode to recapture the interview, setting, participants, and personal behaviors. Informal notes or "jottings" were taken during the preliminary manipulation of participant interview transcripts and review of archival data. Notes were then rewritten and organized according to protocol and reflective journal questions. Manipulation of field notes was useful in completing the cross-case analysis of data.

Cross-Case Analysis

Cross-case analysis is used with collective case studies where the researcher examines two or more cases (Creswell, 2007; Yin 2003, 2009, 2012). Cross-case synthesis combines the findings from individual case studies that are considered the most critical components of the multi-case study. Case studies with a smaller number of cases require an analytical process whereby the individual data are placed into word tables and the researcher searches across the individual cases for patterns. Using an analytical point of view, the researcher begins the process with the first protocol question, looking for evidence that is related to the research question. This methodological process is used until all protocol questions have been analyzed. While completing analysis, the researcher is asking oneself how to best display the evidence so others can evaluate the assertions. Cross-case analysis is performed until the research question has been addressed (Yin, 2012).

Student interview responses and journal entries were analyzed according to the cross-case methodology. Data contained within the transcripts and journal entries that appeared relevant to the research question were explored and patterns emerged. Patterns led to the identification of categories. A comparative method of inquiry was used throughout the analytical process to mine the diverse data for meaning. The broad themes that developed in response focused on the research question and Bandura's theory of self-efficacy.

Protocol Questions

Data analysis of protocol questions followed the suggestions of Yin (2009). As described above, each question was placed onto a large white piece of paper. With the protocol question in front of me I mined across the responses for words related to self-efficacy. I then highlighted words and word phrases that were relevant. The highlighted words and word phrases were then examined for similarities and differences between participants. I began making notes at the bottom of the large piece of white paper, placing words into tables and mining for meaning and connection between the cases. This process was followed for both interviews, distinguishing group responses from interview 1 on the left and interview 2 on the right. As I cross-referenced between participant responses and then interviews, word patterns emerged. From the word patterns I was able to formulate categories associated with each question.

In an effort for documents to take on a real life context, investigation of data occurred in the same room as participant interviews: Room 201 in Moore Hall located on X University campus. Tables were assembled in a similar layout as when interviews were conducted. At times I was able to conceptualize earlier events of data collection. This was extremely helpful

for me as I read through transcripts to recall each participant's voice and body language during the interviews.

During the examination process I was able to discourse with an unbiased faculty experienced in qualitative research methodology. In principle I achieved backtracking of findings starting with categories identified from word patterns. I was able to articulate how word and word phrases were relevant to the research question and theoretical propositions. The discourse and backtracking of data reinforced meaning on how first semester nursing students dialoged about stress and anxiety related to clinical skills performance. Broad themes emerged as independently I scrutinized the outcomes and then articulated these with the faculty.

Theme 1: Negative Affective Behaviors

Human agency and environment interplay with cognitive and affective influences, which ultimately impact human behavior (Bandura, 1997). Negative affective behaviors identified by nursing student behaviors are best categorized as "fearful" and "anxious." Fear and anxiety create a sense one is "unprepared" to perform clinical skills, especially during the first clinical experience. Participants reported a fear of failure or the inability to perform 'perfectly." One student voiced during the first interview that she felt "extremely intimidated, very insecure" in clinical skills performance.

Student "fear" grew from unknown environmental expectations. During clinical skills laboratory they were taught how to perform skills, then practiced the skills in a simulated hospital environment, which was described as the "perfect world." When students entered the hospital environment they felt the expectations were different from those previously experienced in the clinical skills laboratory and simulated clinical experience. The cognitive and affective

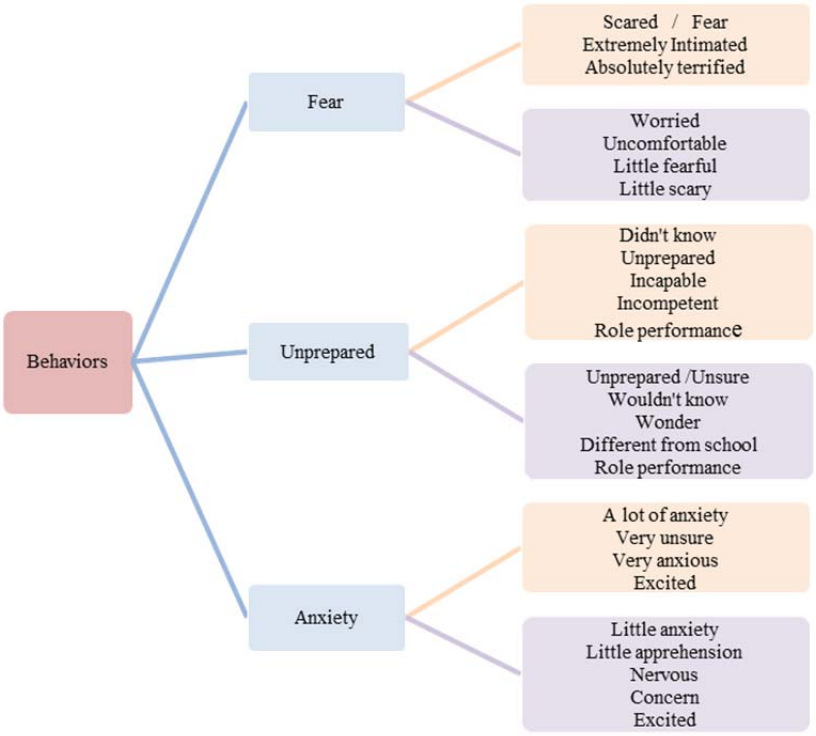
disconnect between environment expectations and self-expectations generated fear and anxious behaviors. The behavioral focus expressed during the first interview was on self, how "perfect" the individual could perform the task of a clinical skill. There was no relevance placed on how the performance would affect the patient.

During the second interview, the behavioral focus changed from self to patient (others). Students again articulated fear, anxiety, and unpreparedness in performance of clinical skills; however, the adjectives used to describe feelings deescalated from "extreme, very, a lot, mind blowing" to "little" or absence of an adjective attached to the expressed feelings. There was less mention of being "fearful" of clinical skills performance and more relevance on how their performance would impact the patient. Participant One's behavioral focus matured from being unable to comprehend she would be able to participate in the care of someone else to being "a little apprehensive" and unsure if her performance would "help or hurt a patient."

Clinical skills that had been successfully practiced in the skills laboratory and demonstrated during the SCE elicited intense negative affective and cognitive influences on student behaviors during initial exposure to the acute care clinical environment. The "hospital is different from the lab, you don't know what to expect." Time lapse between the first and second interview with the students demonstrated how human agency and environment influenced their behavior. Students' expressed affective behavior began to take attendance as an expressed sense of "wonder at being a nurse" and "excitement" at the opportunity to experience "something new." The change is attributed to repeated exposure to the environment and an increase in efficacy in the ability to perform in the role of providing care to another person.

Word table 1 (Figure 2) reflects a three-part word or word phrase analysis used during the development of Theme 1: Negative affective behaviors. The initial identification of words or

word phrases among the five participant interview responses led to the formation of categories and themes related to Bandura's theory of efficacy.



Word table 1

Figure 2. Theme 1: Negative affective behaviors.

Theme 2: Learning for Goal Attainment

Faculty at X University School of Nursing created a learning environment for the primary purpose of facilitating first semester nursing students in attainment of their goals and achievement of outcome expectations in clinical skills performance. Goal attainment is influenced by cultivation of behaviors that promote self-efficacy and motivation for one to work harder toward achieving success. Influences are both physical and sociostructural: informational sources, performance, verbal persuasion, role modeling, and physiological feedback (Bandura, 1995, 1997). The learning process was threefold and afforded students an

opportunity to successfully achieve the basic concepts of patient care to the performance of complex clinical skills before the end of their first semester in the nursing program.

The first phase of clinical preparation brought students into the clinical skills laboratory on the X University campus where students received instruction, observed, and practiced psychomotor, cognitive, and affective skills to be utilized in the hospital environment. Over the first few weeks of the semester, students learned how to provide basic patient care such as bed baths, oral care, denture care, and ambulation/transfer techniques. In addition to psychomotor skills, students began to develop therapeutic communication skills. The complexity of psychomotor, cognitive, and affective skills increased throughout the eight weeks.

During participant interviews, students discoursed on how physical and sociostructural influences affected their abilities to attain their goals and expected outcomes. Students described the learning environment in terms of support from others through role modeling and verbal persuasion. Third and fourth semester nursing students were present in the skills lab to help beginning nursing students learn the basic clinical skills necessary for performance in the clinical setting. "Upperclassmen" were an essential part of the process because they provided guidance and assistance with learning how to perform psychomotor skills. Demonstration of clinical skills and nursing behaviors encourage efficacy as beginning students work through how to care for others in a clinical environment.

After several weeks, the learning environment changed from practice of a skill to learning through simulated patient scenarios where students employed both affective and cognitive skills into psychomotor aspects of clinical performance. Patient scenarios are planned learning activities where students are presented with a patient situation that requires implementation of nursing actions such as insertion of urinary retention catheters, intravenous catheters, or

nasogastric tubes. The patient scenarios were specific to one clinical skill, providing opportunity for students to master each skill independently. The progression in learning for short-term clinical skill goal attainment was surmised by students as a process whereby clinical concepts and skills constantly built on one another. The overarching effect of learning for goal attainment by this process appeared to have increased efficacy in clinical skill performance of these beginning nursing students. Participant Three described her experience as follows:

> The first couple weeks we started learning skills. Some of the upperclassmen were in there to help us, guide us, to help… We started learning how to do IVs, NG tubes, all those types of things, and then it just constantly built. All the skills built, and then we finally did scenarios (like in the hospital). . . . (Participant Three)

Physical and sociostructural influences were incorporated during the first phase of clinical preparation to encourage and facilitate the development of agency and self-efficacious behaviors conducive for goal attainment. The goal for first semester nursing students included learning the basic assessment techniques and collection of medical histories. Communication skills were also incorporated into the first weeks of laboratory time. Informational sources, both written and audio/visual recorded, on "how" to perform each skill were provided to meet diverse learning needs of student. Students were provided verbal feedback from faculty and peers as they practiced clinical skills, and verbal persuasion was given by faculty and peers to motivate students as they worked to achieve goals. Faculty and peers served as role models throughout the eight weeks of clinical laboratory preparation. Participant Five described the motivational processes used to achieve her goal:

> The clinical skills labs, they were helpful in how they were structured, but they also required a lot of commitment and knowledge up front. While we were starting off with taking patients' medical histories and doing basic assessments, those were the first few weeks of our skills, and definitely focused on interacting with the patient and really getting comfortable with that interaction and comfortable enough where we wouldn't forget important things like neurological assessments or heart rates. (Participant Five)

At the completion of clinical skills laboratory, students were validated on skills performance by faculty. During validations, students demonstrated proficiency in physical assessment, sterile, and non-sterile techniques.

> We had lab for the first, I think, half or three-quarters of the semester, which we learned all of our skills and validated on those. (Participant One)

In the ninth week of the semester, the second part to this threefold learning process took place. Students participated in a SCE called "mock hospital." The SCE was structured for students to employ the skills learned during skills lab on simulated patients. Students were placed into groups and guided through the daily routine they would follow the next week in the IACC. Faculty role-played as healthcare professions, interacting with students as they motivated them to work as teams of nurses providing care to patients. Participant One described her process as follows:

> Then we had the simulation mock hospital where we acted as if we were caring for a real patient. We were in pairs and we had a chart and everything. It was just like we were in a hospital and the professors acted as doctors and respiratory therapy and all the hospital administration to help us pretend like we were in that situation. (Participant One)

The SCE was developed by faculty and provided students with the opportunity to experience "clinical" in a safe environment without risk of harm to the patient. Patient scenarios were constructed to mimic situations similar to those experienced in the acute care clinical setting and provide students with physical and sociostructural influences to build agency and self-efficacious behaviors desired for goal attainment (Bandura, 1995, 1997).

During "mock hospital," students performed psychomotor skills previously validated and practiced cognitive and affective skills learned during the first eight weeks of the semester. Students were in groups of two or three and assigned care of a simulated patient. As peers they provided each other support and feedback on performance. Faculty served as role models during the SCE, performing in various healthcare professional roles, as family members and at times

providing a "voice" for the simulated patient. In addition to role modeling, faculty supported student success through verbal persuasion, giving constructive feedback on performance of skills.

Procedures performed by students included "head-to-toe" physical assessments, non-sterile procedures such as intravenous (IV) catheter insertion/removal, and sterile procedures such as urinary retention catheter insertion/removal. The health records of the assigned simulated patients were available for review by students. Included within the health records were medical histories, health care provider orders, laboratory and diagnostic test results, and vital signs. For beginning nursing students, learning how to communicate effectively with others can sometimes be a challenge.

The skill of communication between healthcare professionals, patients, and family members requires attainment of affective, cognitive, and psychomotor skills. Faculty incorporated various opportunities for students to enhance their communication behaviors during the SCE.

> For mock hospital, we had a patient per two students and walked through an entire admission. We had a chart to see what was--what the patient was there for, and we treated the patient like it was in the hospital setting. (Participant Two)

Communication skills were practiced as students interacted with simulated patients, family members, and other health care professionals. While interacting with others in a clinical environment, students may encounter barriers or obstacles that impede performance. According to Bandura's theory of self-efficacy, how they respond to a situation depends on their cognitive and affective maturity. Individuals are most likely to respond with higher efficacy with repeated exposure to similar incidences (Bandura, 1995, 1997). In an effort to enhance efficacy in communication, faculty built within the simulated experience obstacles of communication nurses' encounter on a regular basis in the hospital and students are subject to experience during

the IACC experience. During the SCE, students received verbal feedback from "patients" as faculty role-played during assessments. One student reported the feedback was a valuable attribute to her learning experience. Without the feedback she would not have known how or what to include in her assessment or medical history.

> It just is a lot easier when you have feedback. Dr. X, I think, did a really good job, because she would come in there and be the patient. She would kind of be off to the side, but she would answer our questions, and kind of, I guess, joke around a little bit like patients would. She'd be hardheaded sometimes like patients sometimes are. That really helped a lot, . . . especially when you have a partner and you're trying to talk through the patient's admission and all their history and all that stuff, it's really just hard to pretend like you're charting when you're really making everything up. You have no idea. You and your partner may be thinking two different things . . . but it's just hard to think on the same page when there's no one answering your questions, I guess. (Participant Five)

Not every student had the same experience during "mock hospital." Some students discoursed about how they made the most of the experience, using each aspect to increase their confidence in clinical performance. Others stated the SCE provided little opportunity for them to prepare for the IACC experience. The SCE was developed to engage students in a learning environment with opportunities to influence agency and build efficacy in clinical skills performance before the IACC. How hard students will work toward goal attainment and reaching outcome expectations is governed by self-motivation (Bandura, 1995, 1997). Student reflections confirmed what one was willing to put into the SCE dictated how much learning they derived from it. The SCE environment presented physical and sociostructural influences cited to affect agency and behaviors, it was dependent upon the individual to take advantage of each.

Four of the five participants were positive about the SCE and how it motivated them to seek out opportunities to learn. Participant Two stated the SCE did not provide the opportunity for learning. She felt over-powered by her partners as demonstrated by this statement:

> I didn't really get to do much for mock hospital because we were in groups, and in my mock hospital group two other people have control of everything and they did all the

> stuff they were supposed to do. I didn't really get a chance to do anything. (Participant Two)

For this student she felt the opportunity did not present for her because of her peers rather than the structure of the SCE. Subsequently, she did not express a benefit to participation in the SCE as preparation for the IACC.

Others were supportive of having the transitional learning activity between learning in the "perfect world" of clinical skills life and taking care of the "real" person in the hospital. Stress and anxieties related to the IACC were diminished as they worked through the SCE.

> Then mock hospital came along, and, of course, there's a lot of anxiousness about mock hospital. . . . As we went it, it just kind of all started flowing together. All our skills that we had learned through the semester kind of just all came together, and we were able to help our fake person. (Participant Three)

During the SCE, students were engaged in performance of clinical skills in an environment that incorporated humor as a means to decrease negative affective behaviors. The use of humor eased stress and anxieties while presenting realistic patient situations. Students were subject to unfamiliar communications with patients and family members. When faculty observed that basic safety precautions were not implemented by students they would create "accidents." Such an "accident" occurred when a student group did not put the patient's bed in lowest position after performing hygiene care. The patient fell out of the bed, requiring students to respond and provide assistance.

> Dr. X, of course, made it super fun by throwing different things in there that we weren't necessarily going to be aware of what's happening like how we deal with the patient's family members and why we definitely need to put the bed down to the floor and put the rails up because she pushed our patient out of bed, so we had to help our patient; she was in trouble. (Participant Five)

A disconnect between the "real world" of nursing and the "perfect world" of nursing school was noted as students repeatedly described their patient during the SCE as a "fake" patient. However, discourse suggested the simulated "mock hospital" provided an opportunity to

practice clinical skills, receive feedback from faculty and peers, and overcome the negative physiological feedback created from stress and anxiety of the IACC experience.

The third and final part to clinical education in the first semester is the acute care clinical experiences. Students were assigned to different clinical groups and groups went to one of three local acute care hospitals for clinical experiences. There is no amount of training or preparation that can prepare a student for the first time he or she provides care to a "real" person. There is and will always be an amount of stress and anxiety associated with the experience. An example provided by one student was the insertion of an IV catheter during skills laboratory or the SCE on a task trainer was not the same experience as starting one on a live human. The veins in the task trainer are static while the veins in a human arm are mobile. The medical condition of the patient alters the integrity of the vein. Obstacles such as these are not predictable and cannot be imitated during skills lab or the SCE.

> The skills that we were given in clinical lab were adequate; however, nothing prepares you for, for real, live people. . . . It's one thing to stick a plastic arm. It is another thing entirely to try to find a vein in a dehydrated diabetic with rolling veins. (Participant One)

IACC experiences and levels of stress and anxiety associated with these vary among students. Structured preparation assisted with decreasing some of the negative affective behaviors; however, it did not alleviate the behaviors completely. Students discoursed over their fears for performing in a not so "perfect" environment. Participant Five displayed agency to overcome these negative behaviors and perform clinical skills during the IACC. She felt prepared and ready to care for patients yet remained anxious at the same time. For her the association of negative affective behaviors to clinical skills performance did not alter her process in achieving her goal.

> I was anxious but at the same time I knew that we were prepared for our experience, and I was ready to get in there and be able to actually perform those skills on our patients, real people instead of our mannequins. (Participant Five)

Participants discussed how they felt unprepared for the clinical experience. In their opinion they were prepared to perform clinical skills in a "perfect world" and not what they experienced in a hospital setting. Anxieties related to performance in the hospital existed because for them the patients are not simulated but living persons who would not respond according to the script followed during the SCE. Specifically, Participant Three stated her anxiety was lessened but remained.

> I do believe it helped my anxiety, I guess, but it's a lot different when you're talking to a real person, whereas when you're talking to a dummy lying in the bed that can't respond. (Participant Three)

Another type of obstacle noted by student discourse was beginning nursing students do not always relate the concept of skills performance to the technique or method used to perform the skill. An example of this type disconnect in thought process was exhibited in Participant Four's statement below:

> All the skills like Foley and IV and everything. In the hospital it's just like--they go by different methods. (Participant Four)

The skills of inserting a urinary retention catheter or IV catheter follow the same concept in the hospital setting as in the clinical skills laboratory and SCE. Both of these clinical skills are invasive procedures that require a nurse to maintain surgical asepsis. The concept behind maintaining surgical asepsis is taught in the skills lab. The "method" (psychomotor skill) used in the hospital setting may vary among nurses; however, the concepts remain the same. A nurse may have to alter the "method" used to perform the procedure depending upon obstacles presented as a result of patient condition or situation. A second opportunity for disconnect during the performance of clinical skills in the IACC would depend on how medical supplies are

packaged by a hospital medical supplier. Items may be packaged differently than those students previously used in the skills laboratory setting, creating yet another perceived obstacle to skill performance. A disconnect definitely existed between concept and method, which led to increased anxiety for these beginning nursing students. Participant Two remarked,

> I didn't know what exactly we were supposed to know because we had the computers told us one thing, each teacher told us something, then we did something completely different in clinicals, so basically I just didn't know what exactly was the right thing we were supposed to do. (Participant Two)

This student had difficulty linking a connection between informational sources such as computer tutorials, faculty instruction, and demonstration, and what was experienced during the IACC. While other students expressed anxieties regarding disconnect between the "perfect" setting of the SCE and the "real" world setting of the hospital, this student was unable to link the experiences completely.

The negative affective behaviors associated with the IACC experience did not alter students' perception of efficacy in skills performance completely. While a disconnect existed for some, not all students felt "unprepared" for clinical skills performance on the first day of clinical. Participant Five discoursed on how her experience in clinical skills laboratory and the SCE helped her to adapt to the hospital setting. She experienced negative affective behaviors of anxiety and a feeling of being frazzled by the prospect of providing care to a patient and interacting with family members. For her, the realization of performing skills took on new meaning when she was in the IACC setting. She described her IACC experience:

> You'll be anxious, . . . you feel a little frazzled at first because you haven't been put in an actual clinical situation yet. You haven't had to deal with the family members. You haven't had to deal with the different scenarios that can go wrong, but it all starts kinda coming together. All the individual skills that you learned in lab at mock hospital kind of--you realize the importance and kind of a flow of how each thing needs to go, and you really learn that flow. I remember my mock hospital where my patient fell out of the bed because I didn't put the rails up, and that was something in clinical that I always made

> sure to do because I experienced that, and so I knew, oh, this is really important. I need to do this, or I need to make sure that all the Ivs are in their proper place or that there's a reason for the IV to even be in still, because Ivs, . . . are in the skin--a break in your skin, and that can cause for infections. You don't want that to be in . . . longer than it has to be in. Make sure if you're on oxygen that your patient's on oxygen because most of the time they're not because they take 'em out. That flow that we learned in mock hospital kind of carried over to clinicals, and it made that a little bit easier, I think. ,(Participant Five)

For this particular student, the structured learning process enhanced her abilities during stressful situations. She demonstrated an efficacy in her cognitive and psychomotor skill performance. She learned by repeated exposure to situations and altered her performance to achieve the expected outcomes regardless of obstacles presented during the IACC.

There may not be a method for faculty in the clinical setting to completely eliminate students' stress and anxiety related to skills performance during the IACC; however, there are strategies to decrease the levels. Students believed their successful performance in clinical was achieved because instructors acknowledged the students were new to the experience and "eased" them into the role of nurse in the hospital setting. One beginning nursing student remarked,

> I was very nervous just because I didn't know what we were going be doing. I didn't know if I would be responsible for a patient--you know that sort of thing. At first they put us into it very gradually which was a good thing first time. We went in with our clinical instructor. Our clinical instructor introduced us. She monitored us watching vitals--showed us how to use the equipment. She was very helpful and eased us into the process very slowly. (Participant Three)

For her, having faculty present for the initial exposure to providing care to a patient was helpful. The faculty introduced students to patients, supervised, and provided additional instruction when necessary. Equipment used in the IACC setting differs greatly. Having faculty demonstrate "how" to use a blood pressure machine or discuss "how" to read monitors in patient rooms decreases the effect of negative behaviors for students. Participant One's statement seemed to summarize how her agency and the environment created by faculty led to students' goal attainment during the IACC experience.

> I don't know what we're going be doing and then you get thrown into a room with all these monitors. You don't know how to work them and there's a patient staring back at you. That makes it ten times worse, so taking us in there and saying, "These are the monitors for your vital signs. This is where it's stored. Take these in here. Use this." You know just running us through that process first eased that anxiety a great deal. (Participant One)

The overarching purpose of acute care clinical experiences are to help students put into practice the psychomotor, affective, and cognitive skills acquired in the clinical skills laboratory. The process is long and for some difficult; however, the outcome is important. The outcome expectation is belief in one's ability to reach the goal of practicing in the role of RN and being the best you can be in the role. As stated by one student,

> We had wonderful instructors . . . and so we were constantly motivated and told how important it was that we were there, and we were ready to do those skills. We had lots of practice time, and then when mock hospital came along, it finally started to come together, becoming kind of like a performance instead of little practices here and there. And then, it was a big performance . . . clinical. (Participant Five)

Students placed in IACC experiences are dependent upon role models to motivate them for goal achievement while decreasing stress and anxieties related to clinical skills performance.

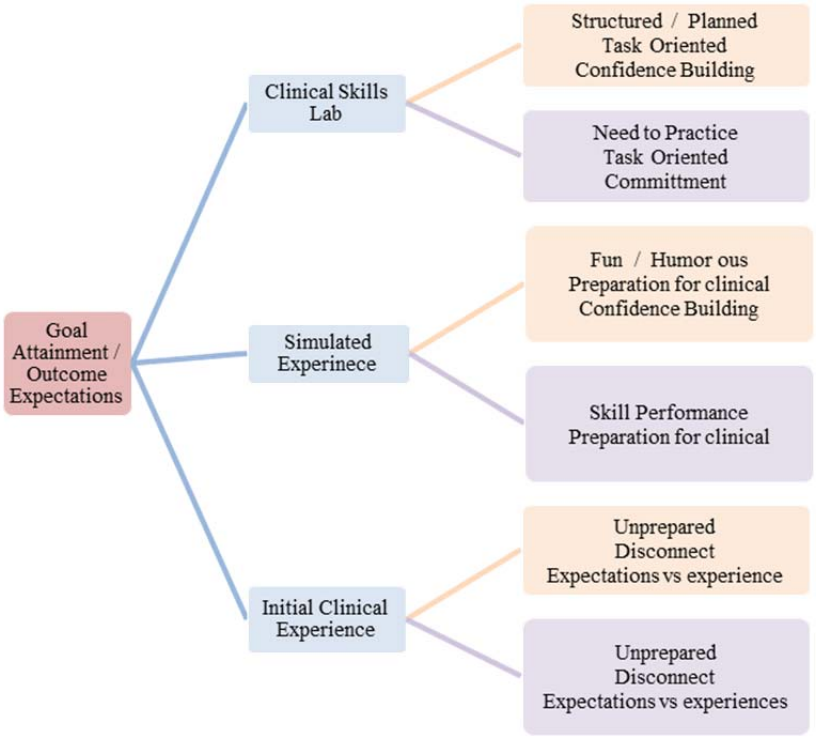
Summary for Goal Attainment

For some students, the performance of clinical skills is a source of stress and anxiety so intense it becomes impossible to correctly function in the role of RN and subsequently one is unable to complete a nursing program and begin professional practice (Admi, 1997; Elliott, 2002; Jimenez et al., 2009; Melincavage, 2008, 2011). To facilitate students in accomplishing their goal of becoming a nurse and providing safe, quality care to patients, faculty scaffolded learning. The first step of the process took place the structured environment of the clinical skills laboratory. Students learned through various physical and sociostructural influences how to perform basic to advance clinical skills over an eight-week period. Skills performance was

validated by faculty and students matriculated to a SCE called "mock hospital." In "mock hospital" students engaged with simulated patients, peers, and faculty demonstrating psychomotor, affective, and cognitive skill attainment. Again, faculty incorporated physical and sociostructural influences within the learning environment to impact agency and efficacious behaviors. Students discoursed on how "mock hospital" facilitated their goal attainment and outcome expectation in clinical skills performance. Others were not as convinced the experience demonstrated the benefits cited by others.

Through the three-step process of learning clinical skills students were able to attain their goals and experience positive outcome expectations. Physical and sociostructural influences were critical for students' overall success in clinical skills performance.

Word table 2 (Figure 3) reflects a three-part word or word phrase analysis used during the development of *Theme 2: Learning for goal attainment*. The initial identification of words or word phrases among the five participant interview responses directed the development of categories and themes related to Bandura's theory of efficacy.



Word table 2

Figure 3. Theme 2: Learning for goal attainment.

Theme 3: Role Models Make a Difference

Students encounter different role models during nursing school. Role models are a contributing sociostructural influence on both human agency and environment. Faculty, peers, and healthcare professionals have both positive and negative influences on student performance and achievement of goals. How students perceive the influences of others' influence inadvertently affects outcome expectations (Bandura, 1995, 1997).

Peers

It was helpful for first semester nursing students to have upper class nursing students, those in the third and fourth semesters assigned to a formal mentor role. Peer mentors were available to answer generic questions about "how things are," provide support when the anxiety

is becoming intense, and demonstrate how to perform various skills throughout the semester. Participant Three articulated it helped her to keep pushing forward in her efforts when she knew someone else had been where she was and made it to the next level.

Peers within the same cohort also served as role models, working together to achieve success within the clinical laboratory as they practiced clinical skills. As they worked together to master the psychomotor, affective, and cognitive skills necessary to progress to the acute care clinical some peers were not as sensitive to how others would perceive their behaviors. Participant One commented that members of her cohort were "mouthy" and did not care if they practiced or not. Participant Two felt her peers were inconsistent in how they practiced skills and just wanted to "sit around and talk" while she, on the other hand, wanted to perfect her skills. Interestingly enough, Participant Four did not mention his peers as he discussed role models, only referencing faculty and "his one nurse" and their influence.

Faculty

Faculty create the learning environment, their behaviors can either support or hinder how students respond to stressful situations (Bandura, 1995). Faculty are in the classroom (clinical skills laboratory), participation in the SCE, and/or the acute care setting. Students believe faculty who exhibit a sense of understanding have a large impact on their ability to succeed. One student remarked on how she appreciated faculty understanding and patience:

> I appreciate their (faculty) understanding and their (faculty) patience, because my clinical instructor was very, very understanding. She wasn't that old. She had only been graduated for approximately five years or so, so she was kind of a new nurse, I guess. She remembered being in nursing school. She remembered the anxiety, and she talked about it. She even brought some of her homework and stuff to show us. She was very understanding. (Participant Three)

Understanding is a behavior students expressed when describing faculty. Professionalism also took precedence when describing behaviors believed to be essential in faculty mentors. Nurse educators are both educators and nurses, for students this carries a two-fold meaning. They must be knowledgeable and able to help them learn and at the same time display the "working" knowledge that is expected in the clinical setting. Role models inspire students to not only attain their goal of being a RN but to achieve the highest level of accomplishment. One of the strongest descriptors of a role model was included in this student's statement:

> Dr. X was amazing, and I hope one day that I can be a nurse as she is because she's just so level-headed, has it all together. If you have a question for her, she immediately just thinks about it and knows what to say. . . . She's so professional about everything, but at the same time, she's not only a professional; she's caring, and she's kind. . . . (Participant Five)

Students hold nursing faculty to a high standard of competency. They know when someone is just "answering" a question and when they are guiding them with knowledge to gain deeper understanding of patient care. Participant Five stated she could ask Dr. X a question and if she knew the answer she would provide it, if she did not then "she'll go find it for you and immediately come back to you and let you know." Behaviors such as this build confidence in students and trust between faculty and students.

Four of the five student participants deemed their faculty as sources of knowledge and credit their behaviors during clinical practice sessions as those of an expert. Participant Four did not share the same interpretation of faculty behaviors. On two different occasions during the first interview, he responded negatively about faculty as role models.

> Well (pause), nursing school, I didn't really have a role model.
> I can't really see any teachers as a role model.

I was unable to follow up and validate his negative experience with faculty as a role model because he withdrew from the study prior to the second interview. Without additional

verification it is difficult to conclude that faculty were, in fact, negative role models or if the student's discourse was based from a particular incident between he and a single faculty member.

Healthcare Professionals

Healthcare professionals may not view themselves as role models for nursing students. However, they have a critical position in how students respond in clinical experiences. Positive affective behaviors by nurses in the clinical setting can help students overcome anxieties related to the IACC experiences. Participant One remarked:

> Nurses who, in this first phase of clinicals, took us on, they weren't snarky or surly, because there were some that were. Those men and women are role models whether they take the mantle or not. Doctors who encouraged us to go in and listen to their residents do reports because they considered not just the nurses but the nursing students a vital part of the team. That is fantastic modeling for future nurses. (Participant One)

Nurses are, in particular, viewed by student nurses as role models, especially by first semester nursing students who have not previously been exposed to healthcare providers outside the part of being a patient. Students report the nurses they worked with in the hospital were patient, understanding, competent, and willing to help them learn the "process" of becoming a nurse.

Participant Four had difficulty relating behaviors exhibited by his peers and faculty as those of a role model. However, he was positive in his description of the nurse he worked with during his IACC experience. This student reported as follows:

> My one nurse, she was going through a lot of steps, and she was washing her hands before she did anything, she was a role model. She actually checked all the identifiers and things, like we do in school, like the person and their date of birth and any allergies. To me a role model is somebody I'd wanna work with. (Participant Four)

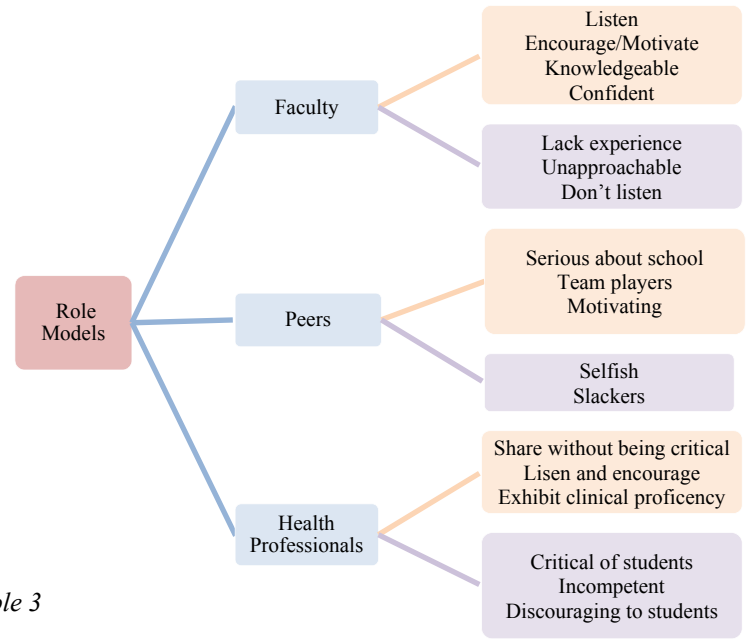
Nurses definitely make a difference in the experiences nursing students have when in the acute care setting. Some nurses encountered displayed negative affective behaviors toward student

nurses. Others were seen as generous and kind in their acceptance of having beginning nursing students on the unit. Both the positive and negative affective behaviors directly impacted students' efficacy in clinical skills performance during the IACC experiences. One student summarized it perfectly when she stated the following:

> It is not uncommon to find somebody that seems bristly at first to really genuinely have the best of interests in making sure that you learn correctly. The bristly people who have good hearts are offset by the outwardly generous, kind, wonderful people, they are wonderfully balanced. You realize that, more often than not, everybody wants to help you because it's no good for them if they turn out a marginal nurse in the end. It could be them on the other side of the table, or their family member, or somebody that they care about that you have to work on. They want you to be good. (Participant One)

Cohort and upper level nursing peers provide a system of support for each other. Faculty set the foundation of learning and guide students in the learning process. Positive faculty role models facilitate students' achievement of goals while negative faculty models detour student success, making it difficult for them to reach their expected outcomes. Healthcare professionals in the clinical setting play an integral role in student success within a nursing program. Faculty and healthcare professionals have a collective influence on students' perceived efficacy in clinical skills performance. Those with a strong belief in their practice capabilities and who display maturity in clinical decisions create environments of mastery for students. Together, behaviors and environment build efficacy in others and motivate others to achieve goal attainment (Bandura, 1995, 1997).

Word table 3 (Figure 4) reflects a three-part word or word phrase analysis used during the development of *Theme 3: Role models make a difference*. The initial identification of words or word phrases among the five participant interview responses led to the development of categories and themes related to Bandura's theory of efficacy.



Word table 3

Figure 4. Theme 3: Role models make a difference.

Theme 4: Motivational Processes

Motivational processes are governed by self-regulation and based on efficacy. People have intrinsic belief in what they can do and set goals for themselves. They develop a plan of action to be used in accomplishing their goals. They recognize the resources necessary to implement and complete their action plan in order to reach their goals (Bandura, 1995, 1997; Zimmerman, 2000).

Student responses revealed they were cognitively motivated by causal attributions. They describe a need to be perfect in their performance of clinical skills. Their cognitive motivation is founded from a self-perceived level of efficacy in the ability to successfully perform the psychomotor skills. For some students the motivation to perform the skills "perfectly" is controlled by a need to "be perfect," otherwise they do not view themselves capable of attaining their goals. Others view their motivation not as the need to "be perfect" but to "perfect" the

psychomotor skills. By "perfecting" their performance of clinical skills they achieve reducing or preventing harm to the patient.

Participant One explained during the first interview that her motivation was governed by a desire to be perfect in skills performance because she viewed the class as a requirement for completion of the nursing program. She was required to validate on skills learned in the skills laboratory prior to completing the semester. Without "mastery" performance of skills, she would not advance to the second semester of the nursing program. She was focused on self as she perfected the required psychomotor skills.

> My personal motivation is it's a class. I mean, it's a requirement for junior level nursing students. We have skills that we need to master in order to be able to validate them on real, live people in real, live clinical settings, so for me, my motivation was partly because it's a requirement. I mean, you can't get around it. . . . (Participant One)

During the second interview her intrinsic motivation took on a different affective influence. Her focus that had previously stemmed from wanting to be "perfect" changed to wanting to "perfect" her skill performance. She did not want to cause harm to others.

> I wanted to be perfect. I wanted to have everything perfect because I understand that mistakes are what cost people lives. I figured if I was gonna be in there stickin' things in people, that I should probably invest as much time as I possibly was able to working on being perfect, because you can't be perfect in a real clinical setting. I think that there are just too many variables. If you know how to do it perfectly, then you will figure out how to do it as close to perfectly as you can. The more knowledge and practice that you have in skills lab, the better and more efficiently able you are to perform those skills in real life. (Participant One)

Some students contribute their motivation to practice clinical skills to save time. In perfectly performing the clinical skills they would not be required to do them "multiple times." By saving time they would be wasting their time or the patient's time. Time spent by students perfecting skills was self-focused. Participant Three explained for her the motivation to practice her clinical skills was inspired by negative behaviors. Her anxieties related to performing clinical

skills heightened her awareness of what she was to do and how hard she was willing to work toward perfecting the skill. The beginning nursing student remarked,

> I prepared as absolute much as I could, because I was nervous (pause) because I didn't know exactly what we were and were not going be able to do. I wanted to be able to stick that vein the very first time in the lab. I wanted to be able to keep my sterile field 100 percent of the time when I put in a Foley so that when there is a real patient, I don't have to think back and say, "Why am I doin' this?" or, "How do I do this again?" I wanted to be as prepared as I could be so that I wouldn't stutter. (Participant Three)

At times individuals are motivated for personal gain, their goals are self-focused. People can also be intrinsically motivated to attain their goals to help others as well as themselves. Their focus is broader than self. Participant Two demonstrated a holistic view of clinical skills, referring to the psychomotor, affective, and cognitive skills as "life skills." Her motivation was founded on a desire to achieve competency in her skills performance and prevent harm to others.

> I wanted to do life skills correctly and make sure that I was doing the patient no harm. (Participant Two)

Individuals control their level of motivation (Bandura, 1995; Zimmerman, 2000). Motivation to achieve their expected outcomes changed over a period of time for two of the five student participants. Time spent in the acute care clinical setting appeared to have an impact on their motivation, maturing from a focus on self to others. Participant Four withdrew from the study prior to the second interview therefore I was unable to explore his locus of motivation for change or stability. The most inspiring and holistic view of motivation was expressed by Participant Five:

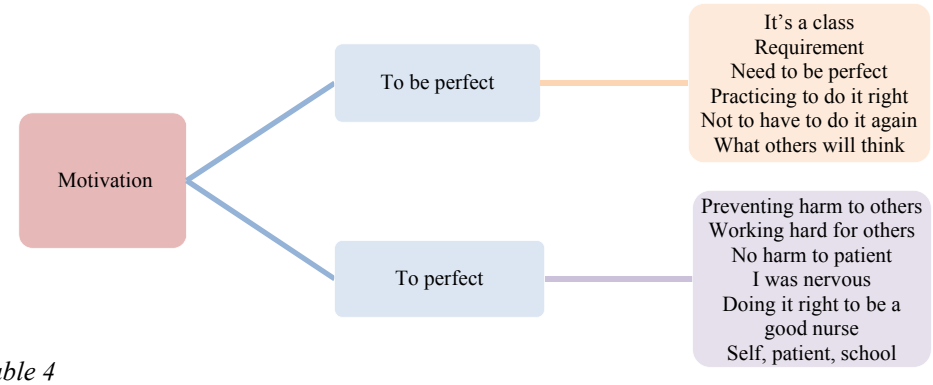
> I definitely motivated myself. I was really hard on myself to learn those skills because you don't know what situation you'll be put in. . . . I want to be extremely prepared. I didn't want to make myself or X University, you know, look like they weren't doing their job. I motivated myself for me to look like I knew what was going on and for my school so they, you know, it looked like they were teaching me correctly, and so I had a lot of motivation, as far as giving myself motivation and my school. To look good for myself and my school and for my patients because I didn't want to be put in a situation with a patient where they needed something from me, and I couldn't give it to them. Self,

> patient, school. Definitely my motivating factors for learning my skills. (Participant Five)

Her motivation for goal attainment came from self, others, and school.

Whether students' motivation in performance of clinical skills was driven by the causal attributes of being "perfect" or to "prevent" harm, the degree of efficacy governed their outcome. The students who displayed higher self-efficacy appeared to have greater dedication to practice and worked harder to achieve proficiency in clinical skills performance.

Word table 4 (Figure 5) reflects a three-part word or word phrase analysis used during the development of *Theme 4: Motivational processes*. The initial identification of words or word phrases among the five participant interview responses led to the development of categories and themes related to Bandura's theory of efficacy.



Word table 4

Figure 5. Theme 4: Motivational processes.

Theme 5: Performance and Outcomes.

Students' ability to reach goal attainment (clinical skills performance) is greatly influenced by the environment as well as cognitive and affective processes (Bandura, 1995, 1997; Zimmerman, 2000). Nursing students enrolled at X University are required to successfully demonstrate performance of psychomotor skills and exhibit cognitive and affective behaviors

consistent with those of a registered nurse, by the end of the first semester. For many students, this generates intense emotions. Students expressed excitement, apprehension, anxiety, and fear about their abilities to perform these skills during the IACC experience.

Practice during Clinical Skills

Students were provided with instruction on how to perform clinical skills in the skills laboratory over the first eight weeks of the semester. Peer mentors and faculty worked with them as they practiced the skills. They were given opportunities to ask questions and receive feedback on their performance. At the end of the laboratory experience, faculty asked students to self-evaluate their ability to demonstrate mastery of the clinical skills learned prior to going to the SCE the following week.

Students felt "confident" or "fairly confident" in their abilities to perform the psychomotor skills on "inanimate objects" and "fake people." It was feasible they would be able to complete a physical examination on someone who could not respond to their questions, or to not "flinch" when exposed to the smell of human feces, vomitus, wound discharge, or blood. The prospect of having to insert an IV catheter or nasogastric tube into a "dummy" did not incite stress or anxiety. They had practiced for many hours and had the "knowledge" necessary to perform the clinical skills. What they lacked was "practical knowledge."

Students were concerned about going to their first "hospital" experiences and having to perform clinical skills because there would be "real people." The patients would be living beings who would expect students to interact with them. Students would be required to "communicate" by answering questions they may not be able to answer. When providing nursing care the patient may require them to give a bath, touching a "real person." There would be variables in clinical

that were not present during skills lab. The "unknown" they associated with caring for another human decreased confidence levels and increased stress and anxiety. In particular, Participant Four was concerned that he would "freeze and forget" how to perform a skill when working with a "real" person. His negative affective behavior was evident as he remarked,

> I am most worried that I will freeze and forget what to do because that often happens when I do something for the first time. Once I get use to something, then I usually do fine later on. I hope this experience (simulated clinical) is a learning curve to help me overcome my fear/anxiety. (Participant Four)

The simulated clinical experience was developed to provide a transition for students between the "practice" of skills in the laboratory setting and the "hands-on" application of skills in the clinical setting.

Participation in "Mock Hospital"

Faculty developed the simulated clinical experience to give students exposure to how it would feel to be in the hospital setting caring for a patient. Mannequins simulated patients and medical records were constructed to imitate health records normally accessed by nurses when caring for patients. A number of faculty were involved in the delivery of the SCE. Faculty role-played as healthcare professionals such as physicians, social workers, and pharmacists and family members to give students an opportunity to practice communication skills in a nonthreatening environment. Care was given to create an environment as close as possible to those found within the hospital. Mimicking the environments allows students to conceptualize the acute care clinical experience. Following the SCE, students were again asked to self-evaluate their ability to perform and demonstrate mastery of the clinical skills during "mock hospital."

Three of the five participants were excited and expressed gratitude for the opportunity to not only practice skills but to learn what they needed to improve on before going to clinical the

next week. For these students, being able to participate in a simulation clinical day gave them the chance to put into action the different skills they had been learning in skills laboratory under what had previously been described as a "perfect world" by some. Participant Five was enthusiastic as she commented on how "mock hospital" impacted her learning for her IACC experience:

> Mock Hospital gave me the opportunity to practice important clinical skills and realize what skills I need to improve on before I am placed in the clinical setting. I would describe my skills as adequate during my Mock Hospital experience. I knew how to perform each skill, yet needed assistance in many instances from our clinical instructor. Mock Hospital was very helpful as to helping me prepare for my clinical experience. I came to realize all the little things that may not seem very important such as bedside rug placement, bed rails, height of bed, and making sure the room door is closed are all very important. I also developed a better understanding of the flow of patient/nurse conversation. (Participant Five)

The SCE provided students the opportunity to work as a team of nurses caring for one patient. Teamwork is an essential part of nursing that students quickly realized during "mock hospital." A partner will help you ambulate a patient, give a bed bath, talk you though how to insert a nasogastric tube (NGT) when you forget some of the steps, and just "be your backup" when necessary. The focus cannot be on what "I" can do but what "we" can do to help each other be successful and have the best learning experience.

The simulation "mock hospital" did not generate a positive response for skills performance from all students. Performances were described as inadequate, "lack luster," and unprofessional; however, they did not expound on the perceptions. Therefore it is difficult to say if these descriptors were given due to lack of confidence in the ability to perform skills without harm to the patient or if they expected their performance to be perfect. Given the structure of the simulation, students were exposed to realistic patient situations that would challenge them to work beyond having the knowledge of how to do a skill to the application of how to perform the

skill. Participant Three commented on how her SCE facilitated her ability to overcome obstacles anticipated in hospital settings:

> During mock hospital I learned how to deal with many situations that I have not even thought of yet. I learned the proper way to deal with problems in the hospital in a decent manner and who to go to about these situations if I am unable to handle them. Many of the things necessary to know during clinicals and before mock hospital I would not have known how to handle them. (Participant Three)

As with any learning environment students get out of it what they are willing to invest. Individuals who contribute the minimal amount of effort necessary to complete an assignment find the outcome rarely meets the expectations. For one student, expectations and experience did not align. Participant Two reflected she did not feel she had an opportunity to practice any "important" skills; she was only able to take vital signs. She blamed her inability to practice for the IACC on having to work with other students and their perception of her ability to be a nurse. The student commented,

> I did not get to perform probably eighty percent of my skills. Maybe it was because my group had three people in it or maybe it was because people don't think I would make a good nurse, so they don't let me do anything. I tend to lean towards the second one since all I got to do during Mock Hospital was take the "patient's" temperature and blood pressure which I already knew how to do and had the most practice on. But on the skills I had less practice on that I was hoping to get more practice on, I didn't get to use those skills like IV insertion. Even giving the "patient" a bed bath was something that it seemed like I, personally, was not allowed to do. (Participant Two)

The SCE provided students with the opportunity for learning as they transitioned between the skills laboratory and the acute care setting. Students found the SCE helpful by showing them what to expect in the clinical setting, identifying areas where they could improve clinical performance, and how to respond in difficult situations. What the SCE did not offer students was interaction with a "real person" rather than a "dummy." Participant Three discoursed on the fact that students needed more verbal persuasion during the SCE, which could not be provided by mannequins. She equated the simulated patient interaction as to one with a doll:

> I do believe it was helpful. I feel like we needed more feedback. Patients talk back. Patients have questions. Patients worry about what you're doing to them. With the manikins you're askin' them questions and you're going through things with no response. So does it really matter is what is in the back of your head. It's kinda' like playing with dolls; it's your imagination. It's what you make of it, so you can't think of all the questions that they may have for you. It would have been a lot more helpful if there was that communication there, but I still think it was helpful. I just wish it could have been taken a step further. (Participant Three)

Making it Through the First Day of Clinical

Students considered themselves prepared for the IACC experience after the SCE, "mock hospital." Feeling prepared for and experiencing that first exposure to the "hospital" as a student nurse elicited different emotions entirely. Participant Five reflected she did not think you (a student) could prepare yourself what for you would experience the first time you walked into a patient's room. The prospect of "practicing" a skill on a living person provoked emotions of extreme anxiety, nervousness, and fear during the IACC experience. For one student the fear was so extreme he felt impaired to function in the role of a nurse. He commented:

> I don't think there was any way that I could have prepared for my clinical. Mock hospital helped me understand what to expect, but I was still very nervous and scared during clinical. During my first day of clinical, I was scared and could not function. I am just not very good at communication with patients or with my psychomotor skills. (Participant Four)

For him the amount of practice and simulated patient care did not alleviate his negative affective behaviors and directly impacted his performance during the IACC.

Teamwork among students helped as they worked through the first day of clinical. Faculty paired students to provide care for a patient during the day. Peers can be role models and provide each other with verbal motivation during stressful times. Going through stressful situations together helps students recognize they will not be perfect in every aspect of clinical skills performance. Where they are strong, another may not be and vice versa. Students report

shared experiences helped them "make it through the day." Participant Three expressed her experience was greatly affected by the teamwork of her clinical group:

> I had a great clinical group and we worked together a lot in and out of the lab, before and after clinical started. I think we were all right there together. You know if one of us had a question, most of us had that same question. We helped each other. We asked each other questions. We wrote down questions for our clinical instructor so we could ask it in front of everyone. (Participant Three)

Faculty and nurses on medical units where students are assigned for clinical assist students in adjusting to the role of nurse and learning how to provide care to patients. A "good" clinical instructor eases students into the hospital environment and helps them know what is expected. This was evidenced by Participant Two's statement:

> I kinda knew a little bit of what to expect, but our clinical instructor kinda told us that things vary from hospital to hospital so even if I didn't know what was going on at the hospital I had clinicals at, I still knew the basic gist of what was going on and what I had to do. (Participant Two)

For the IACC, students are fearful and anxious because the medical supplies and equipment used in the hospital are different than what students practiced with in the skills laboratory on campus. Supplies may be arranged differently in the "supply closet" or prepackaged differently for procedures. These are sources of anxiety for students that "good" clinical instructors and nurses anticipate and provide orientation on for students.

According to students, repeated experiences were helpful in reducing stress and anxiety during the IACC experience. During the SCE, students encountered planned patient scenarios that faculty felt would be experienced during the first day of clinical. Students were provided opportunities to practice basic assessment techniques. Assessment is a critical component of a RN's daily routine when providing patient care. For Participant Three, the clinical skill of assessment was what she learned most during the SCE. She commented,

> The assessment was what I think I learned most just because of the experiences they had set up with each of manikins where different. You had to assess everything head to toe--completely. Pull back the covers--everything. That taught me a lot because you don't know if the patient's hiding pills under the bed. You don't know if a patient is suicidal and has a sharp object under there. It's not just lung sounds--what they look like. It's emotional--mind, body, spirit. (Participant Three)

With repeated experiences there becomes a feeling of familiarity in how to handle clinical situations. For instance, valuable information about a patient can be the medical record. Knowing where to look within the "chart" and understanding what is meant by the reports is critical to provision of safe, quality patient care. Students had become familiar with medical records during the SCE. Within these "charts" students' located information useful in providing care to patients and learned how to ask for assistance when what they were looking for was not available. These activities became familiar for them during the IACC due to the repeated exposure following "mock hospital".

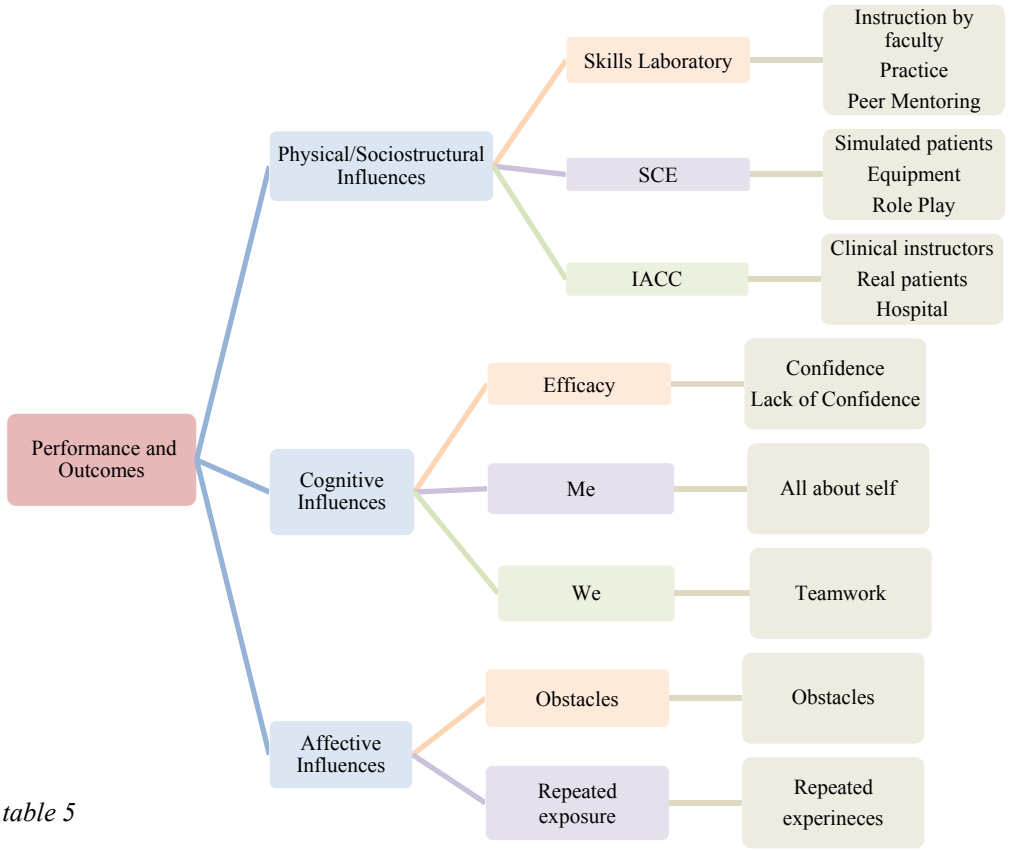
A specific clinical skill students felt confident in performing on the first day of clinical was patient assessment. They had practiced the "techniques" of assessment during "skills lab" and used their "assessment skills" during the SCE. When performing assessment in the hospital they were prepared for the "unexpected" and made note to discuss the findings with their clinical instructors and nurses. Participant Five described her SCE as the foundation from which she built her IACC experience. She remarked:

> In mock hospital, they set it up so that even though a patient had a bandage or something, this didn't necessarily mean that there was anything up underneath it. Just random bandages and just things that weren't necessary, and I was like, "Why did they do this? What is the point of all this?" When I got in my first clinical day, I realized, because when I was assessing my patient, I found a sticky thing and I was like, "Why is that sticky thing there?" I kinda just noted it down. I was like, "That might not necessarily be needed," and then there was an IV that was discontinued, and it was all red, and I was just like, "Well, maybe because my person in mock hospital had an IV, and it was reddened, but they didn't necessarily need an IV because the orders had been discontinued, and nobody took it out." I was like, "Oh, I'm going to write that down,

> maybe this doesn't need to be here anymore because this could be getting infected so we might need to take it out so it didn't cause any more damage. (Participant Five)

Students were "nervous" about how the staff nurses would react to having students on the medical unit and if they would expect them to know more about taking care of a patient than they did. Students believe participation in the SCE was a contributing factor that helped them prepare for the IACC. Clinical situations encountered during the day were less stressful because students had been exposed to similar scenarios during the SCE that helped them become aware of what to expect in the hospital setting. Clinical faculty also played an integral part in making the "introduction" to the environment a positive experience for the students. There will be obstacles to overcome on the first day that cannot be anticipated but having an "idea of what to expect" and supportive people around make even the most stressful tasks achievable.

Word table 5 (Figure 6) reflects a four-part word or word phrase analysis used during the development of *Theme 5: Performance and outcomes*. Initial identification of words or word phrases among the five participant interview responses directed the development of categories and themes related to Bandura's theory of efficacy.



Word table 5

Figure 6. Theme 5: Performance and outcomes.

Summary

No matter the amount of time spent preparing for the first day of clinical, students will have anxiety and stress associated with the "unknown" of providing care to hospitalized patients. Nursing students spend eight weeks in the clinical skills laboratory practicing psychomotor, cognitive, and affective clinical skills. During the ninth week of the semester, students participated in a simulated "mock hospital" where they were able to perform "hands on" the skills they had practiced in the skills laboratory. Throughout the process, faculty provided them with demonstration and informational sources on "how" to perform. They were encouraged to ask questions and received feedback on their performance. Faculty and peers served as role

models, providing verbal persuasion to motivate students and to keep them working toward goal attainment. The skills laboratory and simulated "mock hospital" environments provided students with opportunities for learning that helped them attain their goals. Faculty gave support to facilitate the development of student behaviors necessary for achieving expected outcomes. Students who expressed high efficacious beliefs in their ability to succeed had little difficulty in obtaining their goals when faced with obstacles. They viewed obstacles as opportunities for learning and worked to develop methods to overcome the obstacles they encountered. Students who regarded themselves as low efficacious had difficulty keeping focus on their goals when faced with obstacles. They interpreted the obstacles as road blocks to their goal attainment rather than detours which require an alternate route for achievement of expected outcomes (Bandura, 1995, 1997; Zimmerman, 2000).

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

The purpose of this qualitative case study was to explore how participation in a simulated clinical experience (SCE) as preparation for the initial acute care clinical (IACC) impacts student perceptions of self-efficacy in clinical skills performance and if a link between simulation and self-efficacy exists. There is a plethora of literature on simulation, self-efficacy, and stress/anxiety related to clinical performance in nursing students. The body of literature is compartmentalized and does not address the use of simulation as a means to increase self-efficacy and decrease stress/anxiety related to the initial clinical performance in first semester nursing students. The lack of research in this context may prevent nurse educators from integrating teaching strategies into curriculum that facilitate efficacy in nursing students. This study adds to the body of literature on the phenomenon of how first semester nursing students experience stress, anxieties, and their perception of efficacy about clinical preparation, simulation, and IACC experiences.

Bandura's (1995) theory of self-efficacy and how it relates to motivation, learning, and nursing performance guided this study. Data analysis from student interviews and journal entries generated responses to the research question, "How does participation in a SCE impact students' perception of self-efficacy in clinical skills performance?" From the data emerged five themes related to self-efficacy and clinical performance. The five interrelated themes include *Negative Affective Behaviors*, *Learning for Goal Attainment*, *Role Models Make a Difference*, *Motivational Processes*, and *Performance and Outcomes*. Students' perception of efficacy in

clinical skills and the impact of simulation on the initial clinical performance were captured within data. The themes support a link exists between the use of simulation as clinical preparation and self-efficacy in clinical skills performance during the initial clinical experience. Students reported intense levels of stress and anxiety related to the performance of clinical skills, beginning with practice in the skills laboratory, during participation in the SCE, and at the IACC. Physical and sociostructural influences impacted their perceived self-efficacy (PSE) which counteracted the negative affective behaviors of stress, anxiety, and fear. Students were productive in attaining goals and producing expected outcomes during clinical skills performance.

In this chapter I discuss the five interrelated themes that emerged and how they relate to the theoretical propositions of this study. The themes are discussed separately yet I will demonstrate how they are interrelated and connected within the context of Bandura's (1995) theory of self-efficacy and goal attainment. In addition to the discussion on how the themes relate to self-efficacy, I will discuss the implications of findings on nursing and nursing education. The chapter concludes with recommendations for future research.

Discussion of Themes

Theme 1: Negative Affective Behaviors

The theme *Negative Affective Behaviors* is reflective of how students described their levels of stress and anxieties related to clinical skills performance. The theoretical framework underpinning this study is the theory of self-efficacy (Bandura, 1995). Performance and persistence is driven by students' level of efficacy in their ability to perform clinically. Negative affective behaviors influence agency and environment, which guides outcome expectations

(Bandura, 1995, 1997; Bandura & Locke, 2003; Zimmerman, 2000). Stress, anxieties, and fear are negative affective behaviors that impede students' ability to complete academic endeavors (Zimmerman, 2000).

Students described their feelings related to having to perform clinical skills for the first time in the acute care setting as "very anxious" and being "extremely intimidated." They were anxious about the process of learning skills for the first time and how they would react when facing a "real" patient for the first time and performing as a nurse. During the first interview, which was within two weeks of the IACC experience, students talked about how stressful they were as they began the semester with practice in the clinical skills laboratory on campus. Their fear was evident as they described insecurities in not knowing what to expect or how they would transfer what was being learned on an inanimate person into the acute care clinical setting.

Efficacy is skills performance can be affected by the levels of stress and anxiety felt. These negative affective behaviors altered the ability to perform. One student described his fear of performing clinically as paralyzing to the point of impairing his ability to perform at all during the IACC experience. Behaviors demonstrated at the beginning of the semester ignited self-destructive outlooks in the ability to achieve success in clinical skills performance for these first semester nursing students. However, after repeated exposure to the environment, students described the experience of skills performance in the clinical setting as exciting and less frightening, making completing the semester achievable. The transformation from highly stressful, anxious, and fearful to less intense feelings of stress exemplifies how positive cognitive processes influence affective behavior and efficacy. Students now describe their experience with excitement and wonder at how they can perform as a "nurse."

Theme 2: Learning for Goal Attainment

The theme *Learning for Goal Attainment* developed through students' discourse about the process they went through to learn, practice, and perform clinical skills as part of the academic requirements of their nursing program. Educational development is said to be governed by efficacy in goal attainment (Bandura 1995, 1997; Zimmerman, 2000). The literature supports beginning nursing students' academic performance can be influenced by stress and anxiety. In particular, clinical experiences have been cited as a major source of stress and anxiety for many nursing students (Admi, 1997; Bradbury-Jones et al., 2010; Chesser-Symth, 2005; Elliott, 2002; Galbraith & Brown, 2011; Jimenez et al., 2009; Melincavage, 2008, 2011; Moscaritolo, 2009). In an effort to reduce the negative affective behaviors of stress, anxiety, and unpreparedness, faculty developed a three-step process for first semester nursing students.

The first phase of instruction began in the clinical skills laboratory where students spent eight weeks learning and practicing skills. Throughout the process students found the structured format of delivery on "how" to perform skills as an important aspect to their learning. At the beginning of the semester, their focus for skills performance was to complete the task of a skill. By the end of the eight weeks in the laboratory, they had achieved task mastery required to progress to the clinical setting. They could perform skills in the "perfect" setting of the clinical skills laboratory. They had achieved their goal and then came the second phase in the learning process.

Students approached the next stage of the learning process leading them further along towards their overarching goal of skill performance in the hospital setting--stress and anxiety returned. "Mock hospital," as the students called their SCE, was a transition in learning from the "perfect" world of the laboratory to the "unknown" of the hospital setting. Through the

development of a SCE students experienced how to apply the techniques of clinical skills in patient scenarios where they interacted with patients, families, and healthcare professionals. The environment was not "perfect" as faculty purposely set obstacles relative to those nurses experience in the hospital. Students described the experience as fun while confidence building. Overall they were better prepared for the next week's IACC experience.

No matter how much students prepared during the first two phases they were anxious and unsure of how they would perform during the IACC. They maintained their focus as they worked through each phase. The environments were not described as ideal but they were critical in achievement of clinical skills performance. The theory of self-efficacy and goal attainment defines learning as a process that is achieved over a period of time. The level of achievement is affected by both environment and agency making *Learning for Goal Attainment* a process to promote student success in academic endeavors (Bandura, 1995, 1997; Zimmerman, 2000).

Theme 3: Role Models Make a Difference

The theme *Role Models Make a Difference* emerged as students described how peers, faculty, nurses, doctors, and other healthcare professionals impacted their efficacy in clinical skills performance. Role models are sociostructural influences of motivation for students. In this case, study participant responses revealed positive role models enhanced their motivation to practice and to seek out opportunities to perform skills in the clinical setting. Role models with negative descriptors had an opposite effect on student behaviors towards practice and performance of clinical skills. Students identified peers as role models for each other. Positive peer mentors encouraged efficacy as one worked for goal attainment in clinical skills performance through verbal persuasion, responding to questions about clinical, and providing

support when stress and anxiety levels were high. Learning others were going through the same process of preparation for IACC and were anxious, fearful, and, at times, overwhelmed by the pressure of wanting to be "perfect" encouraged them as they built a community of motivation for each other. Students took a team approach to meeting the requirements of the semester.

Negative peer mentors were described as "slackers" and "selfish" by students. One student voiced criticism toward two of her peers and blamed them for her poor performance during the SCE and IACC. She felt her peers encumbered her performance because they thought she would not be a good nurse. Others' perception of peer behaviors has a definite impact on perceptions of efficacy and can either enhance or hinder performance toward goal attainment.

Faculty are seen as role models for students and have a major influences on students' behavior. Students viewed one faculty, Dr. X, in particular as a role model. She was mentioned multiple times during two interviews by four of the five participants. This faculty role model was described as an inspiration and encouraged students to work harder at becoming a nurse. Her encouragement motivated behaviors necessary for goal attainment. Nurses and doctors in the clinical setting were sources of influence on student behavior as well. Having others tell the students they are doing well at something or encouraging them to keep practicing because they can get it right encourages efficacy in oneself. Students find it promising when faculty and nurses exhibit proficiency in performance and share stories of difficulties. Unfortunately, there are some nurses who are critical of students or display incompetency, which is discouraging for students as they seek to become nurses in practice.

Literature provided evidence on the positive role peers and faculty have on reducing stress and anxiety in beginning nursing students. Role models are mentors who develop a nurturing environment that promotes students' belief in accomplishment and encourages others

to practice (Bandura, 1995; Li et al., 2010; Sprengel & Job, 2004; Zimmerman, 2000). A role model serves as counselor and is an essential part of goal attainment in students. Positive role models offer support, offer guidance, are generous of their time, are self-confident, and are willing to share their personal and professional experiences (Li et al., 2010; Zimmerman, 2000).

According to Bandura (1995), role models are integral components of both the physical and sociostructural influences of efficacy and outcome expectations. Individuals who provide positive learning environments through verbal and non-verbal communication encourage efficacy in others. Some literature suggests role models encourage personal and professional growth through their openness and non-judgmental attitudes. In clinical settings, peers and nurses share their knowledge and demonstrate caring behaviors which enhance efficacy in beginning nursing students (Sprengel & Job, 2004).

The theme *Role Models Make a Difference* is a tribute to all the peers, faculty, and healthcare professionals who served as positive role models for these nursing students. Their behaviors directly impacted efficacy and helped the students keep going and finish the semester. The theme also serves to exhibit how negative behaviors of others inadvertently cause increased stress and anxiety in students. Positive and negative influences influence human agency and environment which, in turn, affects efficacy and behaviors (Bandura, 1995).

Theme 4: Motivational Processes

The theme *Motivational Processes* explains the motivation behind students' achievement of goals. Motivational processes, according to Bandura (1995, 1997), are cognitively driven by the anticipatory exercise of forethought. Students are motivated to enter nursing school and work toward the goal of becoming a nurse. They are driven by intrinsic motivators that are

generated and self-governed through self-efficacy. Students in this study talked about what motivated them to participate in the practice of clinical skills necessary for them to perform in the acute care setting.

Bandura (1995) theorized motivation is based on three types of self-influence: "self-satisfying and self-dissatisfying" responses to performance, "perceived self-efficacy" regarding the ability for goal attainment, and "readjustment" of goals based on performance and progress toward successful completion. In this study, students described their motivation to practice in two ways, to perform skills perfectly or to perfect the skill for patient care. Motivation to be perfect in skills performance was driven by the influence because it was a requirement of the course, the course was a requirement of the program, and the program was a requirement to practice. Without perfect performance of clinical skills, students would not be able to progress to clinical, which would halt the ability to accomplish the goal of practicing as a nurse. This is an example of motivation driven by "self-satisfying" influences. Self-dissatisfying attitudes were demonstrated when students were not satisfied with their performance and worked harder to achieve perfection in skill performance. Intrinsic motivations are driven by a need for self-fulfillment.

Other students in the study expressed they were driven to practice by a desire to perform skills correctly to prevent harm to others. Between the first and second interview, descriptors of motivation changed in students. The focus of motivation in achieving the goal of skills performance transformed, demonstrating a growth in cognitive processes and self-efficacy.

Theme 5: Performance and Outcomes

The fifth theme derived from exploration of the diverse data from this study is *Performance and Outcomes*. Students were expressive that instruction from faculty, extensive practice sessions, and peer mentoring during the skills laboratory directly impacted their performance and increased their self-efficacy in clinical skills performance. The SCE, "mock hospital," provided them with exposure to equipment nurses would use in the hospital as they role-played on simulated patients. Students' discourse about the SCE and their activities revealed that while the learning activity could have been structured and planned differently it was helpful in preparing them for the IACC. Clinical instructors who worked with students as they made the transition in caring for a "real" patient in the clinical setting were instrumental in students' skill performance.

The level of confidence or lack of confidence was cognitive motivators for students' performance. While some seemed to be focused on self, others took a teamwork approach to taking care of patients. Whether working independently or as a team, how students responded when confronted by obstacles depended on the level of the individuals' confidence and self-efficacy in their ability to overcome adversity and continue to provide nursing care. Students' overall confidence levels increased after repeated exposure to patient care situations in the clinical setting. This was revealed as they discussed the phenomenon of performing clinical skills on patients in the acute care setting as a combination of physical and sociostructural, cognitive, and affective influences. Students attributed their success in clinical performance directly to the belief they could be successful and would move forward to the second semester of the nursing program. They demonstrated control over their performance and goal attainment (Bandura, 1995).

Implications for Nursing

Students who enter nursing programs have stated feelings of increased stress and anxieties related to clinical performance. The expectation of performance in clinical skills can create negative affective behaviors such as fear, anxiety, and a feeling of unpreparedness. Students' initial clinical experience does not always align with the expectation established during the clinical skills laboratory preparation. The outcome has led to higher attrition rates within nursing programs (Jeffreys, 2012).

An estimated 30,000 plus applicants who met admission criteria are turned away from nursing programs across the United States each year due to limited resources and clinical placement settings (Buerhaus et al., 2009). Therefore, nurse educators are challenged with how to best address attrition rates among first semester students and retain students accepted to a program of study. The question becomes "how" to address reported stress and anxieties related to clinical skills performance and the first clinical experience in the acute care setting.

The findings reported in this case study can guide nurse educators as they develop clinical-based simulated experiences for beginning nursing students. The focus of simulations should be aimed at reducing stress and anxieties in clinical skills performance of students as they prepare for the initial clinical experience. Simulated learning experiences help students make the transition between the preparatory phase in a skills laboratory setting to the application phase of the acute care setting. Faculty should take into consideration how physical and sociostructural influences impact human behavior and create SCEs that support and nurture efficacy in others. Physical and sociostructural influences to include are information sources relevant to the hospital setting, opportunity for performance with inclusion of role models, provision of verbal

persuasion from faculty, and occasions for students to express how physical stressors and anxieties performance.

As demonstrated in this case study, simulated learning experiences developed based with the expected outcomes and goals of nursing students can have positive effects on student performance during IACC experiences. Helping nursing students achieve their goals has a direct impact on the future of nursing. With the impending nursing shortage expected to peak in 2025 the number of practicing RNs can be increased by reduction of attrition rates in schools of nursing. An increase in the number of RNs in practice has a direct impact on the ability to provide safe and quality patient care. The interventions demonstrated in this case study were aimed in response to addressing the Institute of Medicine's call for an increased number of practicing RNs prepared at the baccalaureate level (AACN, 2011; HRSA, 2010; IOM, 2010).

Use of simulated learning as part of nursing preparation is not a new idea. Literature that supports the exploration of how to conduct simulation has brought about many changes in the dynamics of delivering nursing education during times of limited resources and clinical placement sites (Bremmer et al., 2006; Horsley, 2012; Parsh, 2010; Garrett et al., 2010). The focus now needs to pursue identification of instructional delivery methods that address individual student learning needs and motivation for goal attainment. Identifying deficits in learning environments are crucial elements in breaking the chain of attrition to produce higher numbers of practicing RNs (Jeffreys, 2012).

Recommendations for Future Research

Additional studies should be conducted to expand the investigation on the impact simulation has on clinical skills preparation for beginning nursing students. Longitudinal studies

with nursing students to determine the long-term effects of simulation on self-efficacy in clinical performance would address the learning needs of many students and enhance their learning experiences. In addition, researchers should explore the impact that faculty preparedness in the development and delivery of complex clinical simulations has on student participation during simulated learning experiences. There also exists a need to study the meaning of faculty role models' influence on nursing students' efficacy in goal attainment.

Conclusion

First semester nursing students identify initial clinical experiences as modes of increased stress and anxiety that affect their clinical performance. Students with low perceived self-efficacy in clinical skills performance experience intense levels of stress and anxieties that can lead to impaired clinical performance. In the acute care setting, having an impairment in clinical performance can affect outcomes and goal attainment for beginning nursing students (Admi, 1997; Bandura, 1995, 1997; Elliott, 2002; Jimenez et al., 2009; Melincavage, 2008, 2011). Based on student feedback regarding the stress and anxieties experienced in skill performance during IACC, faculty developed a SCE aimed to better prepare students before performing in the hospital setting. Research supports implementing learning experiences that provide students with opportunities to engage in activities frequently encountered during IACCs (Admi, 1997; Chesser-Symth, 2005; Melincavage, 2008, 2011). Findings from this case study revealed how physical and sociostructural influences affect efficacious behavior in nursing students and lead to goal attainment and progression through a nursing program. This study supports a relationship exists between student participation in a SCE and an enhancement of perceived self-efficacy in skills performance during IACC experiences.

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APPENDIX A

INVITATION TO PARTICIPATE

Donna Beuk, MSN, RN, CNE
Doctoral Student @ The University of Alabama
debeuk@crimson.ua.edu
251-509-7625

Electronic Invitation to Participate in Research Study

Dear AUM Nursing Student:

As an enrolled student in the upper division nursing program at Auburn University @ Montgomery you are being invited to participate in a research study as part of my doctoral studies at The University of Alabama. This study is being conducted gain understanding into "how does participation in a simulated clinical experience impact the student's perception of self-efficacy in clinical skills performance".

Your participation will include a two-part interview process lasting approximately one to one one-half hour in length. The interview will take place on the second floor of the School of Nursing in Room 201. Interviews will be audiotaped, transcribed, and returned to you for verification of accuracy. A second part to your participation would be allowing review of your reflective journal entries prior to and following simulation clinical and initial acute care clinical. All information gathered before, during, and after the interview and review of your journal entries will be kept confidential.

You are under no obligation to participate in this research, it is your choice whether to be a part of the study or not. The inclusion criteria to participate in this study is: (1) enrolled in the upper division nursing program, (2) participated in a "mock hospital" prior to your initial acute care clinical experience, (3) felt stress or anxiety related to your initial acute care clinical experience. If you choose to be considered for participation in the research, complete and return the attached Baseline Data Collection (BDC) form.

There is no particular benefit to you if you participate. Through your participation the researcher may learn what affect a simulated clinical experience has on nursing students' self-efficacy in clinical skills performance and reduction of stress and anxiety during the initial acute care clinical experience. The major constraint is on your time in filling out the BCD form, interview time and reading of transcript from interview for accuracy. Results of this research will be published as part of my dissertation and in professional journals after it has been completed.

If you have any questions about this research or your participation in the study I will be glad to answer your questions. You are welcome to email me at debeuk@crimson.ua.edu or call me at 251-509-7625. I will make every effort to answer your questions.

Sincerely,
Donna E, Beuk, MSN, RN, CNE
Doctoral Student

APPENDIX B

BASELINE DATA COLLECTION

Baseline Data Collection (BDC) Form

Your completion and return of this BDC form implies your interest in participation in the research.

Name: _____ (will be kept confidential)

_____Participant Number assigned (1-5).

What is your academic classification?

What was your age during your first semester in upper division nursing?

Semester(s) enrolled in 3130/3141 _____

Do you have any previous work experience in healthcare? _____

If so, what type of work experience?

Did you participate in a simulated clinical experience prior to your initial acute care clinical? _____

Did you experience stress and/or anxiety prior to and/or during your initial acute care clinical? _____

APPENDIX C

GUIDING INTERVIEW QUESTIONS

Guiding Questions for Nursing Student Interview

Semi-structured Interview Format

Thinking back to your first semester, suppose I were preparing for my first day of clinical.

1. What kind of thoughts would I have about being prepared to go to the hospital and my clinical performance?
2. What would you tell me about the process you had to go through starting with clinical skills lab, "mock hospital" and ending with your first clinical in the hospital.
3. What can you tell me about your motivation to participate in the skills lab as preparation for your first day of clinical?
4. How would you describe any obstacles you had to overcome as you prepared for your first clinical.
5. Some people would say they had role models during nursing school that influenced how they were able to perform in clinical. What would you say to them?
6. What would you tell me about "mock hospital" and its impact on your preparation for clinical?
7. Thinking back, what would you tell me about a situation that was familiar to you during that first clinical, and how you reacted to it, because you were exposed to it during "mock hospital".
8. Lastly, reflecting on your first semester – the preparation in the skills lab, "mock hospital", and your first clinical experience - share with me how you feel your clinical performance measured to that of your classmates.

APPENDIX D

IRB APPROVAL

Office for Research

Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
RESEARCH

February 25, 2014

Donna Beuk
ELPTS
College of Education
Box 870302

Re: IRB # 14-OR-052, "Exploring the link between simulation and self-efficacy: A case study"

Dear Ms. Beuk:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on February 24, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

[redacted]

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama

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Office for Research

Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
RESEARCH

September 20, 2012

Donna Beuk
ELPTS
College of Education
Box 870231

Re: IRB # 12-OR-314-ME, "Exploring the link between simulation and self-efficacy: A case study"

Dear Ms. Beuk:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on September 19, 2013. If the study continues beyond that date, you must complete the IRB Renewal Application. If you modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this application, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

[redacted]

Carpantato T. Myles, MSM, CIM
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama

358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461
FAX (205) 348-7189
TOLL FREE (877) 820-3066

AUBURN
MONTGOMERY

Date: August 30, 2012

To: Donna Beuk,
School of Nursing

From: Dr. Glen E. Ray, Chair, AUM IRB

Re: Approval of research, "Exploring the link between simulation and self-efficacy: A case study"
IRB file #2012-49

AUM IORG #: 0005227
AUM IRB #: IRB00006286
FWA#: 00012889

Thank you for submitting your proposal revisions to the IRB for review. The information that you are using involves data collected through the use of interviews, observations, surveys and audiotaping. Information will be confidential and the risk is minimal. Given the nature of your research, your proposal is receiving an ***expedited* review** under *category 7* in accordance with guidelines set forth in *45 CFR 46* (*Code of Federal Regulations*):

> *Research on group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors, evaluation, or quality assurance methodologies.*

ADDITIONAL NOTES:

- Use only copies of the survey and consent forms with the IRB approval stamp.
- Do not make any changes to your research protocol. If you need to make changes please halt your work and send the request/s to the chair of the IRB for further review (using the IRB Continuation/Change Request.)
- If individuals are added to your research team they will need to complete CITI training. Also, an *IRB Continuation/Change Request* should be completed to record the addition of this team member to your project (by name) and sent to this office.

AUBURN UNIVERSITY AT MONTGOMERY
Institutional Review Board
P.O. Box 244023, Montgomery, AL 36124-4023, 334.244-3250, www.aum.edu

- Your IRB approval is valid for one year from these dates: **September 30, 2012 to September 29, 2013.**
- At the end of the project you will be asked to file an *IRB Closure Report*.
- If you do not complete your research you may file an *IRB Continuation/Change Request* with this office to continue your work.

Thank you for your commitment to the protection of human subjects and quality research.

Cc: Debbie Tomblin, IRB Administrator

Enclosures

AUBURN UNIVERSITY AT MONTGOMERY
Institutional Review Board
P.O. Box 244023, Montgomery, AL 36124-4023, 334.244-3250, www.aum.edu

Request for Continuation of Research

Protocol for IRB of APPROVED RESEARCH – for Human Subjects Research
Institutional Review Board – AUM
Office of Sponsored Program (OSP)
Rm 109 Administration Building,
Auburn University at Montgomery
P. O. Box 244023
Montgomery, AL 36124-4023
dtomblin@aum.edu (334) 244-3250

This form should be used when the researcher is requesting additional time (beyond one year) to complete the project. It should also be used if there is any change in the project such as additions to the research team, revised forms, change in methodology, location, target population, or adverse event reporting, etc). If the IRB has expired, the researcher must resubmit their protocol for complete review.

Protocol # **2012-49**
Project Title **Exploring the link between simulation and self-efficacy: A case study**
Principal/Student Investigator **Donna Beuk** Title **Graduate Student/Faculty**
Investigator's Phone **251-509-7625** Investigator's e-mail **dbeuk@aum.edu**
Duration of Study (original dates) From: **9/30/2012** To: **9/29/2013**

1. Has your project begun? ☒ Yes ☐ No

2. If your project has NOT begun, do you want to CLOSE your project? ☐ Yes ☐ No
If YES, complete FINAL REPORTS/STUDY CLOSURE FORM. If no, continue.

Study Accrual (to date)

3. Number participants recruited (or charts/records reviewed) for study: **5**
4. Number participants completed study: **4**
5. Number of subjects who withdrew early due to adverse events: **n/a**
   Explain **n/a**

6. Have there been any unanticipated benefits, etc. to participants resulting from this study?
   ☐ Yes ☒ No

   Explain **n/a**

7. Do you plan to continue to enroll participants? ☐ Yes ☒ No

Project Information

8. What date extension are you requesting for completion of this research project?
(Month/Year) **02/2014 - 12/2014**

9. Explain why you are requesting additional time to complete this research project.
Time requested to analysis data and report findings

10. Do you plan to make any changes in your protocol (e.g. methodology, research design, etc.)? Describe: **NO**

If have revised any of your research documents, attach them to this request. You may send this document and any attachments electronically (attached to an email) or you may send hard copies.

Date: **02/06/2014**
Name of Person completing report: **Donna Beuk**

The IRB will review this request and any amendments.

Date Received in IRB office: 2/6/2014
Date reviewed by IRB: 2/7/2014 Reviewed by: [redacted]
Approved or Authorized by: [redacted]
Comments: Approved

Auburn Montgomery
Institutional Review Board
has approved this document for use
from 2/07/2014 to 2/06/2015
Protocol #: 2012-049